**Submitted To:**
*Louisiana Department of Transportation and Development*

*DOTD Form 24-102 Qualifications Statement*

# IDIQ Contract for Design Services Statewide (Majority of Work in District 08)

**Contract No. 4400030072**

**Submitted By:**

4545 Sherwood Common Boulevard, Building 3, Suite A | Baton Rouge, LA 70816

4545 Sherwood Common Blvd.
Building 3, Suite A
Baton Rouge, LA 70816

T 225.216.7483
TRCcompanies.com

October 15, 2024

Department of Transportation and Development
Attn.: Project Evaluation Team (PET)
Consultant Contract Services
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802-4438

**Re: Professional Engineering and Related Services**
**IDIQ Contract for Design Services Statewide With Majority of Work in District 08**
**Contract No. 4400030072**

Dear Project Evaluation Team Members,

TRC Engineers, Inc. (TRC), in association with a team of locally respected subconsultants, is pleased to submit our *Qualifications Statement* on DOTD Form 24-102 for consideration of providing the needed design services under the above-referenced contract. As demonstrated herein, our team offers a highly-qualified group of professionals with related engineering, design, surveying and consulting expertise that comes with enthusiasm and a commitment to provide quality-based services while delivering all tasks quickly and efficiently to your expectations. TRC has progressively built a very competent and highly experienced staff in our Baton Rouge office that has had the pleasure of working on many challenging and highly complex projects for the LADOTD over the past 20 years. Leveraging such capabilities, the majority of the work we will perform as the Prime for this contract will be performed right here in Louisiana.

TRC is highly appreciative of your review and consideration of our team's credentials to ensure the continued maintenance and preservation of your critical infrastructure assets. We welcome having the opportunity to continue our service to the LADOTD and delivering work under this IDIQ contract in a timely, cost-effective, and technically-superior manner as we have done so for other projects as part of Louisiana's ongoing capital improvement initiatives.

Sincerely,

**TRC Engineers, Inc.**

Durk H. Krone, P.E.
Principal / Project Manager

# DOTD FORM: 24-102

**PROPOSAL TO PROVIDE CONSULTANT SERVICES**

(Revised September 17, 2024)

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 24 can be removed but do not remove Section title and number.

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

| | |
|---|---|
| 1. Contract title as shown in the advertisement | **IDIQ Contract for Design Services Statewide With Majority of Work in District 08** |
| 2. Contract number(s) as shown in the advertisement | 4400030072 |
| 3. State Project Number(s), if shown in the advertisement | N/A |
| 4. Prime consultant name (name must match exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20) | TRC Engineers, Inc.<br>(screenshot included in Section 20) |
| 5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law) | License # EF.0003249 |
| 6. Prime consultant mailing address | 4545 Sherwood Common Blvd., Building 3, Suite A<br>Baton Rouge, LA 70816 |
| 7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria) | See Item 6 above |
| 8. Name, title, phone number, and email address of prime consultant's contract point of contact | Durk Krone, PE, Vice President (225) 229-2968<br>e-mail: dkrone@trccompanies.com |
| 9. Name, title, phone number, and email address of the official with signing authority for this proposal | Durk Krone, PE, Vice President (225) 229-2968<br>e-mail: dkrone@trccompanies.com |

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

| | | |
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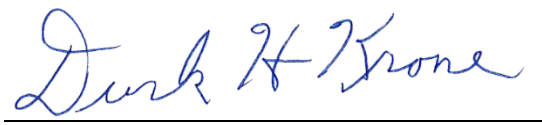
| 10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, 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.<br><br>Pursuant to Act No. 581 of the 2024 Louisiana Legislature Regular Session, proposer further certifies that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association. In addition, proposer certifies it will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association. |  <br>Signature above shall be the same person listed in Section 9:<br><br>August 15, 2024<br>Date: | |
| 11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage. | Firm(s):<br>Urban Systems Associates, Inc.<br>dba Urban Systems, Inc. | Firm(s)':%:<br><br>5% |

## 12. Past Performance Evaluation Discipline Table:

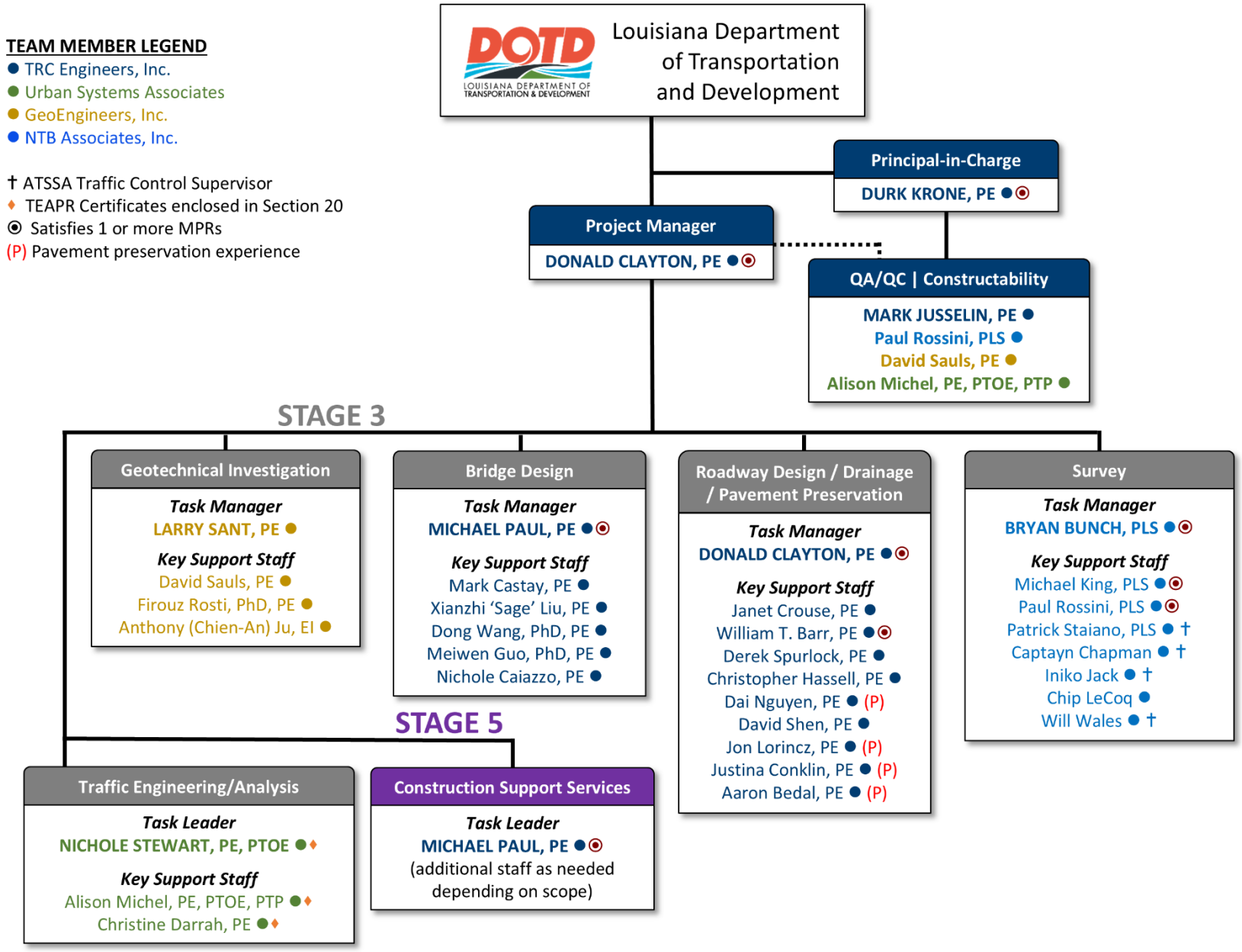
| Past Performance Evaluation Discipline(s) | % of Overall Contract | TRC | NTBA | USI | GeoEngineers | Each Discipline must total to 100% |
|---|---|---|---|---|---|---|
| Road | 65 | 100% | | | | 100% |
| Bridge | 15 | 100% | | | | 100% |
| Traffic | 5 | | | 100% | | 100% |
| Survey | 10 | | 100% | | | 100% |
| Geotech | 5 | | | | 100% | 100% |
| Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant. | | | | | | |
| **Percent of Contract** | **100%** | 80% | 10% | 5% | 5% | 100% |

NTBA = NTB Associates | USI = Urban Systems, Inc.

## 13. Firm Size:

| Firm name | DOTD Job Classification | Number of personnel committed to this contract | Total number of personnel available in this DOTD Job Classification (if needed) |
|---|---|---|---|
| **TRC Engineers, Inc.** | Principal | 1 | 1 |
| | Supervisor - Eng | 2 | 4 |
| | Supervisor - Other | 1 | 1 |
| | Engineer | 3 | 10 |
| | CADD Technician | 1 | 4 |
| | Administrative | 1 | 1 |
| | Engineer - Other | 2 | 6 |
| | Inspector - Bridge | 2 | 10 |
| **NTB Associates, Inc.** | Principal | 1 | 1 |
| | Surveyor | 5 | 7 |
| | Supervisor - Other | 1 | 3 |
| | CADD Technician | 1 | 6 |
| | Technician | 1 | 2 |
| | CADD Drafter | 2 | 6 |
| | Party Chief | 4 | 19 |
| | Instrument Man | 4 | 7 |
| | Rodman | 4 | 7 |
| **Urban Systems, Inc.** | Supervisor - Eng | 1 | 2 |
| | Engineer | 2 | 3 |
| | Engineer Intern | 1 | 1 |
| | CAD Technician | 1 | 2 |
| | Engineering-Aide | 1 | 4 |
| **GeoEngineers, Inc.** | Administrative | 1 | 4 |
| | CADD Technician | 1 | 1 |
| | Driller | 3 | 3 |
| | Engineer | 2 | 5 |
| | Engineer Intern | 1 | 4 |
| | Principal | 3 | 7 |
| | Senior Technician | 1 | 2 |
| | Technician | 1 | 6 |

## 14. Organizational Chart:



## 15. Minimum Personnel Requirements:

| MPR No. Do not insert wording from ad | Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement) | Firm employed by | Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil) | State of license | License / certification expiration date |
|---|---|---|---|---|---|
| **1** | Durk Krone, PE | TRC Engineers | PE - #PE.0031955 - Civil | LA | 03-31-2026 |
| **2** | Durk Krone, PE | TRC Engineers | PE - #PE.0031955 - Civil | LA | 03-31-2026 |
| | Michael Paul, PE | TRC Engineers | PE - #PE.0032172 - Civil | LA | 03-31-2026 |
| **3** | Donald Clayton, PE | TRC Engineers | PE - #PE.0019634 - Civil | LA | 03-31-2025 |
| | William Travis Barr, PE | TRC Engineers | PE - #PE. 0045675 - Civil | LA | 09-30-2025 |
| 4 | Brian Bunch, PLS | NTB Associates | PLS - #PLS.0005014 | LA | 03-31-2026 |
| | Michael King, PLS | NTB Associates | PLS - #PLS.0005127 | LA | 09-30-2025 |
| | Paul Rossini, PLS | NTB Associates | PLS - #PLS.0004731 | LA | 09-30-2026 |

## 16. Staff Experience:

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|---|---|---|---|
| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Donald Clayton, P.E.** | Years of experience with this employer | 18 |
| Title | Project Manager/Senior Roadway Engineer | Years of experience with other employer(s) | 32 |
| Degree(s) / Years / Specialization | | B.S. / 1973 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0019634 / LA / 3-31-2025 | |
| Year registered | 1981 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>ATSSA - Traffic Control Supervisor and Technician |
| Contract role(s) / brief description of responsibilities | | **Project Manager / Roadway Task Leader (Satisfies MPR #3)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 04/21-06/23 | **I-10 Calcasieu River Bridge P3, Lake Charles, LA** – Senior Roadway Engineer responsible for preparing the technical provisions for MOT and signing with regard to a reconstruction of I-10. The Project is a P3 project involving LADOTD, several consultants and several private proposers. Work included his preparation of technical provisions, responding to RFI's from proposer's, and coordination with the LADOTD. |
| 03/20-Present | **S.P. No.: H.005121, LA1/LA415 Connector - Construction Manager at Risk (CMAR), West Baton Rouge Parish, LA (LADOTD) –** Roadway Design Manager/Sr. Roadway Engineer for the design of a new connector between LA 1 near LA 988 (Beaulieu Lane) and I-10 at the LA 415 interchange. The project, which is approximately 2.7 miles in length, includes a new four-lane roadway and bridge(s) over the Gulf lntracoastal Waterway, with a full diamond interchange at LA 1/LA 415. Work on LA 1 includes adding ramps for the interchange and shifting LA 1 to fit within the ramps. Modifications of the I-10 ramps at LA 415 will be required. Current conceptual construction cost is $290 million. Responsibilities include horizontal and vertical alignments for roadways and ramps; intersection design; drainage design; typical sections; sequence of construction; maintenance of traffic; quantity computation. Initiated as a Design-Bid-Build procurement, the LA DOTD transitioned the project's delivery method near the end of preliminary engineering to a Construction Manager at Risk (CMAR) where TRC is the Lead Designer working hand-in-hand with the LA DOTD and a CMAR contractor and TRC was issued an advanced Notice-to-Proceed to deliver this project under an accelerated schedule. As part of the transition, he assisted with the development of recommendations to establish segment work packages to facilitate a future early project kick-off if deemed appropriate. Also participated in a study to modify the half diamond interchange at LA 1 to a full diamond interchange to avoid the need for a reconstruction in the future to meet traffic demands. |
| 11/16-Present | **Walter O. Bigby Carriageway, Bossier City, LA** – Roadway Task Manager during design of the Walter O. Bigby Carriageway extension from north of Eatman Street to Benton Highway. Walter O. Bigby follows existing roadway for a portion of the alignment and then continues northward on new alignment between the Red River Levee and Union Pacific Railroad, crossing existing Union Pacific Railroad tracks with a bridge structure, and connecting to Benton Highway at a new signalized intersection. Work includes the design of two roundabouts at the intersections of Hamilton Road and Shed Road, and the reconstruction of three side roads to tie-in to the new roadway. Design work also includes the widening of Hamilton Road from south of US 80 to the new roundabout, and the addition of a left-turn lane and driveway reconfigurations along Benton Highway. Total project length includes approximately 5,300 feet of reconstructed city streets and 3,600 feet of new four-lane streets which includes a 1,470-foot bridge structure. Mr. Clayton's tasks include typical section development, geometric design, subsurface drainage design, pavement striping plans, detailed Maintenance of Traffic plans, joint layout design, quantities and cross sections. Provides responses to RFI's during construction. |
| 01/12-Present | **S.P. No.: H.001234 - Port Allen Canal Bridge, LA 1, West Baton Rouge Parish, LA (DOTD)** – Roadway Task Manager responsible for **preliminary and final design for 2.26 miles of LA 1** over the Intracoastal Waterway in Port Allen, LA. Project features 0.98 miles of new four lane roadway for LA 1 |

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| | on new alignment including a separate exit ramp for I-10 EB traffic; coordination with the design of new 2700' twin bridges over the Intracoastal Waterway; and the reconstruction of existing frontage road and a railroad at-grade crossing for Ernest Wilson Road. Maintenance of Traffic plans were developed to maintain four lanes of traffic for LA 1 at all times with connections to the I-10 ramps. The project also included drainage design, geometric details, striping, joint layout, sequence of construction, cross sections and quantities. Provides responses to RFI's during construction |
| 02/16-12/19 | **44-4920 (H.009859.5 Complex Load Rating and Inspection, Statewide, LA (DOTD) –** Task Leader responsible for the design of maintenance of traffic plans for bridge inspections completed for LA 47 over IWGO, US 90 Riverbound Expressway, Intracoastal Waterway Bridge at Ellenders (vertical lift), LA 654 over Bayou LaFourche (vertical lift), LA 657 over Bayou LaFourche (vertical lift), LA 319 Intracoastal Canal Bridge (bascule), LA 83 over Patout Bayou (swing), Local Road over Bayou Terrebonne (swing), and Bridge over Bayou Teche at Adeline (swing). |
| 12/12-04/13 | **S.P. No. 002562.5 – Bayou LaLoutre Bridge Rehabilitation, St. Bernard Parish, LA (DOTD) –** Task Leader responsible for design of the maintenance of traffic plans for the inspection of this vertical lift bridge. |
| 03/17-03/18 | **H.011965.5 LA 47: IWGO Bridge Rehabilitation, Orleans Parish, LA (DOTD)** – Roadway Task Leader responsible for the design of preliminary maintenance of traffic plans and detours for the rehabilitation construction of this historic complex bridge. |
| 08/12-07/16 | **Joor Road-Greenwell Springs Road Sewer Upgrade (Project No.: 11-FM-MS-0023), Baton Rouge, LA -** Project Manager for the permitting, surveying, geotechnical investigation, and design of 5,625' of new sewer gravity main pipeline with pipe diameters ranging from 10" to 21" and 30,000' of new sewer force mains with pipe diameters ranging from 4" to 24". Project included preliminary design, final design, bidding, and construction related services. |
| 12/09-10/13;<br>02/20-Present | **Old Hammond Highway, Phase 2, East Baton Rouge, LA** - Project involved the design for reconstructing a two-lane highway to a four-lane divided highway under the City's Green Light Program. Included the development of typical sections, new vertical alignments, a new subsurface drainage system to replace existing roadside ditches, maintenance of traffic plans and quantities. Served as Project Engineer and designed the vertical alignments, designed a portion of the sub-surface drainage system, designed the maintenance of traffic plans including traffic design management, and assisted in the quantity computations. Work adhered to the LADOTD Roadway Design Procedures and Details Manual. |
| 12/12-11/14 | **S.P. No.: 4400002184 – Retainer Contract for Bridge Preventative Maintenance, Statewide (DOTD)** – Senior Engineer responsible for providing engineering and related services under a retainer contract that involved the repair and/or preventative maintenance of bridge structures throughout the State of Louisiana. Task Order 1 involved bridges in East Baton Rouge, West Baton Rouge, East Feliciana and West Feliciana Parishes and included bridges on I-10, I-110, LA-1 and LA-67 crossing local roads and creeks. Responsible for preparing Maintenance of Traffic plans for 10 bridge sites as well as preparing the general plan sheets, quantity sheets and other miscellaneous sheets. |
| 08/06-12/12 | **S.P. No.: 700-99-0429, Retainer Contract for Bridge Preservation (On-System), Statewide (DOTD)** – Senior Engineer responsible for providing engineering and related services under a retainer contract that involved the repair and/or rehabilitation of bridge structures throughout the State of Louisiana. Prepared Maintenance of Traffic plans for work during the completion of construction work on the I-10 Bridge over the Mississippi. Responsible for the development of approach roadway alignment alternatives for the LA 1 Port Allen Bridge Rehabilitation/Replacement Study. Also involved with the development and QA/QC of roadway and bridge designs for LA 705 and LA 557. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Durk Krone, P.E.** | Years of experience with this employer | 19 |
| Title | Principal-in-Charge/Sr. Project Manager | Years of experience with other employer(s) | 21 |
| Degree(s) / Years / Specialization | | M.S. / 1984 / Civil Engineering<br>B.S. / 1982 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0031955 / LA / 03-31-2026 | |
| Year registered | 2005 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>LADOTD Maintenance & Rehabilitation of Historic Bridges Training Course, 2016<br>FHWA / NHI #130055 - Safety Inspection of In-Service Bridges, 1999<br>FHWA / NHI #130053 – Bridge Inspection Refresher Training, 2011<br>FHWA / NHI #130078 – Fracture Critical Inspection Techniques for Steel Bridges, 2007<br>FHWA / NHI #130110 – Tunnel Safety Inspection, 2017 |
| Contract role(s) / brief description of responsibilities | | **Principal-in-Charge (Satisfies MPRs #1 and #2)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 03/20-Present | **S.P. No.: H.005121, LA1/LA415 Connector – Construction Manager at Risk (CMAR), West Baton Rouge Parish, LA (LADOTD)** – Project Manager for this high-profile project that involves the design of a new connector between LA 1 and I-10 which will improve resiliency and safety by providing a direct connection and evacuation route for areas south of I-10. The estimated $290 million project is approximately 3 miles in length and includes a new four-lane roadway and bridge(s) over the Gulf Intracoastal Waterway. Initiated as a Design-Bid-Build procurement, the LADOTD transitioned the project's delivery method near the end of TRC's preliminary engineering to a CMAR where TRC is now the Lead Designer working hand-in-hand with the LADOTD and a CMAR contractor. TRC was issued an advanced Notice-to-Proceed to deliver this project under an accelerated schedule. As part of the transition, TRC developed recommendations to establish segment work packages to facilitate a future early project kick-off if deemed appropriate. A study was also completed to modify the half diamond interchange at LA 1 to a full diamond interchange to avoid the need for reconstruction to meet future traffic demands. |
| 01/21-07/23 | **S.P. No.: H.003931, I-10 Calcasieu River Bridge P3 Project, Lake Charles, LA –** Deputy Project Manager for the WSP Team and Project Manager during the execution of services that included Data Review, Capital Construction Cost Estimation and Schedule. Assisted with development of the technical inputs to the RFP that supported delivery of the Draft RFP, and provided RFP phase preliminary support that included reviews of the draft RFP package documents, development of the Technical Proposal Requirements, drafting of preliminary Technical Provisions (TP) Performance Specifications, and reviewing KPIs and LDs. Oversaw development of the TPs for Environmental Compliance, Railroad, Demolition, Bridge, Miscellaneous Structures, Sign Structures and Support, Signing, and Pavement Markings, Maintenance of Traffic, and Traffic. TRC also conducted the review and evaluation of Developer Proposals. The project extends from the I-10/I-210 west interchange to the Ryan Street exit ramp and consists of replacing the I-10 Calcasieu River Bridge using P3 project delivery, including the reconfiguration of interchanges and interstate widening. |
| 12/10-Present | **S.P. No.: H.001234, LA 1 Port Allen Canal Bridge Replacement, West Baton Rouge Parish, LA – Bridge Study:** Project Manager for the development of a detour bridge study where two different detour alignments were developed. Each consisted of a 2,500' detour bridge over the Intracoastal Waterway where the proprietary Acrow system was considered and where adequate vertical clearance was provided. Conceptual bridge designs were developed for |

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| | each alignment. **Rehabilitation Study:** Project Manager for the feasibility study that investigated three bridge rehabilitation options and one bridge replacement option for the existing twin bridges that carry LA 1 over the ICWW. The Study included the development of new roadway alignment options, construction phasing, traffic control schematics, investigating rehabilitation options for the existing bridge and preliminary design of a new bridge option. The rehabilitation and replacement options also investigated and proposed the use of Accelerated Bridge Construction techniques. **Preliminary & Final Design:** Project Principal for preliminary and final design and associated plans which included roadway, traffic control, maintenance of traffic, ITS, traffic signal, MSE wall, highway lighting and bridge plans. Coordinated with UPRR, the US Army Corps of Engineers, the USCG, and the Port of Baton Rouge. The project included a 1.5-mile "superstreet" (Access Management Improvements) portion. |
| 03/15-Present | **Walter O. Bigby Carriageway, Bossier City, LA (Bossier Parish) –** TRC Project Manager for design of the North Parkway Extension from North of Eatman Street to Benton Highway. The project follows existing roadway for a portion of the alignment, then continues northward on new alignment between the Red River Levee and Union Pacific Railroad, crosses existing tracks with a new bridge structure (1,550' long consisting of a horizontally curved, haunched 4-span (185'-225'-300'-225') steel plate I-girder main span continuous unit with BT-72 prestressed concrete girder approach spans) and connects to Benton Highway at a new signalized intersection. |
| 06/06-10/18 | **S.P. No.: H.003886.5, I-49 & I-220 Interchange, Shreveport, Caddo Parish, LA -** Project Manager on this new, multi-lane divided roadway, 4-level interchange project. The project was completed on an accelerated schedule and involved his management of five design teams to complete the work. Involved with the review of conceptual and structural designs and worked with the roadway design consultant to develop span arrangements, structure depths, pier concepts, and roadway geometry for a dual bridge design that included post-tensioned segmental concrete and steel box girder superstructures. The project consists of five new bridges and two bridge widenings. |
| 04/07-10/26 | **Green Light Plan, Old Hammond Hwy (LA 426) Improvements – Segment 2 (Millerville Road to O'Neal Lane), City of Baton Rouge, LA (City of Baton Rouge-Parish of East Baton Rouge)** - Project Manager for the design study, NEPA study, corridor survey, ROW mapping, final design and construction engineering services for the development of a 3,930 foot long four-lane divided curb and gutter roadway with raised median, sidewalks and subsurface drainage, replacing an existing 2-lane roadway on Old Hammond Highway (LA 426) between Millerville Road and O'Neal Lane (LA 3245). Project included a new 8" gravity sewer, lift station and force main. |
| 04/2008 - 08/2017 | **S.P. No.: 700-99-0429 - Retainer Contract for Bridge Preservation (On-System), Statewide (DOTD) –** Project Manager responsible for providing engineering and related services under a retainer contract to include fixed and movable bridge rehabilitation design, approach roadway design, design of steel plate girder superstructure for heavily skewed bridge, sub-consultant spot bridge replacement and approach roadway design, a bridge replacement and rehabilitation study that included the use of SPMT's, scour mitigation, and construction-related services at proposed bridge sites throughout Louisiana. |

## 16. Staff Experience:

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|---|---|---|---|
| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Mark A. Jusselin, P.E.** | Years of experience with this employer | 5 |
| Title | Project Manager/Senior Engineer | Years of experience with other employer(s) | 31 |
| Degree(s) / Years / Specialization | M.S. / 1986 / Civil Engineering<br>B.S. / 1985 / Civil Engineering<br>A.S., Surveying, Louisiana Tech University, 1985 | | |
| Active registration number / state / expiration date | #PE.0023840 / LA / 09-30-2026 | | |
| Year registered | 1990 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | **QA/QC Task 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 years of experience specified in the applicable MPR(s). |
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| 10/17 – 10/20 | **Walter O. Bigby Carriageway, Bossier City, LA (Bossier Parish)** – Performed independent QA services at several final plan design stages for the project with respect to the roadway plan/profile sheets. The reviews involved comparing the roadway plan/profile sheets with proposed storm drain structures and comparing with the summary of drainage structure sheets to ensure consistency. His QA review also included a bridge structure grade separation for the Union Pacific Railroad. |
| 08/18 – 10/20 | **S.P. No.: H.001234, LA 1 Port Allen Canal Bridge Replacement, West Baton Rouge Parish, LA (DOTD) –** Performed independent QA services associated with intersection details and graphical grade sheets, as well as an overall review of the proposed construction stage sequences. |
| 02/00 - 09/07 | **LA 3132 Inner Extension, Bert Kouns to Flournoy-Lucas Road - Shreveport, LA (DOTD)** - Project Manager/Principal-in-Charge of the topographic survey, final ROW mapping, preliminary/final bridge plans and preliminary/final roadway plans for the new alignment portion from the Inner Loop terminus at Bert Kouns east along new 4-lane divided interstate roadway section controlled access alignment to an intersection at Flournoy-Lucas Road. Responsible for horizontal/vertical alignment and hydraulics of a roadway cross drain structure at an existing creek crossing. Also responsible for QA/QC of the final roadway plans. The project included a new bridge structure overpass at Bert Kouns, an at grade intersection at Flournoy- Lucas, and the new controlled access Inner Loop extension roadway. |
| 06/01 - 08/07 | **I-49 from LA1 to LA 173 - Shreveport, LA (DOTD) -** Project Manager/Principal-in-Charge for the preliminary/final plans involving approximately 8 miles of new interstate roadway section in north Shreveport, including a new bridge across Twelve Mile Bayou. The terminus intersections included a half-diamond interchange at the north side LA1 and a half-diamond interchange at the south side of LA 173. |
| 09/97 - 02/04 | **Jefferson Paige Road Improvements, Monkhouse Road to I-220 - Shreveport, LA (DOTD)** - Project Manager/Project Engineer for the widening of Jefferson Paige Road to a 5-lane urban section from Monkhouse Road west to I-220. The project included topographic surveys, final right-of-way mapping, preliminary/final roadway design, including interchange design at Monkhouse Drive for the improvements. Responsible for horizontal/vertical alignment and off-site drainage of project stormwater to an existing creek outfall. ADA layout design was required for pedestrian crosswalks at the east intersection of Jefferson-Paige Road and Monkhouse Drive as well as at numerous cross streets along the new alignment. |
| 07/99 - 02/04 | **LA 1 Improvements - Oil City, Caddo Parish, LA (DOTD)** - Principal-in-Charge/Project Manager for approximately nine (9) miles of improvements to LA 1, including a rural section south of Oil City and a rural section north of Oil City. The section through Oil City included a 5-lane urban roadway section. Responsible for horizontal/vertical roadway alignment, including cross street intersections along the urban section through Oil City, and subsurface drainage design that included off-site drainage design for project stormwater. The 5-lane urban section through Oil City included subsurface drainage along the east and west sides as well as ADA-compliant design at all cross streets within the urban section through Oil City. |

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| 04/97 - 10/04 | **US 167 Widening - Bernice, Union Parish, LA (DOTD)** - Principal-in-Charge/Project Manager for the widening of existing US 167 to a 4-lane rural section as well as a 5-lane urban section which included a parallel couplet section through the town of Bernice which included cross-street intersections for the TIMED program. Responsible for horizontal/vertical alignment and subsurface drainage, including off-site drainage design for project stormwater. The urban section included ADA-complaint design at all couplet cross streets through the town of Bernice. |
| 04/97 - 11/02 | **US 167 Widening - Dubach, Lincoln Parish, LA (DOTD)** - Principal-in-Charge/Project Manager for widening of existing US 167 to a 4-lane rural section as well as a 5-lane urban section through the Town of Dubach which included cross street intersections for the urban section through the town of Dubach for the TIMED program. Responsible for horizontal/vertical alignment and subsurface drainage including off-site drainage design for project stormwater. The urban section included ADA-complaint design at all cross streets through the town. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Michael Paul, P.E.** | Years of experience with this employer | 16 |
| Title | Project Manager/Senior Bridge Engineer | Years of experience with other employer(s) | 6 |
| Degree(s) / Years / Specialization | | M.S. / 2003 / Civil Engineering<br>B.S. / 2000 /Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0032172 / LA / 03-31-2026 | |
| Year registered | 2006 | Discipline | Civil Engineering |
| | | | **Other Pertinent Training / Certifications**<br>FHWA/NHI #130055 - Safety Inspection of In-Service Bridges, 2007<br>FHWA/NHI #130078 - Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures<br>LADOTD Highway Safety Manual Workshop, 2011<br>FHWA/NHI #130092 - Fracture Critical Techniques for Steel Bridges, 2015<br>ATSSA – Traffic Control Supervisor<br>ASBI Grouting Training Certificate, 2012<br>LADOTD Maintenance & Rehabilitation of Historic Bridges Training Course, 2016<br>FHWA-NHI #132082 – LRFD for Highway Bridge Substructures<br>FHWA-NHI #134006 – Utility Coordination for Highway Projects |
| Contract role(s) / brief description of responsibilities | | **Bridge Design Task Leader (Satisfies MPR #2)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. E Experience dates should cover the time specified in the applicable MPR(s). |
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| 01/21-07/23 | **S.P. No.: H.003931, I-10 Calcasieu River Bridge P3 Project, Lake Charles, LA -** Project Engineer responsible for development of the Structures, Demolition, and Railroad Technical Provisions that were included in the RFP document. Mr. Paul also conducted the review and evaluation of Developer Proposals. The project extends from the I-10/I-210 west interchange to the Ryan Street exit ramp and consists of replacing the I-10 Calcasieu River Bridge using P3 project delivery, including the reconfiguration of interchanges and interstate widening. |
| 03/20-Present | **S.P. No.: H.005121.5, LA 1/LA 415 Connector CMAR, West Baton Rouge Parish, LA (DOTD) -** Deputy Project Manager for the development of preliminary plans for this new 2.7 mile corridor between LA 1 near LA 988 (Beaulie Lane) and I-10 at the 415 interchange. The project includes a four-lane roadway, bridges over the Gulf Intracoastal Waterway and flyover ramps at the LA 1 connection. Served as conceptual structural designer and developed the Evaluation of Single Versus Dual Bridge Options Over the GIWW report. Worked with stakeholders for the development and selection of the conceptual alternate alignment when it was determined the EA Report alignment was no longer feasible due to recent development. Mr. Paul worked with the Traffic Engineering subconsultant and Roadway Geometric Designers to develop lane configuration and geometry at the LA 1 and LA 415 tie-in areas and modification of the LA 1 superstreet layout. Mr. Paul also developed the Project QA/QC Plan, Design Criteria and Project Schedule. |
| 06/15-Present | **Walter O. Bigby Carriageway, Bossier City, LA -** Bridge Task Leader for the design of a new bridge that will be 1,520' long and consist of a horizontally curved, haunched 4-span (185'-225'-300'-225') steel plate I-girder main span continuous unit over the Union Pacific Railroad and BT-72 prestressed concrete girder approach spans. The bridge will consist of 4-12' travel lanes, a 4' left shoulder, and a 9'-8" right shoulder, and have an out-to-out width of 66'-2" for the majority of the bridge length. The northern portion of the bridge will flare out to a total width of 70' to accommodate a turning lane. The |

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| | bridge substructures will consist of reinforced concrete piers and deep prestressed precast concrete pile foundations. As the bridge is located adjacent to the Bossier Levee, Mr. Paul also took the lead in working with the US Army Corps of Engineers to develop the 408 permit request. |
| 12/10-Present | **S.P. No.: H.001234.5, LA 1 Port Allen Canal Bridge Replacement, Port Allen, LA - Detour Bridge Study** – Lead engineer for the development of a detour bridge study where two different detour alignments were developed. Each consisted of a 2,500' detour bridge over the Intracoastal Waterway where the proprietary Acrow system was considered and where adequate vertical clearance was provided. Conceptual bridge designs were developed for each alignment. **Rehabilitation Study** - Lead engineer in conducting a **Stage 0 Feasibility Study** that investigated three different bridge rehabilitation options and one bridge replacement option for the existing twin bridges that carry LA 1 over the Intracoastal Waterway. As part of the study, Mr. Paul was involved with the development of new roadway alignment options, construction phasing, traffic control schematics, investigating rehabilitation options for the existing bridge and preliminary design of a new bridge option. The rehabilitation and replacement options also investigated and proposed the use of Accelerated Bridge Construction techniques. **Preliminary & Final Design** – Project Manager in developing the Stage 3 preliminary (bridge and roadway) and final design (roadway only) and associated plans which included roadway, traffic control, maintenance of traffic, ITS, traffic signal, MSE wall, highway lighting and bridge plans. Coordinated with UPRR, the US Army Corps of Engineers, the USCG, and the Port of Baton Rouge. A traffic analysis was conducted with the submittal of a Level 3 Transportation Management Plan. The project included a 1.5-mile "superstreet" portion that consists of signalized and un-signalized J-turns. The proposed LA 1 SB and LA 1 NB bridges are 2,680' and 2,700', respectively, and consist of PPC girder approach spans and 3 span continuous steel I-girder spans over the Intracoastal Waterway. |
| 07/06-10/19 | **S.P. No.: H.003886.5, I-49 & I-220 Interchange, Shreveport, Caddo Parish, LA -** Deputy Project Manager, Design Coordinator and Baton Rouge Team Leader on this new, multi-lane divided roadway, 4-level interchange project. Mr. Paul served as conceptual and structural designer and worked with the roadway design consultant in developing span arrangements, structure depths, pier concepts and roadway geometry for a dual bridge design that includes post-tensioned segmental concrete and steel box girder superstructures. Mr. Paul was also involved with the development of the Project Design Criteria, development and implementation of the Project Quality Control Management plan and working with the team architect to develop aesthetic bridge design schemes. The project consisted of 5 new bridges (Ramp EN 3,070', Ramp SE 3,300', Ramp WN 700', I-49 NB and SB over MLK Dr. 462' each) and 2 bridge widenings (I-220 over Russell Rd. 322.5' each). The Ramp EN, SE and WN bridges consist of a dual design with precast segmental post-tensioned concrete and steel trapezoidal box girder superstructure alternates. |
| 01/2010-03/2011 | **S.P. Nos.: 008-02-0034 & 008-03-00600, Bridge Over Bayou Grosse Tete Left-Turn Lanes at LA 77 & LA 78/411, Pointe Coupee Parish, LA –** Bridge Task Leader for the Stage 3 preliminary and final bridge design, as well as provided engineering support services during the construction phase of this bridge replacement project. This project consisted of replacing the existing 64-foot-wide bridge with a **new 285-foot-long, 86-foot-wide, 3-span continuous prestressed concrete girder bridge on prestressed concrete pile bents**. As part of the design, evaluated the existing non-redundant deck girder bridge and developed phased construction schematics for the roadway to remain open to traffic during demolition of the existing bridge and construction of the new bridge. |
| 08/07-02/09 | **S.P. No.: 450-09-0026, I-10 Mississippi River Bridge at Baton Rouge Rehabilitation (DOTD) -** Developed the design documents and plans for floor beam and floor beam connection distortional crack retrofit repairs. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Janet Crouse, P.E.** | Years of experience with this employer | 12 |
| Title | Roadway Engineer | Years of experience with other employer(s) | 7 |
| Degree(s) / Years / Specialization | | B.S. / 2003 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0040798 / LA / 9-30-2026 | |
| Year registered | 2016 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>ATSSA – Traffic Control Design Specialist<br>ATSSA – Traffic Control Technician |
| Contract role(s) / brief description of responsibilities | | **Roadway Design / Drainage Design** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 03/20-Present | **LA1/LA415 Connector, West Baton Rouge Parish, LA (DOTD) –** Roadway Design Engineer for the preliminary design of approximately 2.7 miles of new four-lane roadway and bridge(s) over the Gulf Intracoastal Waterway. Project includes the design of a full diamond interchange connection at LA 1 and the realignment of LA 1 in both directions to accommodate ramp configuration and future widening. Project also includes modifications of the I-10 ramps at LA 415, the realignment/extension of the I-10 Frontage Road and S. Westport Drive and the design of a backage road on new alignment. |
| 11/14-Present | **SPN# H.001234, Port Allen Canal Bridge, LA 1, West Baton Rouge Parish, LA (DOTD)** – Roadway Design Engineer for the preliminary and final design of 2.26 miles of LA 1 over the Intracoastal Waterway. Project features 0.98 miles of new four lane roadway for LA 1 on new alignment including a separate exit ramp for I-10 EB traffic; coordination with design of new 2,700' twin bridges over the Intracoastal Waterway; reconstruction of an existing frontage road; and a railroad at-grade crossing for Ernest Wilson Road. Initial design featured 1.27 miles of "Super Street" improvements to LA 1 including the removal of eight median openings, four new signalized "J-Turns" and left-turn storage. Developed MOT plans required to maintain four lanes of traffic on LA 1 with connections to the I-10 ramps. Project also included involvement with drainage design, geometric details, striping, joint layout, sequence of construction, cross sections, and quantities. |
| 08/15-01/21 | **Walter O. Bigby Carriageway, Bossier City, LA** - Project Engineer for the design of North Parkway Extension roadway from North of Eatman Street to Benton Highway. Work included the design of two roundabouts at the intersections of Hamilton Road and Shed Road; the reconstruction of three side roads to tie into the new North Parkway Extension; the widening of Hamilton Road from South of US 80 to the new roundabout; and the addition of a left-turn lane and driveway reconfigurations along Benton Highway. Total project length was approximately 5300 feet of reconstructed city streets and 3600 feet of new four lane roadway, which included a 1,470-foot bridge structure. Tasks involved the geometric design of the new alignment and roundabouts, the development of plan and profile sheets, geometric detail sheets, joint layout sheets, cross sections, quantities, and assistance with the storm drainage design. |
| 10/12-09/14 | **SPN# H.011111, I-49 North – Preliminary & Final Bridge Plans, Caddo Parish, LA** – Project Designer for engineering and related services for the bridge design and rating for the I-49/I-220 interchange bridges, specifically directional ramps EN, SE and WN, and the widening of existing I-220 bridges. Areas of responsibility included the design and plan sheet preparation for median barrier and barrier rail layout, bridge deck drainage, and quantity sheets, and design coordination with roadway design team and other team members. |
| 06/21-07/22 | **City of Marble Falls, Avenue N Bridge at Backbone Creek, Marble Falls, TX -** Design Engineer for the preliminary and final design of Avenue N bridge approaches. Tasks included the geometric design of bridge approaches; walk paths connecting new sidewalk to existing crushed granite trails and a |

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| | new cul-de-sac at Backbone Street; and the development of roadway plan and profile sheets, walk path plan and profile sheets, quantities, and cross-section sheets. |
| 04/23-09/23 | **Delaware County Engineers Office, DEL-CR98-01.58 Roundabout Design, Delaware County, OH –** Roadway engineer for the preliminary design and layout of a roundabout to replace an existing 4-way intersection located at Piatt Road and Peachblow Road. Challenges included constraints due to right of way and existing drainage features. Areas of involvement included horizontal and vertical layout of roundabout and associated design checks, storm sewer and ditch design and development of Stage 1 plans using MicroStation ORD. |
| 08/12-07/16 | **City of Baton Rouge, East Baton Rouge Parish, Joor Road–Greenwell Springs Road Sanitary Sewer System Upgrades, Baton Rouge, LA –** Project Engineer for the design of force main upgrades in the City of Baton Rouge, North Forced West Basin, in order to alleviate chronic overflows and increase capacity. Work included design of gravity sewers, force mains, connections to existing pump stations, details, maintenance of traffic plans and coordination with other team members. Ms. Crouse assisted with the development of maintenance of traffic plans, provided quantity calculations and addressed plan revisions at submittal stages of the project through final plans. |
| 06/14-10/14 | **West Virginia Department of Transportation, I-64 Design Study, Saint Albans Interchange, Nitro, WV -** Responsible for providing engineering design during the preliminary layout for a diverging diamond interchange along I-64 at US 35 (St. Albans Interchange). The design included her review of the proposed traditional diamond interchange for US 35 and the layout of a diverging diamond interchange to improve traffic flow on ramps. |
| 08/12-10/13 | **Old Hammond Highway Improvements, Segment 2, Baton Rouge, LA (East Baton Rouge Parish)** – Project Designer during the design of reconstruction work along Old Hammond Highway as part of the City's Green Light Plan. Work consisted of the design for a new four-lane divided highway, intersection layout, roadway profiles, sub-surface drainage, sequence of construction drawings, and utility relocation including new 8" gravity sewer, a lift station and a force main. Task involvement included plan revisions and the development of drainage plans. |
| 01/13-11/14 | **SPN# 44-2184, Louisiana Department of Transportation, Retainer Contract for Bridge Preventative Maintenance - Statewide -** Responsible for providing engineering and related services under a retainer contract that involved the repair and/or preventative maintenance of bridge structures throughout the State of Louisiana. Task Order 1 involved bridges in East Baton Rouge, West Baton Rouge, East Feliciana and West Feliciana Parishes and included bridges on I-10, I-110, LA-1 and LA-67 crossing local roads and creeks. Areas of responsibility included preparing traffic control plans for several bridge sites as well as assisting in the preparation of general plan sheets, quantity sheets and other miscellaneous sheets. |
| 10/08-05/11 | **US 441/SR 15 Widening from Clayton County Limits to North Carolina State Line, Rabun County, GA (GDOT)** - Project Designer for the conceptual and preliminary design associated with widening over 7 miles of roadway between the northern city limits of Clayton to the North Carolina State line. The project included both urban and rural typical sections for widening to a four lane divided facility. Retaining walls were required to limit right-of-way impacts due to the steep terrain. Context sensitive design solutions were utilized to reduce the property and socio-economic impacts in the municipalities of Mountain City and Dillard. Tasks included on this project were geometric design, roadway drainage design, hydraulic design of major culverts, design of bicycle and pedestrian facilities, preparation of staged construction and maintenance of traffic plans and preparation of erosion and sediment control plans. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | | | |
| Name | **William Travis Barr, PE** | | Years of experience with this employer | .6 | |
| Title | Project Manager / Senior Project Engineer | | Years of experience with other employer(s) | 12 | |
| Degree(s) / Years / Specialization | | | B.S. / 2012 / Civil Engineering | | |
| Active registration number / state / expiration date | | | #PE.0045675 / LA / 09-30-2025 | | |
| Year registered | 2021 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>ATSSA - Traffic Control Supervisor<br>ATSSA - Traffic Control Technician | | |
| Contract role(s) / brief description of responsibilities | | | **Roadway Design / Drainage Design (Satisfies MPR#3)** | | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 03/24-10/24 | **Louisiana Department of Transportation and Drainage, LA 415 Connector, West Baton Rouge Parish, LA –** Serving as a Senior Roadway Design Engineer responsible for the horizontal, vertical, drainage, and maintenance of traffic design and layout of the LA 1 corridor, including the LA 1 and LA 415 interchange. Design includes preliminary layouts, design checks, calculations, and plan preparation for the LA 1 roadway corridor. |
| 11/22-03/24 | **Louisiana Department of Transportation and Drainage, LA 447 Safety Improvements, Livingston Parish, LA -** Served as responsible engineer-in-charge for the preliminary layout, design checks, calculations, and plan preparation for two (2) LA 447 highway roundabouts which included one multi-lane and one single-lane configuration. Mr. Barr additionally provided roadway design on adjoining roadway realignments. |
| 03/21-11/22 | **MOVEBR Transportation Program – Program Management, East Baton Rouge Parish, LA -** Responsible for the management of eight projects in the program. He assisted in the leadership of each project through oversight of cost estimation, budgeting and adherence to design standards, as well focused on the overall constructability/feasibility of each project. As a part of his project management tasks, he assisted with the identification of project goals, economic development benefits, and overall feasibility. |
| 03/17-03/21 | **Texas Department of Transportation – I-820 (SH-287 to I-20) Interchange Reconstruction (Southeast Connector Design-Build), Dallas, TX** - Responsible for the evaluation of interstate plans, establishment of retaining wall locations to facilitate a proper sequence of construction, identification of bridge limits, and development of retaining wall structural requirements. He additionally produced exhibits, provided QA/QC of deliverables, coordinated work with stakeholders, and presented findings to key stakeholders. Travis led weekly task force meetings with major stakeholders to present status, potential roadblocks, project timelines, design philosophies and approach. |
| 03/17-06/20 | **Washington Department of Transportation, SR 520 (I-5 to 84th Avenue) Interchange Reconstruction Design-Build, Seattle, WA -** In responsible charge for the evaluation of interstate plans, maintenance of traffic, and pier and wall locations to facilitate sequence of construction, alternative design analysis, production of exhibits, and QA/QC of deliverables. Additionally coordinated and presented his findings to key stakeholders. |
| 11/22-03/24 | **MOVEBR Transportation Program, Terrace Avenue, East Baton Rouge Parish, LA –** Sr. Engineer responsible for the project wide modeling, ADA design, Right of Way/ construction access, wall design and project wide drafting standards. Mr. Barr performed 1 mile of complex modeling within a confined urban corridor. Due to Right of Way restrictions, Mr. Barr designed multiple retaining walls. The project is a corridor improvements project tasked with widened the roadway and adding sidewalks while no impacting right of way in the area. |

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| 11/22-03/24 | **MOVEBR Transportation Program, Lee Drive, East Baton Rouge Parish, LA –** Project Manager in responsible charge of quality control and assurance, geometric design, vertical design, site grading, suggested sequence of construction, scheduling, and construction cost development for a ¾ mile segment of the capacity improvement project. The project is a 2 mile roadway widening and drainage improvement project for a five-lane roadway. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Derek Spurlock, P.E.** | Years of experience with this employer | 16 |
| Title | Senior Project Engineer | Years of experience with other employer(s) | 0 |
| Degree(s) / Years / Specialization | | M.S. / 2008 / Civil Engineering<br>B.S. / 2005 / Civil Engineering | |
| Active registration number / state / expiration date | | #19202 / WV / 12-31-2024 | |
| Year registered | 2011 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Drainage and Hydraulics** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 06/11-/09/11 | **City of Baton Rouge and Parish of East Baton Rouge, Old Hammond Highway, Baton Rouge, LA –** Design Engineer for this project which involved the engineering design and analysis of an outfall improvement plan to handle the increase in flow caused by widening Old Hammond Highway and converting the current open ditch drainage system to a curb and gutter system. Mr. Spurlock developed the HEC-RAS model for both the existing outfall and the proposed design of the project. |
| 03/20-04/22 | **West Virginia Division of Highways, Coalfields Expressway PIE Study: WV16 to Mullens, Wyoming County, WV -** Project involved the preliminary design of 8.6 miles of four-lane and 3.8 miles of two-lane connector on new alignments. Preliminary plans included geometric design, major drainage design, permitting, erosion and sediment control, utility coordination and right-of-way. Responsibilities included hydraulic analysis of 3 bridges and a large box culvert, acquisition of an NPDES permit for core drilling of the entire project, and geometric design of the 1500' Twin Falls Access. |
| 02/19-01/21 | **West Virginia Department of Transportation - Division of Highways, US 220 Tier II Design Study, Mineral County, WV & Allegany County, MD** - This project consisted of upgrades to US Route 220 from the US Route 50 intersection near Claysville, WV to its intersection with Placid Lane in Maryland. Mr. Spurlock was responsible for developing new alignment alternatives for approximately 11 miles of highway and performing the hydraulic analysis for proposed bridges that cross the North Branch Potomac River. |
| 07/15-01/19 | **West Virginia Department of Transportation - Division of Highways, US 35 Design-Build/P3 Project, Mason and Putnam Counties, WV -** As a Design Engineer, Mr. Spurlock was responsible for the drainage design associated with 14 miles of four-lane highway (ditch sizing and lining, culvert design, storm sewer design), overseeing the hydraulic analyses of two mainline bridges, and performing scour analyses for two mainline bridges. |
| 03/17-10/17 | **West Virginia Division of Highways, Wellsburg Bridge P3, Brooke County, WV -** Work consisted of performing a HEC-RAS analysis of the Ohio River for the proposed bridge crossing which included the use of an existing HEC-2 model of the Ohio River. Mr. Spurlock also performed scour analysis for the proposed bridge and coordinated with the local floodplain manager to gain approval of the proposed bridge. |
| 09/14-12/17 | **West Virginia Division of Highways, Jefferson Road Design Study, Kanawha County, WV -** This study consisted of developing preliminary plans to widen existing Jefferson Road from two lanes to five lanes and replacing an offset intersection at Kanawha Turnpike. Multiple alignments were developed. Mr. Spurlock's responsibilities on this project included the performance of a HEC-RAS analysis of the waterway opening for the proposed bridge crossings and incorporating bicycle facilities along Jefferson Road. |
| 01/14-02/15 | **West Virginia Department of Transportation - Division of Highways, Coalfields Expressway P3. Wyoming Counties, WV -** Mr. Spurlock was responsible for the drainage design (ditch sizing and lining, culvert design, storm sewer design) and assisting with the Sediment and Erosion Control Plans (BMP layout, sizing sediment ponds, etc). |
| 05/14-11/16 | **West Virginia Department of Transportation - Division of Highways, I-64 Widening Crooked Creek Interchange to Nitro Interchange, Putnam County, WV** - This project consisted of preliminary engineering for widening Interstate 64 from four to six lanes between Scott Depot and Nitro. The |

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| | 3.5-mile-long project will include two interchanges and multiple bridges, including a ¼-mile long bridge across the Kanawha River. Mr. Spurlock's responsibilities included geometric design that consisted of laying out the interstate widening, realignment of the Saint Albans interchange, and realigning the Bills Creek overpass; major drainage design; and hydraulic analysis of the proposed Kanawha River crossing. |
| 0709-02/14 | **West Virginia Division of Highways, Thomas Buford Pugh Bridge, Fayette County, WV -** This project consisted of the study and design of both a replacement bridge structure and a rehabilitation of the existing bridge structure crossing the New River. The river in the project area is a category one stream which has endangered mussels. The study for this project consisted of various alternatives to avoid impacts to the river and the stream habitat. Mr. Spurlock was responsible for performing a HEC-RAS analysis of the waterway opening for the bridge replacement alternatives, in addition to analysis for the use of temporary construction platforms and causeways for the rehabilitation alternatives. Mr. Spurlock also performed a Shear Stress analysis for each alternative in order to evaluate the impacts of the alternatives on the habitat within the project area during and after the construction of each, and developed scour countermeasures on the stream banks |
| 03/09-02/12 | **West Virginia Department of Transportation - Division of Highways, RHL Boulevard Extension, Kanawha County, WV -** This project consisted of an urban roadway design along a new alignment, drainage design, temporary traffic control, lighting design, signing and marking plans, and right-of-way plans. Mr. Spurlock assisted with the right-of-way plan development for the 0.42-mile long project. He performed the roadway drainage calculations and assisted with the drainage design. He also assisted with the design of the maintenance of traffic sequencing for the project. A new bridge crossing of Davis Creek was also included as part of this project which was situated in an area that is sensitive to past flooding. Mr. Spurlock was responsible for the HEC-RAS analysis of the bridge waterway opening for the new proposed bridge crossing of Davis Creek. He developed both a draft and final hydraulic report for the project. He also assisted with development of the erosion and sediment plans for the project. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Christopher Hassell, PE** | Years of experience with this employer | 3.5 |
| Title | Roadway Engineer | Years of experience with other employer(s) | 15.5 |
| Degree(s) / Years / Specialization | | B.S. / 2005 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE078149 / PA / 09-30-2025 | |
| Year registered | 2010 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Roadway / Drainage Design** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 03/24-Present | **LA1/LA415 Connector, West Baton Rouge Parish, LA (DOTD) –** Roadway Design Engineer during the final design of approximately 2.7 miles of new four-lane roadway and bridge(s) over the Gulf Intracoastal Waterway. Project includes the design of a full diamond interchange connection at LA 1 and the realignment of LA 1 in both directions to accommodate ramp configuration and future widening. Project also includes modifications of the I-10 ramps at LA 415, the realignment/extension of the I-10 Frontage Road and S. Westport Drive and the design of a backage road on new alignment. Responsible for designing the alignment and 3D model using InRoads and OpenRoads for the LA 415 connector and Sun Plus Parkway interchange ramps. |
| 04/13-01/19 | **Pennsylvania Department of Transportation (PennDOT District 5-0), SR 0073-05S, SR 73/662 Intersection Improvements, Berks County, PA -** Roadway Task Manager for the preliminary engineering, final design, and construction consultation for the safety improvements of two separate intersections of SR 0073 with SR 0662. To address safety issues, roundabouts were proposed at each intersection which included extensive approach roadway work and the relocation of the minor roadways. Responsible for alignment design, intersection grading, traffic control, and PS&E package. |
| 08/15-02/18 | **Pennsylvania Department of Transportation (PennDOT District 2-0), SR 0006-530, SR 0006 Improvements, Borough of Kane, McKean County, PA** - Project Engineer for the preliminary engineering, final design, and construction services for the pavement resurfacing/reconstruction of SR 0006 in the Borough of Kane. The project extended from approximately 900' north of Easton Street to the intersection with SR 0321, and included drainage upgrades, signal upgrades, and improvements for ADA access. Mr. Hassell was responsible for pavement design and PS&E package. |
| 01/05-11/17 | **Pennsylvania Turnpike Commission (PTC District 3), SR 0076, Roadway and Bridge Reconstruction, MP 202 to MP 207, Cumberland County, PA -** Project Engineer for the study, preliminary engineering, and final design of a 5-mile section of staged, 4-lane Interstate total reconstruction and widening to 6 lanes, including the replacement of 3 mainline bridges. Responsible for drainage design, E&S, SWM, traffic control, and PS&E package. |
| 12/16-05/17 | **Texas Department of Transportation (TxDOT Houston District), SH 288 Design/Build Toll Lanes Expansion, Houston, TX -** Roadway Task Manager for the project which involved the design of 10-miles of new 4-lane toll road inside the existing 6-lane freeway. The designed portion of the project included 4-miles of new roadway, three new ramps to the existing lanes, and seven new bridges. This section was designed in 6 months. Mr. Hassell was responsible for alignment design, drainage design, and final plans. |
| 11/07-04/08 | **Pennsylvania Department of Transportation (PennDOT District 9-0), Act 44 Final Design, Districtwide, PA -** Project Engineer for the preliminary engineering and final design for three Act 44 projects which included concrete patching, asphalt overlay, drainage, and guide rail improvements. Mr. Hassell was responsible for drainage design, E&S, traffic control, and PS&E packages. |
| 02/07-02/14 | **Pennsylvania Department of Transportation (PennDOT District 9-0), SR 0056-TSM and 025, Strayer Street, Cambria County, PA -** Project Engineer for the preliminary engineering and final design for numerous Transportation Systems Management intersection projects to improve existing safety concerns throughout the City of Johnstown. Improvements included the removal of sight distance obstructions, curve widening, signal upgrades, ADA curb ramp installation, and drainage upgrades. Mr. Hassell was responsible for alignment design, intersection grading, ADA curb ramp design, drainage design, E&S, right-of-way plans, traffic control, and PS&E packages. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Dai Nguyen, PE** | Years of experience with this employer | 7 |
| Title | Design Engineer | Years of experience with other employer(s) | 8 |
| Degree(s) / Years / Specialization | | B.S. / 2009 / Civil Engineering<br>B.S. / 2001 / Electrical Engineering | |
| Active registration number / state / expiration date | | #C79945 / CA / 09-30-2026 | |
| Year registered | 2012 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Roadway Design (including pavement preservation)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 10/20-06/21 | **City of Rialto, Street Overlay and Reconstruction Project - Riverside Avenue (SR-210 to Foothill Boulevard), Rialto, CA -** Project Engineer for this pavement rehabilitation and street improvement project on the north segment of Riverside Avenue. The project proposed full-depth reconstruction for the entire pavement section for travel lanes, while a mill and overlay approach was to be applied to median lanes and 50 feet into select cross streets. The project also provided ADA-compliant curb ramp improvements, including the addition of yellow detectable warning surfaces, slope regrading, and increased accessibility for pedestrian push buttons. Additionally, the project reconstructed one driveway and constructed a concrete raised median on Easton Street. As a technical lead, Mr. Nguyen was responsible for the delivery of the roadway, signing/pavement delineation, utility, electrical plans, and ADA curb ramp plans. |
| 03/19-05/22 | **Caltrans District 12, Upgrade Traffic Signal and Rehabilitation Project on SR-1 (Contract No. 12A1756), Orange County, CA** - Project Engineer responsible for the design and development of the PS&E package for multiple improvements to SR-1 in the cities of Newport Beach, Huntington Beach, and Seal Beach. This effort included the design of signing, pavement delineation, curb ramp plans, and Traffic Census Stations. The project proposes to apply a rubberized hot mix asphalt to existing pavement, replace the existing traffic signals at 20 intersections, and upgrade curb ramps to be ADA compliant, in addition to delivering several other improvements. The project requires close coordination with Caltrans District 12 as well as the three cities on the project corridor. Mr. Nguyen was also responsible for the preparation of the Supplemental Project Report, which incorporated Class II bicycle lanes, Complete Streets elements, and a Type 60M Median Barrier into the project. |
| 06/19-04/20 | **Caltrans District 12, SR-90 Capital Pavement Preventive Maintenance PS&E (Contract No. 12A1728, Task Order 6), Orange County, CA -** Design Engineer responsible for supporting the preparation of signing and pavement delineation plans for Task Order 6. The project addressed pavement that is providing poor ride quality and proposed to restore it to a minimum design expectancy of ten years. Additionally, the project proposed to **extend the service life of pavement with minimum distress by a minimum of five years**. The project also included the removal and replacement of existing signs due to poor reflectivity, removing and replacing traffic signal loop detectors, and restriping the overlay area according to current Caltrans standards. |
| 10/20-03/22 | **City of Rialto, Street Overlay and Reconstruction Project - Riverside Avenue (I-10 to South City Limit), Rialto, CA -** Project Engineer for this pavement rehabilitation and street improvement project on the south segment of Riverside Avenue. The project proposed full-depth reconstruction for the majority of the project area. Continuously-Reinforced Concrete Pavement was recommended for the 200-foot approaches at select intersections due to heavy impacts from commercial truck braking movements and idling. The project also delivered several ADA-compliant improvements, replaced drainage facilities, and upgraded traffic loops to video detection systems. As a technical lead, Mr. Nguyen was responsible for the delivery of the roadway, signing/striping, utility, electrical plans, and ADA curb ramp plans. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Ziyin "David" Shen, PE** | Years of experience with this employer | 7 |
| Title | Drainage Engineer | Years of experience with other employer(s) | 14 |
| Degree(s) / Years / Specialization | | M.S. / 2003 / Civil and Environmental Engineering<br>B.S. / 1998 / Hydraulic Engineering | |
| Active registration number / state / expiration date | | #C71003 / CA / 06-30-2025 | |
| Year registered | 2007 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Drainage Design** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 05/17-12/21 | **Caltrans District 8, I-10/Alabama Street Improvement, Redlands, CA -** Design Engineer responsible for preparing a Stormwater Data Report (SWDR) for the Alabama Street improvement project near the I-10 interchange in the City of Redlands. This project is proposed by Caltrans District 8 and the San Bernardino County Transportation Authority. Responsibilities included evaluation of site data and stormwater quality design issues, preliminary design of Treatment BMPs, calculation of new impervious area, total disturbed soil area, and water quality volumes. |
| 02/21-Present | **Caltrans District 12, Roadway Design and Related Project Development and Construction Services (Contract No. 12A1857), Orange County, CA** - Design Engineer supporting the PA/ED and PS&E phases of this pavement rehabilitation and TMS improvement project on SR-91. The overall project has been divided into five segments, with three segments (2, 3, and 4) being delivered under this contract. Segments 2, 3, and 4 will implement a variety of improvements, including replacement of concrete panels, an asphalt concrete overlay, drainage system upgrades, relocation of roadside facilities to safe work locations, replacement of overhead sign panels/sign structures, upgrading the existing Metal Beam Guardrails to Midwest Guardrail system, various TMS upgrades and improvements, and more. During the PA/ED phase, Mr. Shen is responsible for the preparation of drainage concept plans and the SWDR. Currently, he is supporting the PS&E phase by preparing the Stormwater Data Report and drainage plans. The project has been delivered on a very aggressive schedule to meet the schedule requirements of OCTA's project. |
| 10/18-07/22 | **Caltrans District 7 Multiphase Project Specific Pavement Rehabilitation (Contract No. 07A4518), Ojai, Mira Monte, and Meiners Oaks, CA -** Staff Engineer supporting the PA/ED and PS&E phases for this pavement rehabilitation project in Ventura County. The project rehabilitated the pavement on SR-150 and SR-33 in the cities of Ojai, Mira Monte, and Meiners Oaks, in addition to replacing signs to meet current retroreflectivity standards, and improving existing drainage. Close coordination was required with Caltrans District 7 and several other project efforts taking place within the project area. The project was delivered on an expedited schedule. Mr. Shen's responsibilities included preparation of the Stormwater Data Report. |
| 05/17-Present | **I-605/Katella Avenue Interchange Improvement Project, Los Alamitos, CA -** Design Engineer responsible for supporting the Katella Avenue Interchange Improvement Project which proposes to improve freeway access and street connections, traffic flow, safety, and pedestrian/ bicycle pathways within the interchange area. During the PA/ED phase, his responsibilities included preparation of the Stormwater Data Report and Water Quality Assessment Report, preliminary design of BMPs, potential impact assessment on the water quality of nearby receiving waterbodies, addressing water quality standards and complying with the provisions of NPDES permits. During the PS&E phase, Mr. Shen's responsibilities included preparation of the Stormwater Data Report. |
| 07/17-10/20 | **Caltrans District 7, I-405 Treatment BMP Project (Contract No. 07A4127), Los Angeles County, CA -** Design Engineer responsible for the design of biofiltration swale and DPPIA BMPs during the PS&E phase. This project proposed various Treatment BMPs for implementation of Total Maximum Daily Loads (TMDL) along I-405 (PM 4.75/8.7). The project follows the recommendations of the recently completed Corridor Storm Water Management Studies for the I-405 Corridors**.** |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Aaron Bedal, PE** | Years of experience with this employer | 11 |
| Title | Senior Engineer | Years of experience with other employer(s) | 0 |
| Degree(s) / Years / Specialization | | B.S. / 2013 / Civil Engineering | |
| Active registration number / state / expiration date | | #C86668 / CA / 03-31-2025 | |
| Year registered | 2016 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Roadway Design (including pavement preservation)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 12/22-Present | **San Benito County, On-Call Services, Measure G Pavement Maintenance - Shore Road Rehabilitation from Frazier Lake Road to San Felipe Road (FY24-25), San Benito County, CA -** Serves as Project Engineer for the preparation of PS&E documents for road maintenance rehabilitation improvements for the 2.6-mile roadway segment which included utility coordination, pavement design, and drainage design totaling $4.6M. The maintenance repair was funded using Measure G funds. The design for this project included Full-Depth Reclamation (FDR) and overlay. Construction for Shore Road is expected to begin in the Fall 2024. TRC will also provide construction support services to address submittals and Contractor RFI's. |
| 01/24-Present | **San Benito County, On-Call Services, SB-1 Project Cole Road (Ricardo to Anzar) and Cienega Road (Mudstone Ranch to Bird Creek) (FY 24-25), San Benito County, CA** - Serves as Project Engineer for the preparation of full PS&E documents for road maintenance on Cole Road and Cienega Road totaling $3.5M. TRC is preparing the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects included Full-Depth Reclamation (FDR) and overlay and soldier pile wall design for the slip out areas. Construction for Cole Road is expected to begin in the Fall 2024 and construction of Cienega Road is expected in the Spring 2025. TRC will also provide construction support services to address submittals and Contractor RFI's. |
| 01/21-12/21 | **San Benito County, On-Call Services, SB-1 Road Maintenance Projects at Various Locations (FY 20-21), San Benito County, CA -** Project Engineer for the design of full PS&E documents for various road maintenance projects totaling $3.6M. In addition, the team provided construction management services to the County during construction. The Project encompassed the completion of roadway maintenance repairs on segments of Cienega Road, Anzar Road, and Carr Avenue. TRC prepared the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects included Full-Depth Reclamation (FDR) and overlay and cape seal and overlay. |
| 01/20-12/20 | **San Benito County, On-Call Services, SB-1 Road Maintenance Projects at Various Locations (FY 19-20), San Benito County, CA -** Project Engineer for the design and full PS&E documents for various road maintenance projects totaling $2.1M. The Project encompassed the completion of roadway maintenance repairs on segments of Fairview Road, Union Road, Cienega Road, Southside Road, Crestview Road, and Hillcrest Road. TRC prepared the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects included Cold In-Place Recycling (CIR), Full-Depth Reclamation (FDR), cape seal and overlay. TRC also provided construction support services. |
| 01/20-12/20 | **San Benito County, On-Call Services, Measure G Pavement Maintenance Projects at Various Locations (FY 19-20), San Benito County, CA -** Project Engineer for the design and full PS&E documents for various road maintenance projects totaling $1.9M. The Project encompassed the completion of roadway maintenance repairs on segments of Union Road, Southside Road, and Buena Vista Road. TRC prepared the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects Full-Depth Reclamation (FDR) and overlay. In addition, the team provided construction management services to the County during construction. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Jon Lorincz, PE** | Years of experience with this employer | 1.5 |
| Title | Project Manager/Highway Design Lead | Years of experience with other employer(s) | 31 |
| Degree(s) / Years / Specialization | | B.S. / 1992 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.61714 / OH / 12-31-2025 | |
| Year registered | 1997 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Roadway Design (including pavement preservation)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 06/23-02/24 | **ODOT District 1, HAR-SR31/US 68 Feasibility Study, Kenton, OH -** Project Manager for this Feasibility Study (FS) aimed at studying alternatives to provide easier and safer travel through downtown Kenton by improving the connection from State Route 31 to United States (U.S.) Route 68. Five different alternatives (plus a No-Bid alternative) were developed to address traffic flow inefficiencies and congestion through an area in the vicinity of SR 31, U.S. 68, SR 53 and the Scioto River near Perry Street. Each alternative was evaluated in terms of traffic operations, horizontal alignments, right of way impacts, construction costs, utility impacts, structure impacts and environmental impacts. The feasible alternates (which included two roundabouts) were presented at a public meeting. |
| 11/20-07/21 | **Colorado River Constructors (CRC), Oak Hill Parkway Design-Build, Segment 3, Austin, TX -** Served as Roadway Lead for Segment 3 of the $670 million Oak Hill Parkway Project which involved the reconstruction of a multi-lane facility with at-grade intersections into an access-controlled divided roadway with grade separated interchanges. |
| 06/13-03/16 | **Ohio Department of Transportation - District 4, STA-619-2.59, Hartville, OH - (Deputy PM and Design Engineer for the d**evelopment of horizontal and vertical alignments and construction phasing/MOT scheme. The project involved construction of two multi-lane roundabout intersections, including pavement replacement and widening, new storm sewers and waterline replacement. |
| 03/12-10/14 | **Ohio Department of Transportation - District 2, WOO-18-10.53 North Baltimore Connector, North Baltimore, OH -** Deputy PM and Design Engineer. Supervised plan production and developed and monitored the workflow diagram to ensure staff were effectively deployed in order to meet a highly compressed project delivery schedule. The project involved construction of a 2.25-mile bypass around the Village of North Baltimore and included a roundabout intersection. |
| 06/08-12/09 | **Ohio Department of Transportation – District 12, Opportunity Corridor, Cleveland, OH –** Roadway Engineer responsible for the development of alignments for the proposed boulevard and several interchange options at E. 55th Street for the $300 million Opportunity Corridor project in downtown Cleveland. The project was a component of ODOT's $1.3 billion Cleveland Innerbelt Corridor Reconstruction program. |
| 01/07-06/08 | **City of Brooklyn, I-480/Tiedeman Road Interchange Study, Brooklyn, OH –** Project Roadway Engineer responsible for development of the geometric layout for a Diverging Diamond Interchange at I-480 and Tiedeman Road in Brooklyn, Ohio. This effort included coordination with the FHWA to ensure that geometric elements were designed within acceptable norms for this innovative design. |
| 01/07-06/08 | **Fluor-Lane, LLC, Capital Beltway (I-495) HOT Lanes Project Design-Build, Fairfax, VA -** Roadway Design Lead responsible for the final design of a 1.4-mile section of this $1.2 billion project. Work tasks included final horizontal and vertical alignments, cross sections, construction limits, and drainage. |
| 06/00-06/02 | **Ohio Department of Transportation – District 12, CUY-480-12.76, Crack and Seat Major Rehabilitation, Cuyahoga County, OH -** Responsible for the detailed design plans associated with this major, $8.4 million rehabilitation of I-480 in Cleveland. Major work items included crack and seat pavement treatment and the addition of an auxiliary lane. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Justina Conklin, PE** | Years of experience with this employer | 16 |
| Title | Project Manager | Years of experience with other employer(s) | 17 |
| Degree(s) / Years / Specialization | | B.S. / 1991 / Civil Engineering | |
| Active registration number / state / expiration date | | #C53183 / CA / 06-30-2025 | |
| Year registered | 1995 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Roadway Design (including pavement preservation)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 12/22-Present | **San Benito County, On-Call Services, Measure G Pavement Maintenance - Shore Road Rehabilitation from Frazier Lake Road to San Felipe Road (FY24-25), San Benito County, CA -** Serves as Project Manager for the preparation of PS&E documents for road maintenance rehabilitation improvements for the 2.6-mile roadway segment which included utility coordination, pavement design, and drainage design totaling $4.6M. The maintenance repair was funded using Measure G funds. The design for this project included Full-Depth Reclamation (FDR) and overlay. Construction for Shore Road is expected to begin in the Fall 2024. TRC will also provide construction support services to address submittals and Contractor RFI's. |
| 01/24-Present | **San Benito County, On-Call Services, SB-1 Project Cole Road (Ricardo to Anzar) and Cienega Road (Mudstone Ranch to Bird Creek) (FY 24-25), San Benito County, CA** - Serves as Project Manager for the preparation of full PS&E documents for road maintenance on Cole Road and Cienega Road totaling $3.5M. TRC is preparing the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects included Full-Depth Reclamation (FDR) and overlay and soldier pile wall design for the slip out areas. Construction for Cole Road is expected to begin in the Fall 2024 and construction of Cienega Road is expected in the Spring 2025. TRC will also provide construction support services to address submittals and Contractor RFI's. |
| 01/21-12/21 | **San Benito County, On-Call Services, SB-1 Road Maintenance Projects at Various Locations (FY 20-21), San Benito County, CA -** Project Manager for the design of full PS&E documents for various road maintenance projects totaling $3.6M. In addition, the team provided construction management services to the County during construction. The Project encompassed the completion of roadway maintenance repairs on segments of Cienega Road, Anzar Road, and Carr Avenue. TRC prepared the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects included Full-Depth Reclamation (FDR) and overlay and cape seal and overlay. |
| 01/20-12/20 | **San Benito County, On-Call Services, SB-1 Road Maintenance Projects at Various Locations (FY 19-20), San Benito County, CA -** Project Manager for the design and full PS&E documents for various road maintenance projects totaling $2.1M. The Project encompassed the completion of roadway maintenance repairs on segments of Fairview Road, Union Road, Cienega Road, Southside Road, Crestview Road, and Hillcrest Road. TRC prepared the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects included Cold In-Place Recycling (CIR), Full-Depth Reclamation (FDR), cape seal and overlay. TRC also provided construction support services. |
| 01/20-12/20 | **San Benito County, On-Call Services, Measure G Pavement Maintenance Projects at Various Locations (FY 19-20), San Benito County, CA -** Project Manager for the design and full PS&E documents for various road maintenance projects totaling $1.9M. The Project encompassed the completion of roadway maintenance repairs on segments of Union Road, Southside Road, and Buena Vista Road. TRC prepared the PS&E for the necessary roadway design including utility coordination, pavement design, and drainage design. The maintenance repair was funded using SB-1 funds. The designs for these projects Full-Depth Reclamation (FDR) and overlay. In addition, the team provided construction management services to the County during construction. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Mark Castay, P.E.** | Years of experience with this employer | 9 |
| Title | Bridge Engineer | Years of experience with other employer(s) | 7 |
| Degree(s) / Years / Specialization | | M.S. / 2008 / Civil Engineering<br>B.S. / 2006 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0039430 / LA / 9-30-2025 | |
| Year registered | 2015 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>FHWA-NHI-130055 - "Safety Inspection of In-Service Bridges", 2016<br>FHWA / NHI - Bridge Inspection Refresher, 2020<br>FHWA / NHI – LRFD for Highway Bridge Substructures, 2017<br>LTRC/LADOTD-AASHTOWare Bridge Rating Fundamentals Training, 2017<br>FHWA / NHI – NEPA and Transportation Decision Making, 2009<br>LTRC / LADOTD-AASHTOWare Bridge Rating Fundamentals Training, 2017<br>ATSSA / LADOTD-Traffic Control Supervisor, 2020 |
| Contract role(s) / brief description of responsibilities | | **Bridge Design / 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 years of experience specified in the applicable MPR(s). |
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| 8/23-2/24 | **Contract No. P028743, Woodruff Road Parallel Bridge over I-85, Greenville, SC (SCDOT) –** Bridge design engineer assigned to assist with the design of a 2-span continuous 256' integral abutment bridge. His responsibilities included design of the deck, bearings, wingwalls, mash barriers, substructure components and approach slabs. He also performed QC of the plan set and quantities. |
| 6/21-Present | **S.P. No. 44-17264; H.011965.5, LA 47 over IWGO, Bridge Rehabilitation, New Orleans, LA (DOTD) –** Team leader during the performance of a bridge inspection for the rehabilitation design of this 6,620' tied arch/deck truss bridge included in the state historic bridge management plan. He led the superstructure and deck inspections. As a Bridge Engineer, his responsibilities included design and plan generation for the rehabilitation of various bridge components, including CFRP strengthening of prestressed girders and columns, deck joints, spalls and fractures on superstructure and substructure components, ancillary steel and aluminum frames, bearing replacement, and structure jacking schemes. |
| 02/21 | **Contract No. H.013321, Complex Bridge Inspections, Statewide, LA (DOTD) –** Bridge Inspector assigned to inspect the box girders, cable anchors, and towers of the I-310 over Mississippi River bridge (cable stayed bridge). |
| 12/19-12/20 | **Contract No. 4400004920 (H.012485.1), Complex Off-system Bridge Rating and Evaluation, Statewide, LA (DOTD) –** Bridge Inspector and load rating engineer for the site assessments and load ratings of 345 off-system concrete slab span (COPCSS, COSLAB) bridges supported on concrete caps and concrete or timber piles. He used AASHTOWare BrR and LRFR to perform the load ratings. He also provided repair recommendations for bridges with 3 ton or closure ratings. |
| 01/19-05/19 | **City of Bossier, Walter O. Bigby Carriageway Bridge, Bossier, LA -** Bridge Engineer responsible for the design of end bents, deck and approach slabs, steel girder cross frames, along with the rating of prestressed girders. |
| 03/18-04/18 | **Contract No. 4400010099 (H.009859.5), Complex Off-system Bridge Rating and Evaluation, Statewide, LA (DOTD) –** Bridge Inspector and load rating engineer for the site assessment and load rating of an off-system truss bridge over the Tensas River. He led the assessment of the superstructure elements, operated a platform snooper truck and developed the load rating for the bridge using AASHTOWare BrR. |

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| 09/17-02/18 | **Mississippi Department of Transportation, State Aid Bridge Inspection and Load Rating IDIQ Master Contract -** Bridge Inspector and load rating engineer for 160 concrete and timber off-system bridges. Performed routine inspections and load ratings in accordance with the National Bridge Inspection Standards (NBIS) and AASHTO MBE on selected bridges located statewide. He used AASHTOWare BrR and LRFR to perform the load ratings. He also provided repair recommendations for bridges with 3 ton or closure ratings. |
| 04/16-06/19 | **Contract No. 4400004920 (H.009859.5) On-system Complex Load Rating, Statewide, LA (DOTD) –** Bridge load rating engineer and Inspector responsible for site visits, assessments and load rating of complex truss and movable bridges under this retainer contract. For the Bayou Teche bridge (swing span) he performed the bridge inspection and documented deficiencies to be used in the load rating analysis. For the LA 27 over ICWW (vertical lift/truss) bridge he inspected the lift span and truss, rated pile cap bents and performed QC on gusset plates, truss models/chord splices, and PCC and steel girder analyses. For LA319 over ICWW (double leaf bascule) he performed rating analysis on PCC girder spans and hammerhead bent caps using strut and tie in addition to QC of the remainder of the bridge components. For the LA 654 over Bayou Lafourche (vertical lift) he performed QC on the bridge rating calculations and analysis models. For LA657 over Bayou Lafourche (vertical lift) he performed rating analysis on the slab spans and main span girders, floor beam and stingers. For the LA 83 Bridge over Patout Bayou (swing span) and St. Anne Bridge over Terrebonne Bayou (swing span), he performed QC on the bridge rating calculations and analysis models. For LA 47 over IWGO (tied arch truss) he performed load rating analysis for the pin and hangers, link plates and chord splices, as well as completed rating analyses for the pile supported reinforced concrete caps. He also calculated the truss panel point dead loads for inclusion in the AASHTOWare BrR model. For LA 1 over Atchafalaya (cantilevered Warren through truss) he performed the bridge inspection and load ratings for pin and hangers and an analysis for the truss gusset plates in BrR. For the US 90B Riverbound Expressway (riveted plate girder and deck truss) bridge he performed the bridge inspection and documented deficiencies to be used in the load rating analysis. He performed a load rating analysis of the girders, floor beams, stringers, gusset plates and truss members. |
| 03/16-09/16; 06/18 | **Contract No. 4400005960 (H.009730.5), In-depth Bridge Inspection of Complex Structures, Statewide, LA (DOTD) –** Bridge Inspector for cantilevered truss bridges on I-10 over Lake Calcasieu and the Mississippi River, along with the US 90 Danziger Bridge (vertical lift). Involved in-depth inspection of the bridge superstructure and substructure, element level conditions/quantities, and composing the final report. |
| 07/17-12/17 | **S.P. No.: H.004266 (700-24-0031), Route US190 Rehabilitation over Mississippi River, East and West Baton Rouge Parishes, LA (DOTD) -** Performed calculations and assisted in the development of schemes for general structural rehabilitation of items including bearings and connections angles |
| 05/09-08/10 | **S.P. No.: 713-42-0143, Georgie Ridge Bridge, Richland Parish, LA (DOTD) –** Assisted in the design of a 7-span pre-stressed girder superstructure and pile supported substructure. He also compiled quantities for the bridge in addition to calculations for geometrics. Mr. Castay was tasked with executing a detailed lateral pile analysis which incorporated the soil/pile interaction to justify a pile size reduction. This analysis was able to verify that a pile size reduction on the bridge would reduce construction costs considerably. A comprehensive report was generated to substantiate results created in the model. |
| 07/08-12/10 | **S.P. No.: 455-09-0003, I-49 North Extension: LA 169 to LA 530, Caddo Parish, LA (DOTD) –** The bridges consisted of 12-102 ft. AASHTO Type IV girder spans supported by column bents and drilled shaft foundations spanning Twelve Mile Bayou. Mr. Castay's responsibilities included calculating vertical and horizontal alignments; design of the structural deck, pre-stressed girders, caps and column bents; and quantity calculations and cost estimates. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Xianzhi ("Sage") Liu, P.E.** | Years of experience with this employer | 13 |
| Title | Structural Engineer | Years of experience with other employer(s) | 5 |
| Degree(s) / Years / Specialization | M.S. / 2003 / Civil Engineering<br>M.S. / 1999 / Coastal Engineering<br>B.S. / 1996 / Civil Engineering | | |
| Active registration number / state / expiration date | #PE.0034727 / LA / 09-30-2025 | | |
| Year registered | 2009 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | **Bridge Design / 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 years of experience specified in the applicable MPR(s). |
|---|---|
| 11/23-Present | **H.005121 LA 1/LA 415 Connector, West Baton Rouge, LA -** Served as the bridge task lead to develop span layout, bridge type selection, and preliminary design of superstructure and substructure for a mix of long span steel girders and prestressed LG girders spans. |
| 11/19-03/20 | **H.013284, Level 1 Toll Feasibility Study of 3rd Crossing of Mississippi River Bridge, Baton Rouge, LA -** Reviewed proposed alignments for the 3rd cross conceptual study, investigated bridge superstructure and substructure types for the cable-stayed river crossing main spans and approach spans. Using RM bridge to create the rendering of the proposed cable-stayed bridge. Evaluated advantages and disadvantages for the proposed alternates. |
| 06/21-Present | **Contract No. 4400020156 (H.011965.5), LA 47 IWGO Bridge Rehabilitation, New Orleans, LA (DOTD) -** Served as Bridge Engineer responsible for inspection and rehabilitation of the main spans for this tied arch truss bridge included in the state historic bridge management plan. Responsibilities included a review of inspection reports, load rating results, identifying deficient elements and developing repair plans for the rehabilitation of various bridge components, including main truss members, false chord bearings, lateral bracing members, and arch tie-girders. He also answered RFIs and reviewed shop drawing during the construction phase. |
| 01/19-05/20 | **Walter O. Bigby Carriageway, Bossier City, LA –** Served as the lead engineer for superstructure design of the main steel girder spans. He has performed design modeling, analysis and plan development for the main continuous curved steel girder spans with maximum span length of 300'. He has utilized several structural analysis software packages including LUSAS, MDX for structural analysis. He also is responsible for reviewing shop drawings, erection plans for the steel girder superstructure. |
| 01/13-07/14<br>05/17-12/17 | **S.P. No. 003905 – I-49 North (I-220 to MLK Drive), Caddo Parish, LA (DOTD) –** Served as the lead engineer for superstructure design of the segmental bridge alternative. He developed calculations and final plans for the ramp EN bridge which is a 15-span, precast post-tensioned segmental bridge with total length of 3,030 ft. He also developed the complete as-designed and as-built load rating reports for the superstructure of the ramp EN bridge. |
| 03/11-01/12 | **S.P. No. 700-24-0031 – US 190 Mississippi River Bridge Rehabilitation, Baton Rouge, LA (DOTD) -** Performed structural analysis for the purpose of rehabilitating this major truss bridge. Functioned as an inspector performing a special condition inspection of the main truss. Performed at an accelerated pace, Mr. Liu reviewed existing plans and drawings, inspected and assessed deteriorated structures and developed plans for repair locations, repair schemes and details, which include repair/replacement of main truss members, lateral bracings and expansion bearings, and adding new safety cable system. He also reviewed load rating reports for the both the super-truss and the approach span steel bent towers, evaluated the bridge conditions and prioritized the bridge repair items. Mr. Liu reviewed the submitted shop drawings for structural repair and answered RFIs from the contractor during construction. |
| 04/16-03/20 | **Contract No.: 4400004920 (H.009859.5), Complex Load Rating, Statewide, LA (DOTD) –** Served as the lead engineer for superstructure and substructure **load rating for multiple complex bridges**, including LA1 truss bridge over Atchafalaya river, LA47 IWGO tied arch truss bridge, US 90B Riverbound Expressway deck truss bridge and the following movable bridges: Intracoastal Waterway Bridge at Ellenders (**vertical lift**), LA 654 over Bayou LaFourche (**vertical lift**), LA 657 over Bayou LaFourche (**vertical lift**), LA 319 Intracoastal Canal Bridge (**bascule**), LA 83 over Patout Bayou |

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| | (**swing**), Local Road over Bayou Terrebonne (**swing**), Bridge over Bayou Teche at Adeline (**swing**). He performed inspections, load ratings, and developed load rating reports. He also led the efforts to analyze several bridges with unique configurations and high complexities. During his performance of the work, he has utilized several structural analysis software packages including LUSAS, MIDAS Civil and AASHTOWare BrR for structural analysis, validations, and load ratings. |
| 10/16-11/17 | **3rd Street Movable Bridge Load Rating and Rehabilitation, San Francisco, CA (City of San Francisco) –** Served as the lead for superstructure load rating of this Strauss Bascule truss bridge. Using LUSAS software, he performed a detailed 3-D Finite Element analysis of the bridge which has unique configurations of traffic lanes and sidewalks. He also performed structural analysis and generated governing load cases for truss member, floor beam, stringers and gusset plate ratings. |
| 09/14-03/15 | **Bayou Lafourche Movable Bridge Inspections, Lafourche Parish, LA (off-system bridge inspections)** – Served as Bridge Engineer for the special emergency inspections of two pontoon off-system bridges. He led the inspection teams, reviewed as-built plans, performed inspections, and developed repair recommendation and cost estimates based on the bridge conditions. |
| 09/15-11/15 | **S.P. No. H.002562 -- Bayou Lafourche Movable Bridge Rehabilitation, St Bernard Parish, LA** – Bridge Engineer for the design of the new operator's house as part of the vertical lift bridge rehabilitation. He designed the elevated operator's house foundation slab supported on battered piles with consideration of hurricane surge related load conditions. |
| 05/07-08/07 | **MLK Jr. Bridge over Maumee River Rehabilitation, Toledo, OH -** Performed Finite Element analysis on the MLK Jr. bascule bridge using in house Finite Element software during the post-design phase. Analyzed the structural panel for the reduced counter-weight load cases to ensure the current structure meeting temporary operation requirements. |
| 11/19-10/20 | **Contract No.: 4400004920 (H.012485.1), Off-system Bridge Load Rating (DOTD)** - Technical lead for the load rating of more than 400 **off-system bridges**. He performed load rating, QC/QA of the load rating for superstructure and substructures, develop load rating reports, and propose repair options for bridges with posting drop. |
| 11/07-08/08 | **S.P. No. 006-01-0018 - Huey P. Long Mississippi River Bridge Widening, Jefferson Parish, LA (DOTD)** – Performed structure modeling of both the existing and widened truss; reviewed existing shop drawings; assisted with determining the existing truss geometry and performed camber analysis for fabrication of the widening truss. Led the truss monitoring task during the truss erection. Worked closely with bridge monitoring teams, and predicted truss member stresses under calibration loads, dead loads and erection loads for various construction stages. |
| 08/10-05/14 | **Phill G. McDonald Bridge of I-64 over Glade Creek, Raleigh County, WV (WVDOH) -** Served as the structural lead for the truss analysis, gusset plate rating, and bridge monitoring for this structure which is one of the highest deck truss bridges in the world (560'-784'-560' spans). He performed a detailed 3-D Finite Element analysis of the bridge using LUSAS software, generated governing load cases for gusset plate ratings, developed a rating spreadsheet in accordance with FHWA publications for gusset plate rating, and quality controlled the final rating report. He also led efforts to develop bridge monitoring schemes, deploy sensors, and perform data analysis and interpretation for the purpose of diagnosing and rehabilitating abnormal bridge expansion and racking. He performed quality control reviews of the final plans for rehabilitation design. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Dong Wang, Ph.D., S.E., P.E.** | Years of experience with this employer | 9.5 |
| Title | Civil/Structural Engineer | Years of experience with other employer(s) | 0 |
| Degree(s) / Years / Specialization | Ph.D. / 2014 / Civil Engineering<br>M.S. / 2009 / Structural Engineering<br>B.S. / 2007 / Engineering Mechanics | | |
| Active registration number / state / expiration date | #PE.0042845 / LA / 03-31-2025 | | |
| Year registered | 2018 (PE of LA)<br>2020 (SE of LA) | Discipline | Civil/Structural Engineering<br>**Other Pertinent Training / Certifications**<br>FHWA-NHI-130092-Fundamentals of LRFR for Bridge Superstructures, 2015<br>LADOTD AASHTOWare Bridge Rating Fundamentals Training<br>FHWA-NHI-130081-LRFD for Highway Bridge Superstructures, 2022<br>FHWA-NHI-130126-Strut-and-Tie Modeling (STM) for Concrete Structures, 2022<br>FHWA-NHI-134001-Principles and Applications of Highway Construction Specifications, 2023<br>FHWA-NHI-130102-Engineering for Structural Stability in Bridge Construction, 2024 |
| Contract role(s) / brief description of responsibilities | **Bridge Design / 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 years of experience specified in the applicable MPR(s). |
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| 11/22-12/22;<br>04/24-05/24 | **ODOT, PID 116592/TRC 491195 – Statewide Load Rating, OH –** Load rater for the performance of LRFR and LFR ratings of steel beam and plate girder bridges. Completed the rating of a bridge with multiple doglegs on a curved alignment with variable flares rated in midas Civil and pegged to a BrR line girder. QC check the load ratings performed by AASHTOWare BrR. |
| 04/23-08/23 | **TIDD Bridge Load Rating, Brilliant, OH (Private Client)** – TRC was assigned the deck replacement design and load rating for a 7-span, 400' long bridge. Dr. Wang developed the 3D FEA modeling of the bridge using midas Civil. The superstructure (the main girders, floorbeams, stringers) and substructure (the columns) were both included. |
| 03/23-08/23 | **Bridge Load Rating, US DOE** – Performed load rating using AASHTO BrR and midas Civil on six bridges of different types. Members that were rated consisted of the steel beams, grid deck, voided concrete box beams, and arch culvert. |
| 05/23-06/23 | **Timber Bridge Load Rating, Cameron Parish, LA (Private Client)** – Performed load rating on the super/substructure of two timber bridges using AASHTOWare BrR and midasCivil. |
| 06/22-09/22 | **ODOT, HAS-151-04.85 – SR 151 over the Columbus & Ohio River Railroad, Harrison County, OH** – The project involved replacement of a curved six-span bridge over the CUOH Railroad. The bridge was curved and highly skewed to the railroad. An integral straddle bent and a refined analysis were required. Dr. Wang assisted with the midas Civil modeling of the bridge which encompassed both the superstructure and straddle bent. |
| 06/21-12/21 | **Contract No. 4400020156 (H.011965.5), LA 47 IWGO Bridge Rehabilitation, New Orleans, LA (DOTD) -** Bridge engineer responsible for an inspection of the bridge and rehabilitation design for the steel plate girder spans. Generated plan sheets for the rehabilitation of various bridge components of the steel plate girder spans, including concrete barrier, drainage trough, stiffener, cross-frame, lateral bracing, and girder splice. |
| 10/21 | **Elevated Pedestrian Walkway Load Rating, US DOE** – Performed load rating using AASHTOWare BrR for the superstructure (main girders and transverse supporting beam) and substructure (steel column) members. |

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| 02/21-04/21 | **Broadmore Bridge Inspection and Special Haul Load Rating, Lake Arthur, LA (Private Client)** – Load rating engineer responsible for the load rating of a concrete slab off-system bridge for special hauling vehicles. He used AASHTO BrR for the concrete superstructure, load rated the timber piles and concrete caps, and issued posting recommendations. |
| 02/20-12/20 | **Contract No. H.012485.1, Load Rating of 426 Off-System Bridges, Statewide, LA (LADOTD) –** Load rating engineer responsible for the load rating of **346 off-system bridges** (COSLAB, COPCSS, concrete and steel girders). He performed the LRFR load rating analyses using AASHTOWare BrR and other software for the superstructures and substructures (timber and concrete piles). He developed influence lines and models for the cap and pile elements. He performed the quality control for the load rating calculations and analysis models rated by fellow engineers. |
| 07/18-10/20 | **Walter O. Bigby Carriageway Bridge – Bossier City, LA (City of Bossier City)** – Load rating engineer for the load ratings of steel girder spans and prepared the load rating report. Checked the load rating of one pile bent. As served as a Bridge engineer responsible for designing and detailing the bridge deck overhang, bearing pads, pile bents and abutments. Checked the modeling and design of steel girder spans. Performed stability analysis of steel girder spans. Prepared quantities and design calculation books. |
| 06/16-08/19 | **Contract No. 4400004920 (H.009859.5), Complex Load Rating and Inspection, Statewide, LA (DOTD)** – Load rating engineer responsible for completing the complex load rating of truss and movable bridge superstructure elements of the LA 47 IWGO Bridge (tied arch/deck truss), LA1 over Atchafalaya River Bridge (truss), LA 27 over ICWW Bridge (vertical lift), LA 654 Bayou Lafourche Bridge (vertical lift), LA 83 Patout Bayou Bridge (swing), LA 319 Intracoastal Bridge (bascule), St. Ann Bridge over Bayou Terrebonne (swing) and US 90 Riverbound Expressway Bridge (deck truss/plate girder). Work was completed using the load rating provisions in the current AASHTO Manual for Bridge Evaluation and the DOTD Policies and Guidelines for Bridge Rating and Evaluation. Developed the AASHTOWare BrR load rating, MIDAS/Civil modeling, and Excel/MathCAD data processing. Wrote portions of the load rating reports. |
| 07/19 | **BEL-70-2684C Bridge Load Rating, Ohio Department of Transportation, Statewide, OH** – Load rating engineer responsible for load rating of the BEL-70-2684C bridge. He used AASHTO BrR for the superstructures and provided posting recommendations |
| 05/19-06/19 | **Off-system Bridge Load Rating, South Carolina Department of Transportation, Statewide, SC** – Load rating engineer responsible for the load rating of **several off-system bridges** in South Carolina. He used AASHTO BrR and LRFR for the concrete superstructures, load rated the substructure elements, and issued posting recommendations. |
| 10/17-02/18 | **Mississippi Department of Transportation, Office of State Aid, Bridge Inspection and Off-system Load Rating Contract** – Load rating engineer for load rating the concrete and timber superstructure elements and substructure elements of off-system bridges in accordance with AASHTO MBE. He used AASHTOWare BrR for the analysis of the superstructure elements. |
| 07/15-03/16 | **Contract No. 4400002791, (H.009859.5), LA 1 Port Allen Canal Bridge, West Baton Rouge Parish, LA (DOTD) –** Bridge engineer responsible for preliminary design of steel girder spans, PCC girder spans, and column bents. Performed quantity calculations, CAD drawings for GP&E sheets, typical sections, framing plan and foundation plan. Performed the QC for vertical clearance calculations. |
| 05/15-11/15 | **Contract No. 4400002791 (H.003495 & H.011111), I-49 & I-220 Interchange, Caddo Parish, LA (DOTD)** – Load rating engineer responsible for developing and performing the AASHTOWare BrR load rating for the I-49 over MLK Bridge, including writing of the load rating report. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Nichole Caiazzo, P.E.** | Years of experience with this employer | 9 |
| Title | Bridge Engineer | Years of experience with other employer(s) | 7 |
| Degree(s) / Years / Specialization | | B.S., 2008, Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0041078 / LA / 03-31-2025 | |
| Year registered | 2016 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>FHWA-NHI-130092 - Fundamentals of LRFR for Bridge, 2016<br>FHWA-NHI-132082 - LRFD for Highway Bridge Substructures, 2018<br>FHWA-NHI-132010B - LRFD for Foundation Design, 2018 |
| Contract role(s) / brief description of responsibilities | | | **Bridge Design / 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 years of experience specified in the applicable MPR(s). |
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| 09/21-11/21 | **City of Bossier City, Walter O. Bigby Carriageway – Bossier City, LA -** Bridge Engineer responsible for the review of shop drawings for a steel girder superstructure included in the design. The structure encompassed a new 1,550-foot, 10-span bridge consisting of a horizontally curved, haunched 4-span steel plate I-girder main span continuous unit over the Union Pacific Railroad and prestressed concrete bulb tee approach spans. |
| 11/19-12/20 | **Contract No. 4400004920 (H.012485.1), Complex Off-system Bridge Rating and Evaluation, Statewide, LA (DOTD) –** Load rating engineer responsible for inspection and load rating of 346 off-system bridges (COSLAB, COPCSS). She performed load rating analysis using LRFR with AASHTOWare BrR for the superstructures and substructures (timber and concrete piles). She provided repair recommendations for bridges with 3 ton or closure ratings. |
| 04/16-06/19 | **Contract No. 4400004920 (H.009859.5) On-system Complex Load Rating, Statewide, LA (DOTD) –** Bridge Engineer for the load rating of movable and complex truss bridges using AASHTOWare BrR in accordance with the AASHTO Manual for Bridge Evaluation (MBE), using the Load Resistance Factor Rating (LRFR) method, and the DOTD Policies and Guidelines for Bridge Rating and Evaluation. She load rated reinforced concrete slab approach spans and open steel grid deck along the portion of the main span, stringers and floorbeams in the main span, and reinforced concrete bent caps. She used AASHTOWare BrR, CONSYS software and Mathcad hand calculations to load rate the open steel grid deck, floorbeams, stringers, and concrete bent caps. Developed influence lines for existing and new girders and hammerhead bent cap using AASHTOWare BrR software. Load rated bridges include LA 670 over Bayou Teche (swing bridge), LA 47 over IWGO (tied arch, deck truss, steel & concrete girder, concrete slab), U.S. 90 Business (Riverbound Expressway) (deck truss and steel plate girder, floorbeams, stringers, gusset plates), I-220 over Russell Road (steel plate girders). |
| 05/23-Present | **Ohio Department of Transportation, Statewide Load Rating -** Performing checks and load rating of reinforced concrete slab bridges using AASHTOWare BrR software. |
| 05/19-12/21 | **South Carolina Department of Transportation, Bridge Load Rating and Evaluation Services – District 4, SC -** Engineer-of-Record, load rater and reviewer responsible for reviewing as-built plans, recent inspection reports and completing load capacity ratings and related tasks for 60 on- and off-system bridges consisting of steel plate girder, prestressed cored slab, reinforced concrete flat slab and reinforced concrete precast panel superstructures. Load rating was performed using AASHTOWare BrR in accordance with the SCDOT Load Rating Guidance Document and AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) and Load Factor Rating (LFR) methods. Led the load rating QA process. |

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| 08/18-09/19 | **I-70 Bridges Rehabilitation, Ohio County, WV and Belmont County, OH -** Project involved the rehabilitation/replacement of 26 bridges along I-70 Bridge using cursory inspection information, discussions with the WVDOH and analysis to establish rehabilitation efforts in accordance with WVDOH/ODOT manuals and standards. Performed design and analysis in accordance with AASHTO LFD Standard Specifications for analysis of existing bridges and LRFD for new bridges and repairs of existing bridges. Tasks for this project included: I-70 (EB & WB) over Wheeling Creek: Responsible for using RC-Pier for the substructure analysis of two (2) bridges consisting of a 7-span steel plate girder superstructure supported by reinforced concrete abutments with steel piles, multi-column piers on spread footings with steel piles, multi-column piers on caissons and spread footings with concrete piles and multi-column piers with a crash wall on spread footings. Bearings were replaced at all expansion piers and the cap was built-up at the overhang to resolve existing shear issues. Current and proposed thermal loads were modeled to compare cap, column and footing deficiencies. I-70 (EB & WB) over Wheeling Creek: Bridge engineer responsible for using RC-Pier for the abutment analysis and checking the pier analysis of these two (2) bridges consisting of a 3-span steel plate girder superstructure supported by reinforced concrete abutments with steel piles and wall piers with spread footings. I-70 over Wheeling Creek (BEL-70): Bridge engineer responsible for using RC-Pier for the pier analysis of this bridge consisting of a 7-span steel beam superstructure supported by multi-column piers with some caissons (wider columns) on spread footings with steel piles. The superstructure changed from 13 to 10 beams and the bearings were replaced. |
| 04/19-12/20 | **South Carolina Department of Transportation, SCDOT Bridge Inspection and Evaluation Services** – Engineer-of-Record and load rater responsible for reviewing as-built plans, recent inspection reports and completing load capacity ratings and related tasks for 10 on- and off-system bridges consisting of prestressed concrete beam, reinforced concrete tee beam and steel plate girder superstructures. Load rating was performed using AASHTOWare BrR in accordance with the SCDOT Load Rating Guidance Document and AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) and Load Factor Rating (LFR) methods. |
| 05/18-07/18 | **West Virginia Department of Transportation-Division of Highways, Henrietta Bridge Renovations, Calhoun County, WV** - Bridge engineer responsible for reviewing the load rating of the 3-span superstructure replacement consisting of continuous steel beams superstructure on repaired substructure. Load rating was performed using MDX in accordance with the AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) method and the WVDOH Bridge Design Manual. |
| 03/17-11/18 | **West Virginia Department of Transportation-Division of Highways, Rock Creek Development, Boone County, WV** - Bridge engineer responsible for load rating this new 5-span prestressed concrete I-beam superstructure with concrete integral abutments on steel piles and concrete multi-column piers with drilled caissons. She developed detailed load rating sheets for the design plans as required by the WVDOH. The load rating was performed using AASHTOWare BrR in accordance with the AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) method and the WVDOH Bridge Design Manual. |
| 02/09-12/12 | **Virginia Department of Transportation, Bridge Load Rating - Statewide, VA** - Bridge engineer assigned to perform the load rating of over 200 existing bridges using Virtis in accordance with the AASHTO Manual for Bridge Evaluation (MBE) using the Load Resistance Factor Rating (LRFR) and Load Factor Rating (LFR) methods as specified by VDOT Guides and Instructional and Informational Memoranda. The bridge types including steel rolled beam and girder, prestressed box and I-beam, prestressed slab, reinforced concrete slab and tee beam, and timber superstructures. Developed the Virtis Software training and load rating instruction, references, project setup and procedures for VDOT load rating. |

## 16. Staff Experience:

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| Firm employed by | TRC Engineers, Inc. | | |
| Name | **Meiwen Guo, PhD, P.E.** | Years of experience with this employer | 1.5 |
| Title | Senior Structural Engineer | Years of experience with other employer(s) | 23 |
| Degree(s) / Years / Specialization | | Ph.D. / 1995 / Structural Engineering<br>M.S. / 1988 / Structural Engineering<br>B.S. / 1982 / Civil Engineering | |
| Active registration number / state / expiration date | | # PE.0038847 / LA / 03-31-2025 | |
| Year registered | 2014 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Bridge Design** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 11/21-09/23 | **I-405, Renton to Bellevue Widening and Express Toll Lanes Project, Seattle, WA -** Led the design efforts in retaining wall final design. Wall types include CIP wall, MSE wall, and soldier pile wall (cantilever and tied). |
| 08/20-03/21 | **SR-417 Widening Narcoossee Road to SR 528 (Sign Structures), Orlando, FL -** The main task involved design of median uprights supporting tri-chord sign trusses in both bounds. The client provided standard plans that had never been used before with major flaws. For instance, the sign trusses were connected to web members of the median upright frame which is parallel to roadway with details unable to transfer axial forces of truss chords, while the sign trusses are designed assuming moment connections at both ends. Redeveloped the truss-upright connection concept, performed structural design, and generated 60% and 100% plans for median upright frames and their foundations. |
| 08/19-07/20 | **JFK International Airport Project, New York City, NY –** Project involved the design of seven bridges around the new Terminal 1. All structures are plated girder bridges mostly with steel integral bent caps. Participated in the preliminary design of superstructures and 60% design of foundations, including columns and foundations that each supported three bridges at two levels. Developed connection concepts of outrigger caps and seismic details of pile cap and columns. |
| 07/16-10/18 | **Purple Line P3 Project, Montgomery and Prince George's Counties, MD -** Designed and detailed a 190-foot single span steel trapezoidal box girder bridge. Four requirements made this signature bridge unique: 1) Vibration Control: Without dynamic analysis under train traffic, the natural frequency for vertical vibration shall not be less than 2.5Hz; 2) Aesthetics: the girders shall look like an arch in elevation view which complicates design and detailing; 3) Internal Redundancy: the girders are designed and detailed as Fracture Critical Member (FCM), internal redundancy are required as well; 4) Rail-Structure Interaction (RSI): RSI analysis was required and effects of RSI shall be considered in design. Among other involvement on the project involved in stress evaluation of Direct Fixation Fasteners on a tightly curved steel bridge. |
| 09/14-06/15 | **SH183 Segment 2 Design-Build Project, Dallas, TX -** Reviewed the substructure design and drawings for a 26-span structure. Designed and detailed multi column bent, hammer head bent, post tensioned C bent, and post-tensioned straddle bent with inverted T cap on another structure. |
| 06/11-08/12 | **118th Avenue Project, Pinellas Park, FL -** The project connects US-19 to Roosevelt Boulevard over 118th Ave. Worked on superstructures of two key bridges: a spliced BT girder unit on the 118th Avenue Viaduct, and a 12 span steel box girder flyover. The spliced girder unit is three span with length of 511ft. This task involved staged construction analysis, erection sequence; pre-stressing strand and post-tensioning tendon layout; precast segment stress and strength, closure stress and strength during construction and after completion, and PT anchorage. The span length of the steel box girder bridge varies from 140 ft to 302 ft. In addition to girder design, this work involved design of field splices, cross members, lateral bracings, stiffeners, bearings, expansion joints, and erection sequencing. The project was canceled in August 2012 prior to 90% submittal and became part of the Gateway project. |

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| 04/13-08/14 | **I-49 North Segment K Project, Shreveport, LA -** The main component of this $175 million project was the I-49/I-220 interchange. All three ramp structures on the project have a typical span around 245 ft. Developed preliminary design and plans for one C-bent and two PT straddle bents and carried thru 60% submittal. Designed and developed drawings for a 127 ft cast-in-place end span that is a double cell box with a tapered deck variable width. |
| 01/14-07/14 | **Rehabilitation of US-190 Bridge over the Mississippi River, Baton Rouge, LA -** This through truss bridge carries rail traffic between two trusses and two highway lanes in each overhangs on floor beam outriggers. Most of the repair needs were under the deck. In addition to structural safety during repair, the challenge was construction access, taking out existing components and bringing in replacement within rail traffic down window while highway lanes are still open. Developed design and details for structural steel repair that include: tower column base repair; anchor bolt replacement; bearing replacement; strengthening of severely corroded gusset plates and lower lateral bracings. |
| 08/10-03/11 | **US460 Connector Design-Build Project, Buchannan, VA -** The main component of the project was the 1,700 ft Grassy Creek Twin Bridge. The CIP segmental spans are 269 ft - 489 ft - 489 ft - 269 ft long designed by Janssen & Spaans. Performed independent review of the superstructure design. Developed a finite element global model for staged construction analysis to check the longitudinal design, and two transverse models to check deck design. LARSA was used on this task. |
| 12/08-08/09 | **I-15 Widening Design-Build Project, Salt Lake City, UT -** This $200 million project is location right north of downtown SLC, the first project in the U.S. on which bridges were designed operational for a major earthquake event. Checked abutment design including seismic analysis. Developed details for diaphragms, shear keys and modular expansion joints, and designed foundations for sign structures and high mask light poles. |
| 11/07-05/08 | **I-15 North Corridor Design-Build Project, Las Vegas, NV -** Led the efforts in design and detailing of a three span box girder superstructure, including design for longitudinal flexure, transverse (overhang and deck slab), webs (shear), diaphragms, anchorages, and bearings. |
| 06/08-09/08 | **Golden Ears Bridge P3 Project, Vancouver, BC, Canada –** Involved in a major design change fora simple span plate girder bridge on a sharp curve, after the girders had been fabricated. The original design was based on line girder run. Grillage analysis predicted that the differential deflection between the outside and inside girders would be as much as 19 inches. To reduce the differential deflection, top and bottom flange lateral bracings were added. To minimize size of lateral bracings, the lateral diagonal bracings are oriented such that they are subject to net tension only. |
| 12/98-10/07 | **Antelope Valley Revitalization Project, Lincoln, NE -** The traditional project is near downtown Lincoln along the Antelope Creek. There are total of 10 new highway bridges and one railway bridge (replacement). Among them are eight post-tensioned slab bridges, one P/S beam bridge, one rolled beam (rail road) bridge, and one plate girder bridge. Mr. Guo worked on this project from conceptual design to final construction submittal. A key component of the project was the East Leg Bridge, a 1080 ft five span plate girder bridge on an “S” shaped alignment which brings six lanes from one side to the other side of a four track railroad corridor that is parallel to the roadway in general. Carried out steel design and detailing efforts, including a 124 ft steel box integral cap that straddles the rail tracks. A paper was presented at the 2009 World Symposium of Steel Bridges about this bridge. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | |
| Name | **Bryan T. Bunch, PLS** | Years of experience with this employer | 15.5 |
| Title | Executive Vice President | Years of experience with other employer(s) | 15 |
| Degree(s) / Years / Specialization | | B.S. / 1988 / Survey and Land Information Systems | |
| Active registration number / state / expiration date | | #PLS.0005014 / LA / 03-31-2026 | |
| Year registered | 2009 | Discipline | Surveyor |
| Contract role(s) / brief description of responsibilities | | **Survey Task Leader (satisfies MPR #4)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 01/22-07/24 | **H.001779, Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for Static GPS Control surveys, **topographic surveys**, property surveys, surveys in support of QL A, B, C, & D utility designating/locating, title take-offs, description preparations, and preliminary and final right-of-way mapping for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 09/20-07/24 | **4400019337, Rural Bridge Replacement Initiative Phase II, Districts 05, 08 & 58 -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for Static GPS Control surveys, **topographic surveys,** property surveys, surveys in support of QL C & D subsurface utility services, title take-offs, description preparations, and preliminary and final right-of-way mapping for 34 bridge and culvert replacements as a sub-consultant. |
| 09/20-07/24 | **4400019338, Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61 & 62 -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for Static GPS Control surveys, **topographic surveys**, property surveys, surveys in support of QL C & D subsurface utility services, title take-offs, description preparations, preliminary and final right-of-way mapping for 21 bridge and culvert replacements as a sub-consultant. |
| 07/23-07/24 | **4400025041, IIJA Off-System Bridge Program, District 62 -** Quality control surveyor assisting with the staffing, coordination, and QA/QC for Static GPS control surveys, **topographic surveys**, property surveys, title take-offs, legal description preparation, and preliminary and final right-of-way mapping in support of bridge replacements. |
| 12/17-07/24 | **H.004100.5, I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for **topographic surveys**, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway. Task Orders continue to be assigned in additional areas as needed in conjunction with the on-going design-build contract. |
| 04/22-04/23 | **4400017713, Monkhouse to I-49, Caddo Parish, LA -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for Static GPS Control, **topographic surveys**, surveys in support of QL C & D subsurface utility services, drainage map preparation, and Mobile Laser Scanning for interstate rehabilitation. |
| 12/20-03/22 | **4400017713, LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for **topographic** and hydrographic surveys and surveys in support of QL C & D subsurface utility services for bridge repair/ rehabilitation. |
| 03/21-03/22 | **City-Parish Ward Creek at Siegen Lane, East Baton Rouge Parish, LA (22-DR-US-0013) -** Survey project manager responsible for managing field crews and technicians for control, **topographic**, and property surveys along with QL B, C, and D subsurface utility designating for approximately 1,500 feet of Ward Creek. |

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| 05/15-12/20 | **City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA -** Quality control surveyor responsible for supervising south LA field crews and technicians for Static GPS Control surveys, **topographic**, property, and hydrographic surveying services, and QL A, B, C, and D subsurface utility designation/locating for a parkway facility design featuring new roads, additional lanes, roundabouts, and a bridge. |
| 12/18-01/20 | **H.013643, LA 951: Roadway Washout Repairs, East Feliciana Parish, LA -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for **topographic surveys**, QL A, B, C, and D subsurface utility designating/locating, and surveys in support of QL A, B, C, and D subsurface utility designating/locating for approximately 2,600 feet. |
| 11/15-05/17 | **DEC 15-11-03, Bossier Parish Police Jury, Winfield Road Extension, East/West (LA 3 to Airline Highway) Bossier Parish, LA -** Quality control surveyor responsible for assisting in the staffing, coordination, and QA/QC for control surveys, **topographic surveys**, property surveys, right-of-way mapping, QL D subsurface utility services, and drainage map preparation as a sub to Denmon (Volkert). |
| 10/15-07/16 | **4400005142 & H.011309.5, MacArthur Interchange Completion Phase II, Route US 90-Z, Jefferson Parish, LA -** Survey project manager responsible for directing field crews, file processing, drafting, and submittals for **topographic surveying** services for a new roadway connection as a sub-consultant to SDR Engineering. |
| 05/13-10/15 | **Bossier Parish Police Jury, Kingston Road Improvements and Development, Bossier Parish, LA -** Quality control surveyor responsible for assisting in the staffing, coordination, and QA/QC for **topographic surveys**, property surveys, final right-of-way mapping, and drainage map preparation for the use in engineering plan and specifications. |
| 04/15-09/15 | **4400001798 & H.011094.5, LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA -** Quality control surveyor responsible for assisting in the staffing, coordination, and QA/QC for **topographic surveying services,** drainage map preparation, and QL B subsurface utility designating for bridge rehabilitation. |
| 02/14-03/15 | **H.004367.5, Earhart Expressway Extension to US 61, Route LA 3139, Jefferson Parish, LA -** Project manager responsible for directing survey crews, file processing, drafting, and submittals for **topographic surveying** services and surveys in support of QL A, B, C, and D subsurface utility designating/locating for an overpass connection, relocation of existing lanes, and construction of additional lanes. |
| 07/12-01/14 | **H.003074.5 & H.009087.5, I-10 Loyola Ave. to Williams Blvd., Jefferson Parish, LA -** Project manager responsible for directing survey crews, file processing, drafting, and submittals for **topographic surveying** services and surveys in support of QL A, B, C, and D subsurface utility designating/locating for interstate rehabilitation as a sub-consultant to GEC, Inc. |
| 07/10-10/12 | **700-03-0125 & 701-65-1538, LA 42 Widening and Improvements District 61, Ascension Parish, LA -** Project surveyor responsible for directing **topographic** and property surveys and title work to locate all existing structures within 50 feet of proposed right-of-way. Bryan also managed the preparation of right-of-way acquisition maps for 165 parcels. |
| 01/12-04/12 | **4400001798 & H.009836.5, I-12 Walker to Satsuma, Livingston Parish, LA -** Project surveyor responsible for assisting in the supervision of survey crews, file processing, drafting, and submittals for **topographic surveying** services and surveys in support of QL B, C, and D subsurface utility designating for interstate rehabilitation. |
| 05/11-11/11 | **4400000681 & H.002230, Goose Bayou Bridge Replacement, Route LA 45, Jefferson Parish, LA -** Project surveyor responsible for directing property surveys, title research, and preparation of base and final right-of-way mapping. |
| 02/11-08/11 | **H.003860.5 & 700-99-0525, I-20 Rehabilitation Westerfield Avenue to Industrial Drive, District 04, Bossier Parish, LA -** Project surveyor responsible for assisting in the supervision of south LA survey crews, file processing, drafting, and submittals for **topographic surveying services** and surveys in support of QL B, C, and D subsurface utility designating for interstate rehabilitation. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | |
| Name | **Mike King, PLS** | Years of experience with this employer | 18 |
| Title | Vice President | Years of experience with other employer(s) | 2 |
| Degree(s) / Years / Specialization | | B.S. / 2012 / Construction Management | |
| Active registration number / state / expiration date | | #PLS.0005127 / LA / 09-30-2025 | |
| Year registered | 2015 | Discipline | Professional Surveyor |
| Contract role(s) / brief description of responsibilities | | **Topographic Surveys (satisfies MPR #4)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 09/20-07/24 | **LADOTD IDIQ Contract for Hydrographic Surveying Services, Statewide, LA (4400019715) -** Assistant project manager assisting with the management of field crews, file processing, drafting, and submittal preparation for **single beam and multibeam hydrographic surveying services** for multiple bridges at scheduled intervals upstream and downstream for 289 sites to-date throughout southern districts. |
| 01/22-07/24 | **LADOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779)** - Assistant project manager assisting in the management of field crews and technicians for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, description preparations, preliminary and final right-of-way mapping, and surveys in support of QL A, B, C, & D utility designating/locating for this design-build project. |
| 08/21-07/24 | **LADOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) -** Assistant project manager assisting in the management of field crews and technicians for Static GPS Control surveys, **topographic surveys**, property surveys, surveys in support of QL C & D subsurface utility services, title take-offs, description preparations, and preliminary and final right-of-way mapping for 34 bridge and culvert replacements as a sub-consultant. |
| 04/21-07/24 | **LADOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) -** Assistant project manager assisting in the management of field crews and technicians for Static GPS Control surveys, topographic surveys, property surveys, surveys in support of QL C & D subsurface utility services, title take-offs, description preparations, and preliminary and final right-of-way mapping for 21 bridge and culvert replacements as a sub-consultant. |
| 12/17-07/24 | **LADOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (H.004100.5) -** Assistant project manager assisting in the management of field crews and technicians for topographic surveys, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway. Task Orders continue to be assigned in additional areas as needed in conjunction with the ongoing design-build contract. |
| 04/22-04/23 | **LADOTD Monkhouse to I-49, Caddo Parish, LA (4400017713)** - Assistant project manager responsible for assisting in the management of field crews and technicians for Static GPS Control, topographic surveys, surveys in support of QL C & D subsurface utility services, drainage map preparation, and Mobile Laser Scanning for interstate rehabilitation. |
| 11/22-12/22 | **ThermalTech Ouachita River Hydrographic Survey, Ashley County, AR (13004.330) -** Assistant project manager under the direction of Grant Gilleon. Assisted with management of field crews, file processing, drafting, and submittal preparation for **multibeam hydrographic surveying services** to obtain elevations throughout the channel length along the Ouachita River from Monroe, Louisiana to Crossett Harbor west of Crossett, Arkansas. |
| 07/22-07/22 | **KZJV Plaquemines Parish Hydrographic Survey, LA (000078-574141) -** Assistant project manager under the direction of Grant Gilleon. Assisted in the management of field crews and technicians for **multibeam hydrographic surveying services** including side scan sonar in the vicinity of the Plaquemines LNG Plant near a proposed Firewater Platform along the south end of the Mississippi River to confirm the depths beneath the platform and river water pumps. |

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| 12/20-03/22 | **LADOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA (4400017713) -** Assistant survey project manager for the management of field crews and technicians for **topographic surveys**, surveys in support of QL C & D subsurface utility services, and a **multibeam hydrographic survey** of the bridge structure piers to determine scour impact for bridge repair/ rehabilitation. |
| 07/20-11/21 | **LADOTD IDIQ Contract for Hydrographic Surveying Services Statewide, LA (4400012669) -** Assistant project manager for the management of field crews, file processing, drafting, and submittal preparation for **single beam and multibeam hydrographic surveying** services for multiple bridges at scheduled intervals upstream and downstream for 320 sites throughout southern districts. |
| 05/15-12/20 | **City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA (City Proj. No. 8-15) -** Quality control surveyor for the review of data and drafting for Static GPS Control surveys; **topographic**, property, and **hydrographic surveying services**; and surveys in support of QL A, B, C, and D subsurface utility designation/locating for a parkway facility design featuring new roads, additional lanes, roundabouts, and a bridge. |
| 10/20-11/20 | **Caddo Lake Hydrographic Profile Survey, Caddo Parish, LA (Agency Proj. No. Unknown)** - Assistant project manager under the direction of Grant Gilleon. Assisted with management of field crews, file processing, drafting, and submittal preparation for **single beam hydrographic surveying services** in support of a directional bore design. The crew obtained a cross section of the lake parallel to the LA Hwy. 1 bridge determining depths and elevations at 20' intervals for a total distance of 1,100 feet. |
| 04/15-02/16 | **LADOTD I-20 (Airline Drive to I-220) Bossier Parish, LA (4400005532 & H.011319.5) -** Quality control surveyor responsible for the review of data and drafting for **topographic surveying services** associated with an interstate rehabilitation. |
| 10/15-12/15 | **LADOTD Caddo Lake Bridge, Route LA 1 Caddo Parish, LA (H.01166.5) -** Quality control surveyor for the review of data and drafting for **topographic surveys** performed along a portion of the existing route of LA Hwy. 1 for a proposed bridge replacement at the intersection of Caddo Lake and LA Hwy. 1 in Caddo Parish east of Mooringsport. |
| 05/13-10/15 | **Bossier Parish Police Jury, Kingston Road Improvements and Development, Bossier Parish, LA (Proj. No. Unknown) -** Sr. party chief/technician. Ran a field crew and downloaded data for **topographic surveys**, property surveys, final right-of-way mapping, and drainage map preparation for use in engineering plan and specifications. |
| 04/15-09/15 | **LADOTD LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA (4400001798 & H.011094.5) -** Quality control surveyor. Reviewed data and drafting for **topographic surveying services** and surveys in support of QL B subsurface utility designating for bridge rehabilitation. |
| 07/14-02/15 | **LADOTD LA 16 Amite Drainage Improvements, Route LA 16, Tangipahoa Parish, LA (4400001798 & H.009425.5) -** Survey party chief/technician. Ran a field crew and downloaded/processed data for **topographic** and **single beam hydrographic surveying** services for drainage improvements. |
| 07/12-01/14 | **LADOTD I-10 Loyola Ave. to Williams Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) -** Sr. survey party chief/technician. Managed a survey crew and processed data for **topographic surveying** services and surveys in support of QL A, B, C, and D subsurface utility designating/locating for an interstate rehabilitation. |
| 04/13-09/13 | **LADOTD LA 506 Castor Relief Bridges, Route LA 506, Caldwell Parish, LA (345-03-0029, 400001798, & H.002650.5)** Survey party chief/technician. Ran a field crew and downloaded/processed data for t**opographic** and **single beam hydrographic surveying services** for use as basis for engineering design for the replacement or rehabilitation of 7 bridges. **Hydrographic surveys** were performed as related to the creeks and tributaries crossing beneath the 7 bridges along the project route. |
| 07/10-10/12 | **LADOTD LA 42 Widening and Improvements, District 61, Ascension Parish, LA (700-03-0125 & 701-65-1538) -** Survey party chief/technician. Ran a field crew and processed data for **topographic** and property surveys in support of base and final right-of-way mapping, and title work. |
| 02/11-08/11 | **LADOTD I-20 Rehabilitation Westerfield Avenue to Industrial Drive, District 04, Bossier Parish, LA (H.003860.5 & 700-99-0525) -** Survey party chief/technician. Managed a survey crew and processed data for **topographic surveying services** and surveys in support of QL B, C, and D subsurface utility designating for an interstate rehabilitation. |
| 09/09 – 03/10 | **LADOTD Lawrence, Bogalusa, and Coburn Creek Bridges, Route LA 10, Washington Parish, LA (700-99-0484 & 701-65-1347) -** Survey party chief/technician. Ran a field crew and processed data for **topographic** and property surveys in support of title work, title updates, title take-offs, and right-of-way map preparation. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | |
| Name | **Paul Rossini, PLS** | Years of experience with this employer | 37 |
| Title | CEO/ Principal | Years of experience with other employer(s) | 7 |
| Degree(s) / Years / Specialization | | High School Diploma, 1980 | |
| Active registration number / state / expiration date | | #PLS.0004731 / LA / 09-30-2026 | |
| Year registered | 1994 | Discipline | Surveyor |
| Contract role(s) / brief description of responsibilities | | **Survey QA/QC (satisfies MPR #4)** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 01/22-07/24 | **H.001779, Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA** - Principal-in-charge of contract administration, fee negotiations, scope of work, staffing, coordination, and QA/QC for Static GPS Control surveys, **topographic surveys**, property surveys, title take-offs, legal description preparation, preliminary and final right-of-way mapping, QL A, B, C, & D utility designating/locating, and utility coordination services for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 09/20-07/24 | **4400019715, IDIQ Contract for Hydrographic Surveying Services, Statewide, LA** - Principal-in-charge of contract administration, fee negotiations, scope of work, staffing, coordination, and QA/QC for **single beam and multibeam hydrographic surveying** services for multiple bridges at scheduled intervals upstream and downstream for 289 sites to date throughout southern districts. |
| 05/15-07/24 | **City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA** - Principal-in-charge of contract administration, fee negotiations, scope of work, staffing, coordination, and QA/QC for Static GPS Control surveys, **topographic surveys**, property surveys, **hydrographic surveying** services, QL A, B, C, and D subsurface utility designation/locating for a parkway facility design featuring new roads, additional lanes, roundabouts, and a bridge. Currently, in the construction management support phase and addressing RFI's as needed. |
| 09/20-07/24 | **4400019337, Rural Bridge Replacement Initiative, Phase II, Districts 05, 08, & 58** - Principal-in-charge of contract administration, staffing, coordination, and QA/QC for Static GPS Control surveys, **topographic surveys**, property surveys, title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 34 bridge and culvert replacements as a sub-consultant to BKI. |
| 09/20-07/24 | **4400019338, Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62** - Principal-in-charge of contract administration, staffing, logistics, and QA/QC for Static GPS Control surveys, **topographic surveys**, property surveys, title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub-consultant to Sigma/ Waggoner. |
| 07/23-07/24 | **4400025041, IIJA Off-System Bridge Program, District 62** - Principal-in-charge of contract administration, staffing, logistics, and QA/QC for Static GPS control surveys, **topographic surveys**, property surveys, title take-offs, legal description preparation, and preliminary and final right-of-way mapping in support of bridge replacements. |
| 04/22-04/23 | **4400017713, Monkhouse to I-49, Caddo Parish, LA** - Principal-in-charge of contract administration, staffing, coordination, and QA/QC for Static GPS Control, **topographic surveys**, QL C & D subsurface utility services, drainage map preparation, and Mobile Laser Scanning for interstate rehabilitation. |
| 08/18-11/21 | **4400012669, IDIQ Contract for Hydrographic Surveying Services, Statewide, LA** - Principal-in-charge of staffing, logistics, training, and QA/QC for **single beam and multibeam hydrographic surveys** for multiple bridges at scheduled intervals upstream and downstream for 320 sites throughout southern districts. |
| 02/16-08/18 | **4400006381 & H.008768, Retainer Contract for Hydrographic Monitoring of Existing Bridges, Statewide, LA -** Principal-in-charge of staffing, logistics, training, and QA/QC for **single beam hydrographic surveys** for multiple bridges at scheduled intervals upstream and downstream for 225 sites throughout the state including tasks for emergency surveys for historical floods. |

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| 04/15-02/16 | **4400005532 & H.011319.5, I-20 (Airline Drive to I-220) Route I-20, Bossier Parish, LA -** Principal-in-charge of contract administration, staffing, coordination, and QA/QC for **topographic surveying** services and surveys in support of QL B, C, and D subsurface utility designating**.** |
| 04/15-09/15 | **4400001798 & H.011094.5, LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA -** Principal-in-charge of fee negotiations, scope of work, staffing, logistics, and QC/QA for **topographic surveying** services, HDS 3D Terrestrial Laser Scanning, drainage map preparation, and QL B subsurface utility designating for bridge rehabilitation. |
| 03/08-05/15 | **H.003849 & 700-08-0123, Bossier Parish Police Jury, Hamilton Road Improvements (I-20 to Benton Road) Bossier Parish, LA -** Principal-in-charge of fee negotiations, scope of work, staffing, logistics, and QC/QA for **topographic surveys**, property surveys, and final right-of-way mapping for roadway rehabilitation. |
| 01/11-08/12 | **737-25-0003-A & H.006511, Local Road Safety Program, Sight Distance Improvements for Grigsby Road at Ranger Road in Jackson Parish, LA -** Principal-in-charge of contract administration, fee negotiations, scope of work, staffing, logistics, and QA/QC for Static GPS Control surveys, **topographic surveys**, property surveys, title take-offs, and right-of-way mapping. |
| 07/09-08/12 | **737-31-0003-A & 700-99-0444, Local Road Safety Program, Linear Street – Rough Edge Road in Lincoln Parish, LA -** Principal-in-charge of contract administration, fee negotiations, scope of work, staffing, logistics, and QA/QC for **topographic** and property surveys, property base maps, and final right-of-way maps. |
| 01/07-07/12 | **BPPJ 2010-277, Bossier Parish Police Jury, Bellevue Road Improvements (US 80 to Winfield Road) Bossier Parish, LA** - Principal-in-charge of contract administration, staffing, coordination, and QA/QC for **topographic surveys**, property surveys, and right-of-way mapping including preliminary/ final plans for the widening and possible realignment of Bellevue Road. |
| 07/09-05/11 | **4400000665 & 700-99-0483, Retainer Contract for Professional Surveying Services, Statewide, LA -** Principal-in-charge of contract administration, staffing, logistics, and QA/QC for **single beam hydrographic surveys** for multiple bridges at scheduled intervals upstream and downstream for 187 sites throughout the State. |
| 03/08-11/10 | **701-65-0997 & 283-09-0114, MacArthur Avenue Interchange Completion (Phase I) Route US 90, Jefferson Parish, LA -** Principal-in-charge of contract administration, fee negotiations, scope of work, staffing, logistics, and QA/QC for property surveying and right-of-way acquisition map preparation on approx. 0.5-mile segment of a new construction project to add turning lane and subsurface drainage. |
| 10/01-08/10 | **700-09-01380, I-49 North (LA 1 to LA 173) Route I-49, Caddo Parish, LA -** Principal-in-charge of fee negotiations, scope of work, staffing, logistics, and QC/QA for **topographic surveys,** property surveys, and base and final right-of-way maps for a new route covering 7.21 miles and over 50 parcels. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | | | |
| Name | **Patrick Staiano, PLS** | | Years of experience with this employer | 4 | |
| Title | Staff Surveyor | | Years of experience with other employer(s) | 10 | |
| Degree(s) / Years / Specialization | | | B.S. / 2008 / Construction Management | | |
| Active registration number / state / expiration date | | | #PLS.0005130 / LA / 09-30-2025 | | |
| Year registered | 2015 | Discipline | Professional Surveyor<br>**Other Pertinent Training / Certifications**<br>Traffic Control Supervisor Refresher-LA State Specific (exp. 4/29/26) | | |
| Contract role(s) / brief description of responsibilities | | | **Property Surveys and ROW Mapping** | | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 01/22-06/24 | **H.001779, Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA -** Assistant Project Manager assisting in the management of field crews and technicians for Static GPS control surveys, topographic surveys, **property surveys**, title take-offs, legal description preparation, preliminary and final **right-of-way mapping**, and surveys in support of QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 07/23-06/24 | **4400025041, IIJA Off-System Bridge Program, District 62 -** Project Manager managing field crews and technicians for Static GPS control surveys, topographic surveys, **property surveys**, title take-offs, legal description preparation, and preliminary and final **right-of-way mapping** in support of bridge replacements. |
| 09/22-06/24 | **4400019337, Rural Bridge Replacement Initiative Phase II, Districts 05, 08 & 58 -** Assistant Project Manager assisting in the management of field crews and technicians for Static GPS control surveys, topographic surveys, **property surveys**, surveys in support of QL C & D subsurface utility services, title take-offs, legal description preparations, and preliminary and final **right-of-way mapping** for 34 bridge and culvert replacements including surveying all sub-surface drainage structures as a sub-consultant. |
| 09/22-06/24 | **4400019338, Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61 & 62 -** Assistant Project Manager assisting in the management of field crews and technicians for Static GPS control surveys, topographic surveys, **property surveys**, surveys in support of QL C & D subsurface utility services, title take-offs, legal description preparations, and preliminary and final **right-of-way mapping** for 21 bridge and culvert replacements including surveying all sub-surface drainage structures as a sub-consultant. |
| 03/21-08/22 | **MOVEBR Jefferson Hwy. at Bluebonnet Intersection Improvements, LA (City Parish No. 20-CP-HC-0046) -** Project Manager managed field crews and technicians for topographic surveys, **property surveys**, and **right-of-way mapping**. |
| 03/18-10/18 | **Rogillio Resubdivision, East Baton Rouge & East Feliciana Parishes, LA -** Assistant Project Manager performed title take-offs, **boundary**, and right-of-way calculations, and reviewing CADD drawings and plats for resubdivision services for 93 acres. |
| 04/17-03/18 | **H.008118, LA 653 Bayou Dumar Bridge Replacement, Lafourche Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.5 mile project. |
| 01/17-03/18 | **LaDOTD LA 450 Stoney Point Bridge Replacement, Washington Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys** and prepared title work info and **right-of-way maps** for a +/-0.25 mile project. |
| 09/17-01/18 | **H.011824, LA 1026: Roundabout at Buddy Ellis Rd., Livingston Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed property surveys, prepared title work info, and **right-of-way maps** for a +/-0.3 mile project. |

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| 10/17-12/17 | **H.011260, US 190B Jefferson Ave. Roundabout Covington, St. Tammany Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.1 mile project. |
| 06/17-10/17 | **H.011314, LA 22: Near I-10 Geometric Improvements, Ascension Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.75 mile project. |
| 05/17-09/17 | **H.011030, LA 59: Roundabout @ Lonesome Rd., Tangipahoa Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.5 mile project. |
| 03/16-08/17 | **H.010184, LA 59: Curve Realign and Tunnel at Trace, St. Tammany Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.75 mile project. |
| 03/17-07/17 | **H.008312, LA 1042: Bridges Near Greensburg, St. Helena Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/- 2 mile project. |
| 03/16-02/17 | **LaDOTD LA 22 Roundabout @ Dunson Rd., Tangipahoa Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.25 mile project. |
| 03/16-01/17 | **LaDOTD LA 1024 Near Friendship, Livingston Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.5 mile project. |
| 03/16-06/16 | **LaDOTD LA 44 Intersections, Ascension Parish, LA -** Under the supervision of Robert H. Brooks, III, PLS and Max O. Usrey, III, PLS, Patrick performed **property surveys**, prepared title work info, and **right-of-way maps** for a +/-0.5 mile project. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | | | |
| Name | **Captayn Chapman** | | Years of experience with this employer | 10 | |
| Title | Party Chief | | Years of experience with other employer(s) | 0 | |
| Degree(s) / Years / Specialization | | | High School Diploma, 2006 | | |
| Active registration number / state / expiration date | | | N/A | | |
| Year registered | N/A | Discipline | N/A<br>**Other Pertinent Training / Certifications**<br>Traffic Control Supervisor-LA State Specific (exp. 2/8/27) | | |
| Contract role(s) / brief description of responsibilities | | | **Survey Party Chief** | | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 12/17-09/24 | **LADOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (44-12323, 44-17713, 44-14660 - Multiple TOs) - Survey Party Chief** running a field crew and downloading data for **topographic surveys**, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway. **NTBA** is currently performing **topographic surveys** near the I-10 and I-110 interchange for three additional areas. |
| 01/23-09/24 | **LADOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Survey Party Chief** running a field crew and downloading data for Static GPS Control surveys, **topographic surveys, and property surveys in support of title take-offs, title research, preliminary and final right-of-way mapping,** and QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 08/21-09/24 | **LADOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Survey Party Chief** running a field crew and downloading data for Static GPS Control surveys, **topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping**, and QL C & D subsurface utility services for 34 bridge and culvert replacements as a sub to BKI. |
| 04/21-09/24 | **LADOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Survey Party Chief** running a field crew and downloading data for Static GPS Control surveys, **topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping**, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner. |
| 02/23-09/24 | **CenterPoint Surveying Services, Various Parishes, LA (Various Agency Proj. Nos.) - Survey Party Chief** running a field crew and downloading data for **topographic surveys**, **property surveying services in support of title take-offs and right-of-way mapping** for maintenance and construction projects. |
| 04/22-04/23 | **LADOTD Monkhouse to I-49, Caddo Parish, LA (4400017713) - Survey Party Chief** ran a field crew and downloaded data for **topographic surveys** and surveys in support of QL C & D subsurface utility services and drainage map preparation for interstate rehabilitation. |
| 05/20-05/20 | **UPRR Big Sandy Siding Survey, Upshur and Wood Counties, TX (29543/90502) - Survey Party Chief** ran a field crew and downloaded data **property surveying services** for 15 parcels along railroad consisting of approximately 3.24 miles of track to establish the existing railroad **right-of-way**. Prepared 8 ALTA Surveys along with the privately owned **parcels for acquisition**, 0.25 acre **acquisition parcel in the right-of-way, and an overall right-of-way strip map.** |

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| 12/18 – 01/20 | **LADOTD LA 951: Roadway Washout Repairs, East Feliciana Parish, LA (H.013643) - Survey Party Chief** ran a field crew and downloaded data for **topographic surveys**, surveys in support of QL A, B, C, and D subsurface utility designating/locating, and QL A, B, C, and D subsurface utility designating/locating for road rehabilitation and bridge replacement. |
| 06/18 – 10/18 | **LADOTD I-10: Williams Blvd. to Veterans Blvd., Jefferson Parish, LA (H.003074.5 & H.009087.5) - Survey Junior Party Chief** ran a field crew and downloaded data for **topographic surveys** utilizing HDS 3D Terrestrial Laser Scanning methods of data collection, QL B, C, and D subsurface utility designating, and surveys in support of QL A, B, C, and D subsurface utility designating/locating. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | | |
| Name | **Iniko Jack** | | Years of experience with this employer | 18 |
| Title | Party Chief | | Years of experience with other employer(s) | 9 |
| Degree(s) / Years / Specialization | | | High School Diploma / 1994 / | |
| Active registration number / state / expiration date | | | N/A | |
| Year registered | | Discipline | N/A<br>**Other Pertinent Training / Certifications**<br>Traffic Control Supervisor Refresher-LA State Specific (exp. 2/8/27)<br>Electro-Magnetic Locating Instruments Certified<br>Certificate of Locating Competency (#P3642 -Staking University) | |
| Contract role(s) / brief description of responsibilities | | | **Survey Party Chief** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 01/23-06/24 | **H.001779, Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA -** Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, preliminary and final right-of-way mapping, surveys in support QL A, B, C, & D utility designating/locating, and QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 08/23-06/24 | **4400025041, LADOTD IIJA Off-System Bridge Program, District 62 -** Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, and preliminary and final right-of-way mapping in support of bridge replacements. |
| 08/21-06/24 | **4400019337, LADOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08 & 58 -** Field Operations Manager/ Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, and preliminary and final right-of-way mapping, and QL C & D subsurface utility designating for 34 bridge and culvert replacements as a sub. |
| 04/21-06/24 | **4400019338, LADOTD Rural Bridge Replacement Initiative, Phase II, Districts 02, 03, 07, 61 & 62 -** Field Operations Manager/ Technician supervising field staff, processing data, performing calculations, and drafting files for Static GPS Control surveys, topographic surveys, property surveys, title take-offs, legal descriptions, and preliminary and final right-of-way mapping, and QL C & D subsurface utility designating for 21 bridge and culvert replacements as a sub. |
| 12/17-06/24 | **H.004100.5, LADOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA -** Field Operations Manager/ Technician supervising field staff, processing data, performing calculations, and drafting files for topographic surveys, QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway. Task Orders continue to be assigned in additional areas as needed in conjunction with the on-going design-build contract. |
| 04/22-04/23 | **4400017713, LADOTD Monkhouse to I-49, Caddo Parish, LA -** Field Operations Manager/ Technician supervised field staff, processed data, performed calculations, and drafted files for topographic surveys, surveys in support of QL C & D subsurface utility designating, and drainage map preparation for interstate rehabilitation. |

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| 03/21-03/22 | **22-DR-US-0013, City-Parish Ward Creek at Siegen Lane, East Baton Rouge Parish, LA -** Field Operations Manager/ Technician supervised field staff, processed data, and performed calculations for control, topographic, and property surveys along with QL B, C, and D subsurface utility designating for approximately 1,500 feet of Ward Creek. |
| 05/15-12/20 | **City Proj. No. 8-15, City of Bossier, Walter O. Bigby Carriageway (N. Pkwy Ext.) Bossier Parish, LA -** Field Operations Manager/ Technician supervised field staff, downloaded/ processed data, and performed calculations for topographic and property surveys, QL A, B, C, and D subsurface utility designating/locating, and surveys in support of subsurface utility designating/locating. |
| 04/20-10/20 | **Ligon Law Browning Estate Surveying Services, East Feliciana Parish, LA -** Field Operations Manager/ Technician supervised field staff, downloaded/ processed data, and performed calculations for property surveying services in support of partition property determination services for three tracts covering 165 acres. |
| 01/20-03/21 | **UPRR Big Sandy Siding Survey, Upshur and Wood Counties, TX -** Field Operations Manager supervised field staff and downloaded/ processed data for property surveying services for 15 parcels along railroad consisting of approximately 3.24 miles of track to establish the existing railroad right-of-way. Prepared 8 ALTA Surveys along with the privately owned parcels for acquisition, 0.25-acre acquisition parcel in the right-of-way, and an overall right-of-way strip map. |
| 03/18-05/18 | **Rogillio Resubdivision, East Baton Rouge & East Feliciana Parishes, LA -** Field Operations Manager supervised field staff and downloaded/ processed data for property surveying services and right-of-way acquisition maps for resubdivision services covering 93 acres. |
| 04/15-09/15 | **4400001798 & H.011094.5, LADOTD LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA** - Field Operations Manager supervised field staff and downloaded/ processed data for topographic surveying services, drainage map preparation, and QL B subsurface utility designating for bridge rehabilitation. |
| 07/10-10/12 | **700-03-0125 & 701-65-1538, LADOTD LA 42 Widening and Improvements District 61, Ascension Parish, LA -** Field Operations Manager supervised field staff and downloaded/ processed data for topographic and property surveys to locate all existing structures within 50 feet of proposed right-of-way in support of right-of-way acquisition map preparation for 165 parcels. |
| 05/11-11/11 | **4400000681 & H.002230, LADOTD Goose Bayou Bridge Replacement, Route LA 45, Jefferson Parish, LA -** Field Operations Manager supervised field staff and downloaded/ processed data for property surveying services in support of the preparation of base and final right-of-way mapping. |
| 01/09-06/10 | **Perkins Road Improvements (Essen Lane to Siegen Lane) Route LA 427, East Baton Rouge Parish, LA -** Survey Party Chief ran a field crew to set 97 right-of-way monuments to produce monumentation maps for filing as a sub consultant to James Construction Group. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | |
| Name | **Chip LeCoq** | Years of experience with this employer | 8 |
| Title | Party Chief | Years of experience with other employer(s) | 20 |
| Degree(s) / Years / Specialization | | High School Diploma, 1996 | |
| Active registration number / state / expiration date | | N/A | |
| Year registered | N/A | Discipline | N/A |
| Contract role(s) / brief description of responsibilities | | **Survey Party Chief** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 12/17-09/24 | **LADOTD I-10: LA 415 to Essen Lane on I-10 and I-12, West & East Baton Rouge Parishes, LA (44-12323, 44-17713, 44-14660 - Multiple TOs) - Survey Party Chief** running a field crew and downloading data for **topographic surveys,** QL B, C, and D subsurface utility designating, and surveys in support of QL B, C, and D subsurface utility designating for approximately 13 miles of roadway. **NTBA** is currently performing **topographic surveys** near the I-10 and I-110 interchange for three additional areas. |
| 01/23-09/24 | **LADOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA (H.001779) - Survey Party Chief** running a field crew and downloading data for Static GPS Control surveys, **topographic surveys, and property surveys** in support of **title take-offs, legal description preparation, and preliminary and final right-of-way mapping** and QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 08/21-09/24 | **LADOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (4400019337) - Survey Party Chief** running a field crew and downloading data for Static GPS Control surveys, **topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping,** and QL C & D subsurface utility services for 34 bridge and culvert replacements as a sub to BKI. |
| 04/21-09/24 | **LADOTD Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (4400019338) - Survey Party Chief** running a field crew and downloading data for Static GPS Control surveys, **topographic surveys, and property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping**, and QL C & D subsurface utility services for 21 bridge and culvert replacements as a sub to Waggoner. |
| 08/23-09/24 | **LADOTD IIJA Off-System Bridge Program, District 62 (4400025041) - Survey Party Chief** running a field crew and downloading data for Static GPS control surveys, **topographic surveys, and property surveys in support of title take-offs, legal description preparation, and preliminary and final right-of-way mapping** in support of bridge replacements. |
| 04/22-09/24 | **CenterPoint Surveying Services, Various Parishes, LA (Various Agency Proj. Nos.) - Survey Party Chief** running a field crew and downloading data for **topographic surveys and property surveying services in support of title take-offs and right-of-way mapping** for maintenance and construction projects. |
| 04/22-04/23 | **LADOTD Monkhouse to I-49, Caddo Parish, LA (4400017713) - Survey Party Chief** ran a field crew and downloaded data for **topographic surveys** and surveys in support of QL C & D subsurface utility services and drainage map preparation for interstate rehabilitation. |
| 01/21-04/21 | **LADOTD LA 3125 @ LA 3274 Roundabout, St. James Parish, LA (H.014416.5) - Survey Party Chief** ran a field crew and downloaded data for **topographic surveys** for the design of a roundabout intersection. |
| 07/16-03/17 | **LADOTD Bayou Fountain, Route LA 327 Spur (Gardere Lane) East Baton Rouge Parish, LA (4400006527 & H.002337.5) - Survey Party Chief** ran a field crew and downloaded data for **topographic surveys** for road rehabilitation and sidewalks. |

## 16. Staff Experience:

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| Firm employed by | NTB Associates, Inc. | | |
| Name | **Will Wales** | Years of experience with this employer | 11 |
| Title | Party Chief | Years of experience with other employer(s) | 20 |
| Degree(s) / Years / Specialization | | High School Diploma / 1987 / General Studies | |
| Active registration number / state / expiration date | | N/A | |
| Year registered | N/A | Discipline | N/A<br>**Other Pertinent Training / Certifications**<br>Traffic Control Supervisor Refresher-LA State Specific (exp. 2/8/27) |
| Contract role(s) / brief description of responsibilities | | **Survey Party Chief** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
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| 11/21-07/24 | **4400019715, LADOTD IDIQ Contract for Hydrographic Surveying Services, Statewide, LA -** Survey party chief running a field crew, downloading/processing data, and performing other office tasks for **single beam and multibeam hydrographic surveying** services for multiple bridges at scheduled intervals upstream and downstream for 289 sites to date throughout southern districts. |
| 01/23-07/24 | **H.001779, LDOTD Jimmie Davis Bridge (LA 511) Design-Build, Bossier & Caddo Parishes, LA -** Field operations manager/survey party chief supervising field operations, running a field crew, and downloading data for Static GPS Control surveys, **topographic surveys**, and property surveys in support title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL A, B, C, & D utility designating/locating for the design-build project to replace the Jimmy Davis Bridge across the Red River. |
| 08/21-07/24 | **4400019337, LADOTD Rural Bridge Replacement Initiative Phase II, Districts 05, 08 & 58 -** Field operations manager/survey party chief supervising field operations, running a field crew, and downloading data for Static GPS Control surveys, **topographic surveys**, property surveys in support of title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility designating for 34 bridge and culvert replacements as a sub. |
| 04/22-07/24 | **CenterPoint Surveying Services, Various Parishes, LA (Various Agency Proj. Nos.) -** Field operations manager/survey party chief supervising field operations, running a field crew, and downloading data for **topographic surveys** and property surveying services in support of title take-offs and right-of-way mapping for maintenance and construction projects. |
| 04/22-04/23 | **4400017713, LADOTD Monkhouse to I-49, Caddo Parish, LA -** Survey party chief. Ran a field crew and downloaded data for **topographic surveys**, surveys in support of QL C & D subsurface utility designating, and drainage map preparation for interstate rehabilitation. |
| 12/20-03/22 | **4400017713, LADOTD LA 47 IWGO Bridge Rehabilitation, Historic Bridge Improvement (HBI), Orleans Parish, LA -** Survey party chief. Ran a field crew and downloaded data for **topographic surveys**, surveys in support of QL C & D subsurface utility designating, and a **multibeam hydrographic survey** of the bridge structure piers to determine scour impact for bridge repair/ rehabilitation. |
| 07/20-11/21 | **4400012669, LADOTD IDIQ Contract for Hydrographic Surveying Services Statewide, LA -** Survey party chief. Ran a field crew, downloading/processing data, and performing other office tasks for **single beam and multibeam hydrographic surveying** services at scheduled intervals upstream and downstream for 320 sites throughout southern districts. |
| 12/18-01/20 | **H.013643, LADOTD LA 951: Roadway Washout Repairs, East Feliciana Parish, LA -** Survey party chief. Ran a field crew and downloaded data for topographic surveys, surveys in support of QL A, B, C, and D subsurface utility designating/locating, and QL A, B, C, and D subsurface utility designating/locating for road rehabilitation and bridge replacement. |

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| 04/15-09/15 | **4400001798 & H.011094.5, LADOTD LA 3094: Hearne Ave. Bridge Rehab, Route LA 3094, Caddo Parish, LA -** Survey party chief. Ran a field crew and downloaded data for **topographic surveying** services and surveys in support of QL B subsurface utility designating for bridge rehabilitation. |
| 07/14-02/15 | **LADOTD LA 16 Amite Drainage Improvements, Route LA 16, Tangipahoa Parish, LA (4400001798 & H.009425.5) -** Survey party chief. Ran a field crew and downloaded/processed data for **topographic** and **single beam hydrographic surveying services** for drainage improvements. **Hydrographic surveys** were performed of the drainage pond and related outfalls on this project to collect the run-off of the drainage system. |
| 04/13-09/13 | **LADOTD LA 506 Castor Relief Bridges, Route LA 506, Caldwell Parish, LA (345-03-0029, 400001798, & H.002650.5) -** Survey party chief. Ran a field crew and downloaded/processed data for **topographic** and **single beam hydrographic surveying services** for use as basis for engineering design for the replacement or rehabilitation of 7 bridges. **Hydrographic surveys** were performed as related to the creeks and tributaries crossing beneath the 7 bridges along the project route. |

## 16. Staff Experience:

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| Firm employed by | Urban Systems, Inc. | | |
| Name | **Nicole Stewart, P.E., PTOE** | Years of experience with this employer | 18 |
| Title | Vice President / Transportation Engineer | Years of experience with other employer(s) | 1.5 |
| Degree(s) / Years / Specialization | | B.S. / 1997 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0034750 / LA / 09-30-2025 | |
| Year registered | 2009 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>Professional Traffic Operations Engineering (#2923, expires 08/14/27)<br>Traffic Engineering Analysis Process & Report, Modules 1, 2 and 3 (1/14/19, 1/14/19, 1/15/19)<br>ATSSA Louisiana Traffic Control Supervisor (#840319, issued 11/4/20; expires 11/3/24)<br>ATSSA Traffic Control Technician – Louisiana specific (issued 4/6/21; expires 4/6/25) |
| Contract role(s) / brief description of responsibilities | | **Traffic Control Plans Task 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 years of experience specified in the applicable MPR(s). |
|---|---|
| 02/15-06/16 | **Louisiana DOTD, Bridge Preventative Maintenance District 61 –** Principal-in-charge of developing Traffic Management Plans (TMP) for bridge replacement and repair projects at various locations in Louisiana. This included developing various levels of TMP's based on LADOTD EDSM guidelines. Tasks included conducting capacity analysis, safety analysis and detour analysis, and developing proposed mitigations where applicable. For the reconstruction of the LA 1 bridge over the Intracoastal Waterway, a detailed Level 3 TMP was prepared. For this TMP, detailed work zone impact management strategies were developed to help minimize the project's impact on mobility. |
| 04/10-09/11 | **I-10 Crossing, Irish Bayou Bridge, New Orleans, LA -** Project manager for this project which involved designing **Traffic Control Devices Plans** for the I-10 Highway Crossing Levee Enlargement project at Irish Bayou Road in New Orleans East. The plans included multiple and phased road closures of a six (6) lane section of Interstate 10 including nighttime closures. In addition to managing the project, she was responsible for QA-QC. |
| 12/16-04/21 | **France Road North Widening, New Orleans, LA -** Over time, the pavement along France Rd. between Gentilly Blvd. and Hayne Blvd. had deteriorated and was in need of widening and drainage repairs. Adjacent to the west side of the roadway was a concrete floodwall that limited Right Of Way and the ability to maintain two-way traffic throughout construction. Ms. Stewart developed site specific **Traffic Control Plans** that implemented a one-way system and detoured traffic that would normally traverse in the opposite direction of the allowed movement. The plans were designed in accordance with the latest version of the MUTCD and City of New Orleans traffic control standards. |
| 05/18-04/19 | **Louisiana DOTD, TMP for I-10: West of 108 to I-210 Interchange: Rubblize and Overlay -** As the lead engineer for this Traffic Management Plan, Ms. Stewart was responsible for preparation of the safety analysis that was conducted per the guidelines set forth by LADOTD in *Guidelines for Crash Data Analysis*. She conducted a queue analysis to identify when lane closures would be permitted, identified the construction impact area and reviewed crash data for more than 350 collisions. Ms. Stewart identified trends and calculated crash rates and determined that the section of I-10 that was going to be rubblized had a crash rate that was higher than the statewide average and required mitigation. |
| 09/11-02/12 | **Williams Boulevard Floodgate -** Designed **Traffic Control Devices Plans**, including haul routes, for the two phased closure of Williams Boulevard at the Lake Pontchartrain Levee Floodgate. The plans were prepared in accordance with Jefferson Parish and MUTCD Standards. Once the plan was implemented Ms. Stewart also conducted inspections. |
| 05/06-07/11 | **Clearview Parkway at West Esplanade Intersection Improvements, New Orleans, LA** - Ms. Stewart prepared permanent Traffic Signal Plans which included replacing the controller cabinet, mast arms, signal heads, power source, signs and vehicle detection and interconnect. She also prepared the Traffic Control Devices and Detour Plans to facilitate traffic through the phases of construction. |

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| 06/11-03/12 | **Southeast Louisiana Urban Flood Control Project Improvements to Two-Mile Canal (Patriot Street Canal), Phase I, Barataria Blvd. to First Avenue Canal -** Ms. Stewart designed the **Traffic Control Devices Plans** for improvements to Two Mile Canal. These plans included traffic closure details, signage, flagmen, and haul routes. Ms. Stewart conducted inspections throughout construction to confirm compliance with the plans that had been approved by Jefferson Parish. |
| 03/12-11/13 | **Louisiana DOTD, MacArthur Interchange Signal Modification/ Signage & Striping / Traffic Control Devices Plans -** The traffic study to evaluate the existing and projected operating conditions of the lower Westbank Expressway was prepared by Ms. Stewart. In the second phase, Ms. Stewart designed the new traffic signals for the interchange and adjacent signalized intersections. She prepared the striping and signage plans to accommodate the ramp changes and prepared **Traffic Control Devices Plans** for the various stages of construction. |
| 03/10-07/10 | **USACE Traffic Control Devices Plans -** Designed numerous **Traffic Control Devices Plans** to meet US Army Corps of Engineers, LADOTD and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, drums, roadway markings, etc.) to facilitate traffic safely and efficiently through the traffic control zone. Haul routes were designated when necessary. Many of the plans were for Corps of Engineers projects. |

## 16. Staff Experience:

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| Firm employed by | Urban Systems, Inc. | | | | |
| Name | **Alison C. Michel, P.E., PTOE, PTP, RSP2i** | | Years of experience with this employer | 22 | |
| Title | President/Transportation Engineer | | Years of experience with other employer(s) | 3 | |
| Degree(s) / Years / Specialization | | | B.S. / 1997 / Civil Engineering | | |
| Active registration number / state / expiration date | | | #PE.0030261 / LA / 03-31-2025 | | |
| Year registered | 2002 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>Professional Traffic Operations Engineering (#1023, expires 11/06/26)<br>Professional Transportation Planner (#626, expires 11/20/26)<br>Road Safety Professional 1 (#115, expires 12/24)<br>Road Safety Professional 2i (#148, expires 03/26)<br>Traffic Engineering Analysis Process & Report, Modules 1, 2 and 3 (6/4/18, 6/11/18, 9/10/18) | | |
| Contract role(s) / brief description of responsibilities | | | **Traffic Control Plan QA/QC** | | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 03/11-05/13 | **Huey P. Long Bridge Widening (Westbank and Eastbank Approaches and Main Bridge Deck Widening) -** The contractor for the project brought on USI about half-way into construction to improve the flow of traffic during required closures. Ms. Michel prepared **Traffic Control Device Plans** (TCDP) for multiple phases of construction. The TCDPs also included the design of a traffic signal plan for the installation of temporary signal heads to control lane shifts. |
| 05/09-05/10 | **LA 1088/I-12 Interchange** - Updated the permanent signage plans for the interchange on I-12 at LA 1088 in St. Tammany Parish, LA to reflect the new alignment. **Traffic Control Device Plans** were designed based on the sequence of construction drawings and two phases of construction. Specifications for required S-items and a construction cost estimate were also provided. |
| 02/10-07/10 | **US Army Corps of Engineers LPV 16.2 Bonnabel Boulevard Floodgate -** Designed the **Traffic Control Device Plans** for construction of the LPV 16.2 Bonnabel Blvd. Floodgate in Jefferson Parish, LA. Plans included: haul routes, bypass for the ramp tie in to Bonnabel; diverting Bonnabel southbound traffic to the temporary bypass ramp; and diverting northbound traffic to Bonnabel southbound travel lanes. Plan changes due to unforeseen conditions included details for floodwall construction while diverting Bonnabel northbound and southbound traffic to the temporary roadway and closing Bonnabel Boulevard. The plans met US Army Corps of Engineers, Jefferson Parish and MUTCD standards. Inspections were conducted after any changes to the traffic control plan and/or at thirty (30) day intervals. |
| 01/14-08/19 | **Louisiana DOTD, US 90 (I-49 South) Albertson's Parkway to Ambassador Caffery Design-Build Project**, **Lafayette Parish, LA -** Ms. Michel was a member of the key personnel for this design-build project as the Traffic Engineer. The project included converting US 90 to a controlled access facility by converting at-grade intersections to an interchange. The bridge structure had to span the intersection and railroad. She supervised the design and analysis and performed QA-QC for temporary and permanent signal plans, permanent signage plans, temporary traffic control plans and the Transportation Management Plan. Signal plans were prepared using the DOTDs latest TSI format. Analysis included developing design hour volumes for the design year and modeling signals in Synchro. Phasing and timing were developed for both permanent and temporary signal operation. |
| 12/18-05/19 | **Manhattan Signal Controller Upgrades -** Traffic signal modification plans for 11 intersections along the Manhattan Boulevard corridor in Jefferson Parish, Louisiana were prepared in accordance with Jefferson Parish and Manual on Uniform Traffic Control Devices (MUTCD) standards. The |

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| | modifications included controller component upgrades, video detection and pedestrian accommodations at select intersections. During the project Ms. Michel offered her technical expertise from over 17 years of designing traffic signals and preparing technical specifications for Jefferson Parish. |
| 02/20-Present | **Louisiana DOTD, LA 23: Belle Chasse Bridge & Tunnel -** Managing USI's tasks for Owner Verification services focused on reviewing design plans for traffic related submittals from the design-builder. These submittals included capacity analysis, plans for traffic signals, signage and striping. Ms. Michel conducted Quality Assurance/Quality Control reviews to confirm adherence with LADOTD standards and the Manual of Uniform Traffic Control. During the construction, Ms. Michel may provide support by reviewing **Traffic Control Devices Plans** for proposed lane closures, detours and advanced warning signage. |

## 16. Staff Experience:

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|---|---|---|---|
| Firm employed by | Urban Systems, Inc. | | |
| Name | **Christine M. Darrah, P.E.** | Years of experience with this employer | 9 |
| Title | Transportation Engineer | Years of experience with other employer(s) | 20 |
| Degree(s) / Years / Specialization | | B.S. / 1997 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0025828 / LA / 09-30-25 | |
| Year registered | 1999 | Discipline | Civil Engineering<br>**Other Pertinent Training / Certifications**<br>Traffic Engineering Analysis Process & Report, Modules 1, 2 and 3 (10/7/20, 10/7/20, 10/9/20)<br>ATSSA Louisiana Traffic Control Supervisor (#873755, issued 4/8/21; expires 4/7/25)<br>ATSSA Traffic Control Technician – Louisiana specific (issued 4/6/21; expires 4/6/25)<br>ATSSA Certified Flagger (issued 7/1/24; expires 6/30/28) |
| Contract role(s) / brief description of responsibilities | | **Traffic Control Plans** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 03/21-04/21 | **Entergy Louisiana, I-610 Transmission Line Crossing at Frenchman, Orleans Parish, LA -** Project engineer for this interstate closure project to assure public safety during overhead transmission lines repairs. Included a full closure of both directions of I-610 and the westbound on-ramp at Elysian Fields Ave. in New Orleans. Ms. Darrah coordinated the six-hour interstate closure and associated detours with the LADOTD and City of New Orleans, LA. She designed **Traffic Control Devices Plans** that applied MUTCD, LADOTD and City of New Orleans standards for proper placement of traffic control devices, including portable changeable message boards. Ms. Darrah used AutoCAD to assist in the final preparation of plans. |
| 04/18-01/22 | **N. Peters Sidewalk Expansion, New Orleans, LA -** Project manager responsible for the preparation of construction drawings and specifications for this sidewalk reconstruction adjacent to the Canal Place Shopping Center in the Downtown Development District (DDD). The plans included geometric layout, grading, drainage, street lighting, striping and traffic control. The plans followed all DDD, MUTCD, ADA, New Orleans DPW and S&WB requirements. Ms. Darrah also provided construction management services that included field inspections, responding to inquiries, and reviewing contractor invoices. |
| 09/14-12/14 | **Louisiana DOTD, SELA 26 Widening of Florida Ave. Canal Phase II and III, New Orleans, LA -** Designed the **Traffic Control Devices Plans** to meet US Army Corps of Engineers, LADOTD and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, drums, roadway markings, etc.) to facilitate the safe movement of traffic efficiently through the traffic control zone. Haul routes were designated when necessary. |
| 01/14-07/17 | **North Terminal Louis Armstrong New Orleans International Airport, New Orleans, LA -** Led the design of the **Maintenance of Traffic Plans** for the landside access roadways. The plans were designed in accordance with the Manual of Uniform Traffic Control Devices and LADOTD standards. Ms. Darrah also prepared specifications for the maintenance of traffic items. |
| 06/22-10/22 | **KCS Acadian Thruway, East Baton Rouge, LA -** This project included lane closures and a full closure of Acadian Thruway at the KCS bridge near the I-10 interchange in East Baton Rouge Parish. Ms. Darrah prepared the **Traffic Control Devices Plans** while applying MUTCD and LADOTD standards for the proper placement of traffic control devices. Additional project efforts included designing lane closures on an I-10 on-ramp for laydown access and police-controlled haul routes. |
| 03/17-03/18 | **Port of New Orleans, Milan Street Terminal, New Orleans, LA -** As the project's lead engineer, Ms. Darrah designed Construction Sequencing and Permanent Striping Layouts and Signage plans. Construction sequencing included keeping port tenants fully operational through each phase of construction. All plans were prepared in accordance with LADOTD and MUTCD guidelines. |
| 07/22-08/22 | **Mossville Traffic Control Devices Plan, Lake Charles, LA -** As the project manager, Ms. Darrah designed **Traffic Control Devices Plans** for two rolling closures of I-10 and associated ramps in Lake Charles, LA for transmission line repairs. Efforts included the design of plans for interstate closures and detours. Ms. Darrah coordinated with the LADOTD and Calcasieu Parish in identifying optimal locations for Dynamic Message Signage placement. |

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| 11/20-02/23 | **US 190 at Northshore and Camp Villere Roundabouts, St. Tammany Parish, LA -** As project engineer, Ms. Darrah oversaw the design of permanent striping and signage plans per LADOTD standards and specifications. She also managed the design of temporary traffic signals that would be required during the multiple phases of roundabout construction. A level 2 Traffic Management Plan (TMP) was also prepared. Ms. Darrah coordinated with the prime-consultant, St Tammany Parish, and LADOTD as needed. |

## 16. Staff Experience:

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|---|---|---|---|
| Firm employed by | GeoEngineers, Inc. | | |
| Name | **Larry D. Sant, PE** | Years of experience with this employer | 23 |
| Title | Associate Geotechnical Engineer | Years of experience with other employer(s) | 2 |
| Degree(s) / Years / Specialization | | M.S., 2001, Civil Engineering<br>B.S., 2001, Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0035625 / LA / 09-30-2026 | |
| Year registered | 2010 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Geotechnical Task 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 years of experience specified in the applicable MPR(s). |
|---|---|
| 01/19-Present | **S.P. H.011670: LADOTD, I-10/Loyola Interchange Design-Build, Kenner, LA –** Geotechnical Project Manager during GeoEngineers' completion of geotechnical exploration, testing and engineering for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. |
| 05/18-Present | **S.P. H.003370: LADOTD, I-20/I-220 (Barksdale AFB) Design-Build, OV/QA, Bossier Parish, LA -** Project Manager for GeoEngineers' OV/QA role in this Design-Build project which involves interchange improvements that will increase access to the Barksdale Air Force Base in Bossier Parish. |
| 08/17-11/20 | **S.P. H.009250: LADOTD, I-10 Widening (Highland to LA-73) Design-Build, OV/QA, Baton Rouge, LA -** Project Manager for GeoEngineers' OV/QA role in this highly-anticipated I-10 project that involved widening a 6.5-mile segment of I-10 from four lanes to six lanes between Highland Road and LA-73. |
| 04/15-11/17 | **S.P. H.004932: LADOTD, US 90/LA 318 Interchange Design-Build, St. Mary Parish, LA –** Geotechnical Project Manager during this Design-Build project in support of the proposed Interchange on US 90 at LA 318. He led the geotechnical design including drilling, log review, test assignments, pile design, settlement analysis, embankment monitoring, and embankment design. Services also included extensive settlement modeling to demonstrate that the aggressive schedule for this project could be met along with the modeling of pile driving using Wave Equation Analyses (WEAP). During construction, he oversaw PDA/CAPWAP testing to keep the schedule progressing. |
| 02/13-04/13 | **S.P. H.010620: LADOTD, I-49/US 90 Widening over LA 182 and BNSF Railroad, Lafayette, LA -**Widening project that was completed in preparation for upgrading US 90 to I-49 from Albertson Road to Ambassador Caffery. Mr. Sant served as the Geotechnical Project Manager for bridge and roadway borings, and laboratory tests in support of the design of this Design-Build project located just south of Lafayette. GeoEngineers completed 119 borings for the project on a fast-track schedule using multiple drill rigs to meet the deadline. |
| 08/12-07/15 | **S.P. H.010151: LADOTD, I-210 at Cove Lane Interchange, Lake Charles, LA** - Geotechnical Project Manager during this fast-track design and construction project in support of the proposed Interchange on I-210 at Cove Lane. GeoEngineers completed engineering analyses and provided recommendations for the design and construction of about 8,000 driven pile foundations which included the modeling of pile driving using Wave Equation Analyses (WEAP), MSE walls, and wick-drain/surcharge design to reduce post-construction embankment settlement in accordance with AASHTO LRFD specifications for highway bridges. In addition, the GeoEngineers team monitored MSE wall construction, provided PDA/CAPWAP evaluation of the piles during installation, and installed liquid settlement sensors to monitor embankment settlement. |
| 01/10-12/11 | **S.P. 454-02-0071: LA DOTD, I-12 Widening (Amite River to Juban Road) Design-Build, Denham Springs, LA** - Geotechnical Project Manager during this Design-Build project. GeoEngineers completed engineering analyses and provided recommendations for the design and construction of driven pile foundations for four bridge structures in accordance with AASHTO LRFD specifications for highway bridges. Work also included PDA/CAPWAP monitoring. |

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| 09/09-07/11 | **S.P. 424-04-0032: LA DOTD, US 90 at LA 85 Interchange Design-Build, Iberia Parish, LA –** Geotechnical Project Manager during this Design-Build project in support of the proposed Interchange on US 90 at LA 85. GeoEngineers completed engineering analyses and provided recommendations for the design and construction of driven pile foundations in accordance with AASHTO LRFD specifications for highway bridges and PDA/CAPWAP monitoring. In addition, the GeoEngineers team analyzed embankment settlement and provided design recommendations for wick drains and surcharge loading to reduce post construction settlement and prevent downdrag loads on the proposed adjacent bridge foundations. |

## 16. Staff Experience:

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|---|---|---|---|
| Firm employed by | GeoEngineers, Inc. | | |
| Name | **David P. Sauls, PE** | Years of experience with this employer | 30 |
| Title | Senior Principal Geotechnical Engineer | Years of experience with other employer(s) | 10 |
| Degree(s) / Years / Specialization | | M.S. / 1984 / Civil Engineering<br>B.S. / 1982 / Civil Engineering | |
| Active registration number / state / expiration date | | #PE.0023270 / LA / 03-31-2025 | |
| Year registered | 1989 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | | **Geotechnical QA/QC** | |

| Experience dates (mm/yy–mm/yy) | Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s). |
|---|---|
| 07/19-Present | **S.P. H.004932: LADOTD, I-10/Loyola Interchange Design-Build, Kenner, LA –** Managing the geotechnical quality assurance efforts for this Design-Build project that will increase traffic capacity and alleviate congestion on Loyola Drive at the I-10 interchange in the New Orleans area. |
| 06/18-07/19 | **Plank Road Relocation; City-Parish of East Baton Rouge, Baton Rouge, LA -** Performed geotechnical exploration and laboratory testing for the City of Baton Rouge. A new runways at the Baton Rouge Metropolitan Airport necessitated the relocation of Plank Road. Mr. Sauls provided bridge and piling design as well as pavement design recommendations based on geotechnical investigation results. |
| 04/15-11/17 | **S.P. H.004932: LADOTD, US 90/LA 318 Interchange Design-Build, Baton Rouge, LA –** Led the geotechnical quality assurance program during this Design-Build project in support of the proposed Interchange on US 90 at LA 318. GeoEngineers completed the geotechnical services which included drilling, log review, test assignments, pile design, settlement analysis, embankment monitoring, and embankment design. They also conducted extensive settlement modeling to demonstrate that the aggressive schedule for this project could be met along with the modeling of pile driving using Wave Equation Analyses (WEAP). During construction, GeoEngineers conducted PDA/CAPWAP testing to keep the schedule progressing. |
| 09/12-04/15 | **S.P. H.010151: LADOTD, I-210 at Cove Lane Interchange, Lake Charles, LA -** Led the geotechnical QA program during this fast-track design and construction project in support of the proposed Interchange on I-210 at Cove Lane. GeoEngineers completed engineering analyses and provided recommendations for the design and construction of about 8,000 driven pile foundations and MSE walls. Wick-drain/surcharge design was performed to reduce post-construction embankment settlement in accordance with AASHTO LRFD specifications for highway bridges. The GeoEngineers team also monitored MSE wall construction, provided PDA evaluation of piles during installation, and installed liquid settlement sensors to monitor embankment settlement. |
| 09/09-07/11 | **S.P. 424-04-0032: LADOTD I-49/US 90, LA 85 Overpass; LADOTD and Design-Build Team, Patoutville, Iberia Parish, LA –** Served as the Managing Principal for geotechnical engineering design support for this approximately $25 million, 1,900-foot interstate level overpass of two, two-lane bridges. The design included wick drains and surcharge to accelerate the settlement of the 14-foot earthen approach embankment. Provided design recommendations for precast concrete piles to support the bridge bent foundation. |

## 16. Staff Experience:

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| Firm employed by | GeoEngineers, Inc. | | |
| Name | **Firouz Rosti, PhD, PE** | Years of experience with this employer | 1 |
| Title | Senior Geotechnical Engineer | Years of experience with other employer(s) | 6 |
| Degree(s) / Years / Specialization | Ph.D. / 2016 / Civil Engineering – Geotechnical<br>M.S. / 2005 / Civil Engineering – Geotechnical<br>B.S. / 2001 / Civil Engineering | | |
| Active registration number / state / expiration date | #PE.0043718 / LA / 09-30-2025 | | |
| Year registered | 2021 | Discipline | Civil Engineering |
| Contract role(s) / brief description of responsibilities | **Geotechnical 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 years of experience specified in the applicable MPR(s). |
|---|---|
| 09/23-Present | **LADOTD, S.P. H.011670, I-10/Loyola Interchange Design-Build, Kenner, LA -** GeoEngineers is completing the geotechnical exploration, testing and engineering for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. Dr. Rosti provided deep foundation analysis support. |
| 01/24-Present | **LADOTD, H.001970, LA 561 Boeuf River Bridge near Hebert Phase 2 Columbia, LA –** Dr. Rosti is the project manager for this subsurface exploration project. The scope involves the completion of eight deep geotechnical borings, including three in the Boeuf River, with supporting laboratory testing and boring log creation to design the replacement bridge. |
| 02/24-Present | **LADOTD, I-20 at Nutland Slope Repair, Monroe, LA –** Dr. Rosti is the project manager for GeoEngineers on this slope project that involves an analysis of failed slopes and recommendations for repair of roadway embankment. |
| 01/24-Present | **BTR Airport - Plank Rd Realignment, Phase II and Runway 13/31 Safety Area/RPZ Improvements, Baton Rouge, LA –** Dr. Rosti is the project manager for GeoEngineers on this roadway and bridge design project. He was involved in the project after field exploration and handled the drafting of boring logs, engineering analysis, and compilation of engineering reports. |
| 01/24-Present | **Lafayette Consolidated Government, Verot School Road Bridge Repair Project, Lafayette, LA –** Dr. Rosti is the project manager for this soil nail design and road embankment slope analysis. He has managed the project from field exploration to lab testing, through technical analysis and report prepartion. |

## 16. Staff Experience:

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|---|---|---|---|
| Firm employed by | GeoEngineers, Inc. | | |
| Name | **Anthony (Chien-An) Ju, EI** | Years of experience with this employer | 4 |
| Title | Staff Geotechnical Engineer | Years of experience with other employer(s) | 0 |
| Degree(s) / Years / Specialization | | M.S. / 2020 / Civil Engineering | |
| Active registration number / state / expiration date | | B.S. / 2018 / Civil Engineering | |
| Year registered | 2021 | Discipline | EI #34836 / LA / 09-30-2025 |
| Contract role(s) / brief description of responsibilities | | **Staff Geotechnical 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 years of experience specified in the applicable MPR(s). |
|---|---|
| 02/21-11/21 | **LADOTD, I-10/Loyola Interchange Design-Build, Kenner, LA** - Provided field monitoring of driven piles, including use of a Pile Driver Analyzer (PDA) and CAPWAP analysis for capacity. GeoEngineers is completing the geotechnical exploration, testing and engineering for this high-profile project in Kenner that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. |
| 11/17-12/21 | **Belle Chasse Bridge and Tunnel Replacement P3 -** Provided engineering support for wick drain/surcharge settlement analyses. GeoEngineers is providing geotechnical design and construction services along with subsurface exploration borings and laboratory testing for the P3 Bridge and Tunnel Replacement project in Plaquemines Parish, Louisiana. This unique project involves replacing the southbound tunnel and northbound elevating bridge with one replacement bridge over the Gulf Intracoastal Waterway (GIWW). |
| 04/15-2/16 | **Phoenix Marsh Creation Project - East Increment (BS-0042) and West Increment (BS-0044), Plaquemines Parish, LA** - Served as a staff geotechnical engineer providing support with engineering analyses. The objective of the East Increment is to create and nourish approximately 392 acres of marsh and the objective of the West Increment is to create and nourish approximately 411 acres of marsh. His role included organizing and managing the field exploration efforts for the marsh creation areas and the borrow area in the Mississippi River. In addition, Anthony was instrumental in the engineering analyses for the marsh creation areas including stability of earthen containment dikes and marsh settlement. |
| 11/21-Present | **Lake Borgne Marsh Creation (PO-180); St. Bernard Parish, LA** - Served as a staff geotechnical engineer providing assistance with the field construction monitoring which included setting up vibrating wire piezometers and earth pressure cells, getting all equipment reading correctly, and training the client on how to download the data. This project is expected to create approximately 1,548 acres of marsh using sediment dredged from Lake Borgne. This is the first of a large-scale restoration strategy to re-establish the degraded bay rim and intertidal marsh habitat for the shoreline. |
| 01/19-Present | **Cameron Meadows Marsh Creation and Terracing (CS-66); Cameron Parish, LA** - Served as a staff geotechnical engineer supporting the construction monitoring collecting sediment samples of the placed marsh fill for further analysis for this multi-faceted project that included marsh creation, terraces, a water control culvert structure, and an underground highway crossing for a hydraulic fill pump line. |
| 07/18-Present | **East Orleans Landbridge Restoration (PO-191), Orleans Parish, LA** - served as a staff geotechnical engineer supporting the engineering analyses by review of field and laboratory data and selection of design soil parameters. This Project will create approximately 1,563 acres of marsh which will be created and nourished by hydraulically dredging material from two potential locations – Lake Pontchartrain and Lake St. Catherine. The fill areas will be formed by constructing earthen containment dikes around the boundaries of each marsh creation area (MCA). GeoEngineers has performed field investigations and geotechnical analyses along with laboratory testing and reporting. |

## 17. Firm Experience:

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|---|---|---|---|
| Firm name | TRC Engineers, Inc. | Past Performance Evaluation Discipline(s) | Road |
| Project name | **Walter O. Bigby Carriageway** | Firm responsibility (prime or sub?) | Sub |
| Project number | N/A | Owner's name | City of Bossier |
| Project location | Bossier City, LA | Owner's Project Manager | Mark Hudson (retired) |
| Owner's address, phone, email | 620 Benton Road, Bossier City, LA 71171 \| (318) 465-5801 \| markhud1954@gmail.com | | |
| Services commenced by this firm (mm/yy) | 09/15 | Total consultant contract cost ($1,000's) | N/A |
| Services completed by this firm (mm/yy) | Ongoing | Cost of consultant services provided by this firm ($1,000's) | $2,256 |

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

One of two roundabouts designed by TRC along the project route.

This project includes approximately 5,300 feet of reconstructed city streets from two-lane to three and four-lane, and approximately 3,600 feet of new four-lane city street which includes a 1,550-foot bridge structure over the Union Pacific Railroad. TRC's portion of the project begins just north of Eatman Street and will end at the intersection with Benton Highway. The estimated construction cost is $60 million.

The Walter O. Bigby Carriageway follows an existing roadway for a portion of the alignment, then continues north on new alignment between the Red River Levee and Union Pacific Railroad. It crosses the existing railroad tracks using a bridge structure and connects to Benton Highway at a new signalized intersection. Work considered **various complete streets considerations** as well as **context sensitive solutions** including sidewalks, landscaping, lighting, and brick pavers. The roadway design includes **two roundabouts** (see renderings) at the intersections of Hamilton Road/Waterplant Road and Shed Road, the reconstruction of three side roads to tie-in to the new Walter O Bigby Carriageway, widening of Hamilton Road from south of US 80 to the new roundabout, and the addition of a left-turn lane and driveway reconfigurations along Benton Highway.

Due to the proximity of the road and bridge alignments to a portion of the Red River Levee system, close coordination was required and maintained with the Bossier Levee District and the U.S. Army Corps of Engineers. During design, it became apparent that the proposed bridge piling would penetrate the net levee section and require a 408 Permit. Also, a new storm water system and pump station was designed with the only outlet option being to install a discharge pipe under the levee to the Red River. This feature also required a 408 Permit. The USACE also required a river survey along the bank of the Red River over the length of the impacted area and a seepage analysis to determine stability of the proposed pile installation method and the excavated area for the storm water pump station. For the pump station design, installation methods for the gravity discharge pipe were discussed with the USACE and a micro-tunneling installation method was ultimately proposed.

TRC is presently providing construction support services as the project approaches final construction closeout.

The new bridge will be 1,550' long and consist of a horizontally curved, haunched 4-span (185'-225'-300'-225') steel plate I-girder main span continuous unit over the Union Pacific Railroad with BT-72 prestressed concrete girder approach spans.

**STAFF TO BE USED IN THIS PROPOSAL:** D. Krone, M. Paul, D. Clayton, J. Crouse, X. Liu

## 17. Firm Experience:

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|---|---|---|---|
| Firm name | TRC Engineers, Inc. | Past Performance Evaluation Discipline(s) | Bridge |
| Project name | **LA 1 - Port Allen Canal Bridge Replacement** | Firm responsibility (prime or sub?) | Prime |
| Project number | H.001234 | Owner's name | Louisiana Department of Transportation and Development |
| Project location | West Baton Rouge Parish, LA | Owner's Project Manager | Brian Delatte, PE |
| Owner's address, phone, email | 1201 Capital Access Rd., Rm 405-T, Baton Rouge, LA 70802-4438 \| (225) 379-1823 \| Brian.Delatte@LA.gov | | |
| Services commenced by this firm (mm/yy) | 10/11 | Total consultant contract cost ($1,000's) | $1,535 |
| Services completed by this firm (mm/yy) | Ongoing | Cost of consultant services provided by this firm ($1,000's) | $1,535 |

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


TRC initiated this $151 million project by conducting a feasibility study to investigate three different bridge rehabilitation options and one bridge replacement option (which was ultimately selected) for the existing twin bridges that carry LA 1 over the Intracoastal Waterway. The existing bridges are each two lanes and approximately 2,480 feet long with various structural deficiencies. As part of the study, TRC developed new roadway alignment options for the bridge replacement option.

The proposed LA 1 SB and LA 1 NB replacement bridges are 2,680' and 2,700' respectively and will consist of PPC girder superstructure approach spans and 3-span continuous steel I-girder spans over the Intracoastal Waterway. The LA 1 NB bridge bifurcates at the northern end to accommodate the I-10 EB Exit Ramp geometry. The proposed new LA 1 SB bridge will consist of three 12' travel lanes and two 10' shoulders and be 2,560' long.

Due to the need for the LA 1 bridges to remain open to traffic, **phased accelerated construction options** and a temporary detour bridge option were evaluated. TRC developed two alignment options and conducted the conceptual and preliminary design for a 2,500' long temporary detour bridge consisting of a proprietary truss panel superstructure system and steel pipe pile substructure.

As part of the Preliminary Design, TRC also developed the project's associated **roadway plans** which included traffic analysis and the submittal of a Level 3 Transportation Management Plan. The roadway plans feature **1.27 miles of "Super Street" improvements to LA 1**, including the removal of eight median openings; four new signalized "J-Turns" and left-turn storage; 0.98 miles of new four lane roadway for LA 1 on new alignment including a separate exit ramp for I-10 EB traffic; and the reconstruction of existing frontage road and a railroad at-grade crossing for Ernest Wilson Road.

TRC is currently performing construction support services to include responding to RFIs and reviewing shop drawings. The project is expected to be complete by spring 2025.

Due to the high traffic volumes for the I-10 connections, **a detailed MOT and sequence of construction scheme** was developed to provide for continuous access to I-10 during construction and to maintain two lanes of traffic flow on LA 1.

**STAFF TO BE USED IN THIS PROPOSAL:** D. Krone, M. Paul, D. Clayton, J. Crouse

## 17. Firm Experience:

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|---|---|---|---|
| Firm name | TRC Engineers, Inc. | Past Performance Evaluation Discipline(s) | Road |
| Project name | **Old Hammond Highway Reconstruction – Segment #2** | Firm responsibility (prime or sub?) | Prime |
| Project number | 06-CS-HC-0051 | Owner's name | City of Baton Rouge/Parish of East Baton Rouge |
| Project location | Baton Rouge, LA | Owner's Project Manager | Zach Schmidt, PE (CSRS) |
| Owner's address, phone, email | 1100 Laurel Street, Baton Rouge, LA 70802 \| (225) 571-5675 \| zach.schmidt@csrsinc.com | | |
| Services commenced by this firm (mm/yy) | 04/07 | Total consultant contract cost ($1,000's) | $1,131 |
| Services completed by this firm (mm/yy) | Ongoing | Cost of consultant services provided by this firm ($1,000's) | $1,085 |

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

TRC has finalized the engineering design and environmental services associated with the construction of a four-lane divided curb and gutter roadway with raised median, sidewalks (boulevard section) and subsurface drainage that will replace an existing 2-lane roadway. The limits of this project will extend from 1,135 feet east of Millerville Road to 850 feet west of O'Neal Lane (LA 3245). **The estimated construction cost is $18.9 million**. TRC's responsibilities included:

- Development of a line and grade roadway design study
- Corridor survey
- Right-of-Way (ROW) mapping
- Outfall improvement study
- HEC-RAS modeling to determine existing conditions and the effects of proposed improvements
- Final design

Looking east along existing Old Hammond Highway. Inset depicts Typical Sections

In accordance with NEPA, an Environmental Assessment (EA) was completed by TRC staff which included an analyses of the social, economic, cultural and environmental impacts of the proposed project and the solicitation of public input on the alternatives and identified impacts. The potentially impacted affected resources that were analyzed included socioeconomic, environmental justice, land use, archaeological and historical sites, aesthetics and visuals, surface water, groundwater, wetlands, biological, threatened and endangered species, air quality, noise, hazardous material and underground storage tanks, publicly owned parks, and recreational facilities. The scope of services also included preparation of the EA report and Solicitation of Views (SOV) letters, and coordination and consultation with interested federal and state agencies.

A Public Meeting and a Design Public Hearing were conducted on behalf of the LADOTD/City of Baton Rouge. Such work involved selecting the location; preparation of public notices, all exhibits, and technical presentation and handouts; hosting the meeting and assigning representatives at all exhibits; delivering a presentation to the public at the DPH; recordation of all comments; and submittal of the results to the DOTD/City of Baton Rouge and FHWA.

The project is expected to begin construction in winter 2024-2025, during which time TRC will provide engineering support as needed.

**STAFF TO BE USED IN THIS PROPOSAL:** D. Krone, D. Clayton, J. Crouse, D. Spurlock

## 17. Firm Experience:

| | | | |
|---|---|---|---|
| Firm name | TRC Engineers, Inc. | Past Performance Evaluation Discipline(s) | Road |
| Project name | **Measure G Pavement Maintenance - Shore Road Rehabilitation from Frazier Lake Road to San Felipe Road** | Firm responsibility (prime or sub?) | Prime |
| Project number | N/A | Owner's name | San Benito County Public Works |
| Project location | San Benito County, CA | Owner's Project Manager | Steve Loupe |
| Owner's address, phone, email | 481 4th Street, Hollister, CA 95023 \| (831) 207-8347 \| Sloupe@cosb.us | | |
| Services commenced by this firm (mm/yy) | 12/22 | Total consultant contract cost ($1,000's) | $445 |
| Services completed by this firm (mm/yy) | 12/24 | Cost of consultant services provided by this firm ($1,000's) | $182 |

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

TRC completed the 100% PS&E documents for road maintenance rehabilitation improvements along Shore Road in San Benito County from Frazier Lake Road to San Felipe Road totaling $4.6M. TRC prepared the PS&E for the 2.6-mile roadway segment, including roadway design that encompassed utility coordination, pavement design, and drainage design. The maintenance repair was funded using Measure G funds.

The design for this project included Full-Depth Reclamation (FDR) and overlay. During the design phase, the engineering team along with the County field walked the roadway segments to determine failure locations, drainage issues, and types of repair solutions. To expedite the project, aerial images were used to draft the plans in lieu of obtaining detailed surveys. Final pavement delineation and markings were placed on all the new paved roadways to meet current standards. Driveway conform details were prepared where the roadway profile was raised as a result of the FDR and overlay. Drainage culverts that crossed the roadway were protected in place. As part of this project, the intersection of Shore Road and Perry Court was widened for a left-turn pocket which was funded with developer fees.

Construction for Shore Road is expected to begin in fall 2024. TRC will also provide construction support services to address submittals and Contractor RFI's.

**STAFF TO BE USED IN THIS PROPOSAL:** J. Conklin, A. Bedal

## 17. Firm Experience:

| | | | |
|---|---|---|---|
| Firm name | TRC Engineers, Inc. | Past Performance Evaluation Discipline(s) | Road |
| Project name | **LA1 / LA 415 Connector** | Firm responsibility (prime or sub?) | Prime |
| Project number | H.005121 | Owner's name | Louisiana Department of Transportation and Development |
| Project location | West Baton Rouge Parish, LA | Owner's Project Manager | Corey Landry, PE |
| Owner's address, phone, email | 1201 Capital Access Road, Baton Rouge, LA 70802-4438 \| (225) 379-1889 \| corey.landry@la.gov | | |
| Services commenced by this firm (mm/yy) | 03/20 | Total consultant contract cost ($1,000's) | $16,061 |
| Services completed by this firm (mm/yy) | Ongoing | Cost of consultant services provided by this firm ($1,000's) | $9,500 |

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


This high-profile project involves the design of a new connector between LA 1 and I-10 which will improve capacity, resiliency, and safety by providing a direct connection and evacuation route for areas south of I-10. The project is approximately 3 miles in length on new alignment and includes a new four-lane roadway and bridge(s) over the Gulf Intracoastal Waterway (GIW), capacity improvements to the I-10/LA 415 Interchange, a new backage road that will allow improved traffic flow around the casino and fueling station on the West side of LA 415 that will allow for these businesses to remain functional and in place. A dual bridge interchange is being designed at Sun Plus as well as a full diamond interchange at LA 1.

Initiated as a Design-Bid-Build procurement, the LA DOTD transitioned the project's delivery method near the end of preliminary engineering to a Construction Manager at Risk (CMAR) where TRC is the Lead Designer working hand-in-hand with the LA DOTD and the CMAR contractor (James Construction Group) and TRC was issued an advanced Notice-to-Proceed to keep this project moving forward and on schedule.

As part of the transition, TRC assisted LA DOTD by participating in numerous coordination meetings that included West Baton Rouge Parish, the Port of Greater Baton Rouge who was developing the Inland Rivers Chambering Rail Yard, a developer for a Bio-Diesel Fueling Plant, as well as local businesses and landowners. TRC also assisted LA DTOD with the Environmental Re-evaluation that included a Public Meeting.

TRC is in the process of developing the 30% CMAR design package that includes a dual and single bridge option over the GIW to provide alternative options for funding and construction of the Project. Once the 30% CMAR documents are complete, DOTD will work jointly with the CMAR Contractor and the Independent Cost Estimator (ICE) in developing an Opinion of Probably Cost (OPC). Once the OPC has been approved by DOTD, the DOTD Project Manager will meet with DTOD's executives to compare the OPC with the available funding to determine if the whole project can be built at once or with a single bridge/roadway option.

**STAFF TO BE USED IN THIS PROPOSAL:** D. Krone, M. Paul, D. Clayton, J. Crouse, C, Hassell, X. Liu

## 17. Firm Experience:

| | | | | | |
|---|---|---|---|---|---|
| Firm name | NTB Associates, Inc. | | Past Performance Evaluation Discipline(s) | Survey | |
| Project name | **Rural Bridge Replacement Initiative Phase II** | | Firm responsibility (prime or sub?) | Sub | |
| Project number | 4400019338 | Owner's name | Louisiana Department of Transportation and Development (Waggoner – Prime) | | |
| Project location | Districts 02, 03, 07, 61, & 62 | | Owner's Project Manager | Robert J. Lear, Jr., PE, LS (Waggoner) | |
| Owner's address, phone, email | 10305 Airline Highway, Baton Rouge, LA 70816 \| (225) 298-0800 \| rlear@sigmacg.com | | | | |
| Services commenced by this firm (mm/yy) | 09/20 | | Total consultant contract cost ($1,000's) | $1,251.7 | |
| Services completed by this firm (mm/yy) | Ongoing | | Cost of consultant services provided by this firm ($1,000's) | $1,251.7 | |

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

**Project Relevance:**
- Topographic Surveys

NTBA is performing GPS Control surveys, topographic surveys, property surveys, title take-offs, legal description preparation, preliminary and final right-of-way mapping, and QL C & D subsurface utility services for 21 bridge and culvert replacements throughout South Louisiana.

Topographic surveying includes surveying of all sub-surface drainage structures, 200 feet upstream and downstream with cross-sections every 50 feet along channels, deck gutter lines, centerline of joints, low chord elevations, bent locations, and right-of-way 800 feet either side of structure. NTBA produces electronic topographic drawings in MicroStation depicting all utility and topographic information. Data was provided to the engineering consultant for incorporation into their hydraulic model being used to evaluate the system.

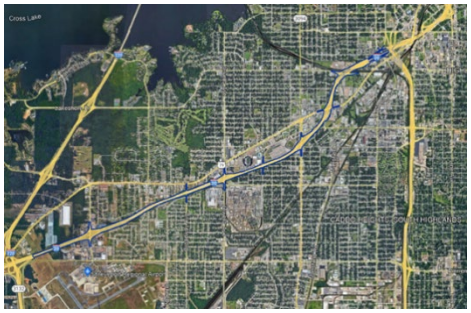
Boundary surveying has been performed for 15 bridges with approximately 50 parcels. Services include surveying of each parcel affected by either construction servitude or additional right-of-way requirements as well as production of property survey submittal, preliminary and final right-of-way maps, and parcel descriptions. All services are being completed in accordance with the Location and Survey Manual Addendum A and all currently accepted Location and Survey Automated procedures.

**STAFF TO BE USED IN THIS PROPOSAL:** P. Rossini, B. Bunch, W. Wales, M. King

## 17. Firm Experience:

| | | | | | |
|---|---|---|---|---|---|
| Firm name | NTB Associates, Inc. | | | Past Performance Evaluation Discipline(s) | Survey |
| Project name | **I-20: Monkhouse to I-49, Route I-20** | | | Firm responsibility (prime or sub?) | Prime |
| Project number | 4400017713/ H.010468.5 | Owner's name | Louisiana Department of Transportation and Development | | |
| Project location | Caddo Parish, LA | | Owner's Project Manager | Barrett Smith, PLS | |
| Owner's address, phone, email | 1201 Capitol Access Road, Baton Rouge, LA 70802 \| (225) 379-1133 \| barrett.smith@la.gov | | | | |
| Services commenced by this firm (mm/yy) | 04/22 | Total consultant contract cost ($1,000's) | $1,355 | | |
| Services completed by this firm (mm/yy) | 04/23 | Cost of consultant services provided by this firm ($1,000's) | $1,355 | | |

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



**Project Relevance:**
- Topographic Survey
- HDS 3D Terrestrial Laser Scanning

NTBA performed static GPS control and **topographic surveying** services using RTK and conventional surveying, along with HDS 3D Terrestrial Laser Scanning, traffic control, and QL C & D subsurface utility investigation for this major interstate rehabilitation. NTBA also prepared a drainage map. This project was one of the largest topographic surveys NTBA had ever been a part of which consisted of 4.89 miles of interstate, 2.35 miles of side streets, and a drainage area of approximately 990 acres. Surveys and utility investigations were performed along I-20 beginning approximately 4,200 ft. southwest of the intersection of Monkhouse Dr. and I-20 and proceed in a northeasterly direction along I-20 ending at the westerly end of the I-20/I-49 interchange. Areas included Monkhouse Drive, Jewella Avenue, Hearne Avenue, Greenwood Road, Texas Avenue, and Lakeshore Drive.

NTBA managed a subconsultant to perform mobile laser scanning of hard surfaces along the route. NTBA performed data extraction of the mobile scan data for incorporation into Inroads and for Point Cloud delivery. While the LADOTD's project schedule had an allowable duration of 365 days, NTBA completed the work in 359 days with one minor comment. The effort took 3,999 field crew hours, 3,448 CADD hours, and 2,250 PLS hours. There were over 70,000 points for the topographic survey and over 1,500 drainage structures surveyed for the drainage map. The areas included major thoroughfares, surface streets, railroad rights-of-way, and drainage canals. MicroStation files were the deliverable for the project.

All services were completed in accordance with the Location and Survey Manual and all currently accepted Location and Survey Automated procedures.

**STAFF TO BE USED IN THIS PROPOSAL:** B. Bunch, M. King, C. LeCoq, I. Jack, C. Chapman, P. Staiano, W. Wales

## 17. Firm Experience:

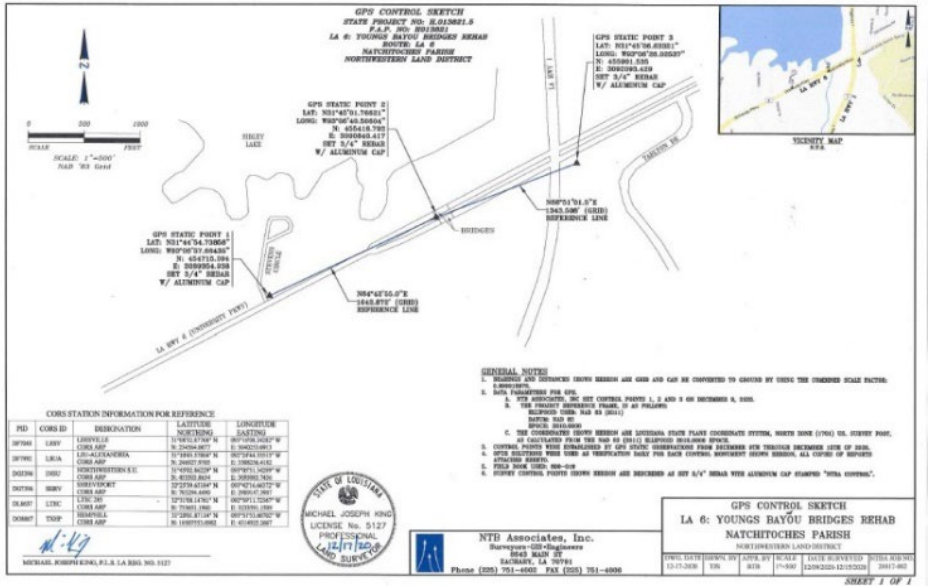
| | | | | | |
|---|---|---|---|---|---|
| Firm name | NTB Associates, Inc. | | Past Performance Evaluation Discipline(s) | Survey | |
| Project name | **LA 6: Youngs Bayou Bridge Rehabilitation** | | Firm responsibility (prime or sub?) | Prime | |
| Project number | 4400017713 & H.013821.5 | Owner's name | Louisiana Department of Transportation and Development | | |
| Project location | Natchitoches Parish, LA | | Owner's Project Manager | Barrett Smith, PLS | |
| Owner's address, phone, email | 1201 Capitol Access Road, Baton Rouge, LA 70802 \| (225) 379-1133<br>barrett.smith@la.gov | | | | |
| Services commenced by this firm (mm/yy) | 12/20 | | Total consultant contract cost ($1,000's) | $108.1 | |
| Services completed by this firm (mm/yy) | 03/21 | | Cost of consultant services provided by this firm ($1,000's) | $108.1 | |

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

**Project Relevance:**
- Topographic Survey
- HDS 3D Terrestrial Laser Scanning

NTBA performed topographic surveying services and HDS 3D Terrestrial Laser Scanning for this bridge rehabilitation along LA Hwy. 6 near the intersection of LA Hwy. 1 and LA Hwy. 6. The project began approximately 1,000 feet before the start of each bridge and ended approximately 1,000 feet after the end of each bridge with a total linear distance on 2,120 feet. The width of the survey and DTM was approximately 290 feet.

The complete topographic survey included all utilities with depths and drainage along with finish floor elevations of all buildings within the survey limits. Bridge sub-structures were located. The survey also included under and around the bridge abutment and bridge deck surface. This project was completed in accordance with the most current edition of the Location and Survey Manual and all currently accepted Location and Survey Automation procedures.




**STAFF TO BE USED IN THIS PROPOSAL:** P. Rossini, B. Bunch

## 17. Firm Experience:

| | | | |
|---|---|---|---|
| Firm name | Urban Systems, Inc. | Past Performance Evaluation Discipline(s) | Traffic |
| Project name | **I-10 Closure at Veterans Memorial Boulevard** | Firm responsibility (prime or sub?) | Sub |
| Project number | 2020-024 | Owner's name | Entergy Louisiana |
| Project location | Jefferson Parish | Owner's Project Manager | Noel Coari |
| Owner's address, phone, email | 3734 Tulane Ave, Mail Unit L-TUL-113, New Orleans, LA 70119 \| (504) 595-3812 \| ncoari@entergy.com | | |
| Services commenced by this firm (mm/yy) | 05/20 | Total consultant contract cost ($1,000's) | Unknown |
| Services completed by this firm (mm/yy) | 07/20 | Cost of consultant services provided by this firm ($1,000's) | $136K |

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

Urban Systems prepared **Traffic Control Devices Plans** and Traffic Rerouting Plans in accordance with LADOTD, Jefferson Parish and MUTCD standards for Entergy's removal of overhead distribution lines. This project required redirecting traffic around the construction zone. The plans included:

- Closure of power southbound to I-10 eastbound on-ramp with traffic detoured to the I-10 EB on-ramp at Veterans Memorial Boulevard.
- Closures with traffic detoured to the I-10 EB on-ramp at Veterans Memorial Boulevard from:
  - Williams southbound to I-10 eastbound on-ramp
  - Williams northbound to I-10 eastbound on-ramp
- Airport Access Roadway on-ramp to I-10 eastbound
- Complete closure of I-10 eastbound at Williams Boulevard
- Complete closure of I-10 westbound at Veterans Memorial Boulevard
- Closure of the I-10 westbound on-ramp from Veterans Memorial Boulevard with traffic detoured to the westbound on-ramp from Williams
- Police control at each signalized intersection along the detour route.

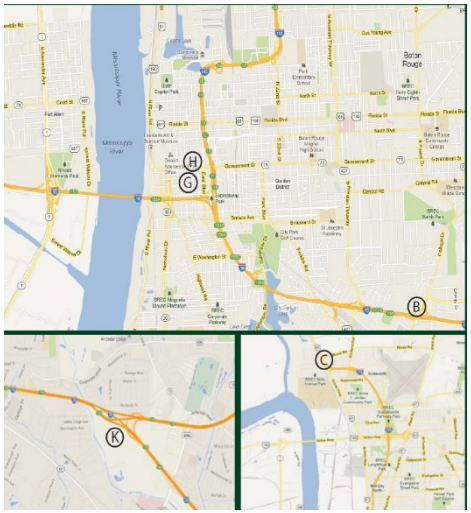

USI developed compliant traffic control plans in accordance with LADOTD, Jefferson Parish and MUTCD standards that allowed Entergy crews to safety conduct their efforts to remove and replace power distribution lines.

**STAFF TO BE USED IN THIS PROPOSAL:** N. Stewart, C. Darrah

## 17. Firm Experience:

| | | | |
|---|---|---|---|
| Firm name | Urban Systems, Inc. | Past Performance Evaluation Discipline(s) | Traffic |
| Project name | **Bridge Preventative Maintenance District 61** | Firm responsibility (prime or sub?) | |
| Project number | F.A.P. and SP H.000351 | Owner's name | Louisiana Department of Transportation and Development |
| Project location | Baton Rouge, LA | Owner's Project Manager | Danny Tullier |
| Owner's address, phone, email | 1201 Capitol Access Road, Baton Rouge, LA 70804 \| (225) 379-1355 \| Danny.Tullier@la.gov | | |
| Services commenced by this firm (mm/yy) | 11/12 | Total consultant contract cost ($1,000's) | Unknown |
| Services completed by this firm (mm/yy) | 09/16 | Cost of consultant services provided by this firm ($1,000's) | $69.8 |

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



**Project Relevance:**
- Transportation Management Plan
- Traffic Data Collection
- Safety Analysis

The objective of this project was to conduct a **Level 4 Transportation Management Plan (TMP)** based on LADOTD EDSM VI.1.1.8 for bridge component repairs at five (5) locations on I-10, I-110 and I-12 in Baton Rouge, Louisiana. A TMP was critical for these locations as the interstates serve up to 85,000 vehicles per day and closing lanes and/or ramps would have a significant impact on mobility.

Seven-day hourly volume counts were collected and adjusted using LADOTD seasonal and axle factors. A queue analysis was conducted, as specified in LADOTD EDSM VI.1.1.4, to determine when the proposed lane closures could be implemented with the least impact with the high interstate volumes.

A **safety analysis** was conducted based on the LADOTD's Guidelines for Crash Data Analysis, June 2014. Crash rates were calculated for each location and compared to LADOTD's statewide averages and to LADOTD's High Potential for Safety Improvements (formerly the Abnormally High Crash) List. Charts were developed at each location based on collisions by type, log mile and time.

An important strategy to minimize work zone impacts involved the preparation of an evacuation plan as I-10 and I-110 are critical arteries during a hurricane evacuation.

A stakeholders meeting was held during the TMP process to obtain input and share information with:
- LADOTD Headquarters
- LADOTD District 61
- LADOTD TMC
- East Baton Rouge Sheriff's Office
- Louisiana State Police
- Baton Rouge Police Department
- Prime and sub consultants

**STAFF TO BE USED IN THIS PROPOSAL:** . A. Michel, N. Stewart

## 17. Firm Experience:

| | | | |
|---|---|---|---|
| Firm name | Urban Systems, Inc. | Past Performance Evaluation Discipline(s) | Traffic |
| Project name | **Retainer Contract Safety Studies Statewide** | Firm responsibility (prime or sub?) | Prime |
| Project number | SP 700-99-0402 | Owner's name | Louisiana Department of Transportation and Development |
| Project location | Route US 90 Jefferson Parish, LA | Owner's Project Manager | April Renard, P.E. |
| Owner's address, phone, email | 1201 Capitol Access Road Baton Rouge, LA 70802, Rm 202C \| (225) 379-1919 \| April.Renard@la.gov | | |
| Services commenced by this firm (mm/yy) | 04/08 | Total consultant contract cost ($1,000's) | Unknown |
| Services completed by this firm (mm/yy) | 10/13 | Cost of consultant services provided by this firm ($1,000's) | $722.8K |

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

**Project Relevance:**
- Traffic Data Collection
- Crash Analysis
- Safety Improvements

**701-65-1157- Stage 0 Study of 10 intersections on LA 431 in Ascension Parish**
LA 431 corridor was identified for potential long-term improvements, including conversion of the roadway into a 3-lane section.

**701-65-1195 - Speed Study on LA 1 in Mathews, LA, Lafourche Parish**.
Bi-directional speed counts on LA 1 south of the LA 364 bridge in the vicinity of 4932 LA 1

**701-65-1323- LA 3235 Corridor Safety Study, Houma, LA, Terrebonne Parish**
Collect data and performed crash analysis from LA1 to LA 24.

**701-65-1322- LA 44 Corridor Safety Study, Gonzales, LA, Ascension Parish**
Developed long- and short-term recommendations for safety between LA 931 and LA 30

**701-65-1537 – LA 6 Roundabout Stage 0 Study**
Feasibility study for a roundabout at the intersection of LA 6 BUS (University Parkway) at Jefferson/Mill Street.

**H.009791.1 - Low Cost Safety Improvements at Intersections and Curves**
Obtained and reviewed data for each of 117 intersections and 969 curves to prepare figures presenting low cost safety improvements. Site specific figures were prepared illustrating the identified low cost safety improvements for each location. This task included documenting those intersections or curves that did not require low cost safety improvements. A preliminary cost estimate was developed for the identified improvements for each location.

**STAFF TO BE USED IN THIS PROPOSAL:** . A. Michel, N. Stewart

**701-65-1030 - Initial Field Investigation & Preliminary Data Review, Districts 61&08**
Task order involved the performance of field visits to review available accident data and document conditions such as geometry, locations for count collection, speed limits, sight obstructions etc. Also determined the need for further study and investigation.

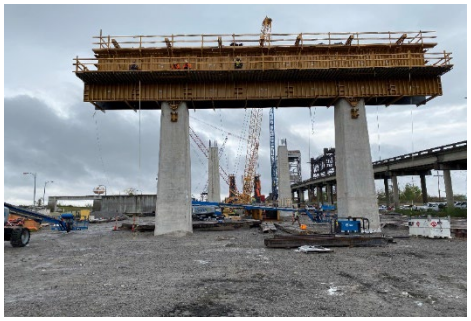
**District 08**
- LA 1208-3(Jackson Street) Corridor
- US 71 (MacArthur Drive) Corridor
- LA 6 Corridor
- LA 1 Corridor in Natchitoches
- LA 8/28 at LA 117 /LA 1213

**District 61**
- LA 44 at LA 934
- LA 37 at LA 73
- LA 437 at College Drive
- I-110 at Government Street
- I-10 Entrance/Exit Ramps at Bluebonnet Blvd.
- US 190 at Sherwood Forest Boulevard
- LA 30 at LA 44(N. Burnside Avenue)
- US 61 (Airline Highway) at LA 3038
- LA 1 at LA 3131(N. Junction)
- LA 30 (St. Louis Street) at South Boulevard
- Nicholson Drive at Brightside Lane
- US 61 (Airline Highway) at LA 44 (N. Burnside Avenue)
- LA 30 at E. Boyd and Jennifer Jean
- LA 42 at E. Boyd and Jennifer Jean

## 17. Firm Experience:

| | | | |
|---|---|---|---|
| Firm name | GeoEngineers, Inc. | Past Performance Evaluation Discipline(s) | Geotech |
| Project name | **Belle Chasse Bridge and Tunnel Replacement P3** | Firm responsibility (prime or sub?) | Sub |
| Project number | H.004791 | Owner's name | Louisiana Department of Transportation and Development |
| Project location | Plaquemines Parish, Louisiana | Owner's Project Manager | Nicholas Olivier, PE |
| Owner's address, phone, email | 1201 Capitol Access Road, Baton Rouge, LA 70804 \| (225) 379-1110 \| Nicholas.Olivier@la.gov | | |
| Services commenced by this firm (mm/yy) | 07/18 | Total consultant contract cost ($1,000's) | ~$165,000 |
| Services completed by this firm (mm/yy) | Ongoing | Cost of consultant services provided by this firm ($1,000's) | $ 1,126 |

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



**Project Relevance:**

- Preliminary subsurface conditions evaluation
- Geotechnical investigation (borings, lab testing)
- Geotechnical analyses and recommendations

The Belle Chasse Bridge and Tunnel Replacement Project represents a replacement of the aging Perez Bridge and Belle Chasse Tunnel spanning the Gulf Intracoastal Waterway on LA 23 with a 3,300-foot fixed-span bridge carrying both north and southbound traffic via four travel lanes. The $169 million project is a Public-Private Partnership (P3) between the Louisiana Department of Transportation and Development and the Plenary Infrastructure Belle Chasse Consortium, a large team of consultants and contractors. The Project is **LADOTD's first P3 concession** and is an essential part of Louisiana's long-term procurement plans and a roadmap for future transportation P3's in the state.

Designing and testing foundations for a long-span bridge in the site's soft Louisiana soils was no easy task, especially since the bridge would be supported by a combination of precast prestressed concrete (PCC) piles and relatively large 48-inch diameter steel pipe piles. Geotechnical recommendations are typically validated by on-site testing which can in turn cause construction delays due to the long set-up times needed when working in soft clay soils. To streamline the process, the GeoEngineers team completed a combination of test piles and dynamic testing (PDA) to provide early-acceptance criteria for production piles. Through such testing and analysis, the contractor didn't need to wait for set-up to complete testing before the piles could be approved.

The GeoEngineers team also had to contend with United States Army Corps of Engineers (USACE) regulated flood-control T-walls and levees on either side of the intracoastal waterway and evaluate how settlement, stability, pile driving vibrations and other construction activities might affect those structures.

GeoEngineers oversaw the dynamic testing of a 48-inch diameter steel pipe pile for the new bridge's main pier.

**KEY STAFF USED IN PROPOSAL:** L. Sant, D. Sauls, A. (Chien-An) Ju

## 17. Firm Experience:

| | | | | | |
|---|---|---|---|---|---|
| Firm name | GeoEngineers, Inc. | | | Past Performance Evaluation Discipline(s) | Geotech |
| Project name | **Loyola Drive/I-10 Interchange Design-Build** | | | Firm responsibility (prime or sub?) | Sub |
| Project number | H.011670 | Owner's name | Louisiana Department of Transportation and Development | | |
| Project location | Jefferson Parish, LA | | Owner's Project Manager | Tim Nickel, PE | |
| Owner's address, phone, email | 1201 Capitol Access Road, Baton Rouge, LA 70804 \| (225) 379-1110 \| Timothy.Nickel@la.gov | | | | |
| Services commenced by this firm (mm/yy) | 01/19 | | Total consultant contract cost ($1,000's) | | ~$125,000 |
| Services completed by this firm (mm/yy) | Ongoing | | Cost of consultant services provided by this firm ($1,000's) | | $1,100 |

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

GeoEngineers was retained to complete the geotechnical exploration, testing and engineering for this high-profile $125 million Design-Build project that will ultimately improve the Loyola Drive interchange to increase operational efficiency and traffic capacity. The existing I-10 interchange is a multi-level, controlled-access interchange consisting of two overpass bridges. The LANOIA Airport is planning to build a new terminal and subsequently move the I-10 exit from Williams Boulevard to Loyola Drive. To do this, the Design-Build team was selected to:

- Modify the existing ramps and construct a new multi-level interchange, including two one-way elevated flyovers and a diverging diamond on at-grade interchange Loyola Drive.
- Add auxiliary lanes along I-10, including over Duncan Canal.
- Construct noise barriers at various locations throughout the project corridor.
- Upgrade Loyola Drive north and south of I-10 and tie it into the LANOIA corridor Airport Access Road.
- Improve drainage and lighting, relocate utilities, and provide pier protection.

GeoEngineers' responsibilities have included:

- Development of a preliminary subsurface conditions evaluation describing local geology, research of available geotechnical information, and plotting of design standards to help refine the team's design approach.
- Geotechnical investigations and analyses.
- Provision of foundation, embankment, pile, and pavement design recommendations.
- Use of Pile Driving Analyzer (PDA) equipment to evaluate and monitor the installation of piles.

**Project Relevance:**

- Preliminary subsurface conditions evaluation
- Geotechnical investigation (borings, lab testing)
- Geotechnical analyses and recommendations

**KEY STAFF USED IN PROPOSAL:** L. Sant, D. Sauls

## 17. Firm Experience:

| | | | | | |
|---|---|---|---|---|---|
| Firm name | GeoEngineers, Inc. | | | Past Performance Evaluation Discipline(s) | Geotech |
| Project name | **US 90/LA 318 Interchange Design-Build** | | | Firm responsibility (prime or sub?) | Sub |
| Project number | H.004932 | Owner's name | Louisiana Department of Transportation and Development | | |
| Project location | St. Mary Parish, LA | | Owner's Project Manager | Tim Nickel, PE | |
| Owner's address, phone, email | 1201 Capitol Access Road, Baton Rouge, LA 70804 \| (225) 379-1110 \| Timothy.Nickel@la.gov | | | | |
| Services commenced by this firm (mm/yy) | 10/15 | | Total consultant contract cost ($1,000's) | | ~$733,000 |
| Services completed by this firm (mm/yy) | 02/18 | | Cost of consultant services provided by this firm ($1,000's) | | $84,000 |

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

The US 90/LA 318 Interchange project was in preparation for the conversion of US90 to future I-49 in St. Mary Parish. The $55.7 million project included the construction of access ramps between US 90 and LA 318, realignment of the frontage road for local access parallel to US 90, and elevating US 90 over LA 318.

As part of the Design-Build team with Gilchrist Construction Company, GeoEngineers provided geotechnical engineering design services and construction recommendations. Their work included the completion of preliminary designs for compliance with AASHTO LRFD and LADOTD standards. GeoEngineers also provided geotechnical design to the bridge, road and contractor teams as needed throughout the duration of the Design-Build construction process. Geotechnical tasks delivered by GeoEngineers for the project included the following:

- Review of project geology and explorations previously completed.
- Subsurface explorations and laboratory testing for foundation, embankment, and pavement design.
- Engineering analysis and recommendations for driven pile foundations needed for highway overpass bridges and drainage culvert design.
- Engineering analysis and recommendations for wick drains and surcharge to reduce post-construction embankment settlement, including field monitoring.
- Field monitoring of pile dynamic testing included WEAP and PDA analysis.

**Project Relevance:**

- Preliminary subsurface conditions evaluation
- Geotechnical investigation (borings, lab testing)
- Geotechnical analyses and recommendations

**KEY STAFF USED IN PROPOSAL** L. Sant, D. Sauls

## 18. Approach and Methodology:

TRC brings years of successful Louisiana Department of Transportation and Development (DOTD) experience to this contract and has assembled a team whose members all bring proven success at completing similar road and bridge design projects in accordance with the Scope of Services noted in Attachment A – Scope of Services (A&B) and in accordance with all requirements of the DOTD. Each subconsultant team member was selected based on our previous working relationships as a team, their DOTD transportation project success, and their availability and depth of staffing resources to support a contract of this nature. Our team's staff are very familiar with the preferences and expectations of the Department and the approach discussed here will guide us in exceeding those expectations in every aspect of our work.

## APPROACH TO THE PROJECT

### CONTRACT SCOPING MEETING

Following selection and contract execution that will include a comprehensive QA/QC Plan that has been reviewed and approved by LADOTD, the TRC team will participate in a scoping meeting with the appropriate DOTD technical and support personnel to develop a Task Order (TO) specific scope of services that will include a detailed schedule and compensation. Each TO will include a Project Work Plan as well as Project Design Criteria that will include compliance with the preapproved QA/QC plan. Once approved by DOTD, the documents will be issued to CCS for execution.

### PROJECT KICKOFF MEETING FOR IDENTIFIED TASK ORDERS

Following Notice-to-Proceed, TRC will request a TO kickoff meeting with the DOTD PM and key personnel to request the necessary data and finalize the important items and dates for schedule and deliverables. This kickoff meeting will be used to:

**(1)** establish project design criteria
**(2)** determine the frequency for project coordination meetings
**(3)** schedule an on-site meeting with DOTD, and
**(4)** review questions that the project team may have after reviewing existing documents.

TRC will develop a Critical Path baseline schedule using decisions made in the Kickoff Meeting. Before finalizing the schedule, we will coordinate with key stakeholders to consider requirements and restrictions imposed by the US Coast Guard, DOTD Districts, local agencies and others for each submittal, along with potential alternatives that could help reduce construction time, costs, and disruptions to the public on both highways and waterways.

### SCOPE OF WORK

Based on our combined resources, the TRC team is able to address the expected scope of services for individual TOs under this project. Such services may include:

- Bridge and Roadway Preliminary and Final Design Services including load rating.
- Geotechnical services, including field investigations, laboratory testing, analysis, and design.
- Traffic engineering, traffic control design, and Transportation Management Plans.
- Hydraulic analysis and design.
- Surveying and Right-of-Way Map Services, including topographic and property title take-offs, and property/boundary surveys.
- Permitting sketch development.
- Pavement preservation, including 3R and PRR project types
- Transportation Systems Management (TSM) and capacity improvements
- Construction Proposal Services, if needed
- Construction related engineering services

The TRC team is equipped to address any critical issues impacting the design development of projects presented for Louisiana's key infrastructure and transportation assets. TRC will provide our team's approach to identifying successful design solutions for the chosen Projects. Project success will rely on the execution of clear and concise communication and coordination between our team, DOTD's Project Manager and Districts, the US Coast Guard and US Army Corps of Engineers, DEQ and EPA, and the various private and public entities using the impacted transportation links. TRC's detailed and effective interaction with these agencies demonstrated during our previous bridge and roadway design projects provides DOTD with the confidence that our team will effectively and efficiently deliver the best value for each transportation asset.

## METHODOLOGY

TRC understands this IDIQ contract has two mechanisms for delivery of projects: full size plan design (Scope A) and Pavement Preservation Projects (Scope B). To deliver the needed design and plan development work, TRC will undertake the following methodologies with respect to each of the required work disciplines.

### SCOPE OF SERVICES A - FULL SIZE PLAN DESIGN

**Topographic Surveying:** TRC has had a long and successful relationship with NTB Associates (NTBA) who will be conducting all survey and scanning services for this IDIQ Contract. NTBA is very familiar with DOTD survey procedures and manuals and has an extensive history of performing topographic surveys for the DOTD.

**Property Survey/ROW Maps/Title Services:** NTBA is also well-versed with DOTD right-of-way requirements and has an extensive history of performing title take-offs, property boundary surveys and right-of-way mapping for DOTD. NTBA understands the challenges that can be encountered while obtaining property information and locating

property corners. Due to the impact that right-of-way acquisition can have on project schedules, NTBA expects to begin project field work immediately upon Notice to Proceed of a particular TO.

**Bridge and Roadway Design Services:** As presented in Section 17 of this Form 24-102, TRC has successfully led the completion of several recent large road and bridge design projects, including the LA 1 Port Allen Canal Bridge Replacement in West Baton Rouge, the Walter O. Bigby Carriageway Extension in Bossier City, and Old Hammond Highway – Segment 2 in Baton Rouge, as well as our current role as the Prime design consultant for the high profile LA 1/LA 415 Connector - CMAR project. We have also managed several IDIQ contracts involving the assignment of load rating, bridge preservation and bridge maintenance projects. As a result, TRC and its team members are well-versed with the execution of projects on a TO basis, as well as implementing non-traditional approaches to evaluate and develop the most economical replacement/rehabilitation/repair solutions while adhering to best practices and constructability constraints. Once the surveying, geotechnical analysis, and environmental compliances are completed, a complete set of preliminary plans, final construction plans, construction cost estimates, design calculations, etc. will be submitted as required by the contract.

During the Preliminary Design Phase, TRC will develop 30% through 100% Preliminary Plans based on the DOTD's Roadway Design Procedures and Details Manual, DOTD Bridge Design and Evaluation Manual, AASHTO Highway Safety Manual and Roadside Design Guide, and DOTD M2017 Minimum Design Guidelines. Preliminary roadway design will include the selection of typical roadway sections, development of horizontal and vertical alignments, and preliminary storm drain design. Preliminary roadway plans will include typical section, plan and profile, storm drainage, joint layout, pavement marking, maintenance of traffic, sequence of construction and cross section sheets. Bridge design will include the development of bridge type, size and location, while bridge plans will include general notes, superelevation transition details, general plan and elevation sheets, and foundation plans.

For replacement projects, we will determine viable roadway alignment location, bridge structure types and construction sequencing to consider during the project development. This will allow the TRC team to coordinate with DOTD and its key stakeholders to select the most economical structure types for a project. Maintaining traffic during construction will be crucial to project success and rely on the implementation of a traffic management plan that evaluates phased bridge construction vs. single bridge closures with temporary roadway crossovers; maintaining access control for adjacent detours; and maximizing safety of vehicle, railroad, and marine traffic. General bridge plans will be developed to show the horizontal configuration of the bridge, along with vertical profiles featuring the top of rail/water and required height clearances and freeboard to the superstructure of the proposed bridge. We will coordinate horizontal and vertical alignments through the DOTD, USCG and railroads as needed for their approval to ensure that project design criteria are met. A preliminary hydraulics design report will be included with the 60% Preliminary Plans delivery. As part of the 100% Preliminary Plans submittal, TRC will prepare any required railroad or environmental clearance permits and begin developing any SWPPP plans.

Final Plan stages for preliminary as well as rehabilitation plans will include submittals at 30%, 60%, 90%, 95%, 98%, and 100%. TRC will work with the DOTD's PM to finalize roadway typical sections, roadway alignments, and access tie-ins to confirm ROW design requirements. TRC will develop detailed roadway and bridge construction plans, along with a suggested sequence of construction for phasing presented in the Preliminary Plans. Hydraulic design will also be finalized. After receiving 60% Final Plan comments, TRC will develop the 90% Final Plans, Summary of Quantities sheets, finalized bridge plans, and as-designed bridge load rating report. A 95% Final Plan Review meeting will be held before the 98% Final Plans submittal, including construction cost estimates and special provisions. We will work with the DOTD's PM to ensure all necessary submittals are made to prepare for 100% Final Plans. After comment resolutions, the TRC team will stamp and seal all construction plan sheets for submittal.

**Bridge Hydraulic Analysis:** TRC has expertise in hydraulic and scour analyses and is familiar with the DOTD Hydraulics Manual. Initially, we will first establish existing conditions using WSPRO or the latest version of HEC-RAS and consult with the DOTD to discuss using 1D (steady or unsteady state) or 2D modeling. We will perform data collection, establish the hydrology at the site, and prepare the existing and proposed conditions. For the proposed condition, we will consider costs and hydraulic performance, as well as look at the options of least stream impact and consider FEMA requirements. We will evaluate stream velocity and its impact and design the bridge to have minimal pier scour. We will prepare a report in accordance with Section 11.9.1 in the DOTD Hydraulics Manual.

**Bridge Load Rating:** TRC has extensive experience with the current AASHTOWare Bridge Rating (BrR) software as well as other modeling software on the DOTD's pre-approved list such as midas Civil and STAAD when BrR cannot be used.

**Storm Drainage and Sanitary Sewer:** TRC has extensive experience in the area of storm drainage. Our staff are familiar with the DOTD's Hydraulics Manual and storm drainage software programs. TRC also has experience with the design of sanitary sewer systems as demonstrated by our Hooper Road Storage project that was part of the City of Baton Rouge's SSO program.

**Transportation Management Plan / MOT:** TRC has had a long and successful relationship with Urban Systems Inc. (USI). To identify the challenges and address strategies to minimize the traffic delays associated with lane closures, demand volumes and incidents within the construction limits, USI will prepare a Transportation Management Plan (TMP) on behalf of the TRC team for each project. This TMP will be

based on the DOTD's EDSM VI.1.1.8 for bridge component repairs. USI has prepared similar TMPs for TRC on other maintenance/rehabilitation bridge projects.

**Geotechnical Services:** As stated in the project Advertisement, the DOTD will conduct geotechnical exploration and laboratory work for the Scope A services. Building on this information, GeoEngineers has been added to the TRC team to conduct all geotechnical design work required for TOs under this IDIQ Contract. GeoEngineers has extensive experience providing geotechnical engineering services for the DOTD in every parish throughout the state and is prepared and committed to providing the geotechnical services necessary to perform analysis and design in support of projects. This includes various forms of analysis and design. GeoEngineers is also prepared to provide oversight for construction-related geotechnical services, including the completion of or review for PDA and CAPWAP analysis, settlement monitoring or analysis, and other required construction support.

**Construction Proposal Services:** As stated in the subsequent Addendum for this contract, Construction proposals will be provided by DOTD, except when the need arises within the District for the Consultant to provide these services. If that is the case, TRC employs staff with experience in reviewing PS&E documents, preparing construction estimates using DOTD standard bid items, developing project phasing, and development of project schedules. TRC is familiar with the DOTD's construction Proposal requirements and has conducted these types of services for other Owners, including Bossier City for the Walter O. Bigby Carriageway project.

**Construction Support:** Key members of the TRC team will attend the preconstruction meeting as well as complete all required Construction Related Engineering Services including: pre-bid and on-call support; shop drawing review; responses to RFIs; change order approvals; shop inspections/reports; erection and installation procedures; factory testing of completed electrical control and hydraulic circuits; and commissioning and start-up to include initial testing of individual components/systems (mechanical, hydraulic and electrical).

## SCOPE OF SERVICES B – PAVEMENT PRESERVATION PROJECT DESIGN

The services provided for Scope B will be similar to those provided in Scope A, which include topographic survey, right-of-way map services, TMP/MOT, preliminary and final plans, and construction related engineering services.

**Pavement Preservation:** The Scope B project type focuses on delivering pavement preservation efforts aimed at **maintaining** and **extending the service life** of pavements. The goal is to **cost-effectively employ resurfacing, restoration, and rehabilitation** activities to ensure a net improvement to the highway network while addressing **safety measures, cross slope corrections and skid resistance enhancements**. TRC understands the services for the scope B projects will involve tasks similar to those required for the Full Size Plan Scope of Services, including **topographic surveys**, **preliminary plans and final plans**, with a potential for an accelerated schedule.

TRC **is well-versed** in the DOTD design guidance including the **3R (Resurfacing, Restoration and Rehabilitation)** and **PRR (Preservation, Rehabilitation and Replacement)** guidelines, as well as the **Pavement Preservation Manual**. These guidelines help ensure that the **right treatments** are applied at the **right time** to ensure project success.

The primary objective of pavement preservation projects is to **extend the service life** of the pavements. TRC will implement customized, cost-effective treatments that are a fit for the current conditions of the roadway. TRC is committed to working with the DOTD to meet and exceed the project goals while delivering a high-quality product that is completed on time and within budget.

GeoEngineers will provide all the Geotechnical exploration and laboratory services for the Scope B work.

**Transportation Systems Management:** Scope B may also include Transportation Systems Management (TSM) projects or to integrate TSM strategies into a design project. For these types of projects, TRC will work with our traffic subconsultant USI to identify and develop (TSM) alternatives to manage congestion.

The TRC team understands that the ultimate goal of TSM is to implement operational improvements which can maintain or improve the performance of an existing transportation system, with the goal being to get the most performance out of an existing transportation system. TRC will work with USI to develop low-cost strategies to improve traffic flow that may include retiming traffic signals, coordinating traffic signals or using an existing pavement, such as shoulders, to increase capacity through an intersection.

## COMMITMENT TO QUALITY AND SAFETY

**Commitment to Quality Control / Quality Assurance:** To ensure that all work is delivered in a fashion that exceeds the DOTD's expectations, a proven Quality Management Plan (QMP) that has the full support of corporate management backs the TRC team's design services. This program leverages a stringent peer review process for all project work that confirms schedules, scopes, budgets, safety, and other requirements. The plan also establishes guidelines to effectively monitor issues of identified nonconformance, evaluate root causes and impact, and implement appropriate corrective actions. Using checklists and deliverable review procedures for all plans, calculations, specifications, and estimates is the first step the entire design staff uses to create quality deliverables. TRC ensures that a commitment to quality is also made by our subconsultants, and that they document the implementation of their QA/QC process with every deliverable. TRC will conduct a QA review of every subconsultant submission, including interdisciplinary reviews, to assure conformance with other project disciplines. Design schedules will be established at the project's outset that incorporate adequate time

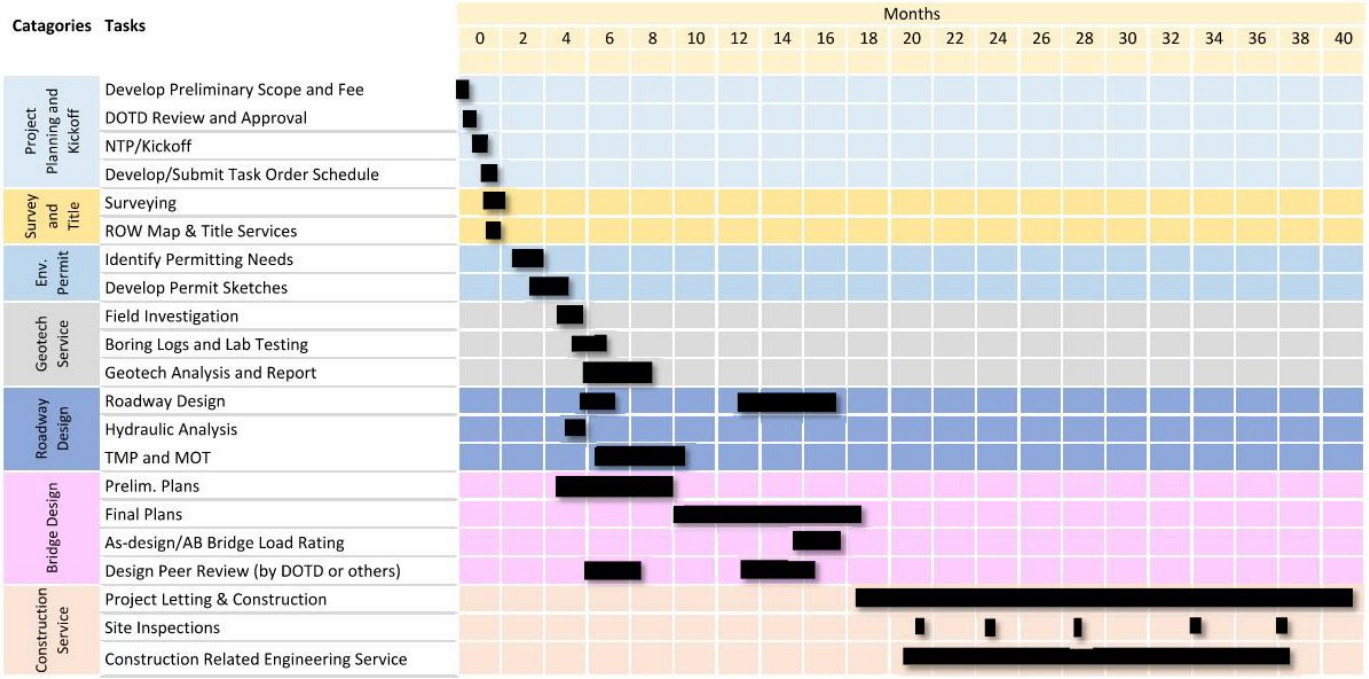
periods to accommodate TRC's review of subconsultant submissions and ensure that they address any resulting comments prior to delivery to the DOTD. One of the primary functions of our QA Team are the reviews of the plans and specifications by senior staff members to verify clear intent that includes a constructability review of the documents in accordance with our QMP.

**Commitment to Safety:** TRC is committed to providing superior safety performance and is confident that our safety culture, management, and oversight will allow for a working environment that identifies and eliminates unsafe conditions. TRC employees have completed the most up-to-date safety training programs including Louisiana "Safety Practices", ATSSA TCS/TCT/flagging, and federal (OSHA) specific training requirements. TRC also has specific tracking mechanisms to ensure that all subcontractors have current health and safety training and certifications.

TRC has a **proven safety track record of no lost workday injuries or reportable accidents while performing all types of bridge inspections with traffic control** while utilizing multiple means of access throughout Louisiana and the United States.

## PROJECT SCHEDULE

Given that the work will be executed under an IDIQ contract, the schedule shown below reflects an expected TO for a typical road and bridge design project, understanding that some tasks will be modified accordingly. Such schedules will show discipline tasks, major milestones, and deliverables. With an IDIQ contract time of 5 years, as well as our available staff, we can conduct multiple concurrent projects of this type as well as multiple smaller duration projects such as isolated repairs, emergency repairs, or assessments and evaluations that include scope development for future repair projects and peer review services for other consultant designed projects.



## 19. Workload:

| Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE | Past Performance Evaluation Discipline(s) * | Contract Number and State Project Number | Project Name | Remaining Unpaid Balance** |
|---|---|---|---|---|
| **TRC Engineers, Inc.** | Bridge | 44-23512 and H.009730.5 | IDIQ Contract for Complex Bridge Inspection Services (No active task orders from HNTB Corporation (Prime)) | N/A |
| | Bridge | 44-17033 and H.005121.5 | LA 1/LA 415 Connector | N/A |
| | Bridge | 44-24185 and H.015424.6 | IDIQ Contract for Bridge Preservation Task Order No. 1 – Plank Road | $142,745 |
| | Bridge | 44-20156 and H.011965.6 | LA 47 IWGO Bridge Rehabilitation CRES | $113,202 |
| | Road | 44-21128 and H.001234.6 | LA 1: Port Allen Canal Bridge Replacement (Phase 1) | $516 |
| | Road | 44-21128 and H.001234.6 | LA 1: Port Allen Canal Bridge Replacement (Phase 2) | N/A |
| | Bridge | 44-21515 and H.011991, H.010004, H.012738, H.011974, H.014191 | Contract 3 for Movable Bridges (5) (No active task orders issued by DOTD) | N/A |
| | Bridge | 44-27652 and TBD | IDIQ Contract for Bridge Load Rating Services (No active task orders issued by DOTD) | N/A |
| **NTB Associates, Inc.** | Survey | 4400019338 Multiple SP Nos. per bridge | Contract for Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (Sub to Waggoner) | $2,078 |
| | Right-of-Way | 4400019338 Multiple SP Nos. per bridge | Contract for Rural Bridge Replacement Initiative Phase II, Districts 05, 08, & 58 (Sub to Waggoner) | $73,706 |
| | Right-of-Way | 4400019337 Multiple SP Nos. per bridge | Contract for Rural Bridge Replacement Initiative Phase II, Districts 02, 03, 07, 61, & 62 (Sub to BKI) | $90,105 |
| | Survey | 4400017067 LWI Task Order 3 | Louisiana Watershed Initiative (LWI) Modeling Contract – Region 1 (Sub to Atkins) | $3,481 |
| | Right-of-Way | 4400025041 Multiple SP Nos. per bridge | Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program (Sub to Waggoner) | $11,806 |

| | | | | |
|---|---|---|---|---|
| | Survey | 4400027686<br>H.008768.5 | IDIQ Contract for Hydrographic Surveying Services – Task Order No. 1 – Fall Bridges | $92,403 |
| | Other (SUE) | 4400026587<br>H.001779 | Jimmie Davis Bridge (LA 511) (HBI) Design Build Project, Bossier Parish (Sub to James Construction/ Huval & Associates, Inc.) | $118,750 |
| | Survey | 4400017713<br>H.004100.5 | IDIQ Contract for Professional Surveying Services – Task Order 12 – I-10: LA 415 to Essen on I-10 & I-12 | $218,421 |
| **Urban Systems, Inc.** | Traffic | No. 440005142<br>H.011309.5 | Mac Arthur Final Design | $30,700 |
| | Traffic | No. PSLC-STJ-Supp-2<br>H.004891 | Reserve to I-10 | $1,800 |
| | Traffic | No. H011221.5,<br>H.011222.5;<br>No.4400022581 | I-10: N.O. CBD3 (Poydras- Louisa) & I-10:N.O CBD4 (Louisa – I-510) | $81,000 |
| | Traffic | H.001234.6,<br>H.014258.5,<br>H.014258.6<br>No.4400021128 | LA 1:Port Allen BR Replacement (PH1)(HBI) and (PH2)(HBI) | $10,100 |
| **GeoEngineers, Inc.** | Geotech | H.003931 | P3 I-10 Calcasieu River Bridge | $3,824,684 |
| | Geotech | H.014416 | LA 3125 @ LA 3274 Roundabout | $25,137 |
| | Geotech | H.014981 | Hosston Road Over Kelly Bayou | $23,112 |
| | Geotech | H.011670 | Loyola Dr/I-10 Interchange | $2,000 |
| | Geotech | H.001970 | LA561 Boeuf River Bridge | $30,924 |
| | Geotech | H.007300 | I-20 Nutland Widen & Kansas Connector | $12,733 |
| | Geotech | H.013821 | LA6 Youngs Bayou Slope Repair | $10,054 |

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

** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, please place N/A in the remaining unpaid balance column. Note: All firms must be represented in this table. Leaving the "remaining unpaid balance" column blank is not acceptable.

## 20. Certifications/Licenses:

## 20. Certifications/Licenses:

## 20. Certifications/Licenses:

## 20. Certifications/Licenses: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| Name | Type | City | Status |
|---|---|---|---|
| NTB ASSOCIATES, INC. | Business Corporation | SHREVEPORT | Active |

**Previous Names**

NTB, INC. (Changed: 1/4/2000)

**Business:** NTB ASSOCIATES, INC.
**Charter Number:** 34216133D
**Registration Date:** 8/14/1986

**Domicile Address**

525 LOUISIANA AVE.
SHREVEPORT, LA 71101

**Mailing Address**

525 LOUISIANA AVE.
SHREVEPORT, LA 71101

**Principal Office Address**

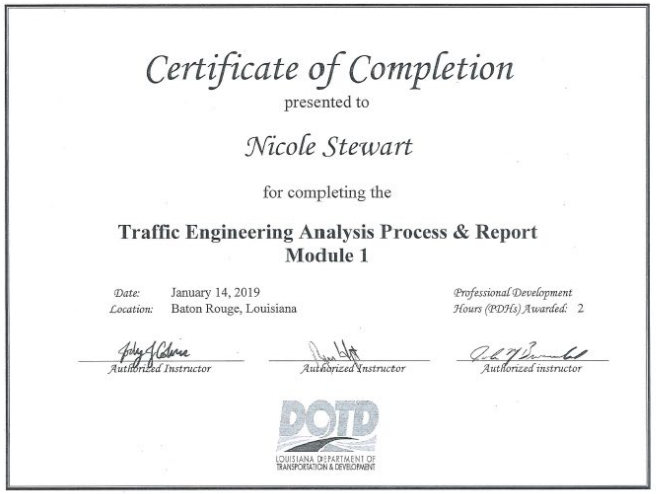
525 LOUISIANA AVE.
SHREVEPORT, LA 71101

**Status**

**Status:** **Active**
**Annual Report Status:** **In Good Standing**
**File Date:** 8/14/1986
**Last Report Filed:** 7/25/2024
**Type:** Business Corporation

## 20. Certifications/Licenses:

## 20. Certifications/Licenses:



Certificate of Completion

presented to

Nicole Stewart

for completing the

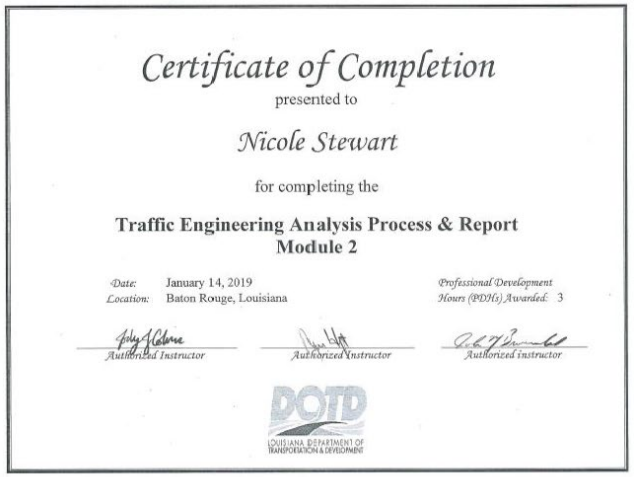
**Traffic Engineering Analysis Process & Report**
**Module 1**

Date: January 14, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH's) Awarded: 2

Authorized Instructor | Authorized Instructor | Authorized instructor

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Nicole Stewart

for completing the

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

Date: January 14, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH's) Awarded: 3

Authorized Instructor | Authorized Instructor | Authorized instructor

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Nicole Stewart

for completing the

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

Date: January 15, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH's) Awarded: 3

Authorized Instructor | Authorized Instructor | Authorized instructor

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA CERTIFIED

PROOF OF CERTIFICATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Nicole Stewart

THIS INDIVIDUAL IS CERTIFIED BY ATSSA AS A

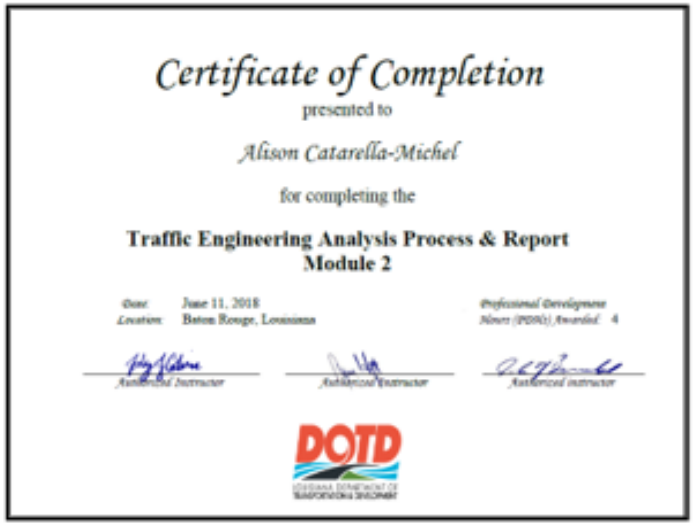
**Traffic Control Supervisor**

This certified individual has demonstrated a thorough knowledge of the standards, guidelines and practices of traffic control in highway construction and maintenance work areas; has completed all the requirements of the American Traffic Safety Services Association Certification Program to the satisfaction of the Certification Board; and is hereby awarded the above designation. This certified individual is fully entitled to all the rights and privileges associated with this designation. This certificate will remain in effect until the expiration date noted herein unless otherwise revoked by action of the Certification Board.

ISSUE DATE 11/4/2020
EXPIRATION DATE 11/3/2024
CERTIFICATION # 840319

ATSSA American Traffic Safety Services Association
ATSSA.com

## 20. Certifications/Licenses:



Certificate of Completion

presented to

Alison Catarella-Michel

for completing the

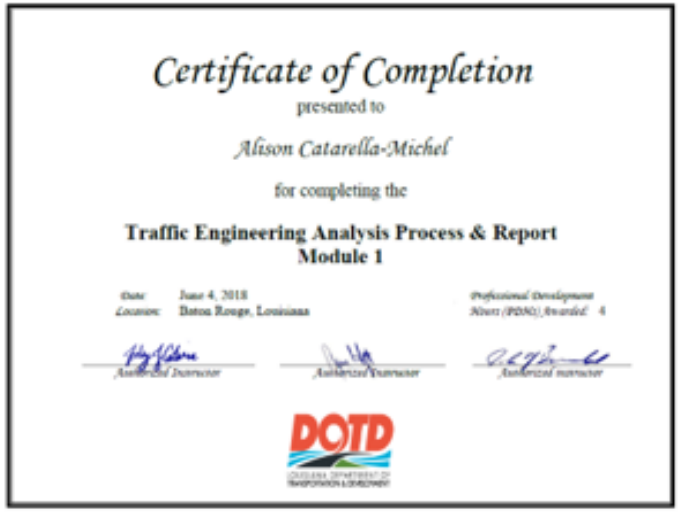
**Traffic Engineering Analysis Process & Report**
**Module 2**

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

Professional Development Hours (PDH) Awarded: 4

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD



Certificate of Completion

presented to

Alison Catarella-Michel

for completing the

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

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

Professional Development Hours (PDH) Awarded: 4

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

Certificate of Completion

presented to

Alison Catarella-Michel

for completing the

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

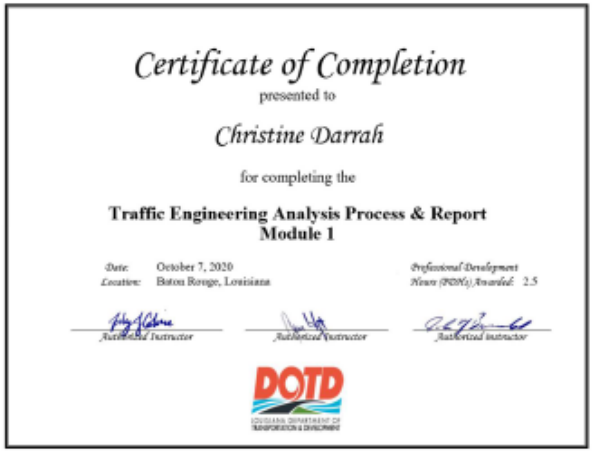
Date: September 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDH) Awarded: 3

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

## 20. Certifications/Licenses:



Certificate of Completion

presented to

Christine Darrah

for completing the

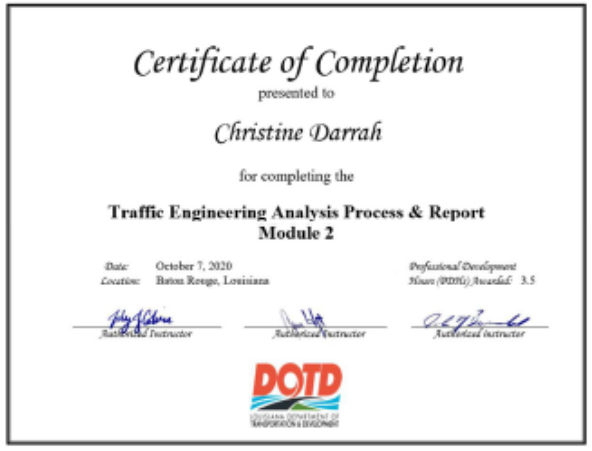
**Traffic Engineering Analysis Process & Report**
**Module 1**

Date: October 7, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD



Certificate of Completion

presented to

Christine Darrah

for completing the

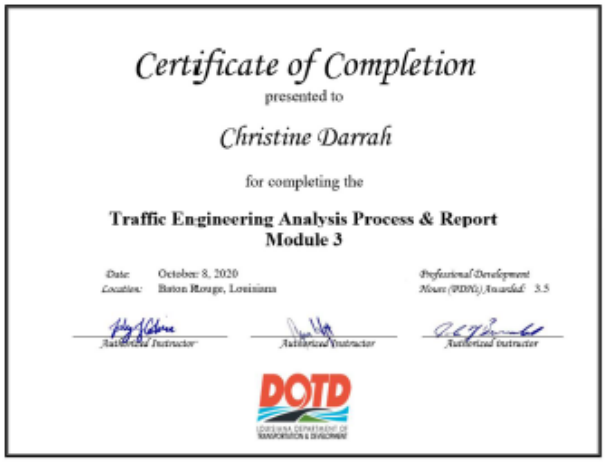
**Traffic Engineering Analysis Process & Report**
**Module 2**

Date: October 7, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD



Certificate of Completion

presented to

Christine Darrah

for completing the

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

Date: October 8, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

ATSSA CERTIFIED

PROOF OF CERTIFICATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Christine Darrah

THIS INDIVIDUAL IS CERTIFIED BY ATSSA AS A

**Louisiana Traffic Control Supervisor**

This certified individual has demonstrated a thorough knowledge of the standards, guidelines and practices of traffic control in highway construction and maintenance work areas; has completed all the requirements of the American Traffic Safety Services Association Certification Program to the satisfaction of the Certification Board; and is hereby awarded the above designation. This certified individual is fully entitled to all the rights and privileges associated with this designation. This certificate will remain in effect until the expiration date noted herein unless otherwise revoked by action of the Certification Board.

Donna M. Clark

ISSUE DATE 4/8/2021
EXPIRATION DATE 4/7/2025
CERTIFICATION# 873755

Lamya Smith

ATSSA American Traffic Safety Services Association
ATSSA.com

## 21: QA/QC Plan:

N/A

## 22. Sub-consultant information:

| Firm Name (name must match exactly as registered with Louisiana's Secretary of State (SOS: including punctuation, include screenshot(s) from SOS at the end of Section 20) | Address | Point of Contact and email address | Phone Number |
|---|---|---|---|
| Urban Systems Associates, Inc. | 2000 Tulane Ave., Suite 200<br>New Orleans, LA 70112 | Alison Catarella Michel<br>acmichel@urbansystems.com | (504) 569-3958 |
| NTB Associates, Inc. | 525 Louisiana Ave.,<br>Shreveport, LA 71101 | Bryan T. Bunch, PLS<br>bbunch@ntbainc.com | (225) 751-4002 |
| GeoEngineers, Inc. | 11923 Sun Belt Court<br>Baton Rouge, LA 70809 | Larry D. Sant, PE<br>LSant@geoengineers.com | (225) 293-2460 |

## 23. Location:

N/A