Statement of Qualifications

IDIQ Contract for Bridge Maintenance Preservation and Repair Statewide

LADOTD

Contract No. 4400035210

HDR Engineering, Inc.

MAY 2026

DOTD FORM: 24-102

(Revised August 11, 2025)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

1. Contract Name as shown in the advertisement	**IDIQ Contract for Bridge Maintenance Preservation and Repair Statewide**
2. Contract Number(s) as shown in the advertisement	4400035210
3. State Project Number(s), if shown in the advertisement	N/A
4. Prime consultant name **(name must match <u>exactly</u> as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; <u>include screenshot from SOS at the end of Section 20</u>)**	**HDR Engineering, Inc.**
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0001231
6. Prime consultant mailing address	8545 United Plaza Boulevard, Suite 379 Baton Rouge, LA 70809-0204
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	8545 United Plaza Boulevard, Suite 379 Baton Rouge, LA 70809-0204
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Wesley Jacobs, PE – Associate Vice President (225) 465-6361, wesley.jacobs@hdrinc.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Brett L. Geesey, PE – Vice President (337) 347-5598, brett.geesey@hdrinc.com

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

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. **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.**	 Signature above shall be the same person listed in Section 9: Date: 5/21/2026

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): N/A (no DBE goal)	Firm(s)' %:

12. Discipline Table:

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

The **only** disciplines to be used are listed in the drop down in each row (Appraiser, Bridge, CE&I/OV, CPM, Data Collection, Environmental, Geotech, ITS, Other (must specify), Planning, Right-of-Way, Road, Survey, and Traffic). **Remove rows as needed.**

Discipline(s)	% of Overall Contract	HDR Engineering, Inc. (Prime)	Civil Design & Construction, Inc. (Sub)	Moffatt & Nichol Inc. (Sub)	Each Discipline must total to 100%
Bridge	67%	85%		15%	**100%**
Survey	5%		100%		**100%**
Traffic	2.5%	100%			**100%**
Other (Asset Management Planning)	15%	85%		15%	**100%**
Other (Utility Coordination/Subsurface Utility Engineering)	2%	25%	75%		**100%**
Environmental	2.5%	100%			**100%**
Other (Public Outreach/Stakeholder Strategies)	1%	100%			**100%**
Road	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%**	81.2%	6.5%	12.3%	**100%**

13. Team Size:

For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (must specify)" and include the classification title inside the parentheses. The DOTD Job Classification(s) to be used can be found at the following link: https://bit.ly/DOTDJobClassifications

Firm name	DOTD Job Classification	**Number of personnel committed to this contract ***	Total number of personnel available in this DOTD Job Classification (if needed)
HDR Engineering, Inc.	Biologist/Wetlands	1	10
	Designer	1	11
	Engineer	7	15
	Engineer - Other	11	52
	Environmental Pro	1	5
	Inspector	1	18
	Inspector - Bridge	3	13
	Other (Communications)	1	5
	Principal	2	10
	Supervisor - Eng	10	46
	Supervisor - Other	3	12
Civil Design & Construction, Inc.	Surveyor	1	2
	Party Chief	3	5
	Instrument Man	2	3
	Rodman	2	2
	CADD Operator	1	1
	Senior Technician	3	6
	Supervisor - Other	1	1
Moffatt & Nichol Inc.	Principal	1	10
	Administrative	0	6
	CADD Operator	0	13
	Senior Technician	0	5
	Engineer Intern	0	10
	Engineer	1	14
	Supervisor - Eng	1	10
	Inspector - Bridge	0	12
	Inspector - Lead	2	15
	Supervisor - Other	0	6

(Add rows as needed)

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

14. Organizational Chart

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PROJECT PRINCIPAL

Brett Geesey, PE ***(MPR 1)***

PROJECT MANAGER

Wesley Jacobs, PE *(MPRs 2, 3, & 4)*

QA/QC

Gregory Kochersperger, PE◆ - *Structural*
Chip Knowlton - *Asset Management*
Mitchell Wisniewski, PE◆ - *Electrical*
Stephen Grabowski, PE◆ - *Mechanical*
Brian Leshko, PE, CBSI, NCTI◆ - *Inspection/Scoping*

BRIDGE DESIGN

STRUCTURAL
Lead: Daniel Marsalone, PE *(MPR 3)*
Wesley Jacobs, PE ***(MPRs 2, 3, & 4)***
Jason Abendroth, PE
Erin O'Malley, PE *(SPRAT 3)*
Sarah DeMoya, PE ***(MPR 3)***
Venkata Sathiraju, PE
William Clementson, PE
Matthew Bruno, PE◆*(SPRAT 3)*
Peter Harrison, PE *(SPRAT 1)*
Riley Boone, PE◆*(SPRAT 1)*

ASSET MANAGEMENT PLANNING
Lead: Christopher Senesi
Michael Kochly, PE◆
Jason DeRuyver, PE◆
Chace Hulon, PE

MECHANICAL
Lead: Matt McGuire, PE
John (Mike) Carlton, PE
Isaac Frederick, PE
Matthew Cassera, PE◆
Michael (James) O'Keefe, PE◆
Evan Purdy PE◆

ELECTRICAL
Lead: Raphael Costa, PE
Jonathan Kohler, PE
Drake Cole, PE◆
David Neveu, PE◆
Samir Abdo, PE◆
Carlos Larco, PE

ADDITIONAL SUPPORT

PROTECTIVE COATINGS SPECIALISTS
Adam McGinnis
Steven Pierce, PE◆ *(SPRAT 2)*

ROADWAY/TRAFFIC CONTROL
Edwin Rydell, PE
Tim Grimes, PE, PTOE*

SURVEYING
Chris Ballard, PLS+
Scott Benton+
Jacob Stoehr+
Drennon Humphreys+
Alex Wells+

ENVIRONMENTAL & PERMITTING SERVICES
Amber Robinson, PWS
Joey Runner

HYDRAULIC ANALYSIS & DESIGN
Garland Pennison, PhD, PE
Donald Hendon, PE, CFM

PUBLIC OUTREACH/STRATEGIC COMUNICATION
Meagan Harris

SUBSURFACE UTILITY ENGIENERING
Ronke Osibajo, PE, CFM, ENV SP
Karla Weston, PE

BRIDGE INSPECTION
Bryan Tyson, PE, ADCI
Tom Spencer, PE

LEGEND

◆ Licensed Professional Engineer in a US state, not Louisiana
* Personnel Performing Traffic Engineering Analysis
+ Traffic Control Supervisor
(MPR #) = Minimum Personnel Requirement

Subconsultants:
Civil Design & Construction, Inc.
Moffatt & Nichol Inc.

Prime consultant: HDR Engineering, Inc.

15. Minimum Personnel Requirements:

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

MPR No. 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	**Brett Geesey**	**HDR Engineering, Inc.**	PE # 0035172 - Civil	LA	3/31/2028
2	**Wesley Jacobs**	**HDR Engineering, Inc.**	PE # 0030774 - Civil	LA	9/30/2026
3	**Wesley Jacobs**	**HDR Engineering, Inc.**	PE # 0030774 - Civil	LA	9/30/2026
	Sarah De Moya	**HDR Engineering, Inc.**	PE # 0038011 - Civil	LA	3/31/2027
	Daniel Marsalone	**HDR Engineering, Inc.**	PE # 0028554 - Civil	LA	9/30/2027
4	**Wesley Jacobs**	**HDR Engineering, Inc.**	PE # 0030774 - Civil	LA	9/30/2026

(Add rows as needed)

16. Staff Experience:

Firm employed by **HDR Engineering, Inc.**			
Name	**Samir Abdo, PE**	Years of relevant experience with this employer	7
Title	Electrical Engineer	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		MS / 2017/ Electrical Engineering BS / 2015 / Electrical Engineering	
Active registration number / state / expiration date		24GE05575600 / NJ / 04-30-2028	
Year registered	2020	Discipline	Electrical
Contract role(s) / brief description of responsibilities		Electrical Support / Assist in the design of the electrical and control system. Coordinate with each discipline to provide a complete electrical system.	
Samir's experience includes the design and inspection of movable bridges' power and control systems, commissioning of electrical systems, designing distribution and lightning protection systems, and authoring short-circuit, coordination, and arc-flash studies.			

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).
06/18-Ongoing	**Virginia DOT (VDOT), Movable Bridges On-call Contract | Statewide, VA.** *Electrical Engineering Lead.* On multiple bridge projects, including the rehabilitation of the Berkley and Gwynn's Island bridges, Samir oversaw the design of control systems and electrical distribution, providing detailed engineering designs for programmable logic controllers (PLC)-based systems, backup generators, and various electrical components. Samir conducted inspections, troubleshooting, and engineering support during construction, verifying each design met AASHTO and VDOT standards.
06/18-Ongoing	**NJDOT, Movable Bridge Engineering Design Support Services for Operations, Term Agreements | Statewide, NJ.** *Lead Electrical Engineer.* On the Arc Flash Studies Update, Samir updated power distribution coordination studies and generated arc-flash labels through field inspections and utility coordination to evaluate fault currents. For the Route 88 Aerial Cable Replacement project, he designed the aerial cable system, developed conduit and cable routes, prepared specifications and cost estimates, confirmed NJDOT compliance, and added a lightning protection system. On the Route 1 and 9 Lighting Protection and Elevator Replacement project, he is designing NFPA-compliant lightning protection systems for the Route 1 and 9 vertical lift bridges over the Hackensack and Passaic Rivers, including cable and conduit sizing and routing. For the Route 130 Navigation Lights Replacement project, he developed concepts and a preliminary design, coordinating with the USCG and solar-powered navigation light vendors. On the Route 1 and 9 over Hackensack River Interlock Testing project, Samir provided control system troubleshooting, design markups, and construction support to deliver AASHTO-compliant gate operation, including field testing and commissioning.
01/22-Ongoing	**Norfolk Southern, Network-Wide Bridges Electrical Rehabilitation | Nationwide.** *Lead Electrical Engineer.* Samir leads the electrical team to provide rehabilitation designs for PLCs and drives, enabling fully automatic, remote-controlled operation of movable bridges across the entire Norfolk Southern railroad network. He has developed designs for replacing PLCs, human-machine interfaces (HMIs), and limit switches, as well as upgrading obsolete drives to variable-frequency drives (VFDs). Samir develops system block diagrams, schedules, control schematics, and specifications for the new PLC program and HMI screens. He also reviews shop drawings, responds to RFIs, conducts construction inspections, and performs shop testing and field acceptance testing.
06/18-08/24	**CSX Transportation, Network-Wide Bridges Electrical Rehabilitation | Nationwide.** *Electrical Engineer.* Samir designed fully automatic, remotely controlled movable bridges across the entire CSX railroad network. His design included developing a relay control system and redundant PLCs that served as a hot backup for additional control redundancy. He coordinated with local utilities to upgrade electric service from single-phase to standard three-phase, designed the power distribution system, integrated backup generators, and upgraded obsolete motor drives to VFDs. Samir also provided system block diagrams, schedules, control schematics, and implemented lightning and surge protection schemes for the existing and new distribution systems to enhance resiliency. Additionally, he participated in construction support efforts, including reviewing shop drawings, conducting shop testing, performing final acceptance testing, and preparing operation and maintenance manuals.

Firm employed by **HDR Engineering, Inc.**					
Name	**Jason Abendroth, PE**		Years of relevant experience with this employer		8
Title	Hydraulic Structures Group Lead		Years of relevant experience with other employer(s)		10
Degree(s) / Years / Specialization			BS / 2008 / Civil Engineering		
Active registration number / state / expiration date			PE 0038198 / LA / 03-31-2028		
Year registered	2013	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			Structural Support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness		

Jason has 18 years of experience in the inspection, engineering, and design of structures ranging from bridges (concrete, steel, movable), flood control (sector, lift, sluice, and vehicular gates; pump stations, T-Walls, L-Walls, I-walls), and municipal sewage lift stations. Experience in other engineering disciplines includes geotechnical analysis and design for earthen levees and retaining walls. He has also completed the FHWA-NHI Bridge Inspector Certification.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/20-05/24	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Statewide, LA.** *Lead Inspector*. Jason led the inspections of over 25 bridges. These included fracture-critical inspections of seven steel girder swing-span bridges in St. Tammany, Tangipahoa, and Livingston Parishes, one steel swing truss bridge (US 90 East Pearl River), and 17 smaller concrete slab-span and timber bridges. Jason reviewed the main span inspection reports of the Jackson Street Lift Bridge spanning the Red River and the lift bridge spanning Teche Bayou. The team performed structural, mechanical, and electrical inspections of the towers, main span truss, substructure, and machinery using rope access and manlift methods for in-depth inspection techniques.
10/23-03/24	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | New Orleans, LA.** *Team Leader (Non-Rope Access)*. Jason led the inspection team for the annual in-depth movable-bridge inspections of the Seabrook and Almonaster single-leaf truss bascule bridges (117 feet main span, 240 feet total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal. Jason led a multidisciplinary team of structural, mechanical, and electrical inspectors to conduct annual in-depth inspections, prepare reports, and issue remediation recommendations.
11/22-Ongoing	**LADOTD, Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E | Waverly, LA.** *Inspector and QC Reviewer*. Task orders included the inspection, rehabilitation design, and load rating for the LA 577 precast concrete girder overpass, which was damaged by a dump truck collision. The scope included emergency services, inspection, load rating, and PS&E for the demolition of the existing span and the redesign of a new span. Jason performed an initial emergency inspection and QC for a portion of the design.
02/16-08/17	**LADOTD, Statewide Inventory and Inspection of Sign Trusses | Statewide, LA.** *Assistant Project Manager*. Jason coordinated teams, collected data, and conducted inspections for this five-year contract, totaling over 1,500 sign truss inspections. He prepared and reviewed the inspection reports after the inspections were completed. Inspections included steel and aluminum welds, high-stress moment connections, and fracture-critical elements, in accordance with FHWA guidelines.
01/10-08/11	**LADOTD, Chef Menteur Bridge Replacement EA, S.P. No. 700-36-0125 | Orleans Parish, LA.** *Jr. Engineer*. Jason assisted in developing high-level (75-foot vertical clearance) fixed-bridge alternatives to replace a historic swing-span bridge in Orleans Parish. The span arrangements comprised PPC AASHTO Type 3 (80 feet) and BT 78 (130 feet) approach spans, with steel-composite girders for the main spans (200 feet and 270 feet). He developed conceptual designs for deep river concrete piers with water-level footings supported by large-diameter PPC cylinder piles.
01/11-05/15	**TxDOT/LADOTD, US 84 – Logansport – Sabine River Bridge Replacement S.P. No. 021-01-0004 | Logansport, LA.** *Jr. Structural Engineer*. Jason assisted in developing the final design, plans, and specifications for two bridge structures spanning the Sabine River (eastbound and westbound), in accordance with AASHTO-LRFD specifications. He designed the new TX PPC girder shapes (Tx62's and Tx70's). The span lengths ranged from 120 feet to 160 feet. The substructure was comprised of multi-column reinforced concrete bents with strutted columns at the main channel locations. Drilled shaft foundations supported the bents.

11/10-07/12	**ASARCO Smelter, Bridge Inspection and Load Rating | El Paso, TX.** *Structural Engineer*. Jason inspected and analyzed two bridges located on the site of the old ASARCO smelter. The first bridge consisted of 7 simple riveted steel girder spans totaling 375 feet supporting a concrete deck. The substructure consisted of steel truss systems ranging in height from 20 to 80 feet. The IH 10 overpass bridge was a continuous steel plate girder spanning 277 feet supported by three concrete column bents on pile foundations. Jason inspected the bridges and took field measurements to verify as-built dimensions. Jason used analysis software to perform a load rating analysis to determine if large, loaded dump trucks could safely traverse the bridges with operational recommendations for truck speed and lane placement.
01/10–02/11	**TxDOT Austin, FM 112 East and West Brushy Creek Relief Bridges | Austin, TX.** *Jr. Engineer.* Jason assisted in developing the final designs and plans for this bridge replacement project. The east and west creek bridges are 213 feet and 163 feet long, respectively. Each bridge is comprised of three PPC Type C girder spans varying in length from 40 feet to 65 feet. The superstructure is supported by reinforced concrete column bents founded on drilled shafts. Due to the existing structure's location, the bridge was designed using split-phased construction. The bridge was designed in accordance with TxDOT standards and LRFD specifications. Jason designed the westbound bridge PPC girders, column bents, and drilled shaft foundations.
06/08-12/09	**TxDOT Waco, US 84 at Mexia – Union Pacific RR Overpass | Waco, TX.** *Jr. Engineer*. Jason assisted with the design of the replacement of this railroad overpass. The bridge was comprised of prestressed concrete girders and concrete column bents supported by drilled shafts. The bridge geometry was set to accommodate the required horizontal and vertical clearances for the Union Pacific Railroad. The overall bridge length was 715 feet and 81 feet wide, accommodating four lanes of traffic through split-phased construction. He designed sections of the PPC girders, concrete column bents, and drilled shaft foundations.
03/09–02/10	**TxDOT Austin, SH 195 – CR 228 Overpass | Austin, TX.** *Jr Engineer.* Jason assisted in the final design of this roadway overpass. He designed twin bridge structures with skewed spans set in a horizontal curve. He also checked the design of the three-span continuous units comprised of Type C prestressed concrete girders and designed the reinforced concrete column bents and drilled shaft foundations.
01/11-02/12	**LADOTD, US 11 Bridge Environmental Assessment | Orleans Parish, LA.** *Jr. Engineer*. Jason assisted in developing alternatives, including a high-level fixed-span bridge across multiple alignments. He assisted with preliminary designs, including sizing steel plate girders and prestressed concrete girders, bent and column layouts, and pier and pile layouts.
03/11-05/14	**USACE New Orleans District, LPV 145 – Bayou Bienvenue Movable Swing Span Bridge - Steel Swing Span | New Orleans, LA.** *Structural Engineer*. Jason designed the steel girder superstructure, the concrete substructure, and the foundations. The approach spans were comprised of concrete slab spans that tied into an existing limestone access road. The bridge was designed to provide vehicular access to LPV 145, a six-mile isolated levee reach in Chalmette, LA. The timber fender system for the new bridge was designed to tie into the existing system at the sector gate. The bridge was designed in accordance with the LADOTD Bridge Design Manual and AASHTO-LRFD specifications.

Firm employed by **HDR Engineering, Inc.**			
Name	**Riley Boone, PE (SPRAT 1)**	Years of relevant experience with this employer	13
Title	Project Manager Engineering	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2013 / Civil Engineering
Active registration number / state / expiration date			PE 131800 / TX / 06-30-2026
Year registered	2018	Discipline	Structural Engineering
Contract role(s) / brief description of responsibilities			Structural support / assess the condition and safety of a bridge's structural components, confirming it meets design specs and safety standards

Riley specializes in bridge inspection, design, and scour evaluations. Riley's primary focus is on maintaining the safety of bridges and related structures, including inspection, design of repairs, and scour evaluations. Riley has nine years of experience in bridge design and inspection, including routine, fracture-critical, and condition assessments. Riley has been a risk-based inspection (RBI) team leader in Texas for seven years and a Nonredundant Steel Tension Member (NSTM) Team leader for three years. Riley's inspection experience includes various steel, concrete, and timber bridges in varied environments, from small stream crossings over county roads to large urban viaducts, and includes both on- and off-system bridges (elemental and non-elemental). **Certificates:** FHWA-NHI-130056: Safety Inspection of In-Service Bridges; FHWA-NHI 130078: Fracture Critical Inspection Techniques for Steel Bridges; FHWA-NHI 135047: Stream Stability and Scour at Highway Bridges for Bridge Inspectors; SPRAT 1

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).
04/23-04/23	**LADOTD, Statewide In-Depth Complex Bridge Inspection | Statewide, LA.** *Bridge Inspector.* Riley performed an in-depth visual and hands-on inspection of fracture-critical elements and a visual/routine inspection of other elements for two inspections.
11/23-11/23	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | Statewide, LA.** *Bridge Inspector.* Riley performed an in-depth visual and hands-on inspection of fracture-critical elements and a visual/routine inspection of other elements for two movable rail truss bridges in the Port of New Orleans. Members were accessed and inspected from the rope.
07/17–06/23 06/23–Ongoing	**Texas Department of Transportation (TxDOT) Bridge Division, NSTM In-Depth Bridge Inspection IDIQ | Statewide, TX.** *Bridge Inspector.* Riley has inspected various bridges with NSTMs throughout Texas, including, but not limited to, large and small steel truss bridges, movable bridges, extra-dosed bridges, two-girder superstructures, steel plate caps, and steel box caps. Access methods include rope access, ladders, bridge inspection vehicles, bucket trucks, and man lifts. Riley performed inspections, communicated significant findings requiring immediate attention, prepared inspection reports, and made maintenance recommendations. Notable bridges include the Rainbow Bridge, the Martin Luther King Jr/Gulfgate Bridge, the Waco Brazos River Bridges, the Rio Hondo Moveable Bridge, the Pelican Island Moveable Bridge, and the Pennybacker Bridge.
09/21–09/22	**North Dakota Department of Transportation, Routine and Fracture Critical Bridge Inspection | Statewide, ND.** *Assistant Bridge Inspector.* Riley inspected small truss bridges and plate caps. Access methods included rope access and ladders.
02/17-06/19 06/19–Ongoing	**TxDOT, Routine Bridge Inspections | Statewide, TX.** *Bridge Inspector.* Riley has performed routine bridge inspections for both on- and off-system bridges. He has been the team leader on 15+ separate work authorizations, inspecting over 1,250 bridges. Riley performed inspections, reviewed previous inspections and bridge documents (including scour documentation), communicated significant findings requiring immediate attention with TxDOT, prepared inspection reports, and recommended repairs.
10/17–Ongoing	**TxDOT, On-System Condition Assessments | Statewide, TX.** *Bridge Inspector.* Riley conducted several condition assessment inspections, including an in-depth visual and hands-on inspection of bridge elements and the documentation of defects. After some inspections, Riley helped develop repair recommendations, cost estimates, and repair details. Notable bridges include Corpus Christi Harbor Bridge (rope access), Arroyo Colorado Lift Bridge (rope access), and several segmental bridges throughout San Antonio.
05/21–01/24	**TxDOT Dallas, Scour Evaluations | Dallas, TX.** *Technical Lead/Evaluator.* Riley led a team of engineers to evaluate nearly 500 bridges to determine their current and future vulnerability to scour and to provided repair and preventive recommendations to protect them from further scour.

Firm employed by **HDR Engineering, Inc.**			
Name	**Matthew (Matt) Bruno, PE (SPRAT 3)**	Years of relevant experience with this employer	18
Title	Transportation Industrial Rope Access Program Leader	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2008 / Civil Engineering
Active registration number / state / expiration date			PE 51856 / CO / 10-31-2027
Year registered	2013	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			Structural Engineering Support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness

Matt has successfully supported numerous bridge projects in project management, rating analysis, design, and inspection. He has specialized training and certification in the application of rope access and advanced climbing techniques. He uses access techniques that include industrial rope access, underbridge inspection cranes, manlifts, bucket trucks, and confined-space entry. He has hands-on experience with in-depth/fracture-critical (NSTM) bridge inspections, including the Golden Gate Bridge (CA), the East Huntington Bridge (WV), the Margaret Hunt Hill Bridge (TX), and the Corpus Christi Harbor Bridge (TX). Matt is experienced with hands-on, NBIS in-depth, and NSTM bridge inspections, which verify and code structural inventory and appraisal (SI&A) information, determine condition ratings, and develop inspection reports with recommended repairs, rehabilitation, and/or corrections needed. **Certificates:** Matt has completed courses in NHI Safety Inspection of In-Service Bridges and Fracture Critical Inspection Techniques for Steel Bridges. He is certified as a SPRAT Level 3 Rope Access technician for bridge inspections. He has also completed FHWA-NHI 130053, FHWA-NHI 135047, FHWA-NHI 130110, FHWA-NHI 130125, and FHWA-NHI 130087.

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).
05/09-Ongoing	**Texas Department of Transportation (TxDOT) Bridge Division, Fracture Critical In-Depth Inspections | Statewide, TX.** *Bridge Inspection Team Leader*. HDR provided in-depth and fracture critical inspection of several signature, complex bridges throughout the state of Texas, including the Corpus Christi Harbor Bridge, Margaret Hunt Hill Bridge, Fred Hartman Bridge, and Rainbow Bridge. In addition, HDR has completed multiple inspections of interstate/highway interchanges in major metropolitan areas throughout the state. Conventional and industrial rope access techniques were utilized. Matt is providing rigging and safety support for the inspections as the Level 3 on-site.
05/08-12/21	**Oregon Department of Transportation, Statewide Bridge Inspection On-Call Services | Statewide, OR.** *Bridge Inspection Team Leader and Assistant Team Lead.* HDR provided in-depth fracture critical, fatigue-prone, and routine inspections of the Steel Bridge (vertical lift), Morrison Bridge (bascule), St. John's Bridge, Ross Island Bridge, Fremont Bridge, and East/West interchange structures, East/West Marquam interchange structures, and Banfield interchange structures. Matt helped develop the field notes; in-depth fracture, critical, fatigue-prone, and routine inspection reports; bridge inspection (PONTIS) reports; and photo logs. Each inspection utilized conventional and industrial rope access techniques. Matt provided rigging and safety support for the inspection as the Level 3 on-site.
02/15-Ongoing	**Golden Gate Bridge Highway and Transportation District, Golden Gate Bridge Inspection | San Francisco, CA.** *Bridge Inspection Team Leader, Rope Access Coordinator, Deputy PM.* HDR performed fracture critical (NSTM) inspections on the Golden Gate Bridge on the South Approach Viaduct, Fort Point Arch, Main Span, and North Approach Viaduct in 2015, 2017, and 2019. In 2021, 2023, and 2025, the bridge's previous elements were reinspected, with the addition of NSTM inspections of 200+ floor beams in the main suspension spans. Inspection of the floor beams and truss members was completed solely via industrial rope access. HDR performed the first-ever close-up inspections of the Golden Gate Bridge main towers in 2018. The towers were inspected only using industrial rope access. This was an element-level inspection using the new coding guidelines. Prior to the 2015, 2017, and 2019 inspections, Matt compiled and produced the field notes for the inspectors to improve efficiency and ease inspection. During inspections since 2015, Matt was one of the team leaders on site, co-leading the entire inspection team, coordinating daily tasks, and performing inspections of assigned components. In 2024, HDR performed an inspection of miscellaneous elements across the bridge, including top/bottom lateral bracing, pylon spans, and the north abutment beam span.

Firm employed by **HDR Engineering, Inc.**			
Name	**John (Mike) Carlton, PE**	Years of relevant experience with this employer	10
Title	Movable Bridge Mechanical Practice Lead	Years of relevant experience with other employer(s)	21

Degree(s) / Years / Specialization			BS / 1995 / Mechanical Engineering
Active registration number / state / expiration date			PE.0043927 / LA / 3-31-2028
Year registered	2019	Discipline	Mechanical
Contract role(s) / brief description of responsibilities			Mechanical Support / Design, analyze, and confirm proper integration of mechanical systems and components to verify structural integrity and operational functionality.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA.** *QC Reviewer*. Mike reviewed the project inspection reports. He also provided strain gauge balance testing for the following bridges: Ellender, Abbeville Bypass, Old Abbeville, Milton, and Park.
11/23-03/24	**Port of New Orleans, Moveable Bridge Inspection On-call Contract | New Orleans, LA.** *QC Reviewer*. Mike reviewed the project inspection reports.
01/19-06/21	**CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Philadelphia) | Philadelphia, PA.** *Senior Mechanical Engineer*. Mike prepared mechanical systems rehabilitation design plans, calculations, specifications, cost estimates, and post-design services for the Schuylkill River swing bridge. Post-design services include reviewing shop drawings, RFIs, and conducting site inspections during construction.
01/20-04/20, 12/20-02/21, 08/21-11/21	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Loreauville and Alexandria, LA.** *Lead Mechanical Engineer Inspector*. Mike performed the detailed inspection of the mechanical systems of the Little Caillou Bayou lift bridge, Bayou LaCarpe lift bridge, Teche Bayou lift bridge, and Red River lift bridge, and provided findings and recommendations reports.
05/17-Present	**CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Louisiana) | Statewide, LA.** *Senior Mechanical Engineer*. Mike provided scoping and assessment reports, mechanical systems rehabilitation design plans, calculations, specifications, and cost estimates for the rehabilitation of two swing bridges (Chef Menteur and Rigolets Swing Bridges). The mechanical rehabilitation scope for both bridges included replacing the end and center wedge drive systems, replacing the Promex rail lift system, and upgrading the hydraulic system for operation of the end wedges, center wedges, and rail lift system. He also provided post-design engineering services during construction.
02/03-06/25	**Virginia Department of Transportation (VDOT), Movable Bridge On-Call Contract | Statewide, VA.** *QC Reviewer*. Mike provided construction support for clutch coupling replacement on Benjamin Harris Bridge (BHB). He also reviewed the BHB, Berkley, Coleman, the Gwen Islands, the James River Bridge, and the Milford Haven bridges' mechanical plans.
02/16-03/25	**CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges - Florida) | Statewide, FL.** *Senior Mechanical Engineer*. Mike performed the assessment inspection, prepared the scoping and assessment report, mechanical systems rehabilitation design plans, calculations, specifications, cost estimates, and provided post-design services for the rehabilitation of three swing bridges (Little Manatee River, Alafia River, Trout River, and Saint Lucie). The mechanical rehabilitation scope for these bridges included replacing the mechanical drive systems, end and center wedges, and operating the Promex rail lifts via the end wedge system.
05/17-02/18	**CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Louisiana) | Statewide, LA.** *Senior Mechanical Engineer.* Mike prepared the scoping and assessment report, mechanical systems rehabilitation design plans, calculations, specifications, and cost estimates for the rehabilitation of two swing bridges (Chef Menteur and Rigolets Swing Bridges). The mechanical rehabilitation scope for both bridges included replacing the end and center wedge drive systems, replacing the Promex rail lift system, and upgrading the hydraulic system for operation of the end wedges, center wedges, and rail lift system.
01/17-12/17	**CSX Transportation, Movable Bridge On-call Engineering Services (Swing Bridges – Mississippi) | Statewide, MS.** *Senior Mechanical Engineer.* Mike performed an assessment inspection, prepared the scoping and assessment report, mechanical systems

	rehabilitation design plans, calculations, specifications, cost estimates, and provided post-design services for the rehabilitation of three swing bridges (Biloxi Bay, Bay St. Lois, and Pearl River Swing Bridges). The mechanical rehabilitation scope for the bridges included upgrading the end- and center-wedge operating system, replacing the Promex rail lift system, replacing the hydraulic motors, and upgrading the hydraulic power unit to operate the main drive motors, end and center wedges, and rail lift systems. Post-design services included reviewing shop drawings and RFIs, conducting a site inspection during construction, and a final walk-through upon completion.
02/16-7/19	**CSX Transportation, Movable Bridge On-call Engineering Services (Bascule Bridges – Florida) | Statewide, FL.** *Lead Mechanical Engineer.* Mike inspected and provided scoping and assessment reports, designed the mechanical systems rehabilitation, and performed construction inspection services for three single-leaf bascule bridges (Big Manatee River, Hillsborough River, and Buffalo Bluff Bascule Bridges). The mechanical rehabilitation scope for the bridges included the main drive system, an auxiliary hydraulic backup drive system, and shimming between the track and track girders to compensate for track girder sag.
10/15-Ongoing	**Florida Department of Transportation (FDOT), Movable Bridge On-call Engineering Services (Bascule Bridges Assessment) | Fort Lauderdale, FL.** *Lead Mechanical Engineer.* Mike is performing mechanical systems inspections and evaluations, studies, design, and construction support for task work orders (TWOs), including movable bridge structures. TWOs included inspections and assessment of 34 bascule bridges, and feasibility studies
11/21-Ongoing	**FDOT, Sunrise Blvd. Bascule Bridge Rehabilitation | Fort Lauderdale, FL.** *Lead Mechanical Engineer*. Mike inspected and provided a scoping and assessment report, and led the design of the mechanical systems rehabilitation of the twin double bascule bridge. The project included the rehabilitation of a twin double-leaf bascule bridge. The mechanical rehabilitation scope included replacing the existing mechanical operating system, consisting of a single enclosed reducer operating a rack-and-pinion, with a new operating system consisting of a primary reducer driving two planetary secondary reducers, which drive the original pinion/rack open gear set. The span lock and live load shoes were also replaced. Mike is also providing post-design services, including reviewing shop drawings and RFIs, conducting a site inspection during construction, and conducting a final walk-through upon completion.
04/23-Ongoing	**FDOT, Las Olas Blvd. Bascule Bridge Rehabilitation | Fort Lauderdale, FL.** *Lead Mechanical Engineer*. Mike inspected and provided a scoping and assessment report, and led the design of the mechanical system rehabilitation of the double-leaf bascule bridge. The project included replacing the motor, brakes, and span lock assembly. Mike is also providing post-design services, including reviewing shop drawings and RFIs, conducting a site inspection during construction, and conducting a final walk-through upon completion.
01/25-01/26	**G&W Railroad, Swing Bridge Rehabilitation | Jacksonville, FL.** *Lead Mechanical Engineer.* Mike inspected and designed the rehabilitation of the end and center wedges. Rehabilitation included replacing an obsolete shaft-and-open-gear-train operating system with a hydraulic-cylinder operating system for the end and center wedges. Each end and center wedge assembly included a custom hydraulic power unit for the pair of end and center wedges. Mike also provided post-design services, including reviewing shop drawings and RFIs, conducting site inspections during construction, and a final walk-through upon completion.

Firm employed by **HDR Engineering, Inc.**			
Name	**Matthew Cassera, PE**	Years of relevant experience with this employer	11
Title	Senior Mechanical Engineer	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2014 / Mechanical Engineering
Active registration number / state / expiration date			24GE05576800 / NJ / 04-30-2028
Year registered	2020	Discipline	Mechanical
Contract role(s) / brief description of responsibilities			Mechanical Support / assist with the design, analysis, and maintenance of mechanical systems, confirming functionality and integration with other structural components

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA.** *Mechanical QC.* Matthew performed mechanical quality control and field verification for six movable bridges across multiple parishes in Louisiana. He supported inspection activities and reviewed mechanical components in coordination with multidisciplinary teams. He also assisted with documentation for routine and in-depth inspections and helped coordinate subcontractors and field efforts across two mobilizations, including rope-access crews.
01/21-01/22	**South Carolina DOT, Bridge Asset Management Program Support and Modernization | Statewide, SC.** *Mechanical Design Lead.* This project replaced the existing span lock, an Earle Lock Bar Operator, with three span locks. The new design reduced the span lock system to two linear actuator-driven lock bars with independent guides and receivers. Components featured wedge-adjustable shims for easy adjustment and a spring-loaded, auto-adjustable lock bar to maintain lock bar contact with the receiver and minimize wear. Matthew led the mechanical design effort, performing engineering calculations and developing design drawings and technical specifications for the span lock replacement system.
11/23-03/24	**Port of New Orleans, Movable Bridge Inspections On-Call | New Orleans, LA.** *Mechanical Engineer.* Matthew provided in-depth mechanical inspections of two Strauss bascule bridges (Almonaster and Seabrook) over the Inner Harbor Navigation Canal. The inspections included measurements of gear wear, bearing clearances, and ancillary machinery clearances. Deliverables included a condition assessment report, rehabilitation recommendations, and cost estimates. Matthew provided a detailed check of the inspection report.
02/19-05/20	**Virginia Department of Transportation (VDOT), Route 156 over the James River, Benjamin Harrison Lift Bridge | Hopewell, VA.** *Mechanical Engineer*. Matthew designed the new upper- and lower-span buffers. He performed design calculations, provided specifications and cost estimates, and worked with suppliers and clients to choose economical options based on different design alternatives.
02/17-04/18	**CSX Transportation, Movable Bridge On-call Engineering Services (Lift Bridges) | New Johnsonville, TN.** *Mechanical Engineer*. Matthew provided field condition inspection, design, and construction support for a span-drive vertical-lift bridge on Kentucky Lake. He designed new auxiliary span drive machinery, brake supports, and limit switches, and reviewed RFIs and shop drawings.
04/17-08/18	**CSX Transportation, Movable Bridge On-call Engineering Services (Lift Bridges) | Mobile, AL.** *Mechanical Engineer*. Matthew inspected field conditions and designed new machinery for a span-drive vertical-lift bridge over the Mobile River. He designed replacement wire-rope rollers and a new remote actuator for auxiliary span drive machinery, and reviewed the shop drawings.
08/16-07/18	**Triborough Bridge & Tunnel Authority (TBTA), MP-03 Electrical and Mechanical Rehabilitation at the Marine Parkway Bridge | Queens, NY.** *Mechanical Engineer.* Matthew provided inspection, design, shop testing, and construction support for the rehabilitation of the vertical lift bridge over Jamaica Bay. Work included shop testing for reducers, field support for trunnion friction mitigation, clutch inspection and span balance testing, brake support design, CAD support, and buffer cylinder sizing.
01/21-Ongoing	**Texas Department of Transportation (TxDOT) Bridge Division, Movable Bridges Asset Maintenance | Rio Hondo, TX.** *Mechanical Engineer*. Matthew provided maintenance support for on-site machinery maintenance support and developed a two-year Routine Maintenance Contract for the Rio Hondo vertical lift bridge over the Arroyo, Colorado. Contract deliverables include plans, specifications, and cost estimates for the maintenance work. Matthew led the development of contract deliverables.

Firm employed by **HDR Engineering, Inc.**			
Name	**Drake Cole**	Years of relevant experience with this employer	4
Title	Production Manager	Years of relevant experience with other employer(s)	3

Degree(s) / Years / Specialization			BS / 2018 / Electrical Engineering
Active registration number / state / expiration date			0402066695 / VA / 05-31-2027
Year registered	2023	Discipline	Electrical
Contract role(s) / brief description of responsibilities			Electrical support services / Provide comprehensive electrical support services for movable bridge infrastructure, including emergency response, troubleshooting to minimize downtime, designing communication, power, and control systems for existing movable bridges, conducting detailed inspections to verify safety and compliance, and offering construction support

With a focus on motor controls and power distribution, Drake has successfully delivered projects for various transportation clients, including LADOTD, VDOT, Norfolk Southern, and the North Carolina Department of Transportation. His experience working on 90+ projects for VDOT demonstrates his ability to manage multiple projects simultaneously and provide quality electrical support services.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
06/25–Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Statewide LA.** *Electrical Inspector.* Drake conducted a comprehensive inspection of multiple vertical lift bridges. The inspection included a complete visual inspection for signs of wear, damage, or malfunction of the entire bridge's electrical system, including, but not limited to, traffic signals, warning gates, resistance, bridge control system, and power system. He also examined conduits, wiring, junction boxes, and enclosures to verify electrical integrity and compliance with safety standards. He observed normal bridge operations, including acceleration, deceleration, and braking. He recorded measurements of no-load and load voltages, as well as main motor load currents, to assess the electrical performance and operational efficiency of each bridge. He wrote a full electrical inspection report documenting findings, observations, and recommendations for each bridge inspected.
09/23–Ongoing	**Virginia Department of Transportation (VDOT), Movable Bridges On-Call Contract | Statewide VA.** *Electrical Engineer*. Drake provides on-call emergency response services for electrical troubleshooting of movable bridges. This includes rapid deployment to address electrical issues on bascule, swing, and vertical lift bridges. Drake diagnoses and resolves faults in control systems, power distribution, motor drives, limit switches, span locks, and other critical components. He performs real-time assessments of bridge operations to confirm minimal downtime and safe restoration of bridge functionality.
08/21–12/24	**VDOT, Benjamin Harrison Bridge Aerial Cable System | Richmond, VA.** *Electrical Engineer*. Drake provided electrical design services and construction support for the replacement of the existing submarine cable with a new aerial cable system on the Benjamin Harrison Bridge. He developed termination plans, coordinated with field crews, and confirmed proper integration of the aerial cable system with the bridge's existing electrical infrastructure. Drake oversaw the installation and termination of conductors, verifying correct phasing, grounding, and labeling to meet VDOT standards and verify long-term reliability. He worked with contractors and project engineers to troubleshoot construction issues and confirm that components were installed in accordance with the contract documents.
07/21–01/22	**VDOT, Berkley Bridge In-Depth Inspection | Norfolk, VA.** *Electrical Inspector.* Drake performed an in-depth electrical inspection of the Berkley Bridge, a four-leaf rolling bascule bridge. The inspection focused on each span drive, locking, and electrical components critical to bridge operation, including span drive motors, auxiliary motors, limit switches, span locks, and control panels. Drake conducted a thorough visual assessment of conduits, wiring, junction boxes, and enclosures, checking for signs of wear, corrosion, or electrical faults. He monitored bridge operations by recording motor load currents, voltage levels, and system behavior during acceleration and deceleration, utilizing a Fluke 1777 power analyzer. Drake conducted a thorough inspection of the bridge's grounding, control, and power systems, using both visual assessments and hands-on verification. The inspection followed procedures outlined in the AASHTO Bridge Inspection Manual, the National Electrical Code (NEC), and current AASHTO design standards. Drake also contributed to a detailed inspection report that identified deficiencies across key components, including generators, control systems, position indication systems, PLCs, conduits and conductors, and drive systems.

Firm employed by **HDR Engineering, Inc.**			
Name	**Raphael Costa, PE**	Years of relevant experience with this employer	11
Title	Movable Bridge Program Lead	Years of relevant experience with other employer(s)	14

Degree(s) / Years / Specialization			MBA / 2009 / Business Administration | MS / 2004 / Electrical Engineering | BS / 2001 / Electrical Engineering
Active registration number / state / expiration date			PE.0043993 / LA / 03-31-2028
Year registered	2019	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			Electrical Lead / Provide electrical and controls inspection and assessment

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).
06/25–Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Statewide LA.** *Electrical Engineering QC.* Raphael performed electrical quality control and field verification for six movable bridges across multiple parishes in Louisiana. He supported inspection activities and reviewed electrical systems and controls in coordination with multidisciplinary teams. He also assisted with documentation for routine and in-depth inspections and helped coordinate subcontractors and field efforts across two mobilizations, including rope-access crews.
10/23-03/24	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | New Orleans, LA.** *Electrical QC*. HDR led the annual in-depth movable bridge inspections for the Seabrook and Almonaster single-leaf truss bascule bridges (117 feet main span with 240 feet total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Raphael performed QC reviews of the electrical systems portions of the reports.
06/20-Ongoing	**Virginia Department of Transportation (VDOT), Movable Bridges On-call Contract | Statewide, VA.** *Senior Electrical Engineer and QC Reviewer*. Raphael provided quality control reviews for several tasks, including annual bridge inspections and rehabilitation designs. He conducted quality reviews of the electrical systems rehabilitation design plans, calculations, specifications, and cost estimates for this lift bridge.
01/20-06/22	**LADOTD, Statewide Bridge Inspections | Statewide, LA.** *Lead Electrical Engineer Inspector*. Raphael performed a detailed inspection of the electrical systems of the Teche Bayou, Red River, Bayou LaCarpe, and Bayou Little Caillou Lift Bridges, including power, controls, and lighting, and provided findings and recommendation reports.
03/20-07/23	**Martin County, Hobe Sound Bascule (Movable) Bridge Rehabilitation | Hobe Sound, FL.** *Engineer of Record.* Raphael was in responsible for the electrical design of the bridge's control and electrical systems, as well as for rehabilitation and upgrades. The scope of the rehabilitation work included motor/drive systems, power distribution, controls, and replacement of submarine cable systems. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.
06/19-07/24	**Palm Beach County, Donald Ross Bascule (Movable) Bridge Rehabilitation | West Palm Beach, FL.** *Engineer of Record*. Raphael was in responsible for the electrical design of the bridge's control and electrical systems, as well as for rehabilitation and upgrade work. The scope of the rehabilitation work included new drive systems to control the new HPUs, power distribution upgrades, and a full controls systems replacement. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.
01/18-09/22	**Pinellas County, Park Boulevard Bascule (Movable) Bridge Rehabilitation | Indian Shores, FL.** *Engineer of Record.* Raphael was in responsible for the electrical design of the rehabilitation of the double-leaf bascule bridge. The scope of the rehabilitation work included replacing the motor/drive, power distribution, and control systems. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.
08/16-10/24	**Florida DOT (FDOT) D6, NE 79th Street Bridges Rehabilitation | Miami, FL.** *Engineer of Record*. Raphael was in responsible for the electrical repair design of four bascule (movable) bridges. The project entailed the design for structural, mechanical, and electrical repairs

	for the bascule bridges along the same causeway. Structures included a double-leaf twin bascule bridge and a single-leaf twin bascule bridge. The scope of the rehabilitation work included replacing the motor/drive, power distribution, and control systems. Raphael prepared the preliminary engineering and scoping report, and detailed electrical design, including construction documents (plans, specifications, and cost estimates), and performed post-design services associated with the electrical and control system rehabilitation.
01/16-12/23	**FDOT Districts 1 and 7, Asset Maintenance On-Call Services and Inspections | Districtwide, FL.** *Senior Electrical Engineer and Lead Electrical Inspector.* Raphael inspected and evaluated movable bridges' electrical and drive elements and provided design and other engineering services for emergency response to the contract's 44 movable bridges.
02/16-08/18	**Metropolitan Transportation Authority (MTA) Bridges & Tunnels, Miscellaneous Bridge Design Services | Statewide, NY.** *Senior Electrical Engineer*. Raphael conducted quality reviews of the scoping and assessment report, electrical systems rehabilitation design plans, calculations, specifications, and cost estimates for the lift bridge rehabilitation.
06/15-Ongoing	**CSX Transportation, Movable Bridge On-call Engineering Services | Nationwide.** *Senior Electrical Engineer.* Raphael performed quality reviews of the scoping and in-depth reports, electrical systems rehabilitation design plans, calculations, specifications, and cost estimates for rehabilitating four lift bridges. The electrical rehabilitation scope included replacing the control systems with remote-control capabilities and improving electrical power distribution for 8 lift bridges, 18 swing bridges, and 5 bascule bridges.
05/15 - Ongoing	**FDOT District 4, Districtwide Engineering Services | Districtwide, FL.** *Senior Electrical Engineer & Task Manager.* This project involves work on the district's 37 bascule bridges. Task orders delivered include the development of a Submarine Duct System Standard, assessment and inspection of all bascule bridges, two deck replacement studies using lightweight solid decks, span lock rehabilitation, a bridge monitoring study to aid in preventive maintenance, and others. Raphael performed inspections, designs, and studies for electrical and control systems of the District's bridges, including developing a feasibility study and construction documents for a systemwide pedestrian safety system composed of Thermal cameras and LiDAR sensors to improve bridge operation safety.
01/15-01/16	**Alabama Department of Transportation (ALDOT), Wintzell Memorial Lift Bridge Assessment and Rehabilitation | Mobile County, AL.** *Project Manager and Lead Electrical Engineer*. Raphael was responsible for the project, which included detailed inspections of the existing electrical systems and a recommendation report for the 104-foot-long vertical lift bridge. He managed the project, inspected the bridge's electrical and control systems, and prepared the final inspection report, including recommendations for near-, mid-, and long-term repairs.
01/15–08/15	**FDOT District 6, State-Owned Movable Bridge Inspections | Districtwide, FL.** *Senior Electrical Engineer and Lead Inspector.* The project entailed reviewing existing inspection reports performed by other consultants. Raphael conducted the review process, which included inspecting and evaluating movable bridge electrical and machinery elements and providing a detailed review and assessment of the district's inspection program.
12/14-04/15	**Union Pacific Railroad, Steel Bridge Electrical Rehabilitation | Portland, OR.** *Senior Electrical Engineer*. Raphael conducted quality reviews of the scoping and assessment report, the electrical and control systems rehabilitation design plans, specifications, and cost estimates for the lift bridge rehabilitation. This historical bridge comprises a double-deck lift span carrying railroad, roadway, and pedestrians across the Willamette River.
02/10–08/14	**America Latina Logística, Railway Movable Bridges Services | Nationwide, Brazil.** *Senior Electrical Engineer and Lead Inspector.* Raphael performed consulting services for two railroad movable bridges, including electrical, mechanical, and structural inspections; repair design; bridge operators' training; emergency response; and maintenance assistance.
06/08–04/10	**Connecticut Department of Transportation, Washington Street Bridge (Stroffolino Bascule Bridge) | Norwalk, CT.** *Senior Electrical Engineer and Lead Inspector.* Raphael provided mechanical and electrical inspection services to rehabilitate the structural, mechanical, and electrical systems and upgrade the existing double-leaf trunnion bascule bridge.
03/06-10/08	**New Jersey Department of Transportation, Route 71 and Route 88 Lift Bridges Rehabilitation | Statewide NJ.** *Electrical Engineer.* The rehabilitation involved replacing the tractor-type barrier gates with new barrier gates and platforms, and improving control systems to verify safe, reliable operation. Raphael developed the detailed inspections, design of repairs and improvements, and construction support services for the electrical systems. He designed the rehabilitation of the electrical and control systems, including preparing plans, special provisions, and cost estimates.

Firm employed by: **HDR Engineering, Inc.**			
Name	**William Clementson, PE**	Years of relevant experience with this employer	13
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization	BS / 2013 / Civil Engineering ME / 2013 / Civil Engineering
Active registration number / state / expiration date	PE.0047891 / LA / 09-30-2027
Year registered: 2023 — Discipline	Civil
Contract role(s) / brief description of responsibilities	Structural support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness

William's experience includes structural design and analysis of bridges. He has experience across each stage of bridge design, including preliminary planning, structural design, and construction-phase services. He has also served as a design engineer for design-build and design-bid-build projects, signature bridges, bridge rehabilitations, bridge widenings, and other miscellaneous structures, such as sign structures.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/22–07/23	**LADOTD, Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E | Waverly, LA.** *Structural Engineer.* William performed detailed design checks for the demolition and replacement of the PPC AASHTO girder bridge span that was struck by a dump truck. Phase 1 design consisted of PS&E for the phased demolition of the west side of the damaged span to open a single lane of traffic on the eastern half of the bridge (two undamaged girders). Phase 2 design involved a split-phase replacement span. The existing girders were AASHTO Type 3 (interior) and 4 (exterior).
09/13–09/17	**Harris County Toll Road Authority, Houston Ship Channel Bridge Replacement | Houston, TX.** *Bridge Engineer.* HDR designed the south approach structures for the proposed twin bridges to replace the existing Houston Ship Channel Bridge carrying Beltway 8 over the Houston Ship Channel. The south approaches are approximately one mile in length with 43 spans of prestressed concrete girders. William assisted with designing both the substructure and foundation.
03/24–Ongoing	**TxDOT Houston, Pelican Island Bridge Replacement | Galveston, TX.** *Bridge Engineer.* This project included the design of a mile-long fixed bridge over the Galveston Channel and the demolition of the existing movable bascule span bridge. It includes 32 spans of precast simple-span I-girders and 4 spans of spliced concrete girders, supported by reinforced concrete substructures and drilled shaft foundations. William designed superstructure, substructure, and foundation elements, including design for coastal storms, wave loading, vessel collision, and significant scour.
07/18–03/22	**VDOT, Hampton Roads Bridge -Tunnel Expansion | Norfolk, VA.** *Bridge Engineer.* This design-build project involves the reconstruction and expansion of I-64 from Hampton to Norfolk. The project included many bridges, including multiple long marine trestle bridges, as well as additional tunnels under the main shipping channel. William performed preliminary superstructure, substructure, and foundation design for bridges over Hampton Roads, where the James, Nansemond, and Elizabeth Rivers empty into the Chesapeake Bay. Bridges were primarily prestressed concrete girders supported by trestle bents. In the final design phase, William refined and finalized the design of these elements. There were many complicating factors, including extreme scour potential, large sound walls, heavy wave loading, and vessel collisions.
12/20–Ongoing	**TxDOT Atlanta, SH 43 at Big Cypress Bayou | Marion and Harrison County, TX.** *Bridge Lead Engineer.* William designed superstructure, substructure, and foundation elements for a 16-span prestressed precast I-girder structure over Big Cypress Bayou supported on reinforced concrete bents and drilled shafts. The structure's design was influenced by difficult phasing due to the existing steel structure, which could not be demolished in phases, and by limited ROW. The structure was also designed for significant scour.
06/13–10/15	**New York State Thruway Authority, Governor Mario M. Cuomo Bridge (Tappan Zee Bridge Replacement) | Westchester and Rockland Counties, NY.** *Bridge EIT.* HDR designed the approach structures for the Tappan Zee Bridge Replacement project over the Hudson River. The bridge is approximately three miles long, with over 40 spans of five curved steel plate girders. William assisted with designing the substructure and foundation of four units with five spans each, including soil-structure interaction and seismic design.

Firm employed by **HDR Engineering, Inc.**			
Name	**Sarah De Moya, PE**	Years of relevant experience with this employer	13
Title	Bridge Group Lead	Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization		MS / 2007 / Structural Engineering | BS / 2006 / Civil Engineering	
Active registration number / state / expiration date		**PE.0038011 / LA** / 03-31-2027	
Year registered: 2013		Discipline: **Civil Engineering**	
Contract role(s) / brief description of responsibilities		Structural engineering support / Assess bridge conditions, plan repairs, verify safety compliance, collaborate with engineers, and monitor preservation effectiveness **(Meets MPR 3)**	

Sarah's experience includes structural design and analysis of bridges. She has experience across each stage of bridge design, including preliminary planning, structural design, and construction-phase services. Sarah has served as a bridge engineer for numerous public clients, including LADOTD, TxDOT, FDOT, NYSTA, ADOT, USACE and various cities and counties in Texas.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/23-11/24	**Texas Department of Transportation (TxDOT) Houston, Various Bridge Repairs | Houston, TX.** *Senior Bridge Engineer.* This project involved developing plans, specifications, and estimates for follow-up action items identified during routine bridge inspections at six bridge locations in Houston. Sarah checked plans, specifications, and estimates for bridge repairs, including concrete spalls, joint cleaning and sealing, armor joint repair, railing replacements, superstructure repairs due to fire, drainage flumes, and erosion repairs.
11/22–07/23	**LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E | Waverly, LA.** *Bridge Lead/**Engineer of Record.*** **Sarah was in responsible charge of bridge preservation and design** and developed demolition and rehabilitation plans, specifications, and estimates to replace the bridge span damaged by a truck impact. Some existing bridges were partially damaged, including prestressed concrete beams, bridge railing, and bridge deck. In Phase 1, Sarah load-rated the damaged bridge to determine whether a portion of it was safe to open to traffic. Sarah developed a letter bid plan for demolishing damaged beams and bridge deck, along with temporary traffic control, immediately following the load rating. The bridge reopened to one lane of traffic while the design for span replacement was ongoing. Phase 2 design included AASHTO Type 3 girders, designed using LEAP Bridge Concrete, with modifications to the existing substructure to accommodate additional girders due to phased construction. The design and LRFR load rating followed LADOTD BDEM, and the team developed bridge design, technical memos and plans using DOTD CadConform.
08/22-02/24	**TxDOT Dallas, Corsicana Bridge Replacements | Navarro County, TX.** *Bridge Lead/ **Engineer of Record.*** **Sarah was in responsible charge of bridge design** and led the design for five rural bridge replacements. The SH 31 over Post Oak Creek bridge is one-half of a 4-lane divided highway utilizing a concrete slab beam superstructure, concrete piers, and drilled shaft foundations designed for 12 feet of scour. Low chord elevation was set above the 100-year design flood event, necessitating retaining walls on the bridge approaches to keep final grading within the existing state ROW. Abutment slopes were armored with 18-inch diameter stones for scour protection.
04/20-Ongoing	**TxDOT Corpus Christi, US77 Schematic and PS&E | Sinton, TX.** *Bridge Lead/ **Engineer of Record.*** **Sarah was in responsible charge of bridge design and bridge preservation**. Sarah led the design for four new bridges, four bridge replacements, and six bridge rehabilitations. She performed a cost-comparative analysis to determine the optimum bridge length and retaining wall limits. Sarah designed prestressed concrete beams, concrete bents, and drilled shaft foundations. The 4 bridges over Chiltipin Creek were designed for 12 feet of scour, and the low chord was set above the 100-year design flood event. The overpass bridges were designed with pier protection for vehicle collision loading. The bridge rehabilitation plans incorporated typical TxDOT repair solutions to prolong the bridges' service life while reducing costs. Concrete repairs were in accordance with the *TxDOT Concrete Repair Manual*.
06/19-12/20	**TxDOT Beaumont, Old US 90 at Baird's Bayou Bridge Replacement | Orange County, TX.** *Deputy Project Manager/Bridge Lead.* Sarah coordinated with TxDOT, subconsultants, and the internal production team to progress design and deliver this project on a tight schedule. Sarah coordinated environmental documentation, utility relocation, and retaining wall construction. She developed a scheme for

	end-on-end bridge demolition and construction due to existing bridge conditions and difficult site access in a rural area. Sarah reviewed prestressed concrete pile trestle bents and slab-beam superstructure designs.
01/18-09/19	**City of Alvin, FM 528 Extension from SH 35 to SH 6 – Bridge over BNSF Railroad | Brazoria County, TX**. *Bridge Lead Engineer.* This two-lane rural bridge on the new location was designed for future widening. Sarah led the design of prestressed concrete I-girders, concrete piers, and drilled shaft foundations. She also developed Exhibit A and located bridge piers outside the BNSF railroad ROW. Sarah developed the design of noise walls, retaining walls, and custom project aesthetics.
08/15–Ongoing	**Harris County Toll Road Authority (HCTRA), Sam Houston Tollway East – Ship Channel Bridge Replacement | Harris County, TX.** *Bridge Lead Engineer/Deputy Project Manager/* ***Engineer of Record.*** **Sarah was in responsible charge of bridge design**. Sarah designed bridge substructure and foundation elements for new twin bridges to replace the existing Houston Ship Channel Bridge, which carries Sam Houston Tollway-East over the Houston Ship Channel. Each approach bridge is over a mile long with a combined deck area of nearly 800,000 square feet. Sarah led the bridge layout and structural design, influenced by difficult site constraints, including nine railroad tracks, access roads, existing bridge foundations, poor soil, highly skewed box culverts, an operating petcoke facility, and roughly 90 utilities. Despite many obstacles, the new bridge was designed so that only overhead power lines needed to be relocated. Sarah checked superstructure designs and developed go-by details utilized by the bridge design teams.
01/14-06/15	**Metropolitan Transit Authority of Harris County (METRO), Union Pacific Railroad (UPRR), Harrisburg Overpass | Houston, TX**. *Structural Engineer.* This fast-track project included bridge design services for a nine-span bridge consisting of two light rail tracks, two highway lanes, and two sidewalks over UPRR tracks. Bridge design included pre-stressed concrete I-girders, deck design, substructure design, special railing details, track plinth design, rail structure interaction model, approach slab design, cased drilled shafts due to contaminated soil, OCS pedestal details, and OCS/light pole anchorage design**.** Sarah checked the design of prestressed concrete girders, substructure, foundations, OCS pedestals, and anchorage.
01/13-01/14	**City of Memphis, Harahan Bridge Restoration | Memphis, TN,** *Structural Engineer.* This project rehabilitated a 1916 steel-truss railroad bridge and an unused wagon path, to be used as a pedestrian and bicycle path over the Mississippi River between Memphis, TN, and Crittenden County, AR. Sarah performed structural capacity calculations for the cantilevered pedestrian boardwalk supported by an existing steel-truss railroad bridge in service. She analyzed cantilevered bracket connections for moment and shear capacity. She estimated loads for various boardwalk deck and pedestrian overlook options. The final design was completed with a 12-foot wide mixed-use walkway that included 54” tall pedestrian railings and a 10-foot tall curved fence on the inside of the walkway. The existing stringers were reused with additional framing as required for final design loads.
01/12–11/12	**Central Texas Regional Mobility Authority, US 290 Manor Expressway | Manor, TX.** *Structural Engineer.* Sarah designed and analyzed truss structures for overhead sign bridges, cantilever sign structures, DMS structures, and toll gantries, utilizing RISA and AASHTO LTS criteria. Sarah reviewed the shop drawings and approved sign structure/DMS/toll gantry trusses, sealed expansion joint assemblies, drainage structures, pedestrian railing, and prestressed concrete beams. The design includes 6.2 miles of a six-lane, grade-separated tollway reconstruction with three general-purpose lanes in each direction. It includes a roadway, 32 bridges, retaining walls, drainage, sign structures/toll gantries, and a 10-foot shared path, in accordance with AASHTO LRFD, TxDOT, FHWA, and ADA design criteria.
06/11-10/11	**City of Sugar Land, Sweetwater, Harman, and Dulles Avenue Bridge Condition Assessments and Rehabilitation | Sugar Land, TX.** ***Engineer of Record.*** **Sarah was in responsible charge of bridge preservation** and performed a condition assessment of the existing bridges at Sweetwater Boulevard over Steep Bank Creek, Harman Street over Oyster Creek, and Dulles Avenue over Oyster Creek. She developed rehabilitation plans and specifications to repair the bridge deficiencies.
01/10-10/11	**City of Sugar Land, University Boulevard South Extension, Bridges over Ditch H | Sugar Land, TX**. B*ridge Engineer*. Sarah performed structural calculations and detailed the structural elements of these twin curved bridges. Sarah designed Type IV prestressed concrete I-beams, raised sidewalks, containment rails, deck drains, heavily skewed multi-column bents and abutments with deep foundations, founded wing walls, and bridge-mounted utilities. She also reviewed shop drawings and responded to RFI’s during the construction phase.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Jason DeRuyver, PE**	Years of relevant experience with this employer	2
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	24

Degree(s) / Years / Specialization			MS / 1999 / Structural Engineering BS / 1998 / Civil Engineering
Active registration number / state / expiration date			PE 6201049920 / MI / 1-31-2028
Year registered	2003	Discipline	Structural
Contract role(s) / brief description of responsibilities			Asset Management Planning / Support development and prioritization of bridge maintenance and preservation strategies by analyzing asset condition data to optimize lifecycle performance and funding decisions.

Jason has more than two decades of bridge engineering experience in design, inspection, and scoping, including over 10 years as the Michigan Department of Transportation's (MDOT) Structure Maintenance Support Engineer, where he developed innovative bridge preservation and repair techniques and authored more than 30 Special Provisions. While at MDOT, Jason led the development of the Bridge Urgent Needs (BUN) project delivery process, played a key role in developing metal mesh panels to protect the motoring public from falling concrete, and trained agencies nationwide on bridge preservation practices. He served as MDOT's representative to the AASHTO TSP2 Midwest Bridge Preservation Partnership from 2013 to 2023 and currently serves as Vice Chair for Industry, while continuing to lead outreach efforts that reach hundreds of local agencies across the US and Canada.

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).
10/25 – Ongoing	**Michigan Department of Transportation (MDOT), 1-94 Asset Management Plan | Detroit, MI.** *Project Manager & Inspection Team Lead.* HDR will perform bridge scoping inspections on 34 bridges and file reviews for an additional 10 bridges in accordance with the National Bridge Inspection Standards (NBIS), the FHWA Bridge Inspection Reference Manual (BIRM), Michigan Structure Inspection Manual (MiSIM), and other applicable resources. In addition to the inspections, HDR will develop an asset management plan for the 44 bridges. Each bridge asset management plan will include an evaluation of the structure to address potentially significant impacts on the phased delivery of the I-94 Modernization project. This will include recommendations for preventive maintenance, rehabilitation, and reconstruction that may be required in advance and in support of the I-94 Modernization phased delivery. Recommendations will be based on current structural conditions and predictive deterioration modeling. The overall asset management plan will include a programmatic overview of 44 bridges with recommendations for each bridge, including packaging similar work and similar locations. Jason performs field inspections, quantifies defects, assesses ratings, writes scoping reports, and develops and estimates repair options.
03/26 – Ongoing	**MDOT, M-39/I-96 Scoping | Detroit, MI.** *Deputy Project Manager.* HDR provided a detailed scoping inspection of the bridges in the M-30/I-96 interchange to quantify the severity and extent of deterioration to the deck, superstructure, and substructure components. Visual and physical evaluations of bridge components and approaches were performed to document the existing conditions of each structure. Based on the inspection findings, a scoping report was provided, including an existing condition summary and repair alternatives based on the types of deficiencies observed and their comparison with current design standards. Jason performs field inspections, quantifies defects, assesses ratings, writes scoping reports, and develops and estimates repair options.
06/25-12/25	**MDOT Grand Region, I-196 Ramp F over I-196 EB Request for Action (RFA) – MDOT JN 218323 | Grand Rapids, MI.** *Project Manager.* Jason oversaw the project, directing the design team, coordinating with subconsultants, and confirming that the project was completed in accordance with MDOT specifications, manuals, and procedures. This project is an RFA project for the repair of a 40-foot pier column that supports a non-redundant steel tension member (NSTM) pier cap. Jason developed details and directed junior engineers in the extensive analysis required for the curved, super-elevated superstructure to determine temporary support loads, including thrust, differential thermal, and wind. Additionally, the geometric configuration of the NSTM pier cap's internal diaphragm system increased analysis complexity, necessitating Jason to develop and detail a complex shoring tower system. Jason estimated this non-standard project within 8% of the low bid.
10/24-08/25	**MDOT University Region, US-12 and Rawsonville Road over I-94 – MDOT JN 220604 | Ypsilanti and Rawsonville, Washtenaw County, MI.** *Project Manager.* Jason provided project oversight, directing the design team, coordinating with subconsultants, and verifying

	overall project completion in accordance with MDOT specifications, manuals, and procedures. This project is an RFA project for substructure repair. The US-12 over I-94 is severely skewed, and the substructure units are primarily independent columns supporting each beam end. The existing columns were insufficiently designed in the original plans and have been retrofitted with steel straps that are also insufficient. Jason led the design team in determining the necessary retrofit details to verify that the bridge will serve the desired service life. Additionally, due to his understanding of bridge movement, Jason discovered a buckled bottom flange caused by pavement growth at Rawsonville Road over I-94.
06/23-01/26	**MDOT Grand Region, US-131 Grand Rapids Freeway Lighting Replacement | Grand Rapids, MI.** *Preservation Specialist.* HDR led the design and development of plans and specifications to replace the architectural lighting foundations along US-131 in downtown Grand Rapids. There are 52 typical architectural foundations and 4 tower foundations within the corridor, built in the early 2000s and crossing the Grand River. Utilizing Accelerated Bridge Construction technology, the design used precast construction to minimize traffic delays and public impacts in this busy area, with construction anticipated to be performed from US-131, where heavy construction equipment will be located on structures. To mitigate risk, HDR performed extensive analysis of the many structural types in the corridor, including curved/skewed steel and prestressed concrete bridges, for crane and other construction loading. Several unique special provisions were developed for the contractor's erection/demolition plans, precast construction, T17 MMA Polymer Substructure Patching, and others. The design improves the durability of the architectural foundations while maintaining a similar visual appearance to the existing foundations. Jason developed complex, project-specific special provisions for precast foundation construction, erection/demolition sequencing, and substructure repairs across multiple bridge types in a high-traffic urban corridor.
06/23–08/25	**TxDOT Abilene, Follow-Up Actions on 62 Bridges | Abilene, TX.** *Senior Bridge Engineer.* This was a multi-year design contract to provide field assessments and repair contracts for 62 bridges in the TxDOT Abilene District that required follow-up actions. The project included full-depth deck patching, concrete t-beam repairs, bearing replacements, expansion joint replacements, substructure patching, and temporary supports. Jason performed the field assessments, scope refinement, repair details development, and oversaw general plan production to verify delivery of the project on time.
09/24-10/26	**Ohio Department of Transportation (ODOT), Craig Memorial Bascule Bridge Rehabilitation – State Route 65 | Toledo, OH.** *Lead Structural Engineer* Jason oversaw the structural rehabilitation, directing the structural design team, coordinating with environmental, electrical, and mechanical disciplines, and verifying overall completion of the project scope in accordance with ODOT Specifications and Bridge Design Manuals. This project included the complete replacement of mechanical and electrical systems and the rehabilitation of the structure. Jason verified structural access and constructability of large mechanical components, developed unique repair solutions to rehabilitate movable structural components, and directed the structural team in creating details required for various rehabilitation techniques. Jason authored the required specifications for the unique repair details required to rehabilitate the structure.

Firm employed by **HDR Engineering, Inc.**			
Name	**Isaac Frederick, PE**	Years of relevant experience with this employer	4
Title	Moveable Bridge Section Manager	Years of relevant experience with other employer(s)	8

Degree(s) / Years / Specialization			BS / 2015 / Mechanical Engineering
Active registration number / state / expiration date			PE.0044322 / LA / 09-30-2026
Year registered	2020	Discipline	Mechanical
Contract role(s) / brief description of responsibilities			Mechanical Support / Assess, design, analyze, and confirm proper integration of mechanical systems and components, including condition evaluation to verify structural integrity, reliability, and operational functionality.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA.** *Lead Mechanical Engineer.* Isaac is leading the mechanical and electrical portions for the first two tasks in the contract, which include Abbeville Bypass, Old Abbeville, Parks, Milton, Ellender, and West Fork vertical lift bridges. Issac performs document reviews and in-depth inspections. He was the lead mechanical engineer for the in-depth inspections, which included strain gauge testing on five of the six bridges. Each inspection is now complete, with report development in progress.
06/22-06/23	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Saint Tammany and Livingston Parish, LA**. *Lead Mechanical Engineer Inspector*. Isaac performed the detailed mechanical inspection of the Amite River at Port Vincent, the Amite River at Clio, Chef Menteur, Bayou Lacombe, the Tchefuncte River, Bayou Bonfouca, and Bayou Liberty mechanical systems, and provided his findings in a recommendation report. Each movable bridge was a swing span. Elements inspected included hydraulic power lift (HPU), open gearing, hydraulic cylinders, pivot bearing, center wedges, end wedges, couplings, brakes, and traffic gates.
01/24-03/24	**Florida Department of Transportation, District 6 Inspection Contract | Miami-Dade County, FL**. *Lead Mechanical Engineer, Inspector, and Team Leader*. HDR inspected five movable bridges, including three hydraulically driven bascule spans. Each inspection and report provided an in-depth analysis. Isaac conducted mechanical inspections of the NW 17th, 2nd Avenue, 22nd Avenue, West Venetian, and Tamiami bridges, focusing on the electrically and hydraulically operated machinery. The inspected elements included HPU, open gearing, hydraulic cylinders, hydraulic motors, trunnions, span locks, live load shoes, couplings, brakes, and traffic gates.
06/23–10/23	**Florida Department of Transportation, District 4 Inspection Contract | Broward County, FL**. *Lead Mechanical Engineer, Inspector, and Team Leader*. HDR inspected six movable bridges, including two hydraulically driven bascule spans. Each inspection and report provided an in-depth analysis. Isaac conducted mechanical inspections on the 3rd Avenue, 7th Avenue, Andrew's Avenue, Dixie Highway, and Jack L. Saunders bridges, focusing on the operating machinery, which operated electrically and hydraulically. The inspected elements included HPU, open gearing, hydraulic cylinders, hydraulic motors, trunnions, span locks, live load shoes, couplings, brakes, and traffic gates.
08/23-Ongoing	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | New Orleans, LA**. *Lead Mechanical Engineer, Inspector, and Team Leader*. Isaac performs the detailed mechanical inspection of the Almonaster and Seabrook bridges, both century-old Strauss Bascules stretching down the Inner Harbor Navigational Canal. This inspection requires attention to detail to account for deficiencies that may not be encountered in bascules of this age. Isaac inspects both bascules. The elements inspected include open gearing, pneumatic systems, trunnions, link pins, span locks, live load shoes, couplings, and brakes.
05/23–05/23	**CSX Transportation, Mobile River Emergency Response | Baldwin County, AL**. *Mechanical Response Team Leader.* Isaac responded to a mechanical failure in a vertical lift. He was on site within hours to diagnose the failure, a gear tooth shear in a drive coupling. This became a six-degree skew, shearing off guides and plastically deforming noncritical members. Isaac worked with on-site contractors to develop a solution and get the vertical lift back in service to CSX and the Coast Guard within three days.

11/22-11/23	**TxDOT Bridge Division, Rio Hondo Inspection | Cameron County, TX.** *Mechanical Inspector.* Isaac conducted a detailed mechanical inspection of the Rio Hondo bridge, a tower-drive vertical-lift bridge. This inspection included strain-gauge testing and various measurements. Elements inspected included open gearing, brakes, wire rope, sheaves, gearboxes, bearings, span guides, and traffic gates.
07/22-07/22	**TxDOT Bridge Division, Rio Hondo Emergency Response | Cameron County, TX.** *Mechanical Response Team Leader.* Isaac responded to a vertical lift span lock failure. He was on-site within hours to diagnose the failure, a key shear in a coupling. This developed into barges waiting in the canal as the bridge could not be lifted. Isaac diagnosed the problem and directed TxDOT personnel to manually disengage the lock bar, which allowed the span to be lifted. The vertical lift was temporarily allowed to operate on three-span locks until a new coupling was installed.
06/22–08/22	**TxDOT Bridge Division, Cow Bayou Inspection | Orange County, TX.** *Mechanical Inspector.* Isaac performed the detailed mechanical inspection of Cow Bayou, a swing-span bridge. This inspection included strain-gauge testing and various measurements. Elements inspected included open gearing, brakes, center wedges, end wedges, gearboxes, bearings, and traffic gates.
01/14-02/14	**BNSF Railway, Counterweight Pin Replacement | King County, WA.** *Mechanical Quality Assurance.* The plan set specified four pin replacements that connected the counterweight to the frame of a Strauss bascule. Isaac verified that the counterweight was jacked appropriately to relieve the pin for replacement. Once the pin was removed, Isaac verified that the frame was bored to the correct diameter within tolerance. Finally, Isaac oversaw the removal of the new pin and the jacking apparatus. After completing the work, Isaac generated a BNSF report detailing the measurements and work done.

Firm employed by **HDR Engineering, Inc.**			
Name	**Brett Geesey, PE**	Years of relevant experience with this employer	19
Title	**Vice President, LA/MS Area Operations Manager**	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 2005 / Mechanical Engineering ME / 2006 / Ocean Engineering	
Active registration number / state / expiration date		**PE.0035172 / LA** / 3-31-2028	
Year registered	2009	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities		Project Principal / Oversee project execution and resource management **(Meets MPR 1)**	

Brett serves as HDR's **Louisiana/Mississippi Area Operations Manager,** overseeing the overall operations of HDR's offices in Louisiana and Mississippi. He manages a team of engineers and scientists and has experience managing and designing various engineering projects. He has also implemented projects ranging from feasibility studies through applied design, prepared detailed plans and specifications, and provided construction administration.

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).
10/22-05/24	**LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E | Waverly, LA**. *Project Principal*. HDR is providing as-needed services for various bridge preservation-related services. Task orders have included repair plans for a bridge damaged during a vehicular accident and a task order to develop an optimization tool for developing layout and bridge configuration. For each task order, Brett works with the task order manager to develop the scope, schedule, and budget, and to identify the resources required to deliver it.
08/23-Ongoing	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | New Orleans, LA.** *Project Principal*. HDR provides as-needed inspection and load-rating services for two bridges under the Port of New Orleans' authority. Task orders have included annual inspections for the Seabrook and Almonaster bridges. For each task order, Brett works with the task order manager to develop the scope, schedule, and budget, and to identify the resources required to deliver the task order.
07/19–03/24	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Statewide, LA**. *Project Principal*. HDR is a subconsultant supporting LADOTD's in-depth inspections of complex bridge structures. Brett worked with HDR's task order managers to review the scope, schedule, and budget; coordinate the required resources to complete the task orders; and assist HDR's task order manager in providing quality services.
05/21-Ongoing	**Sewerage and Water Board of New Orleans (SWBNO), Internal and External Communications Support | New Orleans, LA.** *Project Principal*. HDR provides SWBNO with communications support, including communications planning, protocol development, crisis communications support, content development, graphic design, website development, social media strategy, event coordination, and stakeholder management. Brett works closely with the project manager to provide project resources and support internal project controls, including contracting, cost controls, and scheduling.
07/23–06/24	**Baton Rouge Water Company, Utility Network Data Migration | Baton Rouge, LA**. *Project Principal*. Brett assisted the project manager in providing resources and overall project delivery. HDR assisted the Baton Rouge Water Company with migrating its existing utility network data into ESRI's UN data model.
05/18-Ongoing	**Lafayette Consolidated Government (LCG), LCG Drainage Initiative Project | Lafayette, LA**. *Project Principal*. Brett works with the project manager to provide the necessary resources to deliver the project and oversees the overall contract. HDR has provided LCG with wetland delineation services to support its overall drainage initiative program.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Stephen Grabowski, PE**	Years of relevant experience with this employer	13
Title	Movable Bridge Section Manager	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2012 / Mechanical Engineering / Emphasis in Machine Design
Active registration number / state / expiration date			0402057734 / VA / 12-31-2027
Year registered	2017	Discipline	Mechanical
Contract role(s) / brief description of responsibilities			QAQC-Mechanical / Verify mechanical systems and materials meet quality standards through review, inspections, and testing.

Stephen has 13 years of experience in the design and inspection of mechanical systems for movable bridges and tunnels. Stephen's expertise in mechanical systems, combined with his active membership in Heavy Movable Structures (HMS) and relevant training, enables him to deliver quality QA/QC services.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/25–Ongoing	**Transtar, Delray Connecting Railroad Shortcut Bridge Over River Rogue Mechanical and Electrical Rehabilitation | Bay City, MI.** *Mechanical QC Reviewer.* Stephen performed the technical QC of the 90% mechanical plans to confirm that the design met HDR and the client's quality standards.
10/24-Ongoing	**Ohio DOT, Craig Memorial Bridge Rehabilitation | Toledo, OH.** *Mechanical Calculation QC Reviewer.* Stephen conducted a QC review of the span drive and span lock machinery to verify that the proposed equipment design complies with current AASHTO specifications.
09/22–Ongoing	**Virginia DOT (VDOT), Hampton Roads Programmatic Support Services Contract - Berkley Bridge Mechanical and Electrical Rehabilitation | Norfolk, VA.** *Project Manager*. Stephen oversaw revisions to and completion of the design package for the mechanical and electrical rehabilitation, including plans, specifications, estimates, construction time duration reports, and coordination with the USCG and USACE for permit applications. He coordinated with mechanical, electrical, structural, architectural, civil, and traffic to deliver a complete package for advertisement. During the advertisement, Stephen provided responses to the Contractor's questions. He is currently managing construction support services.
06/21–Ongoing	**VDOT, Movable Bridges On-Call Contract - Jamestown Ferry Transfer Bridge Rehabilitation | Jamestown, VA.** *Lead Mechanical Inspector/Designer*. Stephen led and performed a site inspection for a rehabilitation design to replace the horizontally oriented hydraulic cylinders with vertically oriented cylinders and an overhead gantry. He led the design for the rehabilitation, assisted the Department through the advertisement, and is leading the construction support services (CSS).
09/24–04/25	**VDOT, Movable Bridges On-Call Contract - Coleman Bridge (Double Swing Span) AASHTO Inspection | Coleman, VA.** *Project Manager/Lead Mechanical Engineer/Inspector*. The project consists of routine inspections (2018, 2022, 2024) and an in-depth inspection (2020) of the Coleman Bridge. Stephen coordinated the mechanical, electrical, and structural disciplines, maintained traffic during inspections, and prepared the report in accordance with VDOT, FHWA, and AASHTO MBI requirements for this double-swing bridge.
05/25–Ongoing	**VDOT, Statewide Movable Bridges On-Call Contract - Berkley Bridge (Twin Double-Leaf Rolling Bascule) AASHTO Inspection | Norfolk, VA.** *Project Manager/Lead Mechanical Engineer/Inspector*. The project consists of routine (2021, 2023) and in-depth (2019, 2025) mechanical and electrical inspections of the Berkley Bridge. Stephen coordinated mechanical, electrical, and structural balance testing, a fracture-critical rope-access inspection, and maintenance of traffic for the inspection and submission of the report in accordance with VDOT, FHWA, and AASHTO MBI requirements for these twin double-leaf bascule bridges.
01/22–02/24	**VDOT, Hampton Roads Programmatic Services Contract – James River Bridge Wire Rope Replacement | Newport News, VA.** *Lead Mechanical Designer*. Stephen oversaw the preparation of the main counterweight and auxiliary counterweight wire rope replacement design package, including plans, specifications, and the engineer's estimate. He also prepared procurement documents for wire ropes and accessories and provided on-site construction support during their installation.
06/19–11/24	**VDOT, Movable Bridges On-Call Contract—Gwynn's Island Rehabilitation | Gwynn Island, VA.** *Project Manager.* Stephen provided oversight and coordinated the repair plans, specifications, and estimate for Gwynn's Island Rehab. He coordinated each project aspect, including mechanical, electrical, and structural rehabilitation. Stephen also supported the CSS.

Firm employed by **HDR Engineering, Inc.**			
Name	**Tim Grimes, PE, PTOE**	Years of relevant experience with this employer	23
Title	Senior Traffic Engineer	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2002 / Civil Engineering
Active registration number / state / expiration date			PE.0050226 / LA / 09-30-2027; PTOE #3027 / 04-20-2029
Year registered	2025	Discipline	Civil
Contract role(s) / brief description of responsibilities			Roadway/Traffic Control / Develop permanent and temporary traffic control plans for the project, including signing, pavement markings, and signal coordination as required.

Tim specializes in signing and striping design, pedestrian and bicycle facilities, traffic signal design, and the development of permanent and temporary traffic control plans. His experience includes traffic analysis and operational and safety studies in support of roadway and bridge rehabilitation projects. Tim has completed signing and striping PS&E, traffic signal design, and maintenance-of-traffic (MOT) plans, as well as transportation and site access studies, signal warrant analyses, and signal timing studies for municipal and state agencies. His work has supported arterial and highway improvements by minimizing traffic impacts during construction through effective traffic control strategies, roadway improvements, site access design, and traffic impact analysis. Tim has completed the three modules of the Louisiana Transportation Research Center (LTRC) Traffic Engineering Process and Report Course.

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).
04/20-05/25	**Williamson County, FM 3349 and US 79 Design Services | Taylor, TX.** *Project Engineer.* HDR developed the interchange of FM 3349 with US 79, which included two railroad overpass bridges and a jughandle access road connecting the grade-separated roadways. Tim developed the corridor signing schematic for both the interim and ultimate configuration roadway facilities. He developed the signing and striping plans for the interim roadway and designed traffic signals for the project, to be used in both interim and ultimate traffic conditions. The project was opened to traffic in 2025.
11/18-Ongoing	**TxDOT Austin, SH 71 Interchanges | Bastrop County, TX**. *Project Engineer*. Tim prepared temporary traffic signal and overhead flashing beacon plans to upgrade two signalized intersections to grade-separated interchanges. Upgrade of the interchanges required maintaining traffic signal operations until SH 71 through traffic could be rerouted to the overpass lanes. Tim designed temporary traffic signals to use existing traffic signal equipment until construction operations require removal, then to use the proposed signal equipment once new poles have been installed. He designed the overhead flashing beacons as traffic signals to operate on a shared controller upon completion, for easier future upgrades to accommodate changing traffic conditions.
11/22-Ongoing	**TxDOT Austin, MLK Breakout, IH 35 Capital Express Central | Austin, TX.** *Project Engineer*. Tim designed a traffic signal replacement for the interchange. Tim designed temporary timber poles and span wire signals to maintain signal operations throughout construction. Currently, Tim provides construction support services for signal installation and maintains temporary signalization.
01/20–10/25	**TxDOT Pharr, IH 2/IH 69C Interchange Design Build (D/B) General Engineering Consultant (GEC) | Pharr, TX.** *Signing and Pavement Markings SME*. The project includes full reconstruction of the IH2/IH69C directional interchange and associated improvements. Tim provided oversight reviews of pavement marking and signing plans, traffic operational elements within the project's maintenance-of-traffic plans, and miscellaneous traffic submittals from the D/B contractor.
04/20-02/21	**TxDOT Design Division, IH 35 Interstate Justification Report (IAJR) | Cooke County, TX.** *Project Engineer*. HDR worked with TxDOT to prepare an IAJR for proposed IH 35 access changes from 1.4 miles south of Spring Creek Road to 0.2 miles south of US 82. HDR revised available approved traffic forecasts for a base year and two future years, conducted a capacity analysis for the IH 35 mainlane segments and interchanges, and performed a historical and predictive crash analysis along the corridor using IHSDM analysis modeling software. Tim conducted traffic analysis, organized data collection, developed the analysis report, reviewed the analysis and results, and prepared the reports for TxDOT and FHWA review and approval.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Meagan Morvant Harris**	Years of relevant experience with this employer	5
Title	LA-MS Strategic Communications Team Lead	Years of relevant experience with other employer(s)	3

Degree(s) / Years / Specialization			BS / 2018 / Mass Communication
Active registration number / state / expiration date			N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			Public Outreach & Strategic Communications / Lead public outreach, stakeholder engagement, and strategic communications to support project awareness and delivery.

Meagan leads HDR's Strategic Communications team in Louisiana/Mississippi, which is part of a full-service public relations firm and creative studio within HDR. With a background in branding and advertising, Meagan understands the art of executing campaigns with tailored messages that engage and motivate various target audiences. She has helped private and public clients employ data-driven strategies, carefully craft holistic messages, build effective external and internal communication programs, and launch new communication tools.

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).
05/25–Ongoing	**Bayou Vermilion District (BVD), Master Plan | Lafayette, LA.** *Senior Strategic Communications Coordinator.* Meagan developed a public and stakeholder engagement plan that set the framework for public involvement throughout BVD's master planning effort. Based on secondary research and community analytics (via publicly available data in partnership with HDR's Data Solutions team), Meagan crafted a data-driven, strategic approach to engage multiple stakeholder groups requiring varying levels of engagement and incorporated their feedback into the Master Plan. Meagan is working with the client to finalize this plan and implement it through June 2026.
12/25-Ongoing	**New Orleans Regional Transit Authority, Streetcar Modernization Master Plan | New Orleans, LA.** *Sr. Strategic Communications Coordinator* | Meagan collaborates with RTA, the HDR team, and subcontractors to develop strategic public outreach plans to support the Master Plan effort. The plan recommends a wide variety of communication tactics, ranging from grassroots outreach and pop-up events to formal public meetings and digital marketing. Given the streetcar is a historic symbol of the New Orleans community, Meagan and the HDR team are considering key audiences, both internal and external, as well as potential opposition to the modernization effort and strategically engaging them for a successful project. Meagan is working with the client to finalize this plan and implement it through October 2026.
05/21–05/26	**Sewerage & Water Board of New Orleans (SWBNO), Communication Services | New Orleans, LA.** *Project Manager.* Meagan provided comprehensive internal and external communications support to New Orleans' water, wastewater, and drainage utility. She delivered a broad range of services, including communications strategy, customer education, content development and copywriting, graphic design, crisis communications support, media relations, elected official outreach, website content creation, ADA compliance advising, event coordination, and employee communications. Most recently, Meagan developed and implemented communications strategies for the utility's new online customer portal platform and for initial stages of SWBNO's lead service line replacement program.
08/21–08/25	**Port of New Orleans, Louisiana International Terminal | St Bernard Parish, LA.** *Strategic Communications Coordinator.* HDR was as an extension of the Port NOLA communications team, focused on the politically charged Louisiana International Terminal project. Meagan created and implemented communications plans, crafting an earned media strategy, supporting robust public outreach efforts, and managing NEPA public comments and responses. Meagan also oversaw the development of a project website and planned and implemented three series of public open houses with supplemental online versions, going above and beyond NEPA public engagement requirements.
08/21–07/22	**LADOTD, Strategic Highway Safety Plan (SHSP) | Statewide, LA.** *Quality Reviewer.* HDR developed LADOTD's 2022 SHSP update using critical data and input from various Regional Safety Coalitions and Emphasis Area Teams throughout Louisiana. Meagan reviewed the designed version of LADOTD's 2022 SHSP, which involved planning client review meetings, managing client comments, and coordinating with the designer to verify edits were addressed.

Firm employed by **HDR Engineering, Inc.**			
Name	**Peter Harrison, PE (SPRAT 1)**	Years of relevant experience with this employer	12
Title	Bridge Inspection Section Lead	Years of relevant experience with other employer(s)	16

Degree(s) / Years / Specialization			BS / 1998 / Civil Engineering
Active registration number / state / expiration date			PE 0039771 / LA / 09-30-27
Year registered	2015	Discipline	Civil
Contract role(s) / brief description of responsibilities			Structural support / evaluate and document the condition of bridges to verify safety, structural integrity, and compliance with design and regulatory standards

Peter has over two decades of experience in bridge design, inspection, and project management. He has experience with inspections and repairs involving steel, concrete, and timber. He has worked on a diverse range of structural types, including segmental concrete, truss, cable-stayed, tied-arch, and movable bridges. **Training Certificates:** FHWA/NHI #130055 - Safety Inspection of In-Service Bridges, (2008); FHWA/NHI #130053 - Bridge Inspection Refresher Training, (2022); FHWA/NHI #130078 - Fracture Critical Inspection Techniques for Steel Bridges (2003); FHWA/NHI #130110 – Tunnel Safety Inspection, (2016); FHWA/NHI #130124 - Tunnel Safety Inspection Refresher, (2021); SPRAT Rope Access Technician – Level I

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA.** *QAQC.* Peter conducted in-depth quality control reviews of NBIS, routine inspections, LRFR load ratings, and inspection report development for six vertical-lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. He reviewed bridge inspection reports and load rating documentation to confirm technical accuracy, consistency, and compliance with NBIS requirements, and coordinated with inspection team leads and discipline specialists to resolve comments and confirm that final deliverables reflected observed conditions across inspection mobilizations, including rope-access inspections.
05/20-04/21	**TxDOT Bridge Division, JFK Causeway over Gulf Coast Intracoastal Waterway Rehabilitation | Corpus Christi, TX.** *Inspection Team Lead*. Peter coordinated logistics for two field teams over a three-week inspection effort, including coordination with the United States Coast Guard (USCG). He led field inspection activities and the development of a comprehensive condition assessment report documenting observed deficiencies and recommending concrete repairs and the installation of a cathodic protection system. Inspection findings were used to support rehabilitation planning and subsequent design efforts.
01/14-Present	**TxDOT Bridge Division, Non-Redundant Steel Tension Member (NSTM) (Fracture-Critical) Inspection IDIQ | Statewide, TX.** *Bridge Inspector/Team Leader.* Peter manages and leads field inspections and report preparation for fracture-critical bridge inspections statewide. To date, the team has inspected approximately 2,000 bridges, with Peter serving as on-site team leader for approximately 25% of the structures. Notable structures include the Corpus Christi Harbor Bridge, Margaret Hunt Hill Bridge (Dallas), Rainbow Bridge (Port Arthur), Fred Hartman Bridge (Baytown), Pennybacker Bridge (Austin), West 7th Street Bridge (Fort Worth), and the Pelican Island Bascule Bridge (Galveston).
10/23-03/24	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | New Orleans, LA.** *Structural QA/QC*. HDR led the annual in-depth movable bridge inspections for the Seabrook and Almonaster single-leaf truss bascule bridges (117-foot main span with 240-foot total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Peter reviewed the proposed inspection methods and performed a quality review of the final report.
08/15-Present	**TxDOT, Routine Bridge Inspection | Statewide, TX.** *Project Manager/Inspection Team Leader.* Peter manages and leads routine bridge inspections and report preparation statewide. He coordinates multiple inspection teams and confirms compliance with TxDOT and FHWA requirements. This contract has included the inspection of approximately 15,000 bridges. Peter has served as the on-site team leader for approximately 20% of the structures.
12/19, 11/22, 11/26	**TxDOT Bridge Division, Arroyo Colorado Lift Bridge Routine Bridge Inspection | Rio Hondo, TX.** *Bridge Inspector.* Peter led the NSTM (fracture-critical) inspection of this structure, including the use of industrial rope access methods to inspect NSTM members that were difficult to reach with conventional methods.

02/14-08/15	**LADOTD, LA 12 Sabine River Bridge Stage 0 Bridge Evaluation | Calcasieu, LA.** *QA/QC Reviewer.* HDR analyzed the feasibility of rehabilitation and/or replacement of a historic swing-span bridge on the Texas-Louisiana border. The 327-foot five-span bridge contains four concrete approach spans and one steel girder movable span, which has been immobilized. Peter provided QA/QC for the bridge inspection, load rating calculations, and the report summarizing inspection, load rating, and alternatives analysis.
11/17-04/26	**Golden Gate Bridge Highway and Transportation District, Golden Gate Bridge Fracture Critical Bridge Inspection | San Francisco, CA.** *Bridge Inspector.* Peter is part of a team that inspects the fracture-critical members of this structure using industrial rope access, which are difficult to access through conventional methods.
06/09-12/09	**Nebraska Department of Roads (NDOR), Fracture Critical Inspection and Rating | Statewide, NE.** *Inspection Team Leader.* Peter led the inspection and load rating of 108 fracture-critical bridges. Load ratings were performed to determine inventory and operating loads following NDOR standards using LARS rating software. Most bridges were pony trusses of varying lengths.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Donald (Don) Hendon, PE, CFM**	Years of relevant experience with this employer	6
Title	Hydraulics/Hydrology & Coastal Project Manager	Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		MS / 2015 / Civil Engineering (Coastal Emphasis) BS / 2013 / Civil Engineering (Coastal and Environmental Emphasis)	
Active registration number / state / expiration date		PE.0044893 / LA / 03-31-2027	
Year registered	2020	Discipline	Civil
Contract role(s) / brief description of responsibilities		Hydraulic analysis & design / hydraulic modeling, designing drainage systems, and analyzing flood risks to verify effective water management and regulatory compliance.	

Don has experience in the analysis and design of hydraulic structures, leveraging advanced numerical hydrodynamic modeling technologies. His project work spans riverine and coastal environments and includes bridges, culverts, levees, and weirs. His expertise covers hydraulic bridge design, scour analysis for new and existing structures, evaluation and design of countermeasures, floodplain analysis, riverine modeling, moving-vehicle impact analysis, spectral wave and storm-surge modeling, and hydraulic loading assessments. He has also supported structural inspections of bridges. Don contributed to FHWA's EDC initiative, C.H.A.N.G.E., providing assistance to State DOTs in implementing 2D hydraulic modeling.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/21–04/22	**LADOTD, Louisiana Watershed Initiative | Region 5, LA.** *Hydraulic Engineer*. The project analyzed watershed flow patterns to determine how precipitation will affect infrastructure. Don oversaw the hydrologic modeling portion using HEC-HMS and worked with multiple junior staff members. He conducted quality control reviews of their HEC-HMS models for Region 5 in the Lafayette area.
02/22–02/24	**Mississippi Department of Transportation (MDOT), SR 53 Bridge Hydraulic Design | Harrison County, MS.** *Project Manager.* Don oversaw the design of the replacement of two structures in the Wolf River's one-mile-wide floodplain, which contains a FEMA Regulatory Floodway. He developed the design based on the SRH-2D model and prepared a no-rise certification for the floodway.
01/20–12/20	**MDOT, I-20 Emergency Scour Countermeasure Design | Warren County, MS.** *Project Manager/Hydraulic Engineer.* The project addressed the rapid bank instability that threatened the bridge structure. Due to the complex nature of the flow, Don performed a 2D hydraulic analysis using SRH-2D. He also designed a countermeasure solution to bank instability. This project had an accelerated timeline. The design was completed less than a year after MDOT was notified of the problem, and a couple of months later, the countermeasure was in place.
09/22–06/23	**VDOT, Route 156 over the James River, Benjamin Harrison Bridge | Jordan Point, VA.** *Hydraulic Engineer.* The project provided final design services for the full replacement of the fender system on the Benjamin Harrison Bridge over the James River. The existing fender system will be replaced with a total of eight 30-foot-diameter dolphin structures: four to the left (north) of the main channel and two connected by a fender system protecting the main span piers, which are located at the edge of each side of the main channel. Don performed the hydrologic, hydraulic, and scour analysis. He developed an SRH-2D model for this project.
08/22–12/24	**MDOT, Bridge Scour Evaluations | Hancock County, MS.** *Project Manager/Hydraulic Engineer.* Don performed a qualitative and quantitative hydrologic/hydraulic analysis of three sites on the Mississippi Gulf Coast. He developed an SRH-2D model for each site and a MIKE21 storm-surge/spectral-wave model for the area to determine the parameters required for scour analysis at the three locations.
08/22–12/24	**MDOT, Bridge Designs and FEMA No-Rise | Harrison County, MS.** *Project Manager/Hydraulic Engineer.* Don led hydraulic analysis and design support for the replacement of two SR 53 bridges over Wolf River Relief and Mill Creek. He developed 1D/2D models (HEC-RAS and SRH-2D) to evaluate floodplain connectivity, overtopping dynamics, and bridge hydraulics, supporting span selection and scour countermeasures; achieved FEMA no-rise certification for the Mill Creek floodway crossing.

Firm employed by **HDR Engineering, Inc.**			
Name	**Wesley Jacobs, PE**	Years of relevant experience with this employer	11
Title	Transportation Group Manager/**Associate Vice President**	Years of relevant experience with other employer(s)	17

Degree(s) / Years / Specialization			BS / 1998 / Civil Engineering
Active registration number / state / expiration date			**PE.30774 / LA** / 9-30-2026
Year registered	2003	Discipline	**Civil**
Contract role(s) / brief description of responsibilities			Project Manager / Oversee planning, execution, and completion of projects, confirming they meet deadlines, stay within budget, and adhere to quality and safety standards **(Meets MPRs 2, 3, & 4)**

Wes has over 28 years of demonstrated expertise in several aspects of civil and structural design/inspection, including bridges (high-level river crossings, movable bridges, overpasses, rail bridges with common elements such as complex geometry, PPC girder, steel plate girder, curved steel plate girders, pier design/protection, cofferdams, column and pile bent design), sign structures, and urban/rural roadway/drainage design. Through this experience, he has gained a solid foundation in civil and structural design, driven by the complexity of projects completed, including CMAR/ECI and D/B (with estimated construction costs exceeding $10 billion). His responsibilities have included independent technical review, plan production, structural design, seismic review, forensic analysis, civil design, geometrics, drainage design, structural inspection, specification development, cost estimation, bridge rehabilitation, and project management. **Training:** Maintenance and Rehabilitation of Historic Bridges - completed on 4/12/2016

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/22-05/24	**LADOTD, Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E | Waverly, LA.** ***Project Manager*** *& Engineering Lead*. Task orders were issued for inspection, rehabilitation design, and load rating of the LA 577 precast concrete girder overpass in North Louisiana, which was damaged by a dump truck collision. The scope included emergency services for inspection, load rating, and PS&E for the demolition of the existing span and the redesign of a new AASHTO T3 PPC span.
04/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA.** ***Project Manager.*** Wes led the movable bridge multi-disciplinary team (structural, mechanical, electrical, and architectural) to develop and perform NBIS In-Depth and routine inspections/reports, LRFR load ratings, scope of work/report development to rehabilitate six vertical lift bridges: Old Abbeville, Abbeville Bypass, Parks, Milton, West Fork, and Ellender. He coordinated subconsultants and teams to inspect the six bridges across two mobilizations, including rope-access inspectors.
11/19-03/24	**LADOTD, Statewide In-Depth Complex Bridge Inspections IDIQ | Statewide, LA.** *HDR* ***Project Manager.*** Wes led the movable bridge main span inspections (fieldwork and report preparation) of the Jackson Street Lift Bridge spanning the Red River and the lift bridges spanning Teche Bayou. Wes oversaw the team that performed structural, mechanical, and electrical inspections of the towers, main span truss, substructure, and machinery, using rope access and manlift methods for in-depth inspections. Additionally, over 25 more bridges were inspected as part of the contract, including seven steel girder swing span bridges in St. Tammany, Tangipahoa, and Livingston Parishes, one steel swing truss bridge (US 90 East Pearl River), and 17 smaller concrete slab span and timber bridges.
10/23-05/25	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | New Orleans, LA.** ***Project Manager.*** Wes led the annual in-depth movable bridge inspections for the Seabrook and Almonaster single-leaf truss bascule bridges (117 ft main span with 240 ft total). The bridges were built in 1923 and 1919, respectively, and span the Inner Harbor Navigation Canal (river crossing). Wes led a multidisciplinary team of structural rope access, mechanical, and electrical inspectors to conduct annual in-depth inspections, prepare reports, and issue remediation recommendations.
01/11-01/12	**Valero Port Arthur Refinery, Taylor Bayou (Joint Outfall Canal) Movable Bridge - Steel Swing Span | Port Arthur, TX.** ***Project Manager & Engineer of Record.*** For this river crossing, Wes was **in responsible charge of the preliminary designs** and plans for an unequal-arm steel swing-span movable bridge (129 ft) supported by a pivot pier on steel-pipe pile foundations, with PPC girder approach spans. Due to close similarities with recent projects in Louisiana, the project was designed in accordance with LADOTD design criteria and specifications.

01/10-10/11	**LADOTD, Chef Menteur Pass Bridge Replacement EA, S.P. No. 700-36-0125 | Orleans Parish, LA.** *Structural Lead*. Wes was **in responsible charge for the preliminary design** of the high-level (75 ft vertical clearance) fixed bridge alternatives for replacing a historical swing span bridge in Orleans Parish for this river crossing. The span arrangements comprised PPC AASHTO Type 3 (80 ft) and BT 78 (130 ft) approach spans, with steel-composite girders for the main spans (200 ft and 270 ft). Wes developed conceptual designs for deep river concrete piers with water-level footings supported by large-diameter PPC cylinder piles.
02/10-12/11	**TxDOT Dallas District, Collin County US 75 Bridge Layouts | Dallas, TX.** ***Engineer of Record*. Wes was in responsible charge of the design** of the preliminary and final bridge layouts for five bridge structures. Three bridges were highway underpasses of the main lanes for US 75 (a six-lane interstate-type system), and two were overpass ramp structures. The bridge layouts were developed using the new TX prestressed concrete girder shapes (Tx46, 54, and 62) supported by multi-column bents and drilled shaft foundations. Phased construction was utilized on one of the underpass bridges, along with complex curved and skewed geometry for the ramp bridges.
01/11-12/12	**USACE New Orleans District, LPV 145 – Bayou Bienvenue Movable Steel Swing Span Bridge | New Orleans, LA.** ***Project Manager & Engineering Lead.*** Wes developed the preliminary and final designs, plans, and specifications for a 135 ft unequal-arm steel swing-span structure. The swing span is supported by a reinforced concrete pivot pier with prestressed concrete pile foundations. The approach spans were comprised of reinforced concrete slab spans that tied into an existing limestone access road. The bridge was designed to provide vehicular access to LPV 145, a 6-mile-long isolated levee reach in Chalmette, LA. The bridge was designed and constructed on the protected side of the existing sector gate structure on an offset alignment. The timber guidewall/fender system for the new bridge was designed to tie into the existing system at the sector gate. The bridge was designed in accordance with the LADOTD Bridge Design Manual and AASHTO–LRFD specifications.
10/12-05/15	**TxDOT/LADOTD, US 84 Sabine River Bridge | Logansport, LA.** ***Engineer of Record.* Wes was in responsible charge of the final design**, plans, and specifications for two bridge structures (eastbound and westbound) in accordance with AASHTO-LRFD specifications. The bridges were comprised of the new Tx shapes (Tx62's and Tx70's), with span lengths ranging from 120 ft to 160 ft. The substructure consisted of multi-column reinforced concrete bents with strutted columns at the main channel locations, supported by drilled shaft foundations. Although not a navigable channel at this location, the bridges were designed with adequate geometry to provide the necessary freeboard above the 100-year flood levels and superelevation rotation on the eastbound structure.
06/03-05/05	**LADOTD, US 171 South Railroad Overpass | Mansfield, LA.** ***Engineer of Record*. Wes was in responsible charge of the final design** for the TIMED program, including twin bridge structures with concentric curves, bobtail spans, and skewed spans crossing the KCS railroad main line. Each bridge was approximately 700 ft long. The spans were comprised of precast prestressed concrete girders supported by precast prestressed concrete pile bent substructure.
02/08-06/09	**City of Laredo, Calton Road – Union Pacific RR Overpass | Laredo, TX.** ***Engineer of Record.* Wes was in responsible charge of the final designs**, plans, and specifications for this railroad overpass project in accordance with AASHTO–LRFD specifications. The bridge spans Union Pacific RR main lines and spur tracks. The bridge comprises steel-welded composite plate girders for a total length of 866 ft, reinforced concrete column bents, and drilled shafts, and provides the horizontal and vertical clearances required by UPRR.
02/04–04/05	**TxDOT, IH-35 Southbound Frontage Road Connector | Waco, TX.** ***Engineer of Record*. Wes was in responsible charge of the final design** of this curved steel plate girder roadway overpass. The bridge comprised two continuous steel plate girder units, 360 ft and 420 ft, respectively. The spans were designed using AASHTO Standard Bridge specifications for Curved Girders and a straight girder case using AASHTO-LRFD specifications. Reinforced concrete hammerhead bents founded on drilled shaft foundations were used for the substructure. His responsibilities included designing the curved steel girder units and developing and sealing the girder details.
05/09-10/10	**TxDOT Austin District, SH 95 Brushy Creek | Williamson County, TX.** ***Engineer of Record.* Wes was in responsible charge of the final designs** and plans for this bridge replacement project. The bridge spans Brushy Creek near Coupland, TX. The bridge is 520 feet in length and comprised of seven PPC Type C girder spans varying in length from 70 feet to 90 feet. The superstructure is supported by reinforced concrete column bents founded on drilled shafts. The bridge was designed for split-phased construction due to the location of the existing structure. The bridge was designed in accordance with the TxDOT standard and the LRFD specifications.
08/06-12/07	**TxDOT, SH 31 Bridge Replacements – EB & WB FM 339 Overpasses | Waco, TX.** *Engineer of Record.* Wes designed the replacement of two bridges, featuring prestressed concrete U40 box beam girders and concrete column bents supported by drilled shafts. The bridges measured approximately 240 feet in length and 40 feet wide, accommodating two lanes of traffic.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Chip Knowlton**	Years of relevant experience with this employer	4
Title	Director of Asset Management and Performance Improvement	Years of relevant experience with other employer(s)	37

Degree(s) / Years / Specialization			BS / 1985 / Marine Engineering
Active registration number / state / expiration date			Prosci Certified Change Practitioner/National/Jan 2024 Institute of Asset Management (iAM) Certificate/National/Oct 2017
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			QA/QC: Asset Management / Provide QA/QC support services for asset management-related activities

Chip is a proven asset management professional in facilities and maintenance management practices, business transformation, and program management of package-enabled asset management implementations. He has been recognized by both the public and private sectors for leadership in asset management, advisory services, and solutions that support growth and efficiency. He is adept at evaluating organizations' needs, applying cost-effective and innovative solutions, and meeting the challenges of rapidly changing business environments.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/24-06/25	**Connecticut Department of Transportation, Strategic Plan, Capital Program, and Technology Roadmap Development | Newington, CT.** *Principal Consultant/QA/QC*. For the capital program task, HDR assessed the current state of practice, identifying recommendations, and establishing the overall Roadmap, including implementable solutions to address identified issues in key areas and processes related to the capital program, including: project development cycle from conception, initiation, development, delivery, and into operation for capital projects; project/program oversight processes and project management at key milestones; project controls and risk management; environmental review (CEPA/NEPA); capital plan and fiscal management; procurement processes, including scoping and negotiations; reporting and project metrics, including management systems; overarching programmatic management; staff training needs/workforce development; and, approval processes for program/project cost adjustments. Chip supported the technology roadmap initiative by identifying critical business processes, data and activities that will need to be supported by technology to help provide real time data visibility to support organizational decision making.
11/23-06/24	**North Carolina Department of Transportation Ferry Division, Ferry Vessel Replacement Plan | Manns Harbor, NC.** *Project Manager/Principal Consultant*. HDR and our subcontractor team supported NCDOT Ferry Division in developing a vessel replacement plan study for its 23 passenger/vehicle vessels that serve communities in coastal North Carolina. HDR applied a disciplined risk-based approach to vessel replacement prioritization; assessed the visual condition of the marine assets, created scenarios for determining future replacement costs of the ferry vessel fleet; identified sources of funding the NCDOT Ferry Division could potentially access to cover some portion of the vessel replacement costs; and defined a recommended sequence for vessel replacement that provides the best value for the Ferry Division and its stakeholders. Chip verified that the data used to conduct the analysis were accurate and that the conclusions derived were supported by objective quality evidence.
01/23-01/24	**New York Metropolitan Transportation Authority (NY MTA), Twenty-Year Needs Assessment | New York, NY.** *QA/QC Lead/Principal Consultant*. HDR supported the NY MTA in developing its Twenty-Year Needs Assessment Plan, which identifies and communicates infrastructure needs across the entire NY MTA. This includes identifying major infrastructure replacements, rehabilitations, and renewals across asset types, including but not limited to rolling stock, bridges, tunnels, facilities, power, signals, and communications. The analysis required synthesizing data from numerous sources, databases, and technologies, and necessitated normalizing the data to provide a consistent evaluation method across diverse asset classes. Chip provided an in-depth QA/QC review for HDR data analyses and technical deliverables. The plan serves as an overarching guide for the agency's ongoing five-year capital plans for the next twenty years.
08/17-01/18	**Georgia Department of Transportation, Asset Management Program | Atlanta, GA**. *Principal Consultant.* GDOT leadership engaged Chip's former employer to serve in an advisory capacity to help more fully determine the current state of the Asset Management Program

	across the GDOT enterprise, as well as assist GDOT Enterprise Asset Management (EAM) Leadership in developing the go-forward plan to include continued system maintenance, system improvements, potential enhancements, and improved organizational awareness and acceptance of the organization's EAM solution. Chip conducted a current-state evaluation of the asset management program, with a primary focus on the bridge, fleet, maintenance, pavements, and warehousing components. Additionally, he conducted a review of the current IT system implementation(s) to understand the alignment more fully between GDOT business processes and the system functional and technical requirements used in the design, configuration, testing, training, and deployment of the EAM solution
08/14-10/16	**Metropolitan Transportation Authority New York City Transit (NYCT), EAM | New York, NY.** *Executive Program Manager.* Chip served as the Executive Program Manager for the EAM Program at New York City Transit, the largest agency within the MTA, overseeing an asset portfolio valued at approximately $800B. Chip advised agency leadership on developing and executing the multi-year, multi-million-dollar strategic EAM program and associated portfolio of projects. He developed 5-year EAM planning and execution budgets, prepared and delivered executive-level briefings, introduced process mapping and benefits realization as a new organizational capability, and was instrumental in developing the technical scope of work for the MTA's $115M EAM Management Consulting services contract and selecting qualified vendors. Chip also managed the NYCT EAM Center of Excellence, comprised of 40 internal and consultant support resources.

Firm employed by **HDR Engineering, Inc.**			
Name	**Gregory Kochersperger, PE**	Years of relevant experience with this employer	21
Title	Central Region Principal Bridge Engineer	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			BS / 2000 / Architectural Engineering
Active registration number / state / expiration date			PE. 94869 / TX / 09-30-2026
Year registered	2004	Discipline	Structural Engineering
Contract role(s) / brief description of responsibilities			QAQC Structural / Provide technical review of proposed preservation and repair strategies based on extensive experience on similar designs, and evaluate the constructability of proposed repairs and assist with the development of construction cost estimates.

Gregory's bridge design experience includes numerous over and underpass bridges, railroad bridges, light rail transit structures, stream and river crossings, and major interchanges. He has performed bridge designs comprised of steel and concrete and is fluent in the design of precast and post-tensioned concrete structures, long-span steel bridges, including truss bridges, as well as curved steel I-girders and box girders. His recent experience has focused on the rehabilitation and preservation of existing concrete and steel structures. Through his work on TxDOT's statewide Bridge Maintenance and Improvement Program, he has conducted condition assessments and rehabilitated hundreds of structures, and helped TxDOT develop the program from the ground up.

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).
10/25-05/26	**TxDOT Yoakum, Bridge Maintenance and Improvement Program (BMIP) Repairs | Various Counties, TX.** *Quality Control Review.* Greg performed quality control reviews of proposed bridge repairs on 20 bridges in the Yoakum District. Bridges were submitted in three separate construction packages, totaling $12M. Major repair costs included replacement of bearing pads, repair or replacement of expansion joints, installation of a polyester polymer concrete overlay, concrete repairs, scour repairs, debris removal, riprap replacement, and steel painting. Greg used his technical knowledge from experience performing similar repairs statewide to confirm the technical accuracy and suitability of each detail. His unique experience added value to the plan set and improved constructability and consistency of the details and specifications. He also reviewed Exhibit A documents for multiple railroad bridges on the project to confirm compliance with their applicable guidance documents to streamline approvals.
05/20-04/21	**TxDOT Bridge Division, JFK Causeway over Gulf Coast Intracoastal Waterway Rehabilitation | Corpus Christi, TX.** *Project Manager*. Greg coordinated logistics for two field teams for three weeks, including working with the United States Coast Guard (USCG). He led the development of an extensive condition assessment report that included recommendations for concrete repairs and the installation of a cathodic protection system. He then led the development of the PS&E, which included bridge repair details, traffic control plans, cathodic protection details, and environmental commitments.
10/24-08/25	**TxDOT Dallas, IH 30/IH 35E Condition Assessments | Dallas, TX.** *Project Manager*. Greg led the condition assessments of IH 30 eastbound and westbound over White Rock Creek and IH 35E over Turtle Creek. The bridges were each over 1,000 feet long, crossing multiple roadways in addition to the namesake creek. Greg coordinated lane closures with the city and TxDOT to gain access for the inspections and utilized a combination of conventional methods, infrared deck scans, and an under-deck unmanned aerial vehicle to gather data on the two very congested urban interstate bridges. He led the development of comprehensive reports documenting deficiencies and providing repair recommendations with cost estimates. The field notes and photo documentation were organized, compiled, and provided to the District to complete the repair plans.
04/23-06/25	**TxDOT Abilene, District Wide Bridge Maintenance | Various Counties, TX.** *Project Manager and Bridge Rehabilitation Task Lead.* Greg developed a comprehensive plan to help the Abilene District eliminate as many outstanding follow-up action items (FUAs) as possible over a multi-year funding cycle. Greg took the District's complete list of FUAs and used his experience to develop gut-level, order-of-magnitude estimates for the repair work based solely on the descriptions and limited inspection reports. He used these estimates to identify the "low-hanging fruit" and prioritize repairs that could be completed on the district's fixed annual budget. He then performed condition assessments of over 50 priority bridges to confirm the repair locations and quantities, and finalized his recommendations. He then developed individual bridge packages, grouped by Area Office within the district, over four fiscal years. In addition to the bridge repairs, Greg developed traffic

	control plans, railroad exhibits, and SWP3 for each package. The first two packages bid successfully within 5% of Greg's estimate and within the District's budget. Through his programmatic approach, Greg helped the district eliminate more than 60 FUAs.
10/21-09/23	**TxDOT Dallas, IH 345 Rehabilitation | Dallas, TX.** *Project Manager / Bridge Rehabilitation Task Leader.* Greg led the condition assessment and rehabilitation of 18 structures comprising the IH 345 corridor and the IH 30 Interchange in downtown Dallas. He coordinated with the city, TxDOT, and Dallas Area Rapid Transit to gain access to critical areas of the bridge for inspection, using a combination of under-bridge inspection vehicles and manlifts. Greg and his team developed thorough field notes that served as the basis for the repair plans. Greg led the development of repair plans for deck-level and substructure repairs. He also incorporated steel girder repairs developed by another consultant into his plan set and combined the specifications and estimates to provide a unified bid set for contractors. The extensive rehabilitation scope included rail replacements, joint repairs and replacements, polyester polymer overlays, concrete substructure repairs, drainage system repairs, and a deck replacement. Greg managed each aspect of the final design plans, including the extensive traffic control plans.
06/16-03/18	**TxDOT Abilene, US87 Overpass at UPRR Rehabilitation | Big Spring, TX**. *Project Manager / Bridge Rehabilitation Task Leader*. Greg led the coordination and execution of the extension condition assessment of the existing haunched steel plate girder bridge over a busy rail yard. Based on the assessment findings, he developed a repair recommendation report that included full replacement of the existing bridge deck. TxDOT agreed with the recommendation, and Greg developed the full design plans (PS&E) for the rehabilitation, including bridge details, traffic control plans, illumination details, and railroad exhibits.
09/18-03/21	**TxDOT Bridge Division, Bastrop, Travis, and Williamson County Bridge Rehabilitations | Various Locations, TX.** *Project Manager*. Over the course of two separate work authorizations, Greg led the condition assessment of 19 bridges, followed by the rehabilitation of 14 bridges based on his recommendations. He coordinated logistics for the condition assessments, including varied access techniques and traffic control based on location. He developed four separate PS&E packages, including bridge details, traffic control plans, roadway safety improvements, SW3P, and environmental sheets.
01/13–06/15	**City of Dallas / Dallas Area Rapid Transit, Houston Street Viaduct Rehabilitation | Dallas, TX**. *Bridge Task Lead*. Greg led the condition assessment and rehabilitation of this 100-year-old concrete spandrel arch bridge across the Trinity River. Rehabilitation included retrofit for a proposed streetcar line. Greg led the structural analysis work and load rating to demonstrate that the existing bridge could support the proposed load. He developed the details for the extensive rehabilitation of the historic bridge.
06/13–07/18	**Trinity Metro, Trinity Rail Express Double Track | Fort Worth, TX.** *Bridge Task Lead.* Greg led the bridge design for five separate railroad structures and the rehabilitation of a 153-foot triple-lattice steel truss carrying a commuter rail line over the Trinity River. Greg developed the rehabilitation scoping report and performed load ratings of the existing truss. He developed the rehabilitation details for the truss, including gusset plate repairs, steel member straightening, and full painting plans.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Michael Kochly, PE**	Years of relevant experience with this employer	18
Title	Bridges & Structures Section Manager	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			MS / 2006 / Civil Engineering BS / 2003 / Civil Engineering
Active registration number / state / expiration date			PE 74571 / CA / 12-31-2027
Year registered	2009	Discipline	Civil
Contract role(s) / brief description of responsibilities			Asset Management Planning / Evaluate inspection data; identify deficiencies; recommend/prioritize preservation, rehabilitation, and replacement options; develop life-cycle cost analyses (LCCAs); and develop planning-level cost estimates.

Mike has nearly 20 years of experience designing, load rating, and inspecting highway and railroad bridge structures. His experience includes bridge asset management, inspection of in-service bridges, bridge load rating, analysis and design of cast-in-place concrete box girders and prestressed I-girder bridges, seismic retrofit analysis and design of retaining walls and shoring. Mike holds the Institute of Asset Management (IAM) Certificate. **Certifications:** FHWA-NHI 130053, FHWA-NHI 130055, FHWA-NHI 130078

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-Ongoing	**Bay Area Toll Authority (BATA), Life Cycle Asset Planning and Bridge Deterioration Models | San Francisco, CA.** *Project Manager/Senior Bridge Engineer.* HDR supported BATA in advancing its bridge asset management program for state-owned, long-span toll bridges in the Bay Area. The project focused on enhancing life cycle planning, optimizing maintenance strategies, and supporting informed financial decision-making through detailed cost analyses and specialized studies. These studies included vessel collision studies, fatigue analyses, and evaluations of mechanical and electrical systems, confirming consistent methodologies across the region's long-span bridges. Mike is analyzing existing bridge data, assessing preservation and rehabilitation alternatives, and developing LCCAs. Mike also supported the development of the comprehensive life-cycle management plan and the improvement of assessments of bridge systems, with the information incorporated into the BATA and Caltrans inaugural Toll Bridge Asset Management Plan, published in January 2026.
10/25-Ongoing	**Michigan DOT, I-94 Asset Management Plan | Wayne County, MI.** *Asset Management.* HDR is leading the inspection and asset management planning for the I-94 corridor modernization project in Detroit, Michigan. The scope includes data review, bridge inspections, bridge deterioration modeling and LCCA, scoping reports and life-cycle plans, project prioritization, and overall asset management plan development. Mike is leading the asset management team, helping to define alternatives/scenarios and develop the asset management plan.
05/26-Ongoing	**New York State Thruway Authority (NYSTA), Statewide Needs Assessment | Statewide, NY.** *Bridge Engineer SME and Asset Management*. HDR is providing an overview of New York's Statewide Needs Assessment, which will result in a strategic framework to address the Authority's infrastructure needs in the near term (1-5 years), medium term (6-15 years), and long term (15-30 years). Work includes existing condition data collection and review, analyses, and forecasts developed for the Statewide Needs Assessment. Mike is participating in stakeholder meetings, reviewing current bridge asset management processes and documentation, and providing recommendations for approaches to needs analysis. In total, NYSTA owns/maintains over 800 bridge structures, including several long-span structures.
05/15-Ongoing	**Golden Gate Bridge District, Bridge Inspection Services | San Francisco, CA.** *Project Engineer / Inspector / QA/QC*. HDR has performed nonredundant steel member inspections since 2015 and, in 2018, the first-ever close-up inspection of the main suspension span towers, including the concrete piers at the base of the towers. In 2025, the entire underside of the suspension spans was inspected, including the stiffening trusses. Industrial rope access was used to provide the required "arm's length" inspection. Element Level condition states and defect text, according to the AASHTO Manual for Bridge Element Inspection, were used to describe and rate the conditions of bridge elements inspected. Michael checked load ratings for Condition State four defects and updated them for AASHTO Legal Loads, SHVs and EVs to be consistent with Caltrans load rating practice on other toll bridges. Mike analyzed truss members and floor beams and

	updated/checked controlling load ratings based on Condition State 4 findings during the course of the inspections. Several of these analyses have led to repair/rehab of existing bridge members, for which Mike has developed or QC'd plan sheets. Mike also reviews and coordinates hundreds of inspection reports for the in-depth inspections and prepares overall summary inspection reports.
09/20-04/23	**Caltrans, Statewide Bridge Load Rating | Statewide, CA.** *Task Order Manager / Project Engineer*. HDR provided bridge and tunnel load rating services on a task-order basis, completing six task orders. Bridge LRFR ratings were performed in accordance with the AASHTO Manual for Bridge Evaluation, 3rd Ed, and the Caltrans Bridge Load Rating Manual. Most analyses used a 3D FEM refined analysis in CSiBridge. Elements rated include superstructure, cross frames, lateral bracing, steel hammerhead bent caps, concrete bent caps, anchor bolts at bent cap-to-column connections, pin-and-hanger assemblies, pins connecting girders to bent caps, reinforced concrete slabs, and reinforced concrete transverse floor beams. HDR provided ratings for HL93, AASHTO Legal Loads, SHVs, EVs, and the Caltrans family of permit vehicles. For permit ratings, a secondary vehicle was included in the analysis, and secondary vehicle demands were subtracted from the capacity (numerator) in the load rating equation. This added additional complexity to the modeling for the refined analysis models. Mike oversaw task orders, staffing, scheduling, detailed FEM model checking, and preparation of Caltrans' Load Rating Summary Sheets (LRSS).

Firm employed by **HDR Engineering, Inc.**			
Name	**Jonathan Kohler, PE**	Years of relevant experience with this employer	13
Title	Electrical Engineer	Years of relevant experience with other employer(s)	5

Degree(s) / Years / Specialization			BS / 2007 / Electrical Engineering
Active registration number / state / expiration date			PE. 0039625 / LA / 9-30-2026
Year registered	2015	Discipline	Electrical and Computer Engineering
Contract role(s) / brief description of responsibilities			Electrical Support / Assist in the design of electrical and control systems, including review of existing system conditions and coordination with other disciplines to support reliable and integrated electrical solutions.

Jonathan has over 18 years of experience managing, inspecting, designing, and providing emergency response for over 100 movable bridges throughout the United States and Canada, primarily for Class I railroads. He has substantial experience in providing inspections of electrical power distribution and control systems for movable bridges. Jonathan also has experience with emergency services and troubleshooting. He performs emergency services on a routine basis for several bridge owners throughout. In addition to providing inspections and emergency services, Jonathan also performs project management, designs, and construction management for movable bridges. Jonathan is also highly active in the movable bridge industry, currently serving as the Registrar for Heavy Movable Structures (HMS), which is the only movable bridge-focused organization. In addition to his involvement with HMS, Jonathan is the Movable Bridge Subcommittee Chairman for AREMA Committee 15.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/26-Ongoing	**Wisconsin DOT, Tayco Bridge Detailed Inspection and Stage I Design | Sturgeon Bay, WI.** *Lead Electrical Engineer.* Jonathan is performing an in-depth inspection of the electrical components, including the power distribution and control systems of this single-leaf bascule bridge. During the inspection, the bridge experienced an operational outage due to improperly mounted limit switches with two traffic gates. The inspection consisted of insulation testing and three-phase voltage and current measurements for the motors. Jonathan prepared the condition report and led the development of recommendations and preliminary cost estimates based on the inspection findings. This inspection will serve as the basis for future rehabilitation scopes of work.
03/22-05/24	**BNSF, Mermentau Swing Span Control System Design and Construction Management | Mermentau, LA.** *Project Manager/Engineer of Record in Responsible Charge of Electrical Design.* Jonathan designed the new PLC-based control electrical system for this hydraulically operated swing span. The span was previously operated manually, utilizing levers at the hydraulic power unit (HPU). The new control system includes a PLC to provide automatic and manual control of the newly installed solenoid valves on the HPU. The operator interface for controlling the bridge is from an HMI touchscreen located either in the bridge machinery room on the movable span or within the bridge tender house. The new control system will allow BNSF to remotely control the bridge. Jonathan provided construction management services for the installation, testing, and final commissioning of the new control system.
04/25-12/25	**Canadian National Railway, St. Charles Air Line Bridge Mechanical and Electrical Inspection | Chicago, IL.** *Project Manager/Engineer of Record in Responsible Charge of Electrical Design.* The project consists of the mechanical and electrical rehabilitation of this single-leaf Strauss Bascule. Jonathan is designing the electrical and control systems for the bridge. The new control system will include a main drive motor, variable-frequency drives (VFDs), and a programmable logic controller (PLC). The new control system will also support remote control.
01/25-Ongoing	**Ohio DOT, Craig Memorial Bascule Bridge Rehabilitation | Toledo, OH.** *Engineer of Record in Responsible Charge of Electrical Design.* Jonathan is designing a complete electrical system rehabilitation of this double-leaf bascule. The existing power distribution and control systems were installed in the 1970s and are in poor condition. The rehabilitation includes removing the existing power distribution, controls, and lighting systems for the bridge. The new design will include new power distribution equipment, lighting, and controls. The new control system will include a PLC with a relay-type auxiliary system. In addition to the designs, Jonathan performed an alternatives analysis to determine the desired type of control system and submarine cable alternatives.
04/25-09/25	**Wisconsin DOT, Bayview Bridge Detailed Inspection | Sturgeon Bay, WI.** *Project Manager and Lead Electrical Engineer.* Jonathan is

	performing an in-depth inspection of the electrical components, including the power distribution and control systems of this double-leaf bascule bridge. During the inspection, the bridge experienced an operational outage due to pack rust affecting the tail locks. The inspection consisted of insulation testing and three-phase voltage and current measurements for the motors. Jonathan prepared the condition report and led the development of recommendations and preliminary cost estimates based on the inspection findings. This inspection will serve as the basis for future rehabilitation scopes of work.
11/21-03/22	**BNSF Railway, Berwick Vertical Lift Bridge VFD Replacement | Morgan City, LA.** *Project Manager and Lead Electrical Engineer.* Jonathan designed the replacement of the existing VFDs and associated motor encoders for this tower-drive vertical-lift bridge. He also provided construction management services for the installation, testing, and final commissioning of the new VFDs.
06/21-02/22	**BNSF Railway, Bayou Boeuf Conductor Replacement | Amelia, LA.** *Project Manager and Lead Electrical Engineer*. BNSF has been plagued by several operational failures, including conductors failing within conduits on the movable span and terminations becoming loose within electrical enclosures. Jonathan designed and led construction management services to replace the existing conduit and conductor system with armored cable and install vibration dampeners on electrical enclosures to reduce the effects of vibration on the conductors. Jonathan led the design, which included a new submarine cable/droop loop termination cabinet, a droop loop support system, and drive motors. The droop loop design eliminated the need to drag the flexible cable across the concrete pier during bridge operations.
08/13–10/15	**BNSF Railway, Bridge 32.06 Over Bayou Des Allemands | Des Allemands, LA.** *Engineer of Record in Responsible Charge of Electrical Design.* Jonathan was the engineer of record for the electrical and control designs for this swing-span railroad bridge. Previously, the bridge utilized a diesel motor located on the span for operations. The swing span was replaced, and a new power distribution and control system was installed. Jonathan designed the PLC-based control system to operate the span locally at the bridge or remotely from the control house on the shore. He also served as resident engineer during construction, overseeing and inspecting the work.
08/20–04/22	**BNSF Railway, Ft. Madison Swing Span| Ft. Madison, IA.** *Project Manager and Lead Electrical Engineer.* Jonathan designed the replacement of the existing end lift motors for this double-track, double-deck swing span. In addition to the motor replacement, a new armored cable was installed on each motor, along with control modifications.
10/20-10/25	**Texas Department of Transportation (TxDOT), Movable Bridges Asset Management | Orange, TX.** *Lead Electrical Engineer*. Jonathan performed an in-depth inspection of the electrical components, including the power distribution and control systems of the Cow Bayou swing span. The inspections also consisted of insulation testing and three-phase voltage and current measurements for the motors. He also provided the condition report and recommendations with preliminary cost estimates. These inspections serve as the basis for future rehabilitation scopes of work. In addition to the inspection and report, Jonathan developed an operations and maintenance manual to support TxDOT maintenance activities.
03/16–02/22	**Canadian Pacific Railway, Mississippi River Swing Span (Tomah Bridge 283.40) | La Crescent, MN.** *Project Manager/Lead Electrical Engineer.* Jonathan designed and installed several new mechanical and electrical upgrades on this 110+-year-old swing bridge. For this multi-year project, the mechanical design included replacing the existing centering latch, main pinions, rail lift/eccentric motors, and supports, as well as several limit switches throughout the span. Jonathan's electrical design included installing new VFDs and a PLC-based control system. Jonathan performed additional designs, including a control design for the end lifts, a new alignment ram, new rail lifts to assist with bridge alignment, and a new rail lift system. During construction, he also provided on-site testing and commissioning services.
05/20-04/22	**Michigan Department of Transportation, Houghton-Hancock Vertical Lift Bridge | Houghton, MI.** *Lead Electrical Engineer*. Jonathan designed the electrical system, including replacing the existing main and auxiliary motors with inverter-duty motors. Jonathan also provided electrical designs for heat tracing for hydraulic intermediate retractable bearings, cable reel replacement, re-indexing bridge height rotary cam limit switches, updating bridge control schematics, and the requirements for modifying the PLC and VFD programming for the new motors.

Firm employed by	**HDR Engineering, Inc.**		
Name	**Carlos Larco, PE**	Years of relevant experience with this employer	9
Title	Movable Bridge Electrical Lead	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			BS / 2015 / Electrical Engineering
Active registration number / state / expiration date			PE.0048606 / LA / 9-30-2026
Year registered	2024	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			Electrical support / Assist in the design of the electrical and control system. Coordinate with each discipline to provide a complete electrical system.

Carlos has 11 years of experience in electrical design, including design specification, inspection, and construction support for mechanical systems for movable bridges.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA.** *Electrical Team Lead*. Carlos led the electrical inspections for the Abbeville Bypass, Old Abbeville, Parks, Milton, Ellender, and West Fork, vertical-lift bridges. He determined deficiencies in the electrical equipment and assisted in developing the in-depth inspection report sections for each bridge.
08/23-Ongoing	**Port of New Orleans, Movable Bridge Inspection On-Call Contract | Orleans Parish, LA.** *Lead Electrical Engineer Inspector*. Carlos performed the detailed electrical inspection of Almonaster and Seabrook, both century-old Strauss Bascules stretching down the Inner Harbor Navigational Canal. This inspection takes more attention to detail to account for deficiencies that may not be encountered in bascules of this age. Carlos has inspected both bascules, including motors, transformers, drive system, controls, power distribution system, traffic control system, operator's house, and lighting.
06/22-06/23	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Saint Tammany & Livingston Parish, LA.** *Electrical Inspector*. Carlos performed detailed electrical inspections of the Tchefuncte River, Bayou Bonfouca, and Bayou Liberty electrical systems, and provided findings and recommendation reports. Elements inspected included motors, transformers, drive systems, controls, power distribution systems, traffic control systems, the operator's house, and lighting.
09/20-04/21	**TxDOT, Movable Bridges Asset Maintenance | Bridge City, TX.** *Electrical Inspector.* Carlos performed an in-depth inspection of the Cow Bayou Swing Bridge. The work involved visual inspection of electrical equipment on the bridge, observation of several operations, interlock testing, and preparation of the inspection report. The report included issues found during the inspection and recommended repairs.
05/20-04/24	**Martin County, Hobe Sound Bascule Bridge Rehabilitation | Martin County, FL.** *Electrical Designer.* Carlos prepared the scoping and assessment reports, electrical and control systems rehabilitation design plans, calculations, specifications, cost estimates, and construction inspection reporting. The work included total control system replacement, flux vector drive installation, submarine cable replacement, and electrical system rehabilitation.
12/18-Ongoing	**CSX Transportation, Movable Bridge On-call Engineering Services (Lift Bridges) | Various Locations, AL, SC, and TN.** *Electrical Designer*. Carlos prepared scoping and assessment reports, electrical and control systems rehabilitation design plans, calculations, specifications, cost estimates, and construction inspection reporting for Mobile River (AL), Tailrace (SC), New Johnsonville (TN), and Joliet (IL) Vertical Lift Bridges. His work included replacing control systems, power distribution systems, and flux vector drives; implementing remote control; and making miscellaneous electrical system improvements.

Firm employed by **HDR Engineering, Inc.**			
Name	**Brian Leshko, PE, CBSI, NCTI**	Years of relevant experience with this employer	28
Title	Infrastructure Inspection & Asset Management Program Leader	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization	MCE / 1994 / Structural Dynamics MS / 1990 / Structural Engineering BS / 1985 / Civil Engineering
Active registration number / state / expiration date	PE. 98874 / TX / 07-31-2027
Year registered: 1992 / Discipline	Civil
Contract role(s) / brief description of responsibilities	QAQC Inspections/Scoping / Provide technical reviews of scoping and inspection reports for completeness, accuracy, and compliance with contract requirements.

Brian serves in leadership and management positions on numerous complex bridge and tunnel inspection projects for state DOTs and public agencies, including Project Manager on five consecutive TxDOT Fracture Critical Bridge and Tunnel Inspection contracts since 2010, as well as Principal Investigator for NCHRP Project 20-07/Task 337, "Proposed AASHTO Guidelines for Inspecting Complex Components of Bridges." **Certified:** FHWA-NHI 130055, FHWA-NHI 130053S, FHWA-NHI 130078, FHWA-NHI 130078A, FHWA-NHI 130110, FHWA-NHI 130125, FHWA-NHI 135047 & FHWA-NHI 420018.

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).
03/24-10/24	**Bay Area Toll Authority (BATA), Life Cycle Planning and Bridge Deterioration Models | San Francisco, CA.** *Technical Advisor / Tunnel SME.* HDR supported the Bay Area Toll Authority in delivering life-cycle asset management plans and deterioration models to extend the lifespans of major bridges and one tunnel in the San Francisco Bay Area. The lifecycle analysis incorporated tailored deterioration models considering remaining service life, cost of ownership, user costs, vulnerabilities, backlog, and O&M costs. The work also included collecting inventory data and evaluating the condition of mechanical, electrical, and piping systems for several of the agency's bridges and one tunnel. Estimated transition probabilities were adjusted based on bridge and tunnel climate zones and modeled utilizing a Markov chain approach. Brian adapted the bridge components used in HDR's modified lifecycle analysis program for the Yerba Buena Island Tunnel, BATA's only tunnel.
02/18-07/25	**South Carolina Department of Transportation, Bridge Asset Management Program Support and Modernization | Columbia, SC.** *Technical Advisor.* Brian supported updates to SCDOT's Bridge Asset Management Program, including developing SCDOT's Bridge Inspection Guidance Document (BIGD) and SCDOT's Load Rating Guidance Document (LRGD).
11/19-03/24	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Statewide, LA.** *Quality Control Reviewer.* Brian reviewed the deliverable inspection report sections developed by HDR for our prime consultant. Work included the main span inspections (fieldwork and report preparation) of the Jackson Street Lift Bridge spanning the Red River and the lift bridges spanning Teche Bayou. The team performed structural, mechanical, and electrical inspections of the towers, main span truss, substructure, and machinery using rope access and manlift methods. Additionally, over 25 more bridges were inspected as part of the contract, including 7 steel girder swing span bridges in St. Tammany, Tangipahoa, and Livingston Parishes, 1 steel swing truss bridge (US 90 East Pearl River), and 17 smaller concrete slab span and timber bridges.
04/10-12/21	**TxDOT Bridge Division, Fracture Critical In-Depth Inspection IDIQ | Statewide, TX.** *Project Manager and Inspection Team Leader.* Brian oversaw the field inspection and reports and also performed some of the field inspections on several deployments for four consecutive two-year TxDOT Statewide Fracture Critical Bridge Inspection Contracts (2010-2012, 2012-2014, 2014-2016, and 2016-2018) and one three-year TxDOT Statewide Fracture Critical Bridge and Tunnel Inspection Contract (2018-2021). Cumulatively, 1,560 fracture-critical bridge inspection reports highlighting 6,248 fracture-critical component members, and one tunnel inspection report, were prepared for and accepted by TxDOT per initial draft submissions. Brian performed QC reviews, signed, and stamped each deliverable. The work included the inspection of TxDOT's inventory of cable-stayed bridges: the Fred Hartman Bridge (twin 78-ft roadways, northbound and southbound) over the Houston Ship Channel, comprised of a 5-span structure with 3 cable-stayed spans (482 ft./1,250 ft./482 ft.) and 2 simple flanking spans of 130.5 ft, for a total length of 2,475 ft; and the Veterans Memorial Bridge (54 ft. roadway, eastbound) over the Neches River,

	comprised of 3 cable-stayed spans (280 ft./640 ft./280 ft.). Brian served as an Inspection Team Leader on the Fred Hartman Bridge and other inspections.
01/24-Ongoing	**South Carolina Department of Transportation, Bridge Inspection and Evaluation Engineering Services | Statewide, SC.** *Quality Assurance Reviewer.* Brian reviewed over 250 NBIS/NSTM bridge inspection reports to date using AASHTOWare's Bridge Management (BrM) software.
07/15, 11/17, 04/18-05/18, 10/19, 05/21, 08/21, 11/21, 05/23, 08/23, 08/25 and 10/25	**Golden Gate Bridge Highway and Transportation District, Golden Gate Bridge Fracture Critical Bridge Inspections | San Francisco, CA.** *QA/QC Manager for Fieldwork*. HDR provided fracture-critical bridge inspection services on select floor beams and truss members for the 2015, 2017, 2019, 2021, 2023, and 2025 inspection cycles. For the 2015, 2017, and 2019 cycles, 244 truss members, 177 floor beams, 9 girders, 250 deck pedestals, and 450 feet of main cables were inspected within 2 weeks using a team of 12 inspectors and 12 rigging technicians. Inspections were performed within the required "arm's length" maximum distance using industrial rope access techniques. In 2018, this team of rope access inspectors and rigging technicians performed the first-ever close-up visual inspection of the 746-foot-tall main suspension span towers in less than nine days. For the 2021, 2023, and 2025 cycles, the inspection of 2,220 truss members, 396 floor beams, 3 girder spans, and portions of the main cables was completed in 1 week per month using a team of approximately 10 inspectors and 10 rigging technicians. According to the AASHTO Manual for Bridge Element Inspection, element-level condition states and defect text were used to describe and rate the conditions of each bridge element inspected. Brian performed a QC review of the field inspections during each deployment. He also performed inspections as needed on several occasions.
07/07-Ongoing	**Alaska Department of Transportation & Public Facilities, Fracture Critical, and Special Bridge Inspections | Statewide, AK.** *Engineer-in-Charge, Inspection Team Leader, and QA/QC Reviewer for Successive Contracts.* Bridges, the majority of which are in remote locations throughout Alaska, were inspected using rope access techniques without traffic lane closures, in accordance with client requirements. Tunnels were inspected using a hydraulic lift operated from lane or full-bore tunnel closures. • 2007 – Engineer-in-Charge and Inspection Team Leader for 12 Fracture Critical Member (FCM) highway bridge inspections (11 trusses and one 2-girder span). • 2008 – Engineer-in-Charge and Inspection Team Leader for 36 FCM inspections of the marine ferry terminal and seaplane transfer bridge inspections. • 2012 – Engineer-in-Charge and Inspection Team Leader for 7 FCM inspections, marine ferry terminal, transfer bridge inspections, and load ratings. • 2012 – QC Reviewer of 21 FCM inspections, marine ferry terminal inspection reports, and load rating reports. • 2014 & 2018 – QC Reviewer of 20 & 10 FCM marine ferry terminal and seaplane float facility transfer bridge inspections, respectively. • 2015 & 2016 – QC Reviewer of 6 & 8 FCM steel truss and 2-girder highway bridge inspections, respectively. • 2017 & 2019 – QC Reviewer of 5 FCM marine ferry terminal transfer bridge inspections and 4 FCM steel truss/steel box girder bridge inspections, respectively. • 2020 & 2023 – QC Reviewer of 2 special and 6 FCM bridge inspections (docks and ramp structures with plate caps and box girders). • 2025 – Engineer-in-Charge & Inspection Team Leader for 2 NTIS routine highway tunnel inspections in Ketchikan & Gravina Island.
03/24-Ongoing	**Idaho Transportation Department, Project Development Services, Implementing the Recommended Mores Creek Bridge Preservation and Repair Items from HDR's Asset Management Plan | Boise, ID.** *QA/QC Manager and Inspection Team Leader.* Brian provided quality oversight of the following tasks: 1) Environmental documents and environmental clearance, 2) Public information plan, and 3) PS&E package. The bridge repair/maintenance activities included deck joint replacement, spot structural steel paint remediation, and select structural connection repair/maintenance. Brian conducted the field inspection for the structure's rehabilitation.
02/20-08/22	**Idaho Transportation Department, Asset Management Plan (AMP) for the Mores Creek Bridge | Boise, ID.** *Deputy Project Manager, Technical Lead, and Inspection Team Leader.* Brian helped develop a comprehensive, long-range AMP for the Mores Creek Bridge, a three-span deck truss bridge with three steel girder approach spans, that outlines preventative maintenance, as well as more intensive rehabilitation, along with estimated costs, to preserve the bridge to a service life of 100 years. Brian conducted a field inspection to assess the structure's baseline condition.

Firm employed by **HDR Engineering, Inc.**			
Name	**Daniel Marsalone, PE**	Years of relevant experience with this employer	1
Title	Bridge Engineering Leader	Years of relevant experience with other employer(s)	31

Degree(s) / Years / Specialization			BS / 1994 / Civil Engineering
Active registration number / state / expiration date			**PE.0028554 / LA** / 09-30-2027
Year registered	1999	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			Structural Lead / Responsible for leading the bridge inspection and design teams **(Meets MPR 3)**

Daniel has over three decades of bridge engineering experience and is HDR's Bridge Engineering Leader in Baton Rouge. Daniel has supported Louisiana DOTD on multiple assignments and understands the department's standards, procedures, and expectations for maintaining safe, reliable structures. His practice centers on practical, data-driven preservation solutions that extend service life, from condition evaluation and load rating through repair concepting, plans and details, and construction-phase support. He is skilled at prioritizing needs across diverse bridge inventories, selecting cost-effective treatments, and resolving field issues quickly to minimize traffic impacts. He integrates seamlessly with inspection, materials, and construction teams to deliver clear recommendations, buildable details, and responsive support that keep bridges in service and budgets on track.

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).
10/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Statewide, LA.** *Lead Bridge Engineer &* ***Engineer of Record.*** The project consisted of inspecting and load rating six movable bridges in southern Louisiana. Daniel was **in responsible charge** of the bridge rating team, coordinating their efforts, providing quality control for the in-depth **bridge inspection** reports, and providing guidance and quality control for the load ratings and reports, as well as developing a prioritized scope of repairs for the preservation of each bridge based on inspection and load rating findings.
01/26-02/26	**Norfolk Southern Corporation, Old Pearl River Bridge Emergency Repairs | Pearl River, LA.** *Lead Bridge Engineer &* ***Engineer of Record.*** Daniel was **in responsible charge of performing bridge design** and leading the bridge design team to provide emergency repairs for the two fixed trusses and moveable truss following the bridge's inspection, in which there were critical findings: severe corrosion with significant loss of section for several fracture-critical members, fatigue issues with floorbeams, and severe deterioration of floorbeam connections. He designed repairs to the bottom chords of the trusses, floorbeam modifications, and floorbeam connection repairs.
08/21-10/22	**LADOTD, Causeway and Earhart Boulevard Interchange | Jefferson Parish, LA.** *Lead Bridge Engineer / Project Manager /* ***Engineer of Record.*** Daniel was **in responsible charge of leading the bridge design** of two elevated ramp superstructures within a major traffic interchange. The ramps also crossed the Kansas City Southern Railway (KCS). The superstructures included AASHTO prestressed concrete girder spans and curved steel girder spans. Additionally, Daniel supervised substructure and foundation design, coordinated with KCS to confirm that rail service would not be hindered and that pier and foundation locations met KCS approval, and performed LRFR bridge rating calculations. He provided oversight to confirm the project complied with state and federal standards.
05/20-10/21	**City of Tuscaloosa, Jack Warner Extension to MLK - Kansas City Southern Railroad Bridges | Tuscaloosa, AL.** *Lead Bridge Engineer / Project Manager /* ***Engineer of Record.*** Daniel was **in responsible charge of leading the bridge substructure design** for two railroad bridges on active lines, requiring innovative solutions to maintain service during construction. The design featured reinforced concrete piers and abutments on drilled shaft foundations. Daniel's work provided structural integrity while meeting strict operational constraints for the KCS Warrior Mainline and Goodrich Spur.
09/16–11/16	**LADOTD, US 190 Mississippi River Bridge Repairs | Baton Rouge, LA.** *Lead Bridge Engineer &* ***Engineer of Record.*** Daniel was **in responsible charge of leading an in-depth bridge pier inspection** where severe damage was noted during routine inspection (at the east bank westbound approach). Daniel also determined the cause of the pier damage near the bearings, providing alternative designs to rehabilitate the pier and bearings for bridge preservation, and producing an in-depth inspection, analysis, and rehabilitation report for the pier.

06/16–10/16	**LADOTD, US 190 Phase II, Mississippi River Railroad Bridge Maintenance and Rehabilitation | Baton Rouge, LA.** *Lead Bridge Engineer & Project Manager.* Daniel was in responsible charge of engineering during construction, shop drawing review, responses to RFIs, and plan changes due to differing field conditions. Significant plan changes were necessary. Daniel was **in responsible charge of the design** of replacement rocker bearings, anchor bolts, and bent post angles.
04/15-04/16	**LADOTD, Wisner Boulevard Bridge over I-610/Norfolk Southern Replacement | New Orleans, LA.** *Lead Bridge Engineer / Project Manager / **Engineer of Record.*** Daniel was **in responsible charge of performing bridge design** and LRFR load rating for the replacement bridge's superstructure, substructure, and foundations. Additionally, he provided construction engineering services, including RFI responses with additional bridge design calculations due to a mislocated pier, steel girder shop drawing reviews, and material submittal evaluations. Daniel also coordinated with Norfolk Southern (NS) during the design and construction phases to confirm that rail operations were maintained and that the pier and foundation location and protection met NS approval.
07/14-03/15	**Baton Rouge Department of Public Works, Lower Zachary Road Bridge Replacement | Zachary, LA.** *Lead Bridge Engineer / Project Manager / **Engineer of Record.*** Daniel was **in responsible charge of bridge design** for the replacement of four slab-span bridges, performing structural design and hydraulic and scour analyses. Daniel verified compliance with safety standards and optimized performance for long-term durability.
05/14-11/14	**Jefferson Parish Department of Public Works, Bridge Inspection and Load Rating Report for Causeway Boulevard/Airline Drive Interchange | Metairie, LA.** *Lead Bridge Engineer / Project Manager / **Engineer of Record.*** Daniel was **in responsible charge of leading the bridge inspection**, conducting field assessments, preparing bridge inspection reports, calculating bridge load ratings, and preparing load rating reports for the multiple structures within the interchange. He provided recommendations for prioritized structural repairs and drainage improvements required for bridge preservation. In addition, Daniel produced the temporary traffic control plans utilized during the inspections.
11/04–08/05	**LADOTD, Church Street Bridge Over Cane River | Natchitoches, LA.** *Lead Bridge Engineer / Project Manager / **Engineer of Record.*** Daniel was **in responsible charge of leading the bridge inspection** for the historic Cane River Bridge and evaluating bridge load rating, as well as proposing methods of bridge preservation and rehabilitation.
07/03-04/04	**LADOTD, Florida Avenue Bridge Design | New Orleans, LA.** *Lead Bridge Engineer / Project Manager / **Engineer of Record.*** Daniel **was in responsible charge of the bridge design** of one mile of elevated bridge approaches, including AASHTO Type III, Type IV, and bulb-tee prestressed concrete girders. The bridge deck, girders, and piers were designed to meet AASHTO LRFD specifications. Daniel provided structural analysis and coordination to verify safe and efficient construction.
01/95-06/96	**LADOTD, Rehabilitation of Sunshine Bridge Over the Mississippi River | Gonzales, LA.** *Bridge Engineer.* Daniel designed structural modifications to the bridge deck support system and the bridge deck trusses (to handle increased loads from the new slab deck and to eliminate fatigue problems associated with the original structure's welded connections), conducted the main truss analysis, and performed geometric realignment of the approaches.

Firm employed by	**HDR Engineering, Inc.**		
Name	**Adam McGinnis**	Years of relevant experience with this employer	16
Title	Senior Coatings Inspector	Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization		AMPP – Senior Certified Coatings Inspector (CIP Level 3)	
Active registration number / state / expiration date		No. N-70460 / N/A / 05-09-2029	
Year registered	2017	Discipline	Corrosion and Protective Coatings Inspection
Contract role(s) / brief description of responsibilities		Protective Coatings Specialist / Coatings assessment and rehabilitation	

Adam is an AMPP-certified senior coatings inspector (formerly NACE-certified Coating Inspector Level 3 [CIP3]) with over 10 years of experience in corrosion and condition assessment. He specializes in conducting coating evaluation, coating inspection during construction, soil corrosivity studies, cathodic protection surveys, cathodic protection installation, commissioning, and condition assessment of pipelines, bridges, and concrete structures.
Training: NACE CIP Bridge E-Course completed in August 2020. Adam is also CPR and OSHA certified.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/24-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Lafayette, Calcasieu, Cameron, Saint Martin, & Vermillion Parish, LA.** *Coatings Lead.* Adam is leading the coatings inspections for the Abbeville Bypass, Old Abbeville, Parks, Milton, Ellender, and West Fork vertical-lift bridges. Adam took samples and developed testing regimes in addition to developing the in-depth inspection report sections for each bridge.
06/24-Ongoing	**Kansas Department of Transportation (KDOT), Coating Evaluation and Corrosion Service Life Modeling of James River Steel Truss Bridge | Kansas City, KS.** *Coatings Lead.* HDR provided coating evaluation and corrosion service-life modeling for a steel truss bridge at the James River crossing. The two-span bridge is approximately 3700 ft long and was built in the early 1900s. HDR's study included field surveys and desktop studies. Adam is reviewing coatings-related documents and overseeing coatings-related field surveys.
04/24-Ongoing	**Sound Transit, I-90 Bridge Coatings Inspection | Seattle, WA.** *HDR Lead Coatings Inspector and On-Site Representative (Sub-consultant).* HDR provided construction support for the coating repairs along the I-90 floating bridge. Adam is providing oversight and inspection for the application of polyurea coating repairs on the I-90 floating bridge. He is also reviewing coatings-related documents.
08/23-Ongoing	**Nebraska Department of Transportation (NDOT), US-75 Repair | Omaha, NE.** *Lead Coatings Inspector and Part-Time On-Site Representative*. HDR provided engineering assessment, design, and bid support for the rehabilitation of 10 US-75 bridges. Adam is reviewing coatings-related documents.
06/23	**NDOT, I-680 Mormon Bridge Warranty One-Year Coating Inspection | Omaha, NE.** *Lead Coatings Inspector*. HDR provided engineering assessment, design, and construction support for the rehabilitation of the I-680 Mormon Twin Bridges. For the coatings one-year warranty inspection, Adam reviewed the project's coatings-related documents.
02/22-12/22	**City of Thousand Oaks, Meadows Reservoir Emergency Inspection | Thousand Oaks, CA.** *Coatings Inspector and On-Site Representative*. HDR provided engineering, design, and construction bid support for the emergency repairs of a 3.3MG rectangular, reinforced concrete tank with cantilever retaining walls supporting a roof made from precast "double-T" panels. The work included a structural evaluation and design to return the reservoir to service quickly before the next fire season. Engineering services during construction (ESDC) were provided by responding to RFIs, reviewing material submittals, and conducting on-site coating inspections. Adam audited the contractor's quality assurance. The City's Public Works Department awarded this project a Project of the Year award.
10/20	**Idaho Department of Transportation (IDOT), Mores Creek Bridge Inspection | Boise, ID.** *Lead Inspector*. HDR developed a comprehensive, long-range Asset Management Plan (AMP) for the Mores Creek Bridge, a three-span deck truss bridge with three steel girder approach spans, that outlines preventive maintenance and more intensive rehabilitation, along with estimated costs, to preserve the bridge for a service life of 100 years. Adam conducted a field inspection to assess the structure's baseline condition.

Firm employed by **HDR Engineering, Inc.**			
Name	**Matt McGuire, PE**	Years of relevant experience with this employer	22
Title	Movable Bridge Program Manager	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			MBA / 2007 / Business Administration | BS / 2000 / Mechanical Engineering
Active registration number / state / expiration date			PE.0043785 / LA / 03-31-2028
Year registered	2019	Discipline	Mechanical
Contract role(s) / brief description of responsibilities			Mechanical Lead / confirm mechanical systems meet quality standards and are designed for practical construction and performance

Matt has over 20 years of experience in the design, inspection, emergency troubleshooting, and construction of mechanical, electrical, and structural systems. This includes experience with highway, railway, and infrastructure systems, including movable bridges, travelers, transfer bridges, and tunnels. Matt's experience also includes inspecting over 100 movable bridges, with expertise in SPRAT rope access inspections (of which he is now retired), and he is a National Certified Tunnel Inspector (NCTI). He is an industry-recognized leader, active in the Heavy Movable Structures organization, and the Technical Committee Chairman for Machinery and Mechanisms. He has also authored the FHWA Specification for the National Tunnel Inventory (SNTI), classes for certifying tunnel inspectors (NHI 130110 and 130125), and is a certified NHI instructor.

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).
10/25-12/25	**LADOTD, Contract 5 for Movable Bridges (6) | Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA.** *Mechanical QC.* Matt reviewed the mechanical portions of the condition assessment report for the Parks Bridge, H.013819- Recall No. 008700, and provided comments on the report. He reviewed the report text for compliance with the scope of work, clarity, and uniform documentation of the conditions witnessed, including qualitative and quantitative assessments of defects. The comment resolution process and back-check of revisions were collaboratively performed by Matt with the original report authors prior to the final submission of the report.
07/19-4/20	**Canadian Pacific Railroad (CP), Sabula Swing Span Operating Machinery Rehabilitation (CP474) | Sabula, IA.** *Project Manager and Lead Mechanical Engineer.* Matt was the engineer of record and responsible for the mechanical design. He designed the complete rehabilitation of the turning machinery for the swing span over the Mississippi River. Mechanical scope for the machinery included replacement or refurbishment of the turning machinery gears, shafts, and bearings, along with the replacement of the motor brakes and position limit switches for the movement of the span. Matt integrated the coordination of motor and brake remounting with the new limit switches into the control system he replaced during a previous HDR design task. He also performed the commissioning and interlock test of the full system from the operator's house. Matt developed plans and specifications for the project and provided construction support by reviewing RFIs and submittals.
01/18-12/18	**Canadian Pacific Railroad, Truman Bridge Span Lock Machinery Replacement (CP169) | Kansas City, MO.** *Project Manager and Lead Mechanical Engineer.* Matt was the engineer of record and responsible for the mechanical design. He designed the replacement for the span lock machinery on the span-driven vertical lift bridge over the Missouri River. The use of a portable hydraulic power unit and a hydraulic cylinder replaced the unreliable mechanical linear actuators that drove the lock bars. Matt developed plans and component selections for the design, and the CP maintenance staff procured and installed the replacement machinery. The hydraulic operating system is a manual system and requires the bridge tender to operate the machinery from the location of the span lock to confirm the proper state of pulled or driven, to avoid misoperation.
06/14-10/17	**Union Pacific Railroad (UP), Steel Bridge Electrical Rehabilitation | Portland, OR.** *Project Manager and Lead Mechanical Engineer.* Matt was the mechanical engineer of record and responsible for the mechanical design of this two-deck telescoping vertical lift bridge. He designed the mounting for the new electrical limit switches, thrustor brakes, and span lock motor. He also designed the revisions for the machinery brakes. He also delivered the contract documents to UP in the form of plans, specifications, and a construction cost estimate
08/15-09/21	**Multnomah County, Burnside Bridge Rehabilitation | Multnomah County, OR.** *Lead Mechanical Engineer.* Matt was the mechanical engineer of record and responsible for the mechanical design. He designed the span lock rehabilitation and field device mounting for the PLC and drive replacement. The Burnside Bridge Rehabilitation project was intended to address repairs and rehabilitation to the double-leaf Strauss bascule bridge for a 15-year lifespan. The design work included sorting and filtering down the rehabilitation work to a $35M

	budget to address civil, structural, mechanical, and electrical work needs for the bridge. During the process, Matt performed an analysis to determine the appropriate level of seismic treatment for the rehabilitation design. Matt provided contract documents for the bid, including plans, specifications, and construction cost estimates, as part of the design services. He also provided construction support for responses to RFI's and submittal review.
01/23-On-going	**BATA, 25413 Asset Management TO1 | San Francisco Bay Area, CA.** *Mechanical QC.* Matt reviewed the mechanical portions of the Mechanical, Electrical, and Plumbing (MEP) condition assessment reports for the Antioch, Richmond-San Rafael, NB and SB 680 Benecia, EB and WB 80 Carquinez, Dumbarton, and San Mateo-Hayward bridges and provided comments on the reports. He reviewed the report text for compliance with the scope of work, clarity, and uniform documentation of the conditions witnessed, including qualitative and quantitative assessments of defects. The comment resolution process and back-check of revisions were collaboratively performed by Matt with the original report authors prior to the final submission of the report.
12/13-06/20	**San Joaquin County, Rehabilitation of the Eight-Mile Bridge Over Honker Cut | San Joaquin County, CA.** *Lead Mechanical Engineer.* Matt performed the rope access and mechanical inspection of the swing span, and then developed design concepts for balancing the bridge during construction staging. During design development, Matt was the mechanical engineer of record responsible for developing the span balance plan sheet and performing the design calculations for the adjustments. The Eight Mile Road Bridge over Honker Cut is a swing span bridge in need of a deck replacement. HDR's scope was to perform an inspection of the bridge and develop alternatives for the replacement of the deck, while maintaining a certain level of roadway and marine traffic through the bridge. The project proceeded with the preferred alternative, and Matt developed contract documents for bid, including plans and specifications.
01/24-10/24	**BNSF, Bridge 37.0 Mechanical and Electrical Rehabilitation | Everett, WA.** *Project Manager and Lead Mechanical Engineer.* Matt is the mechanical engineer of record and is responsible for the mechanical design. He designed the overall mechanical system for the project and specifically worked on the mechanical mounting of the limit switches. The project was the electrical controls rehabilitation of the swing span over the Snohomish River. New turning machinery motors, motor drives, a programmable logic controller (PLC), and electrical limit switches were provided. The design utilized limited railroad closure windows and staging to install the new equipment and remove the existing after commissioning and testing of the new equipment in the operator's house. The project has currently developed plans, a bid sheet, and a project manual to the 30% design milestone.
02/23-03/24	**BNSF, Bridge 38.3 Mechanical and Electrical Rehabilitation | Marysville, WA.** *Project Manager and Lead Mechanical Engineer.* Matt is the mechanical engineer of record and responsible for the mechanical design. He designed the overall mechanical system for the project and specifically worked on the mechanical mounting for the limit switches. The project was the electrical controls and machinery rehabilitation of the swing span over the Ebey Slough. New turning-machinery motors, end-lift motors, motor drives, programmable logic controller (PLC), and electrical limit switches were provided. The design utilized limited railroad closure windows and staging to install the new equipment and remove the existing after commissioning and testing of the new equipment in the operator's house. The project has currently developed plans, a bid sheet, and a project manual to the 30% design milestone.
10/14-05/15	**Port of Hood River, Port of Hood River On-Call Multiple Task Orders | Hood River, OR.** *Movable Bridge Lead*. Matt was in charge of reporting, including tabulating and reviewing previous deficiencies, preparing project summaries for potential future projects, and developing a projected spending plan for the movable span. He was also the mechanical engineer of record and responsible for the mechanical design. He designed replacement span guides for the vertical lift span as part of emergency repairs following misoperation. Matt also performed a rope-access inspection of the bridge wire ropes and documented problems with the control system interlocks. As a follow-up to the inspection, HDR helped plan the future work on the tower-driven vertical lift bridge. Matt authored several reports to support budgetary planning for the bridge's future. His recommendations include repairing the bridge's electrical systems at the operator's house and implementing a predictive/preventive maintenance program for the bridge.

Firm employed by **HDR Engineering, Inc.**			
Name	**David Neveu, PE**	Years of relevant experience with this employer	13
Title	Senior Electrical Engineer	Years of relevant experience with other employer(s)	28

Degree(s) / Years / Specialization			BS / 1995 / Engineering Technology (Electrical)
Active registration number / state / expiration date			0402057951 / Virginia / 06-30-2026
Year registered	2018	Discipline	Electrical
Contract role(s) / brief description of responsibilities			Electrical support / Movable bridge and ferry systems, electrical power and control systems design, construction support, emergency response support, and inspections

David has over four decades of electrical engineering experience in automated control systems, with the past 14 years focused on the design, construction support, inspection, and troubleshooting of electrical systems for movable bridges. His responsibilities include the replacement, rehabilitation, and integration of control systems (relay and PLC logic), motor drive systems, traffic control equipment, and power distribution.

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).
01/25-Ongoing	**Virginia Department of Transportation, Mechanical and Electrical Drives and Motors Replacement | James River Bridge, Newport News, VA.** *Electrical Engineer.* This is for a tower-driven vertical lift bridge. The main drives and motors were replaced, and a new PLC/HMI control system was installed. The design includes integrating the new control system into the existing bridge tenders' control panel and an emergency PLC-controlled drive system, with minimal marine and vehicle deviations. David designed a new PLC, HMI, and FVD control system and its integration into the existing relay-based control system. He also developed the complex suggested sequence of construction between mechanical and electrical work to mitigate marine and traffic deviations and time-of-year restrictions (TOYR) - endangered species.
02/24-Ongoing	**VDOT, Jamestown Ferry Hydraulic Systems Replacement | James City County, VA.** *Electrical Engineer.* This project included dual slips with hydraulic ramps, electrical and control system design, and construction support services (CSS) to support an existing PLC system for operating refurbished ramps with new gantry-mounted dual hydraulic cylinders. David coordinated with other disciplines for PLC integration of HPU modifications. David's design included shore-to-ship power and the maintenance of 24/7 ferry operations throughout construction and commissioning.
02/24-Ongoing	**VDOT, Emergency Drive Installation | James River Bridge Newport News, VA.** *Electrical Engineer.* This project is for a tower-driven vertical-lift bridge. The project included electrical and control system design and CSS of a new PLC/HMI-controlled emergency VFD system. David coordinated with other disciplines for mechanical drive systems modifications. The new emergency drive will provide backup to the main drive system, consisting of redundant, obsolete Westinghouse thyristor drives with 45 years of service. The construction staging sequence minimizes marine and traffic closures and meets strict six-month TOYR requirements.
02/24-Ongoing	**VDOT, Movable Bridges On-Call Contract, New ATOS Cabinets - Coleman Bridge | Yorktown, VA.** *Electrical Engineer.* An emergency response diagnosis was conducted due to a faulted electronic-analog hydraulic proportional valve module, and the calibration of a spare module was required to restore movable bridge operation. David designed a new redundant system that provides uninterrupted bridge operations while integrating the new digital modules to replace the obsolete 30-year-old analog module. David is also providing customer support services alongside the client's maintenance personnel.
02/24-Ongoing	**VDOT, Movable Bridges On-Call Contract, Emergency Drive Installation - James River Bridge | Newport News, VA.** *Electrical Engineer.* David conducted an emergency response assessment of the existing Westinghouse thyristor drive, which has been in service for 45 years and is now obsolete. He designed a new PLC-controlled emergency VFD system for the vertical lift bridge to serve as a backup to this redundant drive. David also formulated a construction staging sequence that minimizes marine and traffic closures, confirming compliance with the strict six-month time-of-year requirements. Additionally, he is providing customer support services in collaboration with the client maintenance personnel.
02/24-Ongoing	**VDOT, Movable Bridges On-Call Contract, Drive Replacement - Berkley Bridge | Norfolk, VA.** *Electrical Engineer.* David performed a design assessment and emergency response for the twin double-bascule bridges on I-264, including installing traffic gates and a new emergency diesel generator system. He also designed a new submarine cable system, a new medium voltage electrical service system,

	and a new power distribution system. Additionally, David implemented a new PLC control system and installed a new flux vector drive system, along with a new conduit and wiring system. He replaced the existing drive machinery and designed a temporary drive system to limit marine outages during construction to a maximum of five days. David is also providing customer support services with the client maintenance personnel.
01/18-02/18	**VDOT, Movable Bridges On-Call Contract, HMI Operational Upgrade - Benjamin Harrison Bridge | Hopewell, VA.** *Electrical Engineer.* At VDOT's request, David modified the existing emergency drive system's HMI display, PLC logic, and control system wiring to provide operational information for the operator and maintenance personnel while using the normal Westinghouse thyristor drive system. He also collaborated with the client's maintenance personnel to verify smooth transitions and a clear understanding of the updated system.
05/11-05/22	**VDOT, Movable Bridges On-Call Contract | Various Locations, VA.** *Electrical Engineer.* David was responsible for responding to emergency control system failures on each movable bridge in the state of Virginia. He handled emergency calls related to system failures, troubleshooting issues, and repaired control system failures. Additionally, David prepared both temporary and permanent repair packages and coordinated repairs with other engineering disciplines. Key emergency responses included addressing the simultaneous failure of both redundant Westinghouse thyristor drives on the James River Bridge, two separate instances of Westinghouse thyristor drive failures on the Benjamin Harrison Bridge, and a loss of control power during an opening on the I-64 High Rise Bridge. David also worked closely with the client maintenance personnel to provide effective communication and resolution of these issues.
07/22	**Mississippi Department of Transportation, Mechanical and Electrical Rehabilitation SR 605 Bascule Bridge | Harrison County, MS.** *Electrical Engineer.* This project was for a twin, double-bascule bridge and included the rehabilitation of new mechanical drive systems with new VFD control, a relay-based control system, and a PLC/HMI monitoring system. David performed final acceptance testing and commissioning.
06/22-01/23	**VDOT, Mechanical and Electrical Drive Replacement Berkley Bridge | Norfolk, VA.** *Electrical Engineer.* This project was for a twin, double-leaf rolling bascule bridge on I-264 E and W. David designed a PLC/HMI-controlled hydraulic system for temporary leaf operation during its mechanical and electrical rehabilitation. The single, compact temporary system was designed for partial integration with the existing and new control system throughout construction phases and systematic reuse on each of the four leaves.
02/24-12/24	**City of Chesapeake, Auxiliary Counterweight Repairs Gilmerton Bridge | Chesapeake, VA.** *Electrical Engineer.* David performed CSS and final acceptance testing for the new automatic skew control system, including the PLC/HMI and relay control systems. He provided emergency response on two separate instances on the bridge during construction. During skew control field testing, he diagnosed an unknown droop cable design error and provided an alternate solution to complete the project.
05/17-01/19	**VDOT, PLC Replacement, Coleman Bridge | Yorktown, VA.** *Electrical Engineer.* This project was for a double-center swing span. The project consisted of design, CSS, field testing, and final acceptance commissioning of a new redundant PLC system. It also included an upgraded bridge graphic display with fault messaging and repair of the resistance gate lock bar system. David maintained movable bridge operations during the construction of the six-staged remote IO replacements. He implemented several changes to PLC logic to improve bridge operations.
03/18-02/19	**VDOT, Aux Drive PLC/HMI Upgrades, Benjamin Harrison Bridge | Hopewell, VA.** *Electrical Engineer.* David analyzed, designed, and prepared plans and specifications for installing infinite-index couplings at aux drive encoders and for modifying control system interlock circuits to provide aux drive PLC/HMI power, allowing normal thyristor drive movable span operation monitoring. He performed CSS and acceptance testing.

Firm employed by **HDR Engineering, Inc.**			
Name	**Michael (James) O'Keefe, PE**	Years of relevant experience with this employer	2
Title	Mechanical Engineer, Movable Bridge	Years of relevant experience with other employer(s)	12

Degree(s) / Years / Specialization			BS / 2011 / Mechanical Engineering
Active registration number / state / expiration date			35103 / SC / 06-30-2028
Year registered	2017	Discipline	Mechanical
Contract role(s) / brief description of responsibilities			Mechanical Support / Bridge inspections, tunnel inspections, design, analyze, and confirm proper integration of mechanical systems and components for structural integrity and operational functionality

Michael has successfully served clients such as VA DOT, Norfolk Southern Corp., CSX, and SC DOT Headquarters, demonstrating his expertise in designing and implementing complex mechanical systems. With his strong technical background and collaborative approach, Michael excels at working with multidisciplinary teams to deliver innovative solutions that meet clients' needs. He successfully completed the NHI/FHWA 130055 Safety Inspection of In-Service Bridges training course and is registered with SCDOT as a certified bridge inspection team lead.

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).
05/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Statewide, LA.** *Bridge Inspection Team Member.* Michael performed mechanical inspections for the Abbeville Bypass over Bayou Vermillion, Milton over Bayou Vermillion, and West Fork (Moss Bluff) over Bayou Calcasieu vertical lift bridges.
04/25–04/25	**CSX Transportation, Movable Bridges Emergency Response | Charleston, SC.** *Mechanical Response Team Member.* Michael responded to a mechanical failure on a rolling lift. He was onsite within two hours to diagnose the failure - a failed babit insert for a bearing supporting the bevel gear between the drive motor and the pinion gear, allowing enough backlash for the gearing to not drive the bridge open. Michael worked with onsite contractors to develop a solution and get the rolling lift bridge back in service to CSX within a week.
05/25–Ongoing	**Norfolk Southern Corp, Engineering and Design Services Agreement | New Bern, NC.** *Mechanical Response Team Member.* Michael evaluated the auxiliary power unit for the NS bridge to prepare a specification for a direct replacement. He also evaluated the bridge's mechanical elements and prepared a memo for recommended bridge repairs.
11/23-01/24	**VDOT, Gwynn's Island Clutch Rehabilitation | Gwynn's Island, VA.** *Mechanical Inspector.* Michael performed inspections for two movable bridges, including one in-depth inspection as part of an HDR multidisciplinary team. Both bridges were swing spans, and one was a multiple movable span and is hydraulically driven.
11/23-Ongoing	**SCDOT District 1, Statewide Bridge Inspections | Statewide, SC.** *Bridge Inspection Team Lead.* Michael regularly participates in HDR's South Carolina bridge inspection practice, performing routine, in-depth, and specialized inspections of roadway transportation bridges.
12/25-Ongoing	**CN Railway, Menasha Swing Span Rehabilitation | Menasha, WI.** *Mechanical Engineer.* Michael performed the calculations and the design work to prepare drawings for the replacement of the end lift machinery system.

Firm employed by **HDR Engineering, Inc.**			
Name	**Erin O'Malley, PE (SPRAT 3)**	Years of relevant experience with this employer	15
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			MS / 2010 / Structural Engineering | BS / 2008 / Architectural Engineering
Active registration number / state / expiration date			PE.0043899 / LA / 03-31-2028
Year registered	2019	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			Structural Support / Coordination and oversight of rope access inspection teams

Training: FHWA-NHI Course No. 130055, Safety Inspection of In-Service Bridges; FHWA-NHI Course No. 130053, Bridge Inspection Refresher Training; FHWA-NHI Course No. 130078, Fracture Critical Inspection Techniques for Steel Bridges; NHI Course No. 130078A, Bridge Inspection Techniques for Nonredundant Steel Tension Members (NSTM) Refresher; SPRAT Level 3 Rope Access Technician, No. 131089 Expires: 02/02/2027

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).
05/25-06/25	**LADOTD, Contract 5 for Movable Bridges (6) | Statewide, LA.** *Bridge Inspection Team Leader.* Erin performed rope access inspections of lifting towers for six bridges near Lafayette and Lake Charles. She assembled the rope access inspection team, including a rope access site supervisor and the other inspectors. The structural inspections were performed separately from the mechanical and electrical inspections, but coordination with operations for boat traffic was still required. Erin wrote or reviewed the tower sections of the reports for each of the bridges.
02/20, 12/20, 04/23	**LADOTD, Statewide In-Depth Complex Bridge Inspections | Statewide, LA.** *Bridge Inspection/Rope Access Site Supervisor.* Erin performed rope-access inspections of lifting towers, floor systems, and truss members where other access methods were impractical for the Red River and Teche Bayou lift bridges and the Pearl River Swing Truss. As the rope access site supervisor, Erin created the SPRAT-certified inspectors' work plans and safety plans and rigged the rope access system. She also performed some inspection work when additional SPRAT Level 3 staff were on site. The structural inspections were coordinated with the mechanical and electrical inspections and accommodated bridge openings as needed for boat traffic. Erin wrote and reviewed the structural sections of the report for each bridge.
11/23, 10/24	**Port of New Orleans, Movable Bridge Inspections On-Call Contract | New Orleans, LA.** *Bridge Inspection Team Leader.* Using rope access, Erin led a five-person team to inspect two bascule trusses and their counterweight structures in 2023 and again in 2024. The bridges carry Class 1 railroads over the Inner Harbor Navigation Canal, so the work required coordination with a railroad flagger and the bridge operator to maintain train and boat traffic. Erin wrote the above-deck structural sections of both reports and reviewed the below-deck structural, mechanical, and electrical sections.
10/20–11/20	**Texas Department of Transportation (TxDOT), Movable Bridges Asset Maintenance | Rio Hondo, TX**. *Bridge Inspection/Rope Access Site Supervisor.* Erin supervised rope access inspection of the Rio Hondo lift bridge towers above deck that were beyond the reach of the bucket truck, including the side faces over water and the majority of the lift-span and approach-span faces. The scope included a general inspection to assess the bridge's condition since its 2017 rehabilitation and a detailed inspection of elements requiring potential repairs and maintenance. Erin created the work and safety plans for two SPRAT Level 1 inspectors and rigged the rope access system. The structural inspection was performed separately from the mechanical and electrical inspection, but coordination with operations for boat traffic was still required. She wrote the tower sections of the report.
05/12-09/21 and 07/24-Ongoing	**TxDOT, Non-Redundant Steel Tension Members (NSTM) (formerly Fracture Critical) and Complex Bridge Inspection Contract | Statewide, TX**. *Bridge Inspection Team Leader.* Erin has worked on five full contract cycles since 2012, advancing from Assistant to Team Leader to Rope Access Leader for the state. She is currently working on HDR's 6th cycle on this contract. Structure types include plate girders, plate caps, tub girders, box caps, floor beams, trusses, railcar bridges, and signature tower and cable structures. Erin coordinates each aspect of the inspection, from planning to mobilization to reporting. Additionally, this contract includes load ratings. Erin has performed load ratings for small rural structures, steel I-beams, plate girders, through trusses, deck trusses, floor beams, and gusset plates.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Oluronke (Ronke) Osibajo, PE, CFM, ENV SP**	Years of relevant experience with this employer	9
Title	Texas Gulf Coast Utilities Team Lead	Years of relevant experience with other employer(s)	9

Degree(s) / Years / Specialization			ME / 2008 / Civil Engineering BS / 2006 / Civil Engineering
Active registration number / state / expiration date			PE.0038103 / LA / 09-30-2026
Year registered	2013	Discipline	Civil
Contract role(s) / brief description of responsibilities			Utility Coordination & Subsurface Utility Engineering / Lead subsurface utility investigations, coordination, and conflict resolution to support project design and delivery.

Ronke brings diverse civil engineering experience and extensive expertise in utility risk management to transportation projects. She has a track record of successful collaboration with clients, design teams, and utility owners, emphasizing early utility risk mitigation for successful project delivery. Ronke employs proactive utility coordination, multidisciplinary conflict avoidance strategies, relocation design, and monitoring to mitigate safety, cost, service, and schedule risks associated with existing utilities on infrastructure projects. She understands ASCE 38-02 subsurface utility engineering (SUE) Quality Levels (QL) D through A, as well as utility coordination best practices.

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).
01/24 – 03/25	**City of Corpus Christi, Flour Bluff Drive Bond 2022 | Corpus Christi, TX.** *Utility Task Lead.* Ronke worked with the design team and utility owners to identify and resolve utility conflicts along the two-mile roadway design project. She prepared QLD SUE plans, conducted conflict analysis of existing utilities, collaborated with the design team to implement conflict-avoidance and mitigation strategies during the early design phases, identified QL B and A SUE needs, and coordinated relocation design with utility companies.
06/22 – 03/24	**TxDOT Beaumont, IH 10 Eastex Interchange | Beaumont, TX.** *Utility Task Lead.* Ronke led a team of utility engineers and coordinators to identify 1,262 utility conflicts, execute 18 agreements totaling $29M, and coordinate relocation of several miles for the interchange reconstruction, which included the addition of main lanes and frontage roads in both directions, bridge upgrades, and sidewalks. With a critically constrained ROW, Ronke developed conflict-mitigation solutions, such as sleeper slabs and concrete barriers, to allow some utilities to remain protected. She also planned utility assignments and construction sequences to optimize spacing for relocated utilities and to meet construction time limits.
01/21 – 04/22	**MDOT, Interstate 55 Widening from South of Church Road to SR 302 | DeSoto County, MS.** *Utility Project Manager.* Ronke led a team of utility technicians, surveyors, and engineers to manage and execute the $700,000 utility engineering contract, which included QL D – A SUE, utility conflict mitigation, utility coordination, and utility relocation sequencing/oversight. She provided direct oversight of field crews, verifying that appropriate geophysical tools and methodologies were employed, and incrementally conducted quality assurance checks on approximately 260,000 linear feet of buried utilities. Ronke provided support for proactive utility conflict avoidance and facilitated the relocation of utility conflicts.
06/20 – 01/21	**Ascension, Parish Bluff Road Widening | Statewide, LA.** *Utility Task Lead.* Ronke managed field work for geophysical utility investigations, test holes, and utility surveys. She prepared QLB and QLA SUE deliverables per LADOTD standards.

Firm employed by **HDR Engineering, Inc.**			
Name	**Garland Pennison, PhD, PE**	Years of relevant experience with this employer	13
Title	Senior Project Engineer | Professional Associate	Years of relevant experience with other employer(s)	33
Degree(s) / Years / Specialization		PhD / 2020 / Systems Engineering MS / 1993 / Environmental & Water Resources Engineering BS / 1979 / Civil Engineering	
Active registration number / state / expiration date		PE 20931 / LA / 09-30-2026	
Year registered	1983	Discipline	Environmental, Civil
Contract role(s) / brief description of responsibilities		Hydraulic Analysis & Design / Lead for bridge hydraulics modeling; bridge scour analysis; coastal transition zone modeling; bridge hydraulic reports.	

Garland has 46 years of experience in project planning, engineering, design, and management across diverse civil and coastal infrastructure projects. His previous work experience with other employers included numerous LADOTD transportation and bridge hydraulic projects. His diverse experience includes transportation, coastal, urban land-use, and infrastructure design and planning projects. He has expertise in hydrodynamic and numerical modeling of complex coastal, estuarine, and riverine systems. Garland is a PhD graduate in systems engineering from the University of South Alabama, with research focused on coastal transportation systems and the physical damage caused by intensifying coastal hazards, including bridge spans damaged by storm surge.

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).
10/19-Ongoing	**LADOTD, Louisiana Watershed Initiative (LWI) Modeling Region 5 | South Central Parishes, LA.** *Project Manager.* Garland led the development of hydrologic and hydraulic (H&H) models for the LWI Region 5, covering the Atchafalaya, Bayou Teche, Vermilion, Mermentau, and Mermentau Headwaters HUC-8 watersheds. The project involves assessing drainage conditions over 10,000 square miles using HEC software and incorporating coastal ADCIRC data as modeled boundary conditions. The watershed models are the most advanced to date for this complex coastal region. Task Order 4 developed design storms and consequence models for the entire 16-parish Region 5 boundaries. Work is ongoing on Task Order 5, cataloging and applying models to proposed improvements.
01/23-Ongoing	**Lafayette Consolidated Government (LCG), Bridge Hydraulic Studies | Lafayette City Parish, LA.** *Project Manager.* Garland is completing FEMA analyses of proposed bridge hydraulics for various LCG projects. This includes evaluating existing and proposed FEMA models for no-rise certifications associated with proposed bridge hydraulics, and submitting a letter of map revisions in the event FEMA flood insurance maps require revision. This requires an extensive knowledge of drainage systems within the Vermilion and Mermentau watersheds.
06/24-Ongoing	**LCG, Vermilion Watershed Hydraulic Studies | Lafayette City Parish, LA.** *Project Manager.* Garland is completing hydrologic and hydraulic analysis of various existing and proposed improvements within the Vermilion and Mermentau watersheds. This includes evaluating existing and proposed RAS 2D models for various major drainage improvements and/or modifications within the watersheds. This requires applying complex H&H models to evaluate impacts on existing and future drainage conditions.
07/15-02/17	**Bayou Lafourche Freshwater District (BLFWD) Union Pacific Railroad Bridge | Donaldsonville, LA.** *Project Manager*. The project consists of replacing existing culvert crossings with a new railroad bridge, in a fast-track effort to remove flow restrictions and increase freshwater supply capacity from the Mississippi River through Bayou Lafourche. Garland completed RAS analysis for alternative bridge designs. A five-span bridge was designed by HDR and installed during a 72-hour UPRR-programmed track stoppage window.
01/15-05/17	**Pennsylvania Department of Transportation, Rapid Bridge Replacement Program | Statewide, PA.** *H&H Team Lead*. Garland led a modeling team that provided hydrologic and hydraulic analysis and design support for a fast-track design-build program involving 550+ bridge replacements. Models included hydrology, RAS 1-D, scour analysis, and environmental design requirements.

Firm employed by **HDR Engineering, Inc.**			
Name	**Steven Pierce, PE (SPRAT II)**	Years of relevant experience with this employer	6
Title	Materials Engineer	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			BS / 2018 / Chemical Engineering and Material Science
Active registration number / state / expiration date			2026 / CA / 09-30-2026
Year registered	2022	Discipline	Metallurgy
Contract role(s) / brief description of responsibilities			Protective Coatings Specialist / AMPP CP1 Coatings Inspector

Steven performs direct and indirect corrosion inspections of metallic and concrete transportation, water, and wastewater type structures, including pipelines, penstocks, dams, bridges, and lift stations. Some of the field-testing procedures include soil resistivity/corrosivity measurements, structure-to-electrolyte potential surveys, concrete chemical testing, and non-destructive thickness testing.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
06/25-06/25	**LADOTD, DOTD Control 5 Movable Bridges (6) | Vermillion, Lafayette, St. Martin, and Calcasieu Parishes, LA.** *Bridge Coatings Inspector.* Steven performed coating inspections of lifting towers, lift span floor systems, and truss members using a MEWP for the West Fork and Ellender lift bridges. The coating inspections were coordinated with the structural inspections and accommodated bridge openings as needed for boat traffic. Steven wrote and reviewed coating inspection sections of the report for each bridge.
07/25-09/25	**Port of Hood River (PoHR), PoHR Bridge Repair and Paint | Hood River, OR.** *Bridge Coating Inspector.* Using rope access, Steven led a three-person team to inspect the condition of the existing coating of the lifting towers, lift span floor systems, and truss members. He tabulated the areas of coating damage and recommended areas for coating repair to extend the bridge's life by an additional 15 years, until a new, larger bridge can be constructed.
07/24-07/24	**Kansas Department of Transportation (KDOT), Intercity Viaduct Rating | Kansas City, KA.** *Bridge Inspector.* Using rope access, Steven inspected lower-chord fracture-critical members for coating and corrosion damage. Metal losses due to corrosion were tabulated and used to calculate the bridge's structural rating in its current condition, to inform future repair recommendations.
10/23–05/24	**Silicon Valley Power (SVP), Stony Gorge Penstock and Black Butte Penstock Inspections | Statewide, CA.** *Coatings Inspector.* Steven used rope access to inspect the internal sloped portions of three penstocks and performed a hands-on coating inspection. This work included visual inspection of the full pipe length interior and coating condition assessments, including non-destructive evaluation. Steven also assisted with preparing and evaluating the safety and rescue plans required to complete the interior inspection. HDR provided the rope access means and methods for safe entry and rescue response to complete the work.
12/24-12/24	**Port of Long Beach (POLB), Pier B ODRS Facilities Program; Crescent Warehouse | Long Beach, CA.** *Corrosion and Coatings Inspector.* Steven performed a coating and corrosion inspection of roof truss members at the Crescent Warehouse in preparation for building modifications. The condition of the roof trusses was used to determine if the existing load rating would meet the requirements for the future building modifications. Rope access and a MEWP were used to reach each portion of the roof truss. The building's tenants currently use it for shipping and receiving large crates from the port. Steven consistently coordinated access around moving forklifts and occupants.
06/24-07/24	**USACE, Pittsburgh District Dams and Locks | Statewide, PA.** *Structural Engineer.* Steven used rope access to inspect the upstream and downstream faces, internal structures, and lift-arm mechanisms of the dam radial gates at the New Cumberland and Charleroi USACE Lock and Dam sites. Steven wrote and reviewed the dam inspection sections of the report.

Firm employed by **HDR Engineering, Inc.**			
Name	**Evan Purdy, PE**	Years of relevant experience with this employer	6
Title	Mechanical Engineer	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization	ME / 2024 / Engineering Management BS / 2017 / Mechanical Engineering
Active registration number / state / expiration date	104926PE / OR / 12-12-2026
Year registered: 2024 / Discipline	Mechanical
Contract role(s) / brief description of responsibilities	Mechanical Support /Structural, mechanical, and movable bridge inspector

Evan has a strong background in mechanical systems, including hydropower dams and movable bridges.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
01/26–05/26	**CN, Manesha CN Rail Bridge Drive Machinery Replacement | Manitowoc, WI.** *Mechanical Designer.* Evan assisted with the complete redesign and replacement of the drive machinery for this bobtail swing-span bridge. This design utilized modern machinery in a very compact, narrow space, allowing for limited component sizing and attention to detail in the components and materials used to meet AREMA standards.
01/25–02/25	**City of Grants Pass, Reinhart Stressed Ribbon Bridge Inspection | Grants Pass, OR.** *Inspector.* Evan served as one of two inspectors of the Reinhart Volunteer Park pedestrian bridge. The structure is a unique three-span stressed ribbon bridge over the Rogue River. A stressed-ribbon bridge is a rare design, in which suspension cables are embedded in the deck and follow a catenary arc between substructure units. There are only five located throughout North America. Evan was the main inspector for the bridge, inspecting structural elements, deck spalling or cracking, and general code compliance.
11/23–12/23	**PONO, Movable Bridge Inspections On-Call Contract | New Orleans, LA.** *Bridge Inspection Team Leader.* Using rope access, Evan was part of a five-person team to inspect two bascule trusses and their counterweight structures. The bridges carry Class 1 railroads over the Inner Harbor Navigation Canal, so the work required coordination with a railroad flagger and the bridge operator to maintain train and boat traffic. Evan assisted in writing the above-deck structural sections of both reports.
10/22–11/22	**Multnomah County, Hawthorne Bridge Inspection | Portland, OR.** *Bridge Inspection Team Leader.* HDR inspected the condition of the Hawthorne Bridge, a four-lane lift bridge located in downtown Portland. Evan inspected the bridge operating machinery, guide roller system, bridge seats, and guide bars. Evan also conducted an inspection focused on the design analysis and design intent of the guiding system used for the bridge's lifting and lowering. He worked alongside a professional engineer to inspect the systems described, inspect the overall condition of the guiding system, and provide a design and inspection report detailing the inspection findings and recommendations to improve the bridge guiding system.
03/23–04/23	**New York City Transit, Moodna Viaduct Rail Bridge Inspection | Salisbury Mills, NY.** *Bridge Inspector.* HDR inspected the condition of the Moodna Viaduct, a 300-foot-high 3,000 3,000-foot-long trestle bridge. The bridge was undergoing a routine fracture critical inspection using rope access and snooper trucks. Evan conducted visual inspections of the bridge structure, bridge piers, cross-member connections, and the bridge's general condition. The inspection resulted in a full condition assessment of the bridge and repair recommendations for the bridge piers and other minor deficiencies.
09/22–10/22	**Mississippi DOT, Natchez Vidalia Bridge Inspection | Natchez, MS.** *Bridge Inspector.* HDR inspected the condition of the Natchez Vidalia bridge. The bridge was undergoing a routine inspection of the main support members and the bridge deck using rope access. Evan conducted visual inspections of the bridge structure, cross-member connections, and the bridge's general condition. The inspection resulted in a full condition assessment of the bridge.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Amber Robinson, PWS**	Years of relevant experience with this employer	13
Title	Environmental Practice Lead	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BS / 2012 / Environmental & Sustainable Resources BS / 2008 / Business Management
Active registration number / state / expiration date			Professional Wetland Scientist, No. 3286 / US / Exp. 10/22/30
Year registered	2020	Discipline	N/A
Contract role(s) / brief description of responsibilities			Environmental & Permitting Services

Amber has 13 years of environmental experience with an emphasis on Federal and State permit and agency coordination in support of bridge replacement and maintenance projects Technical areas of expertise include: delineation of waters of the U.S., US Corps of Engineers, Section 10 navigable waters and waters of the U.S. permit coordination; Section 408 Engineering Review coordination, Parish/City floodplain permit coordination, State coastal use permit coordination, US Coast Guard bridge advance approvals and exemptions; NEPA documents, T&E species habitat evaluations; wetland ecology assessments; and compliance monitoring. The Federal, State, and local permitting agencies she routinely works with include the USACE, USCG, USFWS, LaDEQ, LDWF, La Department of Conservation and Energy, Office of Coastal Management, and Parish and City Floodplain Administrators.

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).
09/25 - Ongoing	**Norfolk Southern Railroad, NS MP 5.2 Railway Bridge Maintenance Project | Orleans Parish, LA.** *Environmental Task Lead.* Amber led a team of professionals to conduct a wetland delineation and habitat assessment (a threatened and endangered species survey) of the project area. She also led the preparation and is currently serving as the applicant agent of the Joint Permit Application to comply with Section 404 of the Clean Water Act and the Louisiana Coastal Management Program. She also led the development of the LDWF Natural and Scenic Rivers Permit Application. The applications were submitted in March of 2026 and are still under review, with expected authorizations in June/July 2026.
01/23 - Ongoing	**CSX Transportation, LA Railroad Movable Bridge Program | Orleans & St. Tammany Parish, LA.** *Environmental Task Lead.* Amber serves as the environmental permitting technical lead for professional permitting services for electrical upgrades, including the replacement of submarine cables, for three railroad movable bridges along the CSX NO&M corridor. The bridges crossed Chef Menteur Pass, the Rigolets, and Pearl River. Amber led a team of professionals who performed wetland delineation and habitat assessments (a type of threatened and endangered species survey) for each movable bridge maintenance project. She also led the preparation and served as the applicant agent of the Joint Permit Application to comply with Section 10 of the Rivers and Harbors Act and the Louisiana Coastal Management Program. Permitting is complete for movable bridge crossings at Chef Menteur and Pearl River. Permitting of the Rigolets Movable Bridge crossing is still underway. Amber is also leading monthly compliance monitoring during construction for three projects.
07/23-Ongoing	**CSX Transportation, CSX NO&M Gulf Coast Hardening 20 Mile Project, CSX Transportation | Orleans Parish, LA.** *Environmental Task Lead*. Amber serves as the technical lead for professional permitting services for the approximately 20-mile-long roadbed hardening project for the CSX railroad near New Orleans, Louisiana. The purpose of roadbed hardening is to address the continual erosion of the embankment, which is exacerbated during hurricane conditions. Amber is leading a team of professionals responsible for a wetland delineation and habitat assessment (a type of threatened and endangered species survey) of the 20-mile project. She also led the preparation of the Joint Permit Application, including a Hydrologic Modification Impact Assessment and Needs and Justifications Analysis. She serves as the applicant agent for CSX to assist with agency coordination, including hosting a pre-application meeting with the State of Louisiana, the USACE Vicksburg District, and the New Orleans District. Currently, she is responsible for leading permit compliance during the construction of a two-mile segment of the project.
03/21–Ongoing	**Illinois Central RR, Baton Rouge Subdivision MP 431 Bridge Reconstruction Permitting Project | Norco, LA.** *Environmental Scientist/Project Manager.* Amber led the wetland delineation and habitat assessments, a type of threatened and endangered species survey, for the proposed project area, which will replace a railroad bridge crossing the Bonnet Carre Spillway at Mile Post 431 on the Baton Rouge Subdivision. She also led the development and submission of a joint permit application, request for Section 408 review,

	request for USCG advance approval and lighting exemption, and draft Stormwater Pollution Prevention Plan for an 8,000-foot-long railroad bridge replacement project that spans the USACE's Bonnet Carré Spillway. She led the team that received authorization under Section 106 for an unmarked Civil War-era burial ground without the need for a costly excavation investigation. Authorizations were accomplished within 11 months of the original joint permit application submittal. The project is currently under construction and is expected to be completed by December 2026. Amber and her team are responsible for annual compliance monitoring of the project during construction.
07/16–01/24	**Illinois Central RR, Bonnet Carré Spillway Bridge Replacement Project | La Place, LA.** *Environmental Scientist/Project Manager.* Amber conducted the wetland and stream delineation and proposed jurisdictional determination in support of two proposed alternatives to replace a railroad bridge that crosses the Bonnet Carre Spillway at Mile Post 891 on the McComb Subdivision, including preparation of a Preliminary Wetland Delineation and Proposed Jurisdictional Determination Report. She coordinated with the Louisiana Office of Coastal Management to complete the purchase of mitigation bank credits, finalized the Coastal Use Permitting process, prepared baseline and impact sections for an environmental assessment led by the USCG and USACE, and coordinated with the USACE Operations Division throughout project construction. Amber led compliance monitoring during construction, which was completed in May 2022. Amber worked with the Federal and State permitting agencies to close the project out in January 2024
05/13–Ongoing	**Union Pacific Railroad, Bridge Replacement Program Field and Professional Permitting Services | Various Locations in LA, TX, and AR.** *Environmental Scientist/Project Manager.* Amber conducted wetland and stream delineation and performed permitting evaluations for the replacement of more than 60 bridges in Louisiana, Texas, and Arkansas since 2013 in support of Union Pacific Railroad's ongoing bridge replacement program. Other project tasks have included vegetation community assessment, habitat mapping, hydrologic evaluation, and permit coordination activities for USACE Nationwide and State of Louisiana Coastal Use Permits. Amber develops permit application packages and coordinates permitting with State and Federal agencies. Additionally, she is tracking HDR's permitting efforts for Union Pacific Railroad, from site survey through construction, within a web-based permit tracking system for many bridge replacement projects in the south central and western regions.

Firm employed by **HDR Engineering, Inc.**			
Name	**Joey Runner, PWS**	Years of relevant experience with this employer	2
Title	Senior Environmental Scientist	Years of relevant experience with other employer(s)	18

Degree(s) / Years / Specialization			BS / 2003 / Biology
Active registration number / state / expiration date			No. 2855 / LA / 07-31-2027
Year registered	2017	Discipline	Professional Wetland Scientist
Contract role(s) / brief description of responsibilities			Environmental & Permitting Services / Wetland delineation and threatened and endangered species surveys

Joey manages fieldwork and regulatory permitting while coordinating with clients, stakeholders, and agencies like USACE. He specializes in wetland delineations and endangered species surveys.

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).
04/24–06/24	**Entergy, Vermillion River Crossing | Abbeville, LA.** *Project Manager and Lead Field Biologist.* Joey provided the wetland delineation assessment, threatened and endangered species survey, USACE section 404 and section 10 Permitting, and soil sampling for this project. He provided field data collection, evaluated wetland boundaries, identified potential impacts on protected species, and confirmed compliance with local and federal environmental regulations.
08/23–08/24	**Jefferson Davis Electric, 230 KV Transmission Line | Calcasieu and Cameron Parishes, LA.** *Field Manager and Lead Biologist*. Joey prepared the wetland delineation assessment and threatened and endangered species surveys. He provided field data collection, evaluated wetland boundaries, and identified potential impacts to protected species.
06/23–08/24	**Entergy, Champagne Substation Transmission Line | Champagne, LA.** *Project Manager and Lead Field Biologist.* Joey prepared the wetland delineation assessment, threatened and endangered species surveys, and USACE permitting for this transmission line project crossing Courtableau Bayou. He provided field data collection, evaluated wetland boundaries, identified potential impacts to protected species, and confirmed that the project complied with local and federal environmental regulations.
01/22–08/24	**Entergy, Magnolia Substation and Transmission Line | Plaquemine, LA.** *Project Manager and Lead Field Biologist.* Joey prepared the wetland delineation assessment, threatened and endangered species surveys, regulatory permitting, stormwater pollution prevention plan (SWPPP), and inspections and soil sampling. He provided field data collection, evaluated wetland boundaries, identified potential impacts on protected species, and confirmed that the project complied with local and federal environmental regulations.
08/22-08/24	**Targa, Proposed Well Pad, Roads, Pipelines, and Structures LPG Storage No. 013 Well | Hackberry, LA.** *Project Manager and Lead Field Biologist.* Joey performed the wetland delineation assessment and threatened and endangered species surveys. He also led the LDNR, Coastal Use permitting.
04/19–11/19	**Sempra, Louisiana Connector Extension Pipeline | Leblanc, LA to Delhi, LA**. *Field Manager and Lead Biologist.* For this 180-mile pipeline project, Joey conducted the wetland delineation assessment and threatened and endangered species surveys. He provided field data collection, evaluated wetland boundaries, and identified potential impacts on protected species.
01/21–04/25	**Lafayette Consolidated Government, Drainage Initiative | Lafayette Parish, LA.** *Field Manager and Lead Biologist.* Joey prepared this project's wetland delineation assessment and threatened and endangered species surveys. He provided field data collection, evaluated wetland boundaries, and identified potential impacts to protected species.
09/25-02/26	**Entergy, Transmission Line Relocation for Bike Path | Jefferson and Orleans Parishes, LA.** *Project Manager and Lead Field Biologist.* Joey completed the wetland delineation assessment, the threatened and endangered species surveys, and the parish, state, and federal permitting.
03/26- Ongoing	**Union Pacific, Bridge Program | TX and LA.** *Lead Field Biologist.* Joey performed field data collection, evaluated wetland boundaries, and identified potential impacts to protected species, verifying the project complies with local and federal environmental regulations**.**

Firm employed by **HDR Engineering, Inc.**			
Name	**Edwin Rydell, PE**	Years of relevant experience with this employer	27
Title	Senior Project Manager	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			BS / 1986 / Civil Engineering,
Active registration number / state / expiration date			PE.0047343 / Louisiana / Exp. 03-31-2027
Year registered	2022	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			Roadway & Traffic Control / Implement traffic control plans to verify safe/efficient traffic flow on roadways

Edwin has extensive experience in transportation engineering, including roadway design, and served for seven years as a Texas Department of Transportation Design Engineer. He is familiar with multiple aspects of roadway design, including horizontal and vertical alignments, traffic control, utility coordination, signing and pavement markings, and specifications. He is proficient in Geopak, Microstation, and OpenRoads.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/22–03/23	**LADOTD, Bridge Preservation IDIQ – LA 577 at I-20 Repair PS&E | Waverly, LA.** *Roadway Engineer of Record and Traffic Control Plan Lead.* Edwin developed the roadway design and TCP plans for both phases of this emergency site inspection to assess the condition of a bridge struck by a truck. HDR completed the Phase 1 design, consisting of a PS&E to open a single traffic lane. After the emergency Phase 1 Design was complete, HDR prepared Phase 2 PS&E to complete the design for a replacement span.
02/18-12/19	**TxDOT Wichita Falls, US 287 NB Little Wichita River Bridge Replacement | Clay County, TX.** *Roadway Task Lead.* The project consisted of the phased replacement of two on-system bridges on US 287. Bridge 1 is over the East Fork of the Little Wichita River, replacing a five-span bridge with a phased three-span bridge, and Bridge 2 is over the East Fork of the Little Wichita River. Edwin established the horizontal and vertical alignments for the bridge replacement project and designed the roadway to tie the existing road to the proposed bridge. He also managed the development of the traffic control plan to complete the bridge in phases, allowing one lane of traffic throughout construction.
11/22-12/23	**Port of Corpus Christi Authority, Kay Bailey Hutchison Road | Corpus Christi, TX.** *Roadway/TCP Lead.* HDR prepared the design for the Kay Bailey Hutchison Road reconstruction, which led to industrial facilities associated with the Port of Corpus Christi Authority. The existing asphalt roadway will be removed and replaced with a concrete roadway, along with drainage improvements. Edwin prepared the traffic control plan so that a two-course surface treatment would be placed on the adjacent Heavy Haul Road to allow it to be used for traffic control during construction. Edwin created the project's complete roadway design and verified that disciplines were working together. Edwin also designed a temporary road adjacent to Kay Bailey to provide industrial traffic with continuous access to the facility during construction.
06/25 - Ongoing	**LADOTD, Bridge Preservation IDIQ – LA 301 over Priest Canal | Jefferson Parish, LA.** *Roadway Engineer of Record/TCP Plan Lead.* Edwin developed the roadway design for the replacement of the bridge over Priest Canal. After reviewing the existing bridge structure and with a small amount of traffic in the area, it was determined to close the existing bridge for replacement. With no other access for residents beyond the bridge, Edwin developed an alignment and design for a one-lane diversion road with traffic signals to maintain access for the residents.
07/15 – 03/17	**Harris County, Louetta Road Design | Harris County, TX.** *Project Manager.* Edwin managed the design of a four-lane boulevard section. He completed roadway, drainage, detention, and striping design. He also assisted with the project's construction administration.
07/22-11/24	**Harris County Engineering Department, Market Street Design | Baytown, TX.** *Project Manager.* Edwin prepared the final design for Market Street from Bayway Drive to West Sterling. He completed the design of a one-lane roadway in each direction, four roundabouts at existing signalized intersections, a 12-foot shared-use path, and a five-foot sidewalk. After coordinating with each entity, Edwin also added parking lanes at the high school and a city park.

02/18-07/20	**TxDOT Yoakum, IH 10 West of San Bernard River to East of Crooked Branch | Sealy, TX.** *TCP Task Lead.* Edwin designed the traffic control plans for a four-phase project that included a complete freeway reconstruction from four to six lanes and reconstruction of the frontage road. The TCP maintained the existing number of lanes throughout construction.
05/17-10/20	**Brazoria County, SH 288 Managed Lanes General Engineering Consultant | Brazoria County, TX.** *TCP Task Lead.* HDR was the GEC for the construction of the SH 288 Managed Lanes. Edwin set up the general phasing layout for the entire project. He led team coordination meetings with various designers to establish a seamless TCP across the sections for a complete TCP for construction.
07/21–03/23	**LADOTD, Statewide Complex In-Depth Bridge Inspections – Task Order 4 | Statewide, LA.** *Traffic Control Lead*. Edwin designed traffic control plans for this project, including inspections of three steel swing-span bridges in Livingston and Tangipahoa Parishes.

Firm employed by **HDR Engineering, Inc.**			
Name	**Venkata Sathiraju, PE**	Years of relevant experience with this employer	2
Title	Bridge Engineer	Years of relevant experience with other employer(s)	5

Degree(s) / Years / Specialization	MS / 2019 / Structural Engineering | Bachelor of Technology / 2016 / Civil Engineering
Active registration number / state / expiration date	PE 0048436 / LA / 03-31-2028
Year registered: 2023 / Discipline	Civil
Contract role(s) / brief description of responsibilities	Structural Support / Evaluate the condition of bridges and determine load-bearing capacity to verify safety and compliance with engineering standards

Venkata has over seven years of experience in bridge design, inspection, and load rating. He completed his master's degree with a thesis focused on bridge design and the handling of prestressed I-beams. He has worked on bridge projects for various public clients, including LADOTD, TxDOT, TDOT, FDEP, INDOT, and various cities and counties in Indiana.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/25-Ongoing	**LADOTD, Contract 5 for Movable Bridges (6) | Statewide LA.** *Bridge Designer.* Venkata served as the site coordinator and coordinated with district bridge engineers for the in-depth inspection of the six vertical-lift bridges. He was part of the structural inspection team and worked on the submission of six in-depth reports. He is currently performing load ratings for the main span of the six movable bridges using AASHTOWare and other internally developed spreadsheets.
01/25-Ongoing	**Port of New Orleans (PONO), Independent Structural Design Review (ISDR), ESB Highway Bridge | St. Bernard Parish, LA.** *Bridge Designer.* HDR provided ISDR for the ESB Highway Bridge design. Venkata conducted independent calculations to verify bridge geometry, prestressed girder, and substructure designs based on the 60% and 95% plans, and participated in the comment resolution meeting with the designers. He also developed a draft review report and a comment-resolution matrix, which were used to address potential conflicts noted in the original design.
02/25-Ongoing	**CSX, Rigolets Project | Rigolets, LA.** *Bridge Designer.* Venkata performed structural repairs and upgrades to the swing-span bridge at Rigolets, LA. The upgrades included extending the access platforms around the piers, adding stairs to them, and installing a new over-track platform. Venkata has also helped develop plan sheets for 60% and 90% submissions.
10/24-12/24	**PONO, Movable Bridge Inspection On-call Contract | New Orleans, LA.** *Bridge Inspector.* Venkata assisted with the structural portion of the inspection for Seabrook and Almonaster Bridges over the Inner Harbor Navigational Canal. He also provided a 30-day memo with preliminary findings, along with draft inspection reports for both bridges.
8/24-Ongoing	**TxDOT Houston, Seawolf Parkway at Pelican Island Channel Bridge Replacement | Galveston, TX.** *Bridge Designer.* The proposed project will replace the existing lift bridge with a new fixed bridge. Venkata designed prestressed girders and abutments for the project at 60% phase. Using PGSuper software, Venkata analyzed and designed Tx40 and Tx70 girders for two representative span units. For the abutment design, he used CAP18 software and internally developed spreadsheets to complete the analysis and design.
06/24-11/24	**LADOTD, Bridge Preservation 2022 Contract, Bridge Optimization Study | Statewide, LA.** *Bridge Engineer.* HDR provided design aids that will be used by the bridge design engineers to determine a preliminary optimal layout through analysis that incorporates various variables, such as bridge super- and substructure types, girder spacing, girder concrete strength, span length, super- and substructure material costs, and project size/location. Venkata reviewed the analysis in this optimization tool and developed a unit price estimate tool for the items used in the analysis, using cost-estimating tools available on the LADOTD website.
04/23-06/24	**LADOTD, Statewide Complex Bridge Inspection Project | Statewide, LA.** *NHI Certified Bridge Inspector.* Venkata assisted with inspections and completed bridge inspection reports. The inspected bridges include the Old US 51 bridge over Pass Manchac near Akers, and the US 11 bridge over Norfolk Southern railroad in Slidell.
04/23-06/24	**Tennessee Department of Transportation, Complex and Standard Bridge Load Rating | Statewide, TN.** *Bridge Inspector.* Venkata rated approximately 10 bridges. Bridges included SR 311 over Candies Creek in Candies Creek, I-65 over SR 273 in Giles County, and I-81 over Pitt Rd in Greene County. AASHTOWare BrR software was used to perform load ratings. Bridge types included reinforced concrete slab bridges, T-beam bridges, prestressed concrete I-beams, and prestressed concrete box beam bridges.

08/23–01/24	**Florida Department of Environmental Protection, Lover's Key State Park Rehabilitation | Fort Myers, FL.** *Bridge Inspector.* Rehabilitation of various parts of the Lover's Key State Park is underway after the destruction caused by Hurricane Ian. The project scope included load rating checks on the Tram bridge connecting parts of the park to the beach. Venkata performed load rating checks on the tram bridge in accordance with the FDOT Bridge Load Rating Manual. It is a 725-foot-long bridge with identical 25-foot spans supported by prestressed concrete box beams.
12/22-03/23	**LADOTD, H.014465 - Rehabilitation of Vertical Lift Bridge | Perry, LA.** *Bridge Inspector.* LADOTD proposed to rehabilitate the Perry vertical lift bridge over the Vermilion River on State Hwy 82 by replacing the existing superstructure on approach spans and lift span, and making necessary adjustments to towers. The 383 ft 11-span bridge consists of 10 approach spans, a 30-foot span, and 1 lift span. Venkata has designed the approach-span steel beams and reviewed the design and load rating of the vertical lift span for the 60% submission.
11/22-12/22	**PONO, Inner Harbor Navigational Canal, Seabrook Bridge Load Rating | New Orleans, LA.** *Bridge Inspector. The* Seabrook Railroad Bridge consists of the east and west approach spans, a tower span, and a bascule span for navigational access. Venkata assisted with checking the load rating calculations for the east and west approach spans to the Seabrook Railroad Bridge. Approach spans are approximately 30 feet long with timber deck ties on steel rolled beams. Load rating checks followed the Manual for Railway Engineering (MRE) guidelines, as set by AREMA, and were performed using internally developed spreadsheets.
05/20-09/21	**Miami County, Wayne Street Bridge 501 Rehabilitation | Miami County, IN.** *Bridge Designer.* The project included a complete superstructure replacement with pedestrian improvements on the Wayne 501 bridge. Venkata designed the deck and plate girders for the superstructure. Plate girder design was performed using Merlin-Dash software. Venkata also conducted design checks, including splice design, top-of-splice elevation calculations, bearing pad selection, bearing stiffener and weld design, and camber calculations.
03/21-05/22	**INDOT, North Split Project | Indianapolis, IN.** *Bridge Designer***.** The project involved reconstruction design for multiple bridges at the I-65/I-70 split near downtown Indianapolis. Venkata designed superstructure and substructure elements for bridges on New York, East Ohio, East Michigan, and St. Clair Streets using LEAP Bridge Concrete/RC Pier, with prestressed I-beam superstructures, integral/semi-integral end bents, and multi-column pile-supported piers. He also designed a widening between N. Alabama and N. Delaware Streets on the west leg, including complex flared geometry with added steel girders. Design and rating were performed using Merlin Dash, AASHTOWare BrR, and RC Pier.
07/20-08/22	**Vigo County, New Bridge over Railroad Crossing | Terre Haute, IN.** *Bridge Designer.* There are existing at-grade railroad crossings at 8th Avenue and North 13th Avenue. The project scope is the replacement of these at-grade crossings with a bridge with two roundabouts to access 8th Avenue and North 13th Avenue. Venkata designed the bridge superstructure and substructure. Prestressed concrete girders were used for the superstructure. Bridge cross-section geometry was flared to accommodate the sight distance restrictions from the bridge to the roundabout. LEAP Bridge concrete and RC Pier software were used during the design phase.
08/19-06/20	**INDOT, I-69 Finish Line Project | Johnson County, IN.** *Bridge Designer***.** Six bridges were designed and constructed at the SR 37/SR 144 interchange using prestressed girders and integral end bents. Venkata designed the girders, deck, and substructure units, utilizing LEAP Bridge Concrete/RC Pier software.
06/19-09/22	**INDOT, Countywide Bridge Load Rating Inspections | Statewide, IN.** *Bridge Inspector.* Venkata helped perform load ratings for newer bridges and updated ratings for previously rated bridges that warranted a load rating following inspections. AASHTOWare BrR and internally developed Excel spreadsheets were used for load rating calculations.
06/19-09/22	**INDOT, Countywide Bridge Inspections | Statewide, IN.** *NHI Certified Bridge Inspector.* Venkata was part of countywide bridge inspections of small to medium-sized bridges for Wells, Jackson, Martin, and Crawford Counties. The bridge types inspected included prestressed I-beam bridges, prestressed box-beam bridges, steel girder bridges, and timber bridges. Venkata started as a team member on over 150 bridge inspections, and he became a team leader.

Firm employed by: **HDR Engineering, Inc.**			
Name	**Christopher Senesi**	Years of relevant experience with this employer	4
Title	Transportation Asset Management Advisory Lead	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization			MS / 2012 / Civil Engineering BS / 2010 / Civil Engineering
Active registration number / state / expiration date			Institute of Asset Management (IAM) Certificate
Year registered	2024	Discipline	Asset Management
Contract role(s) / brief description of responsibilities			Asset Management Planning Lead / Develop the asset management plan and integrate it into project development; guide the use of inspection data, condition assessments, and lifecycle considerations to define, prioritize, and advance preservation and rehabilitation projects.

Chris is a trusted infrastructure advisor and consultant, with an emphasis on asset and risk management. He specializes in providing business improvement consulting services for infrastructure projects in the US and internationally. Chris's comprehensive experience includes work in the highway, transit, utilities, public works, and aviation sectors, where he has helped agencies implement both enterprise and project-level asset and risk management programs. He has led and supported maturity assessments, improvement programs, strategic planning, procedural development, business process modeling, and digital asset management.

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).
12/25-Ongoing	**Michigan DOT, Bridge Asset Management Plan, Deterioration Modeling, and Alignment with I-94 Modernization Project | Detroit, MI.** *Deputy Project Manager*. This project is to develop an asset management plan for 44 bridges along the I-94 corridor, supported by field scoping inspections and desktop file reviews. Chris' work combines condition assessments and predictive deterioration modeling, leveraging both FHWA-based and artificial intelligence-based tools, to support project phasing and decision-making and help identify appropriate rehabilitation and maintenance work prior to the replacement of each bridge.
01/24-01/25	**Bay Area Toll Authority (BATA), Life Cycle and Bridge Deterioration Models | San Francisco, CA.** *QC Lead.* The project consisted of life cycle cost analysis and bridge deterioration modeling for key Bay Area bridges, including the San Francisco-Oakland Bay Bridge. He reviewed the project approach and final deliverables to verify consistency, clarity, and alignment with project goals. The effort focused on enhancing bridge asset management by advancing life-cycle planning, evaluating maintenance strategies, and conducting specialized studies, including structural steel painting assessments, fatigue analyses, and mechanical system evaluations. The project also developed element-level deterioration models using a Markov chain approach to forecast bridge conditions and support data-driven decision-making. HDR worked closely with BATA and Caltrans to organize asset data, conduct independent cost and risk analyses, and support briefings to BATA leadership. Additional support for the Yerba Buena Island Tunnel and Antioch Bridge addressed region-specific needs and contributed to a broader bridge management strategy.
03/25-Ongoing	**TxDOT, Transportation Asset Management Plan Development and Life Cycle Planning | Austin, TX.** *Risk Management Task Lead* Chris is currently supporting the update, refinement, and development of the agency's transportation asset management plan (2026 update) to confirm it continues to meet federal requirements. Chris is leading the risk management task and coordinating HDR's role in delivering the plan, supporting the inclusion of both bridges and pavement. This effort supports compliance while enhancing the agency's long-term sustainability and decision-making. The update includes refining life cycle planning, integrating resilience considerations, and strengthening performance evaluations to improve asset reliability and optimize funding strategies
10/24-06/25	**Connecticut DOT, Strategic and Capital Program Process Improvements and Roadmap | Hartford, CT.** *Capital Plan Roadmap Technical Advisor*. Chris assisted Connecticut DOT in identifying improvements and developing a roadmap for the agency's capital program. He documented the current state of the capital planning and programming processes, including interviewing key stakeholders, reviewing existing and planned documents, incorporating state-of-good-repair data for assets, and conducting process mapping workshops. He also defined the future state by identifying opportunities for improvement, benchmarking against other agencies, and incorporating lessons learned. The work will culminate in an actionable improvement program roadmap for the agency's capital program.

12/22–10/23	**New York Metropolitan Transportation Authority (NY MTA), 20-Year Needs Assessment Development | New York, NY.** *Technical Assessment Lead*. Chris worked with the New York Metropolitan Transportation Authority (NY MTA) to develop its 20-Year Needs Assessment Plan, which identified and conveyed the infrastructure needs across the entire agency, including its operating agencies and its vast array of assets, valued at $1.5 trillion. This included identifying major infrastructure replacements, rehabilitations, and renewals across asset types, including but not limited to rolling stock, bridges, tunnels, facilities, power, signals, and communications. Chris helped the agency compile its asset inventory, condition, and needs data, which then served as input for their 20-year needs plan. The plan serves as an overarching guide for the agency's ongoing five-year capital plans, identifying specific activities for asset repair, rehabilitation, and replacement. As part of the project, Chris also supported the NY MTA in examining the existing state of good repair (SGR) and asset information for over 100 asset classes and types to understand inventory attributes and condition data. This included existing project prioritization for maintaining SGR across asset types. The approach encompassed integrating various data sources, such as customer input, regional trend analyses, and established inspection protocols. This provided a refined understanding of the system state and customer priorities, including reliability, safety, and performance. The project team also helped develop cohesive and persuasive materials to support the production of the 20-Year Needs Assessment, public outreach materials, and supporting analytics.
09/22-11/23	**Hennepin County, Retaining Wall Asset Management Plan | Hennepin County, MI.** *Technical Advisor*. Chris assisted Hennepin County in developing a long-term asset management plan for their retaining walls, tailored to the county's unique infrastructure needs and challenges. Working closely with county stakeholders, Chris and the HDR team helped the agency better understand the inventory and condition of its retaining wall assets to support ongoing investments, improve public safety, and optimize capital budgets. This consisted of defining asset objectives, performance measures, lifecycle activities, a financial plan, and implementation next steps. The asset management program was documented in an asset management plan (AMP). Chris facilitated workshops and discussions to establish the AMP's vision, incorporating stakeholder input across asset inventory, condition assessment, lifecycle management, risk mitigation, and financial planning. Through the development of the AMP, Hennepin County established clear objectives, performance metrics, and risk assessment protocols to verify the long-term resiliency and functionality of the County's 1,292 retaining walls. This dynamic framework not only addresses immediate needs but also provides a roadmap for continuous improvement and adaptation, aligning with Hennepin County's strategic goals and priorities.
09/23-01/24	**City of Aurora, Strategic Asset Management and Inventory Support | Aurora, CO.** *Project Manager*. Chris supported the City of Aurora in updating the Public Works Department's Asset Management Policy and developing a Strategic Asset Management Plan (SAMP). The project focused on standardizing asset management processes and aligning those processes with industry standards, particularly the American Public Works Association (APWA) guidance on asset management systems. Chris worked closely with City leadership and subject matter experts through meetings, workshops, and strategy sessions to verify alignment with organizational goals. As part of the project, Chris supported the development of the SAMP, including setting measurable asset management objectives, implementing risk-based strategies to address potential threats to asset performance, establishing life cycle guidance to optimize maintenance and replacement activities, and aligning financial resources with asset management priorities to promote sustainable investment. Chris then supported updates to the Public Works Department's asset inventory framework, aligned with the roadmap outlined in the SAMP. This effort included refining asset inventories, clarifying ownership and maintenance responsibilities, and establishing a comprehensive data framework. He led activities to validate and enhance data, define asset hierarchies and attributes, and conduct a gap analysis. The project provided a foundation for improved data management and future enterprise asset management implementation
12/21-04/22	**Colorado DOT, Asset Management Plan Refinements and Implementation | Denver, CO.** *Deputy Project Manager*. Chris supported Colorado DOT in updating, refining, and developing content for the agency's risk-based Transportation Asset Management Plan (TAMP), verifying the plan continues to meet federal requirements. The project scope also included assisting Colorado DOT in advancing its overall asset management program. This involved defining key asset performance measures and target setting, enhancing TAMP communication, integrating risk and resiliency strategies, and conducting industry benchmarking to identify best practices. Chris worked closely with DOT officials and stakeholders to confirm that the program's goals were met, providing expertise and recommendations that contributed to the program's success.

Firm employed by **HDR Engineering, Inc.**			
Name	**Mitchell Wisniewski, PE**	Years of relevant experience with this employer	14
Title	Sr. Electrical Engineer	Years of relevant experience with other employer(s)	23
Degree(s) / Years / Specialization		BS / 1988 / Applied Science and Technology Certificate / 1981 / Electrical Technology	
Active registration number / state / expiration date		087778 / NY / 11-30-2027	
Year registered	2010	Discipline	Electrical
Contract role(s) / brief description of responsibilities		QA/QC Electrical / Oversee electrical quality control, conduct inspections, verify compliance with standards, and document findings on bridge preservation projects.	

Mitchell has over 30 years of electrical engineering experience, largely focused on electrical power and control systems for heavy movable structures in marine and industrial environments, associated electromechanical systems, and related support technology. His recent project focus includes supporting design-build projects, providing electrical systems for fixed bridges. He has performed inspection, review, and/or design work for more than 100 movable highway and railroad bridges. He is involved in each project phase, including inspection, planning, design, and construction.

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).
04/24–Ongoing	**FHWA, Fundamental Research Support Services for the FHWA Office of Bridge Technology | Washington, DC.** *Principal Investigator.* Mitch serves as a Principal Investigator for FHWA Contract No. 693JJ324C000007, "Safety Inspection and Evaluation of Functional Systems for Highway Tunnels and Movable Bridges". He provides guidance to owners, structural engineers, and inspectors on the basics of movable-bridge electrical systems, interviews movable-bridge owners, recommends inspection scope/interval for movable-bridge electrical elements, and develops inspection and coding methods for movable bridges that conform to the NBIS. The overall scope of this research project involves developing guidance and training documents for safety inspection and evaluation of functional systems for highway tunnels and movable bridges.
07/24–01/25	**NJDOT, Route 88 Bridge over the Point Pleasant Canal | Point Pleasant, NJ.** *Detail Checker / QC Reviewer.* Mitch performed a detailed check and quality review of the electrical design for replacing submarine cables with aerial cables for movable bridge operation. The design included termination schedules, riser cabinet details, a cable-and-conduit block diagram, and machinery room layouts.
11/22 and 11/24	**NJDOT, Elevator Replacement, Route 1 and 9 Bridges over the Passaic and Hackensack Rivers | Newark, South Kearny, and Jersey City, NJ.** *QC Reviewer.* Mitch performed a quality review of project plans and reviewed construction submittals for compliance with the design documents. The project entailed the design and replacement of four vertical-lift bridge elevators for the Route 1 and 9 Truck (vertical-lift) Bridges over the Passaic and Hackensack Rivers. The design included power distribution, lighting, fire alarm equipment, and cables and conduits.
10/21 and 12/24	**SCDOT, Wappoo Creek Bridge | Charleston County, SC.** *Lead Electrical Engineer.* Mitch led the electrical engineering for the rehabilitation of the span lock system for a highway bascule bridge carrying SC Route 171 over the Intracoastal Waterway. Project requirements included minimizing highway traffic outages while implementing power and control system modifications to accommodate the replacement of three of seven existing span locks and to create a control system mode that allows changing the operational status of four of the seven existing span locks by operating a switch.
07/23-07/23	**SDOT, Ship Canal Bridge | Seattle, WA.** *QC Reviewer & Senior Electrical Engineer*. HDR assisted SDOT in prioritizing modernization of bascule bridge operational components for the University, Fremont, and Ballard Ship Canal Bridges to improve safety and reliability. Mitch provided a quality review of an electrical field inspection report.
09/23-09/23	**VDOT, Benjamin Harrison Bridge Span Drive Repair | Jordan's Point and Charles City, VA.** *Senior Electrical Engineer.* Mitch assisted in procuring emergency repair parts and developed a schematic diagram with instructions for configuring substitute parts to perform the function of a failed, obsolete part, restoring operation of the main movable bridge drive system. This effort was part of a larger scope that included providing consultations and assistance during operations to diagnose and/or resolve movable-bridge operational issues involving mechanical and electrical systems, such as drive machinery, electrical systems, and gates.

12/21-12/21	**BNSF, Berwick Bridge | Morgan City, LA.** *Lead Electrical Engineer.* Mitch led electrical engineering for the replacement of four variable-frequency drives (VFDs) for a tower-drive vertical-lift bridge. The technical effort included encoder replacement, construction staging design, and integration of the new drives into the existing PLC-based control system. Project goals included minimizing marine or rail traffic outages during the staging of the replacement of the primary and backup drives.
04/20-05/20	**LADOTD, IDIQ Bridge Inspections | Pineville, LA.** *QC Reviewer.* Mitch performed a QC review of bridge inspection reports for two lift bridges. The project consisted of structural, mechanical, and electrical inspections of complex structures, including cantilever trusses, cable-stayed bridges, steel vertical-lift bridges, and plate-girder bascule bridges, for statewide projects.
04/17-04/17	**HAKS / NJDOT, Movable Bridge Inspections | Various Locations, NJ.** *QC Reviewer.* Mitch performed a QC review of the electrical field inspection report.
09/17-10/17	**HAKS / CONNDOT, 2016 Movable Bridge Inspection | New Haven, CT.** *QC Reviewer.* Mitch performed a QC review of the electrical field inspection report.
08/11-11/15	**VDOT, Moveable Bridge On-Call Contract | Various Locations, VA.** *Senior Electrical Engineer.* The project includes 13 movable bridges: vertical-lift, swing, and bascule designs. Mitch responded to emergencies (operational failures), conducted field inspections, prepared rehabilitation scoping reports, prepared permitting packages, prepared rehabilitation designs/contract documents, and provided contractor oversight during construction.

Firm employed by **Civil Design & Construction, Inc. (CDC)**				
Name	**Chris Ballard, PLS**		Years of relevant experience with this employer	10
Title	Survey Manager		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization			BS / 2004 / Biological Science / Southeastern LA University	
Active registration number / state / expiration date			PLS.0005033 / LA / 9-30-2026	
Year registered	2010	Discipline	Land Surveyor	
Contract role(s) / brief description of responsibilities			Survey support / Professional surveyor for survey support	

Chris serves as the Survey Manager for this project. He will confirm that the project stays on schedule, assist with both crew coordination and office production, and provide final QC of the firm's deliverables to the Prime Consultant. Chris has an extensive background in providing topographic surveys for LADOTD in accordance with Location and Survey policies and procedures. He has overseen projects that use traditional data-collection methods, as well as those that employ 3D Terrestrial Scanning.

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).
12/24-04/25	**LADOTD, H.014824.5 LA 317: Wax Lake B:** Chris served as a Survey Project Manager on this project, working to QC and assist management on the project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
10/16-11/16	**LADOTD, H.012728.5 LA 443: Tangipahoa River Emergency Bridge Replacement, Tangipahoa Parish, LA:** Chris served as the Project Manager for this project. Among the duties performed for the project were reviewing crew work conditions, reviewing and processing survey data, verifying, and reviewing the final submittal. CD&C completed a topographic survey that included all utilities with depths, all drainage, all building information, including finish floor elevations, and all superstructure and substructure of the bridge over the Tangipahoa River. Additional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To collect data on the failed bridge, 3D Terrestrial Scanning was incorporated alongside traditional methods to complete the topographic survey. Due to the nature of the project as an emergency bridge replacement, all staff worked non-stop until fieldwork was completed in less than 3 weeks.
12/23 – 05/23	**LADOTD, H.012618 LA 347: Drainage Improvements:** Chris is the Survey Manager for this project. Chris conducted a topographic survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.
02/23 – 12/23	**LADOTD, H.012027.5: I-20 UPPR**: Chris is the Survey Manager for this project. Chris conducted a topographic survey for the interstate in North Louisiana. Both traditional means and methods and 3D Scanning were used to collect topographic data for this interstate and overpass improvement project. This project also included a coordination and survey of the Union Pacific Railroad line crossing I-20. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.
09/18-01/20	**LADOTD, H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA**: Chris is the Survey Manager for this project. As a sub-consultant on this project, Chris conducted topographic surveying of the portion of I-10 in West Baton Rouge Parish, beginning at the start of the project limits to a point just before the approach of the I-10 Bridge and the limits of the project along LA 415, including work on Tributaries of the Intercoastal Canal. This work included using 3D Scanning for the bridge at I-10 bridge @ LA 415, as well as scanning every 500' for control verification and incorporation of the Mobile Lidar for the I-10 pavement.
04/17-07/17	**LADOTD, H.010006.5-3: LA 58 Petit Caillou Bridge Rehabilitation (Sarah Bridge), Terrebonne Parish, LA**: Chris is the Survey Manager for this project, where he conducted a complete topographic survey, utility coordination, channel cross sections, and the scanning of the existing vertical lift bridge for the design of its repairs/replacement. The project included data collection of topography using traditional methods, along with 3D terrestrial scanning and hydrographic surveying.

02/19-09/19	**Bridge Replacements in East Feliciana Parish, Rural East Feliciana Parish, LA**: Chris is the Survey Manager for this project for the East Feliciana Parish Police Jury. It includes replacing 2 bridges damaged by flooding and repairing many rural roadways throughout the parish. These projects are funded by FEMA, and all documentation must comply with FEMA's policies and procedures.
01/17-12/17	**East Baton Rouge Parish Bridges, East Baton Rouge Parish, LA:** In 2017, CDC performed topographic surveys for at least 4 Bridge Replacement Projects throughout East Baton Rouge Parish. Chris served as Survey Manager on each of these projects, which included cross-sectioning and channel tracing at each location. These included bridges over Dawson Creek, Claycut Bayou, Copper Mill Bayou, and Cypress Bayou.

Firm employed by **Civil Design & Construction, Inc. (CDC)**				
Name	**Scott Benton**		Years of relevant experience with this employer	10
Title	Survey Project Manager		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			N/A	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Survey support / Surveyor for survey support	
Scott has over 15 years of surveying experience. He is one of CDC's Remote Sensing Technicians and is an FAA-licensed drone pilot. His duties include managing all Remote Sensing work on topographic survey projects for the firm by organizing the field crews to obtain scans, processing the scan data in the office, and producing the final extracted data for import into design-related software. Certifications: ATSSA Traffic Control Supervisor, Technician & Flagger, FAA Drone Pilot				

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).
11/24-05/25	**LADOTD, H.015949 LA 335**: Scott is the 3D Scanning Technician on this project. CDC conducted a detailed topographic survey of the project at the intersection of LA 335 and Port Street and a limited survey of a 3.5-mile portion of LA 335. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.
12/24–04/25	**LADOTD, H.014824.5 LA 317 - Wax Lake B:** Scott is the 3D Scanning Technician on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
10/24–01/25	**LADOTD, H.015849 US 190 R Cuts @ LA741:** Scott is the 3D Scanning Technician on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.
12/23–05/23	**LADOTD, H.012618 LA 347 Drainage Improvements:** Scott is the 3D Scanning Technician on this project. Topographic Survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
05/23–08/23	**LADOTD, H.015056 - LA 685:** Scott is the 3D Scanning Technician on this project. Topographic Survey for just over 4,503 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
05/23–08/23	**LADOTD, H.015058 - LA 14 Business:** Scott is the 3D Scanning Technician on this project, Topographic Survey for just over 12,300 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
10/20–01/21	**LADOTD, H014302 US 165 Lighting, Monroe, LA:** Scott served as the firm's lead 3D Scanning Technician on this lighting project. CDC was a sub-consultant on this project and was responsible for topographic surveying of US 165 south of Monroe for a highway lighting improvement. The topographic data for this project was collected both traditionally and using 3D Terrestrial Scanning.
12/19–01/20	**LADOTD, H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA:** Scott served as a 3D Scanning Technician for this project. CDC, as a sub-consultant on this project, is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish, from the start of the project limits to a point just before the approach to the I-10 Bridge, and along the project limits on LA 415.

Firm employed by **Civil Design & Construction, Inc. (CDC)**					
Name	**Drennon Humphreys**			Years of relevant experience with this employer	5
Title	Survey Party Chief			Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				Survey support / survey party chief surveyor for survey support	
Drennon will serve as a Survey Party Chief managing a crew to collect topographic data in the field in accordance with LADOTD Location and Survey means and methods. Certifications: ATSSA Traffic Control Supervisor, Technician & Flagger					

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/24-05/25	**LADOTD, H.015949 LA 335**: Drennon served as a Party Chief for this project. CDC conducted a detailed topographic survey of the project at the intersection of LA 335 and Port Street and a limited survey of a 3.5-mile portion of LA 335. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
12/24–04/25	**LADOTD, H.014824.5 LA 317 - Wax Lake B:** Drennon served as a Party Chief for this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
10/24–01/25	**LADOTD, H.015849 US 190 R Cuts @ LA741:** Drennon served as a Party Chief for this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
12/23–05/23	**LADOTD, H.012618 LA 347 Drainage Improvements:** Drennon served as a Party Chief for this project. Topographic Survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
09/23–12/23	**LADOTD, H.015619.5 LA 106:** Drennon served as a Party Chief for this project. Topographic Survey for just over 8 miles of roadway. Traditional means and methods were used to collect limited topographic data for this overlay and roadway rehabilitation project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
05/23–08/23	**LADOTD, H.015056 - LA 685:** Drennon served as a Party Chief for this project. Topographic Survey for just over 4,503 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
05/23–08/23	**LADOTD, H.015058 - LA 14 Business:** Drennon served as a Party Chief for this project. Topographic Survey for just over 12,300 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
02/23–12/23	**LADOTD, H.012027.5 - I-20 UPPR**: Drennon served as a Party Chief for this project. Topographic Survey for the interstate in North Louisiana. Both traditional means and methods and 3D Scanning were used to collect topographic data for this interstate and overpass improvement project. This project also included coordination and survey of the Union Pacific Railroad line crossing I-20. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.

Firm employed by **Civil Design & Construction, Inc. (CDC)**					
Name	**Jacob Stoehr**			Years of relevant experience with this employer	11
Title	Senior Survey Party Chief			Years of relevant experience with other employer(s)	1.5
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				Survey support / survey party chief surveyor for survey support	
Jacob will serve as a Survey Party Chief managing a crew to collect topographic data in the field in accordance with LADOTD Location and Survey means and methods. Certifications: ATSSA Traffic Control Supervisor, Technician & Flagger					

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/24–04/25	**LADOTD, H.014824.5 LA 317: Wax Lake B:** Jacob served as Senior Party Chief on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.
10/16-11/16	**LADOTD, H.012728.5 LA 443: Tangipahoa River Emergency Bridge Replacement, Tangipahoa Parish, LA:** Jacob served as the Survey Party Chief for this project. He worked in the field collecting topographic data of the site. He oversaw the topographic survey, including all utilities with depths, all drainage, all building information, including finish floor elevations, and all superstructure and substructure of the bridge over the Tangipahoa River.
10/24–01/25	**LADOTD, H.015849 US 190 R Cuts @ LA741:** Jacob served as Senior Party Chief on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and practices.
02/23–12/23	**LADOTD, H.012027 I 20: Union Pacific RR Overpass**: Jacob served as a Party Chief on this project. CDC was responsible for the topographic survey beginning and ending 5000 feet beyond either end of the approach slab of the I-20 eastbound and westbound subject bridge structure. Terrestrial Laser Scanning was used on all hard-surface areas, including Parking Lots, Roadway and Bridge structures, and Union Pacific Railroad rails.
09/21–03/22	**LADOTD, H.014747 Southern University Ravine Protection, East Baton Rouge Parish**: Jacob served as one of the Survey Party Chiefs on this project, managing a crew to collect topographic data in the field, utilizing LADOTD Field Codes.
07/20–04/21	**LADOTD, H.001352.5 and H.002273.5 Comite River Diversion Bridge at LA 67, LA 19, and LA 19 Railroad Bridge, East Baton Rouge Parish:** Jacob was a Party Chief on this project. CDC was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. The topographic data for this project was collected traditionally.
01/18-01/20	**LADOTD, H.004100 I-10: LA 415 to Essen Lane on I-10 and I-12, West and East Baton Rouge, LA:** Jacob is the Survey Party Chief for this project. CDC is responsible for topographic surveying the portion of I-10 in West Baton Rouge Parish, from the start of the project limits to a point just before the approach to the I-10 Bridge, and along the project limits on LA 415.
07/17-12/18	**LADOTD, H.010960.5-2, LA 30 Roundabouts at Tanger I-10, Ascension Parish, LA:** Jacob served as one of the Survey Party Chiefs on this project, managing a crew to collect topographic data in the field, utilizing LADOTD Field Codes.
08/16-01/18	**LADOTD, H.011235 I-49 Verot School Road, Lafayette, LA:** Jacob served as one of the Survey Party Chiefs on this project by managing a crew in the collection of topographic data in the field, utilizing LADOTD Field Codes.
02/19-09/19	**Bridge Replacements in East Feliciana Parish, Rural East Feliciana Parish, LA**: Jacob served as a Jr. Party Chief on this project for East Feliciana Parish Police Jury. It includes replacing 2 bridges damaged by flooding and repairing many rural roadways throughout the parish. These projects are funded by FEMA, and all documentation must comply with FEMA's policies and procedures.

Firm employed by **Civil Design & Construction, Inc. (CDC)**					
Name	**Alex Wells**			Years of relevant experience with this employer	6
Title	Survey Party Chief			Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization				N/A	
Active registration number / state / expiration date				N/A	
Year registered	N/A	Discipline		N/A	
Contract role(s) / brief description of responsibilities				Survey support / survey party chief surveyor for survey support	
Alex joined CDC in 2020 as a Rodman and has worked his way up to Party Chief. He will work managing a crew to collect topographic data in accordance with LADOTD code book and standard procedures. Certifications: ATSSA Traffic Control Supervisor, Technician & Flagger					

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/24-05/25	**LADOTD, H.015949 LA 335**: Alex served as a Party Chief for this project. CDC conducted a detailed topographic survey of the project at the intersection of LA 335 and Port Street and a limited survey of a 3.5-mile portion of LA 335. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
12/24–04/25	**LADOTD, H.014824.5 LA 317 - Wax Lake B:** Alex served as a Party Chief for this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
10/24–01/25	**LADOTD, H.015849 US 190 R Cuts @ LA741:** Alex served as a Party Chief for this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
12/23–05/23	**LADOTD, H.012618 LA 347 Drainage Improvements:** Alex served as a Party Chief for this project. Topographic Survey for just over 2 miles of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
09/23–12/23	**LADOTD, H.015619.5 LA 106:** Alex served as a Party Chief for this project. Topographic Survey for just over 8 miles of roadway. Traditional means and methods were used to collect limited topographic data for this overlay and roadway rehabilitation project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
05/23–08/23	**LADOTD, H.015058 - LA 14 Business:** Alex served as a Party Chief for this project. Topographic Survey for just over 4,503 feet of roadway. Both traditional means and methods and 3D Scanning were used to collect topographic data for this roadway improvement project. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
02/23–12/23	**LADOTD, H.012027.5 - I-20 UPPR**: Alex served as a Party Chief for this project. Topographic Survey for the interstate in North Louisiana. Both traditional means and methods and 3D Scanning were used to collect topographic data for this interstate and overpass improvement project. This project also included coordination and survey of the Union Pacific Railroad line crossing I-20. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
09/21–03/22	**LADOTD, H.014747 Southern University Ravine Protection, East Baton Rouge Parish**: Alex served as one of the Survey Party Chiefs on this project by managing a crew in the collection of topographic data in the field, utilizing LADOTD Field Codes.
08/21–Ongoing	**LADOTD, H.011833.5 St. Mary Street Sidewalks; Scott, LA**: Alex served as one of the Survey Party Chiefs on this project by managing a crew in the collection of topographic data in the field, utilizing LADOTD Field Codes.
09/22–01/23	**BRMA Northwest Aviation Development**: Alex served as one of the Survey Party Chiefs on this project, managing a crew to collect topographic data in the field and using LADOTD Field Codes.

Firm employed by **Civil Design & Construction, Inc. (CDC)**					
Name	**Karla Weston, PE**			Years of relevant experience with this employer	21
Title	President			Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization				Bachelor of Science / 1999 / Civil Engineering	
Active registration number / state / expiration date				PE.0031010 / LA / 3-31-2028	
Year registered	2004	Discipline		Civil	
Contract role(s) / brief description of responsibilities				Subsurface Utility Engineering / Support subsurface utility investigations, coordination, and conflict resolution to support project design and delivery.	

Karla's 25 years of experience with LADOTD and other municipal entities on transportation projects equips her to oversee the firm's role as a sub-consultant and ensure the work is completed to LADOTD standards.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/24-04/25	**LADOTD, H.014824.5 LA 317 - Wax Lake B:** Karla served as the firm's lead in overall coordination with the prime consultant and management on this project. The topographic data for this survey were collected using a combination of conventional ground survey and Terrestrial LiDAR methods. The project was completed in accordance with the LADOTD Location and Survey Standards and Practices.
10/16-11/16	**LADOTD, H.012728.5 LA 443: Tangipahoa River Emergency Bridge Replacement, Tangipahoa Parish, LA:** Karla served as the firm's Principal Engineer for this Project. Her role included extensive coordination of field personnel, daily and office progress, and adherence to this emergency deadline. CD&C completed a topographic survey that included all utilities with depths, all drainage, all building information, including finish floor elevations, and all superstructure and substructure of the bridge over the Tangipahoa River.
11/24-05/25	**LADOTD, H.015949 LA 335**: Karla served as SUE PE for this project. She performed a SUE QL-B locates for the detailed topographic survey portion of the project at the intersection of LA 335 and Port Street. There were approximately 12 utilities in the project limits that CDC's SUE department had to research and locate. Karla also utilized GPR to locate what is suspected to be abandoned underground gasoline storage tanks in the intersection. She created and submitted all appropriate SUE reports, data, and plans for this project.
11/25-Ongoing	**BRMA FAA Line**: Karla served as SUE PE for the firm's SUE work on this project. This project included SUE QL-B utility information and topographic surveys for various areas at BRMA, including along Runway 4-L/22R, TB Herndon Ave, Taxiway L, the Blast Pad for Runway 31, and the tower area. Karla oversaw the SUE crews, who marked underground utilities and collected data for incorporation into the final deliverable. The final deliverables for this project will include a topographic survey, SUE reports, data, and plans.
01/24–03/24	**RN Nuccio Rd SUE**: Karla served as SUE PE on this bridge replacement project. She provided SUE utility locations with the SUE QL-B utility designation. She also provided all SUE reports and data.
03/24–08/24	**MSY East Apron Expansion**: Karla served as SUE PE on this project. This project includes the coordination of SUE QL-B utility information and a topographic survey for over 7 acres. Karla oversaw the SUE crews, who marked underground utilities identified by our survey crews for inclusion in the final deliverable. Final deliverables for this project will include a topographic survey, SUE reports, data, and plans.
03/24–05/24	**MSY Employee Parking**: Karla served as SUE PE for the firm's SUE work on this project. This project included SUE QL- B utility information and a topographic survey for approximately 0.5 acres. Karla oversaw the SUE crews, who marked underground utilities identified by our survey crews for inclusion in the final deliverable. Final deliverables for this project will include a topographic survey, SUE reports, data, and plans.
02/24–05/24	**BRMA Radar Decomp**: Karla served as SUE PE for the firm's SUE work on this project. This project included SUE QL-B utility information and a topographic survey over 2 acres. Karla oversaw the SUE crews, who marked underground utilities identified by our survey crews for inclusion in the final deliverable. Final deliverables for this project will include a topographic survey, SUE reports, data, and plans.

Firm employed by **Moffatt & Nichol Inc.**				
Name	**Chace Hulon, PE**		Years of relevant experience with this employer	11
Title	Program Manager		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization			BS / 2005 / Civil Engineering	
Active registration number / state / expiration date			PE.0039701 / LA / 09-30-2027	
Year registered	2015	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Asset Management Planning / Support bridge asset management by analyzing inspection data, developing lifecycle strategies, and informing maintenance and preservation decisions.	

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).
Chace is a Program Manager with over 20 years of experience specializing in bridge asset management, inspection, and maintenance program development for complex infrastructure systems. He has led statewide and municipal initiatives, including NBIS-compliant inspection programs and strategic bridge preservation plans, while performing advanced inspections on complex movable and long-span structures.	
08/14-12/17	**Southeast Louisiana Flood Protection Authority-East, Asset Management System, New Orleans, LA.** *Technical Advisor.* Chace was a technical advisor who supported the evaluation of an Asset Management System. Chace performed an assessment of commercially available software platforms and developed a custom asset management solution for critical water control infrastructure. Assisted with reporting tools of the custom system to communicate and improve the operational decision-making process.
06/22 - 08/24	**City of Los Angeles, Citywide Bridge Strategic Plan (BSP) – Bridge Maintenance, Preservation, and Repair Program Development, Los Angeles, CA.** *Subject Matter Expert*. M&N supported the development and delivery of a comprehensive Citywide Bridge Strategic Plan for the City of Los Angeles Bureau of Engineering, Bridge Improvement Division. The BSP created a long-term, self-sustaining framework for maintenance, preservation, and repair of the City's 500+ bridges (including 322 National Bridge Inventory structures and 94 culverts). Chace performed the following: • Led the development of the City's Bridge Preventive Maintenance Program (BPMP), establishing clear policies and procedures for cyclical and condition-based preservation activities on bridges in good and fair condition, directly aligned with FHWA Bridge Preservation Guide recommendations. • Identified and prioritized maintenance, preservation, and repair needs, including high-risk bridges requiring immediate attention and long-range capital improvement projects. • Defined eligible preservation treatments such as deck joint repair/replacement, bearing cleaning/restoration/replacement, localized deck repairs, spot/zone painting, deck sealing, concrete spall repair, approach slab repairs, bridge deck drainage improvements, superstructure and substructure protective coatings, and channel cleaning/scour countermeasures. • Developed recommendations for bridge inspection protocols, life-cycle cost planning, environmental process guidance, and task-order-style contract mechanisms for efficient delivery of routine and preventive maintenance services. He supported aligning prioritized needs with federal, state, and local funding guidelines, including preparing Caltrans Highway Bridge Program submissions and grant applications, and leveraging IIJA funding. The team successfully supported the City in securing $3.5 million in additional fiscal-year budget specifically dedicated to bridge repair and preservation work. The team delivered a strategic, implementation-ready program that will improve program-level bridge condition, extend service life, and

	optimize funding. We established an indefinite-delivery/task-order framework for prioritized bridge maintenance, preservation, and repair projects.
03/18 - 01/25	**LADOTD, Indefinite Delivery/Indefinite Quantity (IDIQ) for Complex Bridge Inspection, Statewide, LA.** *Project Manager and Chief Editor.* M&N delivered major revisions of the 2020 bridge maintenance policies and procedures (BIM) to incorporate the 2022 NBIS Final Rule. Chace performed in-depth bridge inspections on complex movable and long-span bridges. He performed structural, mechanical, and electrical inspections of six movable bridges, using detailed, nondestructive, and laboratory testing methods, along with hand sketches. He installed a wireless SHM (system health monitoring) system on the Greater New Orleans bridge to monitor significant deficiencies in Nonredundant Steel Tension Members (NSTM) due to poor design details and to advise on repair alternatives. Chace utilized nondestructive examination (NDE) methods (laser and acoustic) to analyze the rotational movement of an unstable pivot pier. He performed rope-access inspections of two cable-stayed bridges, inspecting 208 cables, their Gensui Dampers, and anchorage systems. He performed two inspections of the I-10 Horace Wilkinson Bridge and two inspections of the Greater New Orleans Bridges, which are cantilever truss bridges utilizing rope access techniques and rolling lane closures to minimize traffic impacts. He performed a fracture-critical inspection of the Green Bridge, a steel-tied arch in New Orleans, using rope access and Unmanned Aircraft Systems (UAS) techniques. Chace also performed the inspection of the I-10 Bridge over the Calcasieu River in Lake Charles, utilizing rope access on NSTM and UAS access techniques on columns. His hands-on management and implementation of the QC review plan were vital to the project's success.
02/22 – 04/22	**City of Somerville, Comprehensive Asset Management Program, Somerville, MA.** *Project Manager and Subject Matter Expert.* M&N developed a formal, enterprise-wide asset management program for the City of Somerville. Chace directed asset inventory analysis, Level of Service (LOS) definition workshops, and risk-based prioritization and assessment for five major infrastructure asset classes: Bridges, Roadways, Sidewalks, Building Systems, Electric Lights and Lines, and Parks and Playgrounds. He conducted a comprehensive gap analysis of existing asset registries in accordance with ISO 55000 standards for accuracy, completeness, consistency, uniqueness, validity, and timeliness. He identified critical data gaps and delivered actionable recommendations for data collection, standardization, governance, and integration into enterprise systems (GIS and CMMS) to support condition assessment, life-cycle planning, and capital prioritization. Chace also developed prioritization methodologies and risk assessments to inform maintenance, preservation, rehabilitation, and renewal strategies.

Firm employed by **Moffatt & Nichol Inc.**				
Name	**Tom Spencer, PE**		Years of relevant experience with this employer	18
Title	Inspection and Rehabilitation Practice Leader		Years of relevant experience with other employer(s)	27
Degree(s) / Years / Specialization			BS / Civil Engineering / 1981	
Active registration number / state / expiration date			PE 35742 / LA / 03/31/2027	
Year registered	2010	Discipline	Civil	
Contract role(s) / brief description of responsibilities			Bridge Inspection / Perform in-depth bridge inspections, document deficiencies, and prepare inspection reports in accordance with DOT and FHWA requirements.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/20 - Ongoing	**PIANC, Working Group 233, Nationwide, USA.** *Lead Author.* Tom is developing new guidelines for the inspection, maintenance, and repair of waterfront facilities. The guideline will emphasize modern techniques in asset management, inspection, maintenance, rehabilitation, and monitoring. Key new topics and concepts he is including are a detailed discussion of Intervention methods, guidance on contemporary digital inspection technologies, and the evaluation of the load-carrying capacity of existing structures.
06/07 – 11/08	**Naval Facilities Engineering Command - Special Facility Condition Assessment Program (S-FCAP), Development of Engineered Management System (EMS) for Waterfront Structures, Norfolk, VA.** *Principal-in-charge, Project Engineer, Subject Matter Expert.* Tom developed the structural waterfront engineering program data to determine the condition indices of the various elements with various levels of degradation. The development included a listing of material types, marine asset categories, asset defects, deduct-value curves, Q curves, budgetary repair costs, and the estimation of asset service life. The assets included piles, pile caps, quays, relieving platforms, beams and girders, decks, utility vaults, utility trenches, mooring foundations, lighting foundations, utility mounds, fender piles, fender framing, fenders, camels, separators, dolphins, bollards, double bitts, and cleats. He also provided input parameters for the Navy's asset inventory system's marine structural elements.
06/18 – 12/19	**LADOTD, Bridge Inspection Manual, Baton Rouge, LA.** *Health and Safety Officer.* Tom authored the safety section of the Bridge Inspection Manual (BIM) for LADOTD. The BIM was designed to capture all previous policies, directives, memorandums, manuals, and forms into a single, centralized reference manual. The BIM aligns the Bridge Inspection Office Headquarters' goals with all nine LADOTD districts. The BIM will also allow for better communication and quality management among LADOTD project managers, local bridge owners, and consultants.
06/14 - Ongoing	**LADOTD, Various Bridge Inspections – Multiple Contracts, Statewide, LA.** *Principal-in-Charge, Inspection and Rehabilitation Practice Leader, Team Leader, Engineer-Diver, and QA/QC Manager.* Tom performed bridge inspection services in various roles, supporting M&N's inspection efforts for LADOTD under various contracts. Tom conducted underwater inspections and assessments of nearly 1,000 bridges, with findings, assessments, and recommendations presented in bridge-specific reports. Bridge types include concrete, steel, and timber bridges. Acoustic imaging techniques were utilized to identify structural deficiencies and determine scour limits. Tom also responded to an emergency inspection request regarding high water and flood levels on various bridges.

Firm employed by **Moffatt & Nichol Inc.**			
Name	**Bryan Tyson, PE, ADCI**	Years of relevant experience with this employer	6
Title	NBIS Inspection Team Leader	Years of relevant experience with other employer(s)	9

Degree(s) / Years / Specialization			Master of Science/2010/Civil Engineering; Bachelor of Science/2008/Civil Engineering
Active registration number / state / expiration date			PE.0043425 / LA / 03-31-2027
Year registered	2016	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			Bridge Inspection / Perform in-depth bridge inspections, document deficiencies, and prepare inspection reports in accordance with DOT and FHWA requirements.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/24 - Ongoing	**LADOTD, IDIQ Contract for Bridge Inspection Services, Statewide, LA.** *Inspection Team Leader.* Bryan provided in-depth inspection (fulfilling both routine & fracture critical inspections) of several large bridges within Louisiana. He also provided site mob/demob & bridge inspection. Level III inspections were completed in accordance with FHWA, BIRM, AASHTO Manual for Bridge Evaluation, AASHTO BEIM, and the LADOTD Bridge Inspection Manual. Bridges included Interstate 10 (John James Audubon) Bridge over the Mississippi River, Ventress, with an in-depth inspection of the structure's towers and cable stays using rope access techniques
02/23 - Ongoing	**LADOTD, Specifications for the National Bridge Inventory (SNBI) Program Development and Manual Publications, Statewide, LA.** *Structural Engineer.* Bryan is updating & further developing the Bridge Inspection Manual (including off-system directives), Bridge Load Rating Manual, and Coding & Field Guide. This update resulted from recent NBIS changes in CFR & implementation of SNBI. This manual will be fully compliant with the FHWA SNBI Program Metrics in accordance with the published timeline. The manual will be ordered systematically, with an appendix for storing vital, up-to-date forms for the Bridge Inspection Program. M&N has been retained for 5 years to provide critical updates following NBIS changes.
06/22 – Ongoing	**LADOTD, IDIQ for Underwater Bridge Inspection, Statewide, LA.** *Inspection Team Leader/Member*. Bryan served on 2 tasks (to date) under M&N's third consecutive contract to provide UW NBIS bridge inspection. statewide. When completed, a total of 699 bridges will be inspected under those 2 tasks. Bryan performed an in-depth underwater inspection on signature bridges over large waterways with deep foundations & dynamic channel conditions. Inspections were augmented with NDE acoustic imaging technology to consistently monitor streambed changes & structural deficiencies between inspection cycles. Responded to several emergency requests for inspection within hours to days, utilizing local personnel.
06/17 – 04/18	**LADOTD, Underwater Bridge Inspection of Large River Crossings, Statewide, LA.** *Structural Engineer/Inspection Team Leader/Diver.* Bryan performed underwater bridge inspections throughout Louisiana. He provided Level I, II, & III inspections of submerged elements in accordance with FHWA, BIRM, AASHTO MBE, current NBIS requirements, & LADOTD Engineering & Maintenance Directives. Bridge types included movable swing span, bascule, truss, timber stringer, cable-stayed, single & multi-span bridges up to 8 miles long. He also assisted with preparing the NBIS inspection reports. During the two tasks, Bryan provided inspections of 41 major bridges over large waterways with deep foundations and dynamic channel conditions.
09/15-12/15 and 01/17-01/18	**LADOTD, Retainer Contract for Underwater Bridge Inspection with the Majority of Work in Districts 03, 07, & 61, Statewide, LA.** *Structural Eng./Inspection Team Member.* Bryan provided Level I, II, and III inspections of submerged elements in accordance with FHWA, BIRM, AASHTO MBE, current NBIS requirements, and LADOTD engineering & maintenance directives. Bridge types included movable swing-span bridges, bascule bridges, truss bridges, timber stringer bridges, cable-stayed bridges, and single- and multi-span bridges. He also assisted with preparing the NBIS inspection reports.

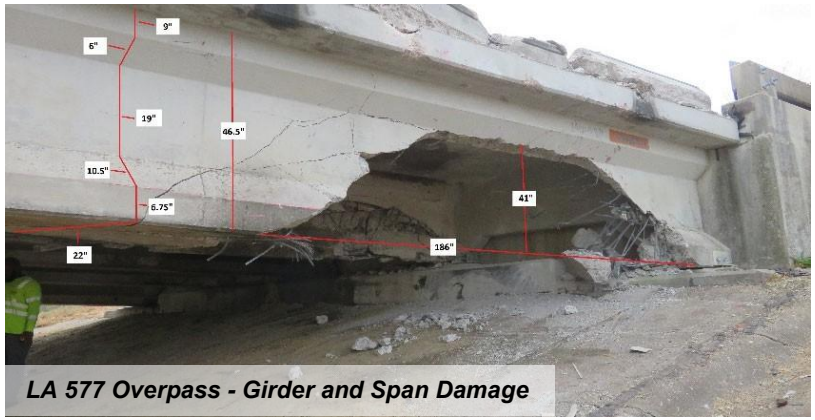
17. Firm Experience: Project 1

Firm name	**HDR Engineering, Inc.**		Discipline(s)*	Bridge, Road	
Project name	**Bridge Preservation IDIQ - LA 577 at I-20 Repair PS&E**		Firm responsibility (prime or sub?)	Prime	
Project number	H.015472	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)		
Project location	Waverly, LA		Owner's Project Manager	Phillip Grasso	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 | 225.379.1412 | phillip.grasso@la.gov				
Services commenced by this firm (mm/yy)	11/22	Total consultant contract cost ($1,000's)	$241.4		
Services completed by this firm (mm/yy)	07/23	Cost of consultant services provided by this firm ($1,000's)	$241.4		

LADOTD contacted HDR to assist with an emergency site inspection and assess the condition of a prestressed, precast concrete girder overpass bridge (built in the late 1960s) across I-20 that was struck by a dump truck. Work was authorized using HDR's Bridge Preservation IDIQ contract (Task Orders 1 and 2). The first two girders were damaged beyond repair, and secondary damage was done to the middle girder and abutment cap.

HDR's Phase 1 design consisted of developing plans, specifications, and cost estimates (PS&E) for the phased demolition of the west side of the damaged span to get a single lane of traffic back open on the eastern portion of the bridge. The remaining section is supported by three girders (two undamaged and one partially damaged). HDR performed an LRFR load rating analysis as part of the demolition design, traffic control layout, and signage for the temporary condition. HDR's Phase 2 design involved a split-phased replacement span. The existing girders were AASHTO Type 3 (interior) and 4 (exterior). During a discussion with LADOTD, HDR used AASHTO Type 3 girders for the replacement and added a girder due to split-phased construction. We modified the existing substructure to accommodate the new girder layout and analyzed it under the new loading configuration.

We also developed additional load-rating analysis for the span's interim and final conditions. HDR designed the guardrail to match the old "post and beam" section prevalent during that period, the traffic control layout and signage for phased construction, and the final condition. HDR also provided construction-related engineering services by reviewing and responding to contractor RFIs and reviewing shop drawings/submittals. **RELEVANCE: Demonstrates experience delivering rapid inspection, condition assessment, and phased repair design for damaged bridge structures, directly supporting LADOTD's need for responsive preservation project development, engineering analysis, and construction support services under a statewide bridge maintenance IDIQ.**



LA 577 Overpass - Girder and Span Damage

KEY PROJECT ELEMENTS:

- Emergency Inspection of Damaged Bridge Span
- Repair/Rehabilitation Design - Multi-Phased
- LRFR Load Rating
- Roadway/Traffic Control & Bridge Design PS&E
- Bid Phase Engineering Services
- Engineering Services During Construction

HDR MEMBERS INVOLVED: Wesley Jacobs, Jason Abendroth, Sarah De Moya, Edwin Rydell, William Clementson, and Brett Geesey

Project 2

Firm name	**HDR Engineering, Inc.**	Discipline(s)*	Bridge
Project name	**Contract 5 for Movable Bridges (6)**	Firm responsibility (prime or sub?)	Prime
Project number	Multiple	Owner's name	State of Louisiana Department of Transportation & Development (LADOTD)
Project location	Vermillion, Lafayette, St. Martin and Calcasieu Parishes	Owner's Project Manager	T.J. Dunlevy
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802 | 225.379.1083 | tj.dunlevey@la.gov		
Services commenced by this firm (mm/yy)	03/25	Total consultant contract cost ($1,000's)	$2,651
Services completed by this firm (mm/yy)	On-going	Cost of consultant services provided by this firm ($1,000's)	$2,058

HDR performed Stage 3 (Design) for six vertical lift bridges in Vermillion, Lafayette, St. Martin, and Calcasieu Parishes. The project includes the following key elements: Stage 3 – design: document review; coordination with district and design staff; site/NBIS inspections; LRFR load rating; and scope-of-work proposals, meetings, and reports for the rehabilitation of these bridges. Future addenda will encompass Stage 3 – design services for rehabilitating each bridge and Stage 5 – construction services.

The following is the list of vertical lift bridges for which HDR has performed the key project elements for this contract: Old Abbeville – H.011997 – Recall No. 009430; Abbeville Bypass – H.001998 – Recall No. 009460; Parks – H.013819 – Recall No. 008700; Milton – H.011990 – Recall No. 006520; Ellender – H.010001 – Recall No. 031751; West Fork – H.012043 – Recall No. 033353

The team developed and coordinated **traffic control plans** with District Bridge Engineers and the US Coast Guard prior to inspection. **Rope-access inspectors were used on the towers to minimize lane-closure** time, along with boat access for underside inspections of the main span, approaches, and substructure. HDR developed in-depth reports, in addition to routine reports, for three bridges, which were then uploaded to **InspectX.** HDR developed **LRFR** load ratings for the main and approach spans using **AASHTOWare Bridge Rating** software. This will be used to develop the rehabilitation scope of work for each bridge. HDR also conducted full mechanical (including strain gauge testing), electrical, coatings, and architectural (operator houses) inspections for each bridge and included them in the In-Depth reports. Fieldwork was completed within 2.5 weeks, with multiple crews to improve mobilization efficiency and expedite work in anticipation of the impending hurricane season. **RELEVANCE: Demonstrates experience with NBIS inspections, movable bridge systems, and development of rehabilitation scopes, directly supporting LADOTD's need for structure-specific asset evaluations, preservation planning, and multidisciplinary coordination under a statewide bridge maintenance and preservation IDIQ.**

In-depth inspection of Milton, Ellender, and West Fork Bridges

KEY PROJECT ELEMENTS:

- In-depth NBIS Inspections (Including Operator Houses)
- Traffic
- LRFR Load Rating
- Scope of Work Report Development

HDR MEMBERS INVOLVED: Wesley Jacobs, Daniel Marsalone, Venkata Sathiraju, Erin O'Malley, Peter Harrison, Drake Cole, Raphael Costa, Mike Carlton, Isaac Frederick, Matthew Cassera, Matt McGuire, Steven Pierce, Michael O'Keefe, Adam McGinnis, and Carlos Larco

Project 3

Firm name	**HDR Engineering, Inc.**		Discipline(s)*	Bridge, Environmental	
Project name	**JFK Causeway over Gulf Intra-Coastal Waterway Rehabilitation**		Firm responsibility (prime or sub?)	Prime	
Project number	88-7IDP5080 WA14 & WA16	Owner's name	TxDOT Bridge Division		
Project location	Corpus Christi, TX		Owner's Project Manager	Paul Rollins	
Owner's address, phone, email	118 E. Riverside Dr, Austin, TX 78704 | 512.416.2481 | Paul.Rollins@txdot.gov				
Services commenced by this firm (mm/yy)	05/20	Total consultant contract cost ($1,000's)		$672	
Services completed by this firm (mm/yy)	04/21	Cost of consultant services provided by this firm ($1,000's)		$445	

The JFK Causeway is the first post-tensioned segmental box girder bridge in the US and serves as the main connection between North Padre Island and Corpus Christi. This is an important structure to the local community and one that would be very costly and environmentally challenging to replace; a great candidate for TxDOT's Bridge Maintenance Improvement Program (BMIP). HDR led the condition assessment of the prestressed concrete approach spans, while our sub-consultant performed the investigation of the post-tensioned box girder spans. Three separate teams worked on this bridge over a three-week period, utilizing a combination of UBIVs, man-lifts, UAVs, and boats. We closely coordinated traffic control with the Corpus Christi District, which included alternating lane closures in both directions. Coordination with the US Coast Guard is required for permitting inspection work over the Intracoastal Waterway. HDR's work on the approach spans included arm's reach inspection of the substructures and prestressed beam ends, as well as the concrete deck. Upon completion of the inspection, we prepared an extensive report summarizing the condition of each bridge element and recommended repairs. A detailed assessment of the segmental elements, including extensive NDT of existing tendons, was performed by the subconsultant and incorporated into HDR's report as an appendix. Recommendations included replacing the existing asphalt wearing surface with a PPC overlay, repairing concrete substructures, replacing main span bearings, replacing joints, and installing a bulk anode cathodic protection system.

JFK Causeway Bridge over Gulf Intra-Coastal Waterway | Corpus Christi, TX

KEY PROJECT ELEMENTS:

- Full Condition Assessment with Specialized access requirements, including US Coast Guard permitting
- Developed full repair plans, including roadway and traffic control
- Provided construction support services

RELEVANCE: Demonstrates bridge condition assessment, rehab design, & construction support in alignment with statewide preservation and maintenance needs.

Following the completion of the report, HDR led the PS&E for the extensive repair details for each recommended item. Fortunately, no major issues were found in the post-tensioning system, although superficial concrete repairs were required on the concrete boxes. HDR included additional notes in the plans to alert the contractor when working on spalls, with minor modifications to the repair procedures outlined in the TxDOT Concrete Repair Manual, such as reducing the allowable weight of chipping hammers. **The proposed cathodic protection system was designed by HDR's in-house corrosion experts, with feedback from TxDOT and lessons learned from the Queen Isabella Bridge. Concrete repairs and joint replacement details were built upon HDR's standardized library of repair details developed through the course of 100's of bridge rehabs in Texas.** HDR provided support during construction, including responding to pre-bid questions and RFIs and reviewing contractor submittals.

The inclusion of the PPC overlay required extensive traffic control, so the HDR team coordinated closely with the District for allowable closure times. The summer tourism season and hurricane evacuation were key considerations, resulting in construction that spanned two off-seasons. We coordinated with the District's Environmental staff regarding the wetland areas below the bridge. This collaboration ultimately led to the inclusion of an exhibit in the plans that clearly shows the contractor where they can access the bridge and lay down materials. **The well-coordinated plan set resulted in tight bids, all within 10% of the estimate, and a winning bid 6% below the estimate. This project was included in our TxDOT Bridge Division On-System Bridge Assessment and Rehabilitation Contract (88-7IDP5080), which included 19 bridge condition assessments and 39 bridge rehabilitation PS&E across Texas.**

HDR MEMBERS INVOLVED: Gregory Kochersperger and Peter Harrison

Project 4

Firm name	**HDR Engineering, Inc.**	Discipline(s)*	Bridge, Other (Asset Management Planning)
Project name	**Life Cycle Planning and Bridge Deterioration Models**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Bay Area Toll Authority
Project location	San Francisco, CA	Owner's Project Manager	Rosalynn Chongchaikit, Capital Delivery, Asset Management, Roadside Tolling
Owner's address, phone, email	375 Beale Street, San Francisco, CA 94105; 415.778.6724; RChongchaikit@bayareametro.gov		
Services commenced by this firm (mm/yy)	01/22	Total consultant contract cost ($1,000's)	$4,200
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$3,200

HDR supported the Bay Area Toll Authority (BATA) in advancing a comprehensive bridge asset management program for a complex portfolio of major, long-span, state-owned bridges throughout the Bay Area, including the San Francisco–Oakland Bay Bridge, San Mateo–Hayward Bridge, Benicia–Martinez Bridge, Carquinez Bridge, and Dumbarton Bridge. Services focused on organizing and analyzing inspection and historical data to support long-term maintenance planning, preservation strategies, and fiscally responsible decision-making for critical transportation infrastructure. HDR worked closely with BATA and Caltrans program managers to streamline bridge information, perform independent cost and risk analyses, and support executive-level briefings and stakeholder presentations.

San Francisco-Oakland Bay Bridge East Span

A key element of the effort was the development of element-level deterioration and life-cycle models to better forecast condition, remaining service life, and future maintenance needs. HDR implemented a Markov chain–based modeling approach that incorporated climate exposure, bridge type, element condition states, and maintenance costs to support data-driven preservation planning and prioritization. We completed specialized technical studies, including structural steel painting evaluations, fatigue analyses, and mechanical and electrical system assessments, using consistent methodologies across multiple structures, allowing for comparable results and informed investment decisions across the network.

East Bound Carquinez Bridge

Through this work, HDR delivered actionable life-cycle management plans, planning-level cost estimates, and preservation strategies that optimized maintenance timing while extending the service life of critical bridge assets. The project also included targeted support for unique structures such as the Yerba Buena Island Tunnel and the Antioch Bridge, demonstrating HDR's ability to adapt asset management frameworks to specialized structures. **RELEVANCE: This experience directly aligns with LADOTD's needs for structured asset management planning, preservation project development, and data-driven decision support under a statewide bridge maintenance and preservation IDIQ.**

KEY PROJECT ELEMENTS:

- Bridge asset management and life-cycle planning
- Element-level deterioration and life-cycle cost modeling
- Preservation strategy development and planning-level cost estimates

HDR MEMBERS INVOLVED: Chris Senesi and Michael Kochly

Project 5

Firm name	**HDR Engineering, Inc.**		Discipline(s)*	Bridge, Other (Asset Management Planning)	
Project name	**Bridge Asset Management Program Support and Modernization**		Firm responsibility (prime or sub?)	Prime	
Project number	N/A	Owner's name	South Carolina Department of Transportation		
Project location	Statewide, SC		Owner's Project Manager	Emily Bickley, PE	
Owner's address, phone, email	955 Park Street, Columbia, SC 29201; 803-737-1053; BickleyEJ@scdot.org				
Services commenced by this firm (mm/yy)	10/22	Total consultant contract cost ($1,000's)	$14,151		
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$10,857		

HDR supported SCDOT in transforming its bridge program from a largely reactive approach to a **formalized, performance-based asset management program** serving a statewide inventory of more than 9,300 bridges. HDR led the development of FHWA Process and Compliance Assessment (PCA) commitments by establishing standardized policies and guidance for bridge inspection, load rating, data management, rehabilitation, and replacement. This effort combined strong local project management with national technical expertise, enabling SCDOT to meet aggressive compliance milestones while building scalable tools and practices applicable across each district.

Aerial view of a highway interchange bridge supported by SCDOT's Bridge Management Program

A major component of the work focused on **developing programmatic rehabilitation and preservation solutions** to address widespread load rating deficiencies and posting restrictions. Drawing on experience from large DOT initiatives nationwide, HDR developed construction-ready repair concepts, including a skeletal structural steel framing system for low-capacity concrete slab bridges, designed for rapid deployment and statewide replication. HDR also delivered standard repair plans and technical specifications for beams, decks, and substructures, allowing SCDOT to streamline procurement, accelerate delivery, and implement consistent preservation strategies across hundreds of bridges. These solutions are now being scaled statewide to extend bridge service life and improve network performance.

In parallel, HDR advanced SCDOT's **bridge data modernization and decision-support capabilities, including the development of NBIS-compliant** inspection and load rating manuals, a statewide bridge file policy within Bentley ProjectWise, and customization of AASHTOWare Bridge Management (BrM) asset management modules. HDR also provided training to SCDOT staff and consultants to support implementation. **RELEVANCE: Collectively, this work enabled SCDOT to better align inspection data, prioritization, life-cycle costs, and funding decisions, positioning the agency to manage maintenance and preservation more efficiently across its statewide bridge inventory, an approach directly applicable to LADOTD's bridge maintenance and preservation objectives.**

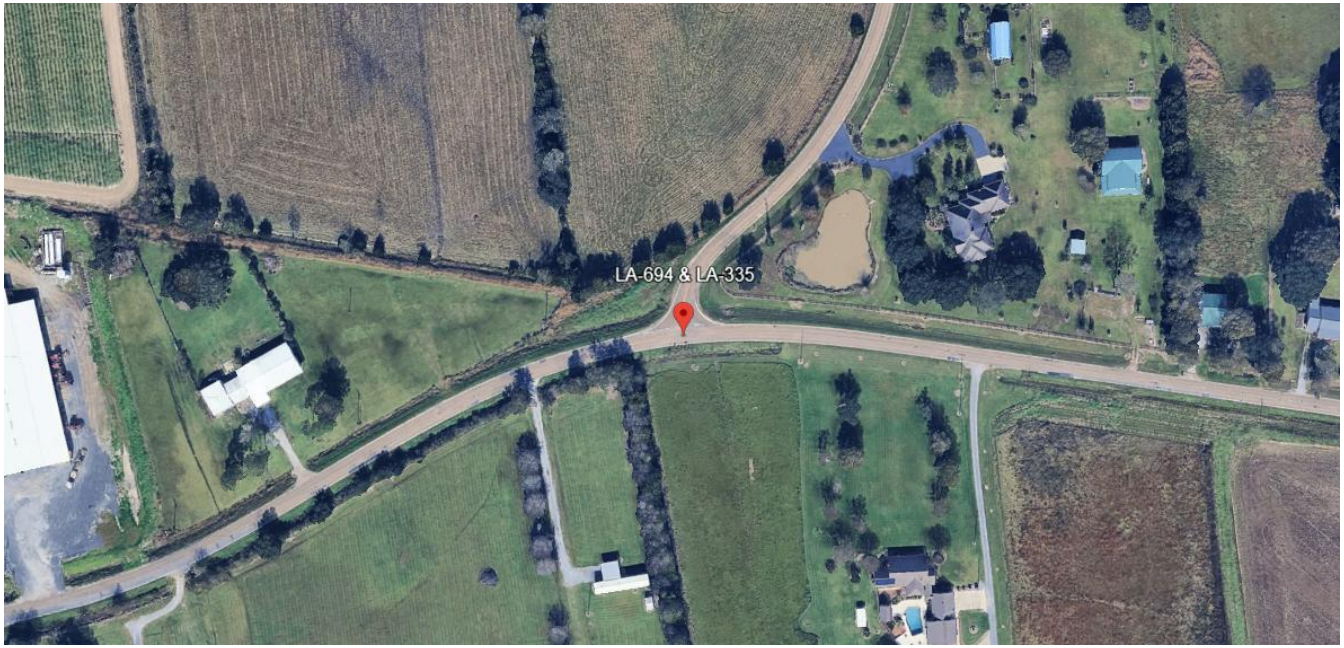
KEY PROJECT ELEMENTS:

- Statewide bridge asset management program development
- Programmatic bridge preservation and rehabilitation solutions
- Standard repair plans and technical specifications
- Bridge data management and decision support modernization

HDR MEMBERS INVOLVED: Brian Leshko

Project 6

Firm name	**Civil Design & Construction, Inc.**		Discipline(s)*	Survey, Other (Utility Coordination/Subsurface Utility Engineering)	
Project name	LA 335		Firm responsibility (prime or sub?)	Subconsultant	
Project number	H.015949	Owner's name	LADOTD		
Project location	Lafayette Parish, Louisiana		Owner's Project Manager	Adam Fields (Stanely Consultants)	
Owner's address, phone, email	700 Main Street, Suite 405, Baton Rouge, LA 70802; 225-388-4219; fieldsadam@stanleygroup.com				
Services commenced by this firm (mm/yy)	11/24		Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm (mm/yy)	05/25		Cost of consultant services provided by this firm ($1,000's)	$140	



CDC was a sub-consultant on this project and was responsible for a complete topographic survey, utility coordination with utility companies to mark or provide record drawings, and the provision of an existing drainage map in accordance with LADOTD Location and Survey standards. The survey began at the LA 335 and LA 694 centerline and continued North along LA 335 for 3.45 miles to the intersection of LA 335 and Port Street. The survey at the intersection of both LA694 and Port Street continued down each street for 300' in both directions.

The width of the survey was from five feet behind the apparent right of way to the apparent right of way or five feet from behind the back of the ditch. CDC located the start and end points of all bridge decks and superstructures, approach slabs, wing walls, and headwalls, and all crossing streams, canals, and coulees were located 500 feet from the face of the drainage structure. Subsurface utility locations followed a modified SUE QL-B of the ASCE standard 38-22 for the intersection of LA 335 & Port Street, the Gulf South Pipeline utility that runs approximately 3,196, and each pipeline crossing.

A full topographic survey was performed along this route, including all utilities and drainage structures. The survey utilized 3D Terrestrial Scanning of all hard surfaces and traditional methods for all other features. The final submittal complied with the latest LADOTD Location and Survey standards. CDC also submitted a detailed point report, which lists every point found using the on QL-B of ASCE standard 38-22, with survey/CAD drawings showing depth and QL level for each point. Along with all attributes available for each utility.

CDC MEMBERS INVOLVED: Karla Weston; Scott Benton; Alex Wells; Drennon Humphreys

Performed in LA 100%

Project 7

Firm name	**Civil Design & Construction, Inc.**		Discipline(s)*	Survey	
Project name	LA 317: Wax Lake B			Firm responsibility (prime or sub?)	Subconsultant
Project number	H.014824.5	Owner's name	LADOTD		
Project location	St. Mary Parish, LA		Owner's Project Manager	Adam Fields (Stanely Consultants)	
Owner's address, phone, email	700 Main Street, Suite 405, Baton Rouge, LA 70802; 225-388-4219; fieldsadam@stanleygroup.com				
Services commenced by this firm (mm/yy)	12/24		Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm (mm/yy)	04/25		Cost of consultant services provided by this firm ($1,000's)	$162	

CDC performed a full topographic survey beginning and ending 5000 feet beyond either end of the approach slab of the I-20 eastbound and westbound bridge structure. Terrestrial Laser Scanning was used on all hard-surface areas, including parking lots, roadway and bridge structures, and Union Pacific Railroad rails. The survey total distance was 2.03 miles with a width of approximately 350 feet. This included 1 mile along Highway 79 with a width of 300 feet.

CDC completed a topographic survey along this route. The survey utilized 3D Terrestrial Scanning of all hard surfaces and traditional methods for all other features. Final submittal was in accordance with the latest LADOTD Location and Survey standards.

CDC MEMBERS INVOLVED: Karla Weston; Christopher Ballard; Scott Benton; Alex Wells; Drennon Humphreys; Jacob Stoehr

Performed in LA: 100%

Project 8

Firm name	**Civil Design & Construction, Inc.**		Discipline(s)*	Survey	
Project name	LA 443: Tangipahoa River Emergency Bridge Replacement		Firm responsibility (prime or sub?)	Subconsultant	
Project number	H.02728.5	Owner's name	LADOTD		
Project location	Tangipahoa Parish, LA		Owner's Project Manager	Thomas Gattle (Huval & Assoc)	
Owner's address, phone, email	922 W. Point Des Mouton Rd., Lafayette, LA 705007; (337)234-3798; tgattle@tgattle@huvalassoc.com				
Services commenced by this firm (mm/yy)	10/16		Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm (mm/yy)	11/16		Cost of consultant services provided by this firm ($1,000's)	$81	

This project was for the emergency replacement of the bridge on LA 443 over the Tangipahoa River due to the historic floods in August 2016. The project is located Northeast of Hammond, Tangipahoa Parish, Louisiana, 4 miles Northeast of the intersection of La 1064 and La 443. The survey total length was approximately 1500'. The width of the survey and DTM was extended to a total of 170 feet (90 feet North of the existing centerline of La 443 and 80 feet South of the existing centerline of La 443).

CD&C's Role: CDC completed a topographic survey, which included all utilities with depths, all drainage, all building information, including finish floor elevations, and all super/substructure of the bridge over the Tangipahoa River. Additional cross-sectional information regarding the river was located by traditional means upstream and downstream for the engineer's design of the new bridge. To collect data on the failed bridge, 3D Terrestrial Scanning was incorporated alongside traditional methods to complete the topographic survey. Due to the nature of the project as an emergency bridge replacement, all staff worked non-stop until fieldwork was completed in less than **3 weeks.**

CDC MEMBERS INVOLVED: Karla Weston; Christopher Ballard; Jacob Stoehr

Performed in LA: 100%

Prime Consultant: HDR Engineering, Inc.

Project 9

Firm name	**Moffatt & Nichol Inc.**		Discipline(s)*	Bridge	
Project name	**LADOTD Complex Bridge Inspection**			Firm responsibility (prime or sub?)	Sub
Project number	H.009730.5, Task Order 03	Owner's name	Louisiana Department of Transportation and Development		
Project location	Statewide, Louisiana		Owner's Project Manager	Stephanie Doolittle, P.E.	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, Louisiana 70802 225-379-1329, stephanie.dootlittle@la.gov				
Services commenced by this firm (mm/yy)	02/23	Total consultant contract cost ($1,000's)		$470	
Services completed by this firm (mm/yy)	12/24	Cost of consultant services provided by this firm ($1,000's)		$260	

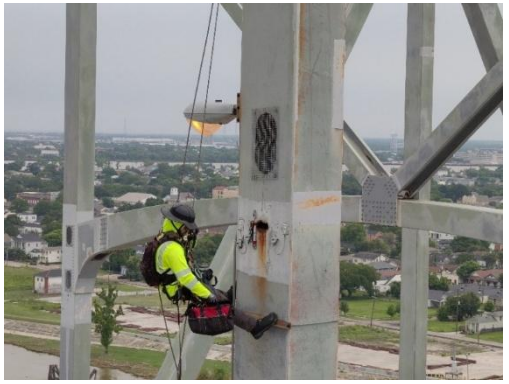
M&N performed statewide bridge inspections of complex structures under an LADOTD IDIQ contract. Structure types included cantilever trusses, cable-stayed bridges, steel vertical-lift bridges, and plate-girder bascule bridges. Services included in-depth bridge inspections, SPRAT/rope access inspections, underwater inspections, bridge load ratings, asset categorization and documentation, and preparation of comprehensive inspection reports in accordance with FHWA guidelines. Reports documented inspection methodologies, observed conditions and deficiencies, field notes, and photographic records.

In addition to inspection services, M&N led the development and major updates to the LADOTD Bridge Inspection Manual (BIM) and the Coding & Field Guide to support statewide consistency and compliance. Updates included on-system and off-system directives and served as the foundation for a new Bridge Load Rating Manual currently under development. A multidisciplinary team of subject matter experts supported document development and milestone reviews, with M&N coordinating closely with LADOTD staff through monthly in-person meetings involving District Bridge Engineers statewide.

The revised BIM and supporting documents were developed to comply with the 2022 NBIS Final Rule and the National Bridge Inspection Program (NBIP) metrics. Key updates included transitioning from the legacy coding guide to SNBI, expanding inventory requirements, implementing risk-based inspection intervals, enhancing personnel qualification requirements (including NSTM and underwater team leaders), formalizing critical finding reporting, updating load rating and posting procedures, and incorporating advanced technologies such as unmanned aerial systems. The BIM and Coding & Field Guide were published in December 2024 and fully implemented in January 2025, positioning LADOTD for FHWA audit compliance in 2028.

Following document delivery and acceptance, M&N developed and delivered training for LADOTD district personnel and has been retained to provide annual updates to maintain alignment with evolving federal requirements.

MOFFATT & NICHOL MEMBERS INVOLVED: Tom Spencer, Bryan Tyson



RELEVANCE TO LADOTD	
✓	Program Policy Development
✓	Condition Assessments and Identified Deficiencies
✓	Recommended preservation and repair actions
✓	Structured data collection and prioritized repair reporting
✓	Hydrographic Surveying
✓	Retainer Contract
✓	Technology and Tools
✓	MOT and ATSSA Work Zone Safety

Project 10

Firm name	**Moffatt & Nichol Inc.**		Discipline(s)*	Other (Asset Management Planning)	
Project name	**Asset Management System**			Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Southeast Louisiana Flood Protection Authority-East		
Project location	New Orleans, Louisiana		Owner's Project Manager	Steven Spencer	
Owner's address, phone, email	6920 Franklin Ave., New Orleans, LA 70122, 504-280-2416, sspencer@slfpae.com				
Services commenced by this firm (mm/yy)	08/2014	Total consultant contract cost ($1,000's)		$395	
Services completed by this firm (mm/yy)	12/2017	Cost of consultant services provided by this firm ($1,000's)		$395	

M&N was contracted to evaluate, select and implement an Asset Management System (Phase 1). This assessment led the client to the decision to engage M&N to develop and implement a custom Asset Management System (Phase 2).

Phase 1: Identification of Asset Management System Functions and Requirements
M&N systematically evaluated existing asset management software and existing procedures. Tasks associated with the Phase 1 effort included:

- Review of existing AMP systems and their adaptability for future needs
  - Maintenance Connection; CHAMPS EAM; MicroMain Maintenance Software; MPulse; Maintenance5000; Ultimo
- Interviews with stakeholders to identify appropriate LOS and KPIs
- Create a project scope and requirements document to identify the proper solution
- Review of SLFPA's demands and desire to standardize and streamline the maintenance and reporting procedures through the development and implementation of an Asset Management System
- Recommendations for selection of the Asset Management System/Software
  - Report; Presentation to the Board
- Project Management Plan to lead implementation

RELEVANCE TO LADOTD

- ✓ Asset management system
- ✓ Stakeholder Coordination and Public Involvement
- ✓ Lifecycle asset management and long-term infrastructure planning support
- ✓ Experience supporting resilient flood protection and water control infrastructure systems

Phase 2: Custom Asset Management Software Development
Following Moffatt & Nichol's Phase 1 assessment, which recommended that no existing commercial software fully addressed the SLFPA's unique asset management needs, Phase 2 focused on developing tailored asset management software. M&N collaborated closely with SLFPA to design and build a software solution that aligned precisely with their specific requirements and workflows. Leveraging M&N's expertise, the SLFPA entrusted the team with driving the design, successfully balancing functionality, cost, and the project timeline.

This involved an in-depth analysis of SLFPA's asset inventory, maintenance procedures, reporting needs, and long-term goals. The custom software incorporated features critical for SLFPA's water control structures, including a robust inspection application, streamlined maintenance tracking, and comprehensive reporting capabilities. The development process emphasized user-friendliness and efficiency, confirming seamless integration into SLFPA's operations and related systems. By creating a bespoke asset management system, SLFPA gained a powerful tool to optimize maintenance practices, enhance decision-making, and improve the overall management of its critical water control infrastructure.

MOFFATT & NICHOL MEMBERS INVOLVED: Chace Hulon

18. Approach and Methodology:

The HDR team fully understands the Scope of Services and the quality engineering services sought by LADOTD for the IDIQ for Bridge Maintenance, Preservation, and Repair Statewide Contract No. 4400035210. We bring a strong local team with experience in complex and traditional bridge asset management, inspection/preservation design in Louisiana, and nationwide. We have a deep bench of over 600 dedicated bridge engineers with direct experience in bridge inspection/design, and have successfully executed hundreds of inspection contracts for clients across the nation. **HDR consistently ranks among the top design firms and was ranked No. 2 nationally for bridges by ENR in 2025.**

HDR TEAM

Our team is built to deliver with valuable partners that have longstanding relationships and a wealth of experience with LADOTD. **Civil Design & Construction (CDC)** has an impeccable relationship with LADOTD and will provide additional topographic surveying, subsurface utility coordination, and construction cost estimation as needed. **Moffat & Nichol**, renowned for their **inspection** expertise, will support the team with bridge inspections and asset management. To execute **multiple task orders simultaneously**, as noted in the RFQ, we have built our team with a deep bench of expertise across each discipline to deliver.

The Value the HDR Team Brings to LADOTD	
Local Bridge Inspection Experience	HDR's comprehensive understanding of FHWA procedures and our experience supporting multiple LADOTD inspection and design projects statewide reinforces our informed, "no-surprises" project approach.
Integration of Bridge Engineering & Asset Management	HDR's unique approach to integrating bridge engineering and asset management planning staff provides LADOTD with a team that understands the intricacies and complexities of bridge whole-life-cycle management.
Specialized Forecasting Tools	HDR will leverage in-house-developed bridge predictive modeling tools, including a customized element-level version of FHWA's Bridge Life Cycle Cost Analysis (BLCCA) tool that was recently used with the **Bay Area Toll Authority (BATA)**, as well as an ☆ **INNOVATIVE** AI-powered bridge deterioration modeling program.

CONTRACT UNDERSTANDING

HDR understands that the scope of services for this IDIQ contract is to provide asset management, bridge engineering, and construction-related services for fixed and movable bridges. Project types may include bridge rehabilitation, bridge replacement, and bridge preventive maintenance/repair. The bridge engineering services could include structural, mechanical, electrical, design, plan development, and cost estimating. Work tasks may include: bridge design; road and traffic maintenance; surveying and subsurface investigations; bridge inspection; environmental and permitting services; utility coordination and deconfliction; bridge lifecycle planning; and public outreach for stakeholder strategies.

PROJECT APPROACH

HDR proposes the following approach to accomplishing the tasks outlined in the RFQ for Asset Management. We will logically sequence the project and develop project milestones to deliver the preliminary and final asset management plan (AMP) on time and in accordance with LADOTD's expectations.

Project/Contract Management: **Wesley Jacobs is our designated PM** and will be responsible for overall **contract and task order management**. He will work with LADOTD leadership and subject matter experts to initiate the scope of work, validate the project schedule, and formalize HDR's project-specific project management plan (PMP) and quality management plan (QMP). This initial phase will include a formal kick-off meeting to introduce HDR's and LADOTD's project leadership teams, align project expectations, and define critical success factors. Our comprehensive PMP will outline the confirmed work plan, detailed schedule, deliverables, stakeholder roles, and engagement approach. The PMP will also define communication protocols, documentation procedures, and a QA/QC process tailored to LADOTD's requirements. Regular progress meetings will be held at intervals determined by LADOTD, supported by the submission of monthly progress reports that include status on schedule, budget, and key issues to track milestones and maintain transparency throughout the project. Invoicing guidelines will be discussed at the outset of the first task order to verify accurate, timely submittals to LADOTD on a monthly basis.

This initial phase will also begin actionable activities on long-lead items, such as right-of-entry permits, as well as communication with LADOTD and other local stakeholders to coordinate lane closures and adjacent projects and studies. Additionally, HDR will develop project-specific health and safety plans that comply with OSHA 1910 and 1926 jobsite requirements, as well as ANSI A92 certification for Mobile Elevated Work Platforms (MEWPs). HDR's internal safety program includes task-specific training for bridge inspection, hazard-specific safety training for fall protection, and CPR/First-Aid training for field staff. Wesley will coordinate with the Team Leader to develop job hazard analyses and conduct the daily field safety meetings. Our initial planning will incorporate coordination with LADOTD and their owner's representative for the corridor to consider future design schedules, challenges, and prioritization. We will collaborate with the overall team to identify opportunities for project bundling and other economies of scale. Consideration will be given to grouping bridges by location, such as those located in typical freeway sections or interchanges, and the planned construction schedule.

Structure AMP Development: Asset management includes bridge life-cycle planning that develops a mix of fixes throughout the asset's life to improve safety, reliability, and longevity while maximizing investment value. HDR will tailor sound asset management strategies for this project by asking, "What work is required to get each bridge to its replacement date?" HDR will align this question with bridge inspections, scoping, deterioration modeling, LADOTD's Deck Preservation Matrix, life cycle costs, and asset management principles. ✓ ***PROJECT EXAMPLE:*** We will leverage our experience developing bridge life cycle plans for **South Carolina DOT's major bridges** and deterioration modeling for **BATA's long-span bridges**. This life cycle approach provides insights into deterioration patterns, enables LADOTD to plan cost-effective maintenance at optimal times, and reduces the risk of unexpected bridge closures.

This approach enhances decision-making for LADOTD and enables effective tracking of future costs associated with bridge maintenance and repairs.

Data Review, Documentation Analysis, and Pre-Inspection Planning: HDR will review the existing bridge files, including past inspection reports, load ratings, requests for action (RFA), documented maintenance activities, and past capital projects for each bridge. This file review will identify condition trends, provide focus for inspection planning, and flag unique site conditions that affect access. Additionally, HDR will review recent, available scoping reports for completeness and identify any required field activities for deterioration modeling and life cycle analysis. HDR will coordinate with LADOTD maintenance coordinators to schedule deck bottom access for bridges with plywood false decking. As HDR reviews each bridge site, we will collaborate with stakeholders regarding potential lane closures for in-depth inspection and scoping. We will propose a lane-closure schedule for each bridge inspection, with a focus on minimizing mobility impacts. Where possible, lane closures will be shared between adjacent bridges. Approved lane closure plans will be entered into notification systems as required.

Bridge Inspections and High-Level Evaluations: HDR will follow the policies and procedures for performing in-depth bridge inspections and scoping outlined in the RFQ, with four TLs leading our inspection teams. Brian Leshko will perform QC activities for in-depth inspection and scoping. Additionally, Wes will notify the LADOTD Project Manager and the District Bridge Engineers of any critical findings and other safety issues discovered during inspections. High-level preliminary recommendations for each bridge will be developed based on element deterioration quantities and anticipated replacement dates, serving as a starting point for deterioration modeling and life-cycle analysis.

Bridge Deterioration Modeling and Scenario Analysis: HDR will conduct deterioration modeling for each bridge using a combination of component- and element-level data. This modeling effort will combine findings from the bridge inspections and high-level recommendations to leverage historical inspection reports in the bridge file (maintenance activities, bridge conditions, etc.) to inform life cycle activities.

While the bridge inspections will identify immediate bridge work required due to critical findings, deterioration modeling will be used to forecast needs over a longer horizon – up to 20 years and beyond. This will define the types and timing of work required in the mid- to long-term. To support this effort, HDR can leverage two internal tools to perform deterioration modeling:

- **Customized Element-Level FHWA's Bridge Life Cycle Cost Analysis (BLCCA):** This tool, typically applied at the component level, can be customized to reflect LADOTD's element-level bridge specifications. It enables targeted analysis of element deterioration and life cycle costs, projecting expected deterioration based on varied interventions.
- **AI-Powered Bridge Deterioration Modeling Program:** HDR's ☆ **INNOVATIVE** in-house developed bridge modeling tool uses historical National Bridge Inventory (NBI) data and/or user-entered data to model deterioration based on the unique characteristics of each bridge. Rather than applying generic deterioration curves, it generates customized predictions, providing more accurate insights for long-term planning.

HDR will explore a range of planning scenarios to help LADOTD evaluate the effectiveness of different strategies and investment approaches. ✓ ***PROJECT EXAMPLE:*** A similar scenario-based approach was recently implemented with BATA, aligning deterioration projections with the BLCCA tool. The following scenarios were developed for BATA and provided here as examples:

- **Spot Repair:** Focus on immediate element repairs nearing failure (RFA's) to maintain basic functionality and prevent service disruptions.
- **Reduce Backlog:** Targets bridges in fair condition, combining routine maintenance with a major rehabilitation effort at the midpoint of the bridge's expected life.
- **Accelerate Rehab:** Prioritizes keeping bridges in good condition through more frequent rehabilitation intervals, typically ten years.

Scenario evaluation will help LADOTD understand the long-term implications of different investment strategies and support data-driven decisions to maintain the bridge until it is replaced in the future.

Scoping Reports and Life Cycle Plans: Building on the deterioration modeling and scenario analysis, HDR will prepare detailed bridge scoping reports for each bridge – full scoping for each structure. As part of this work, we will develop life-cycle plans for each bridge or groups of similar bridges, based on structure type, location, and current condition. Life-cycle plans will incorporate deterioration modeling results and recent bridge inspection reports to identify both short- and long-term needs. These plans will guide the selection and timing of treatments, considering LADOTD's asset management principles, risk tolerance, available funding, and service-life requirements aligned with the project timeline. In addition to the standard scoping report requirements, the following will be added to enhance the overall AMP:

- Life cycle plans that reflect future performance expectations and scoping level estimates that quantify predicted element deficiencies.
- Recommended treatments tailored to extend service life and improve investment, including preservation and repair strategies that provide a mix of fixes in alignment with the bridge deck preservation matrix.
- Short-term actions based on bridge inspections, identifying immediate maintenance or preservation needs.
- Long-term activities derived from deterioration modeling.
- Consideration of potential bridge vulnerabilities not captured by the deterioration modeling (for example: slag aggregate decks and substructures).

Cross-Asset Alignment and Prioritization: Following the development of the bridge scoping plans, HDR will conduct a cross-asset prioritization analysis for bridge work to optimize alignment across the LADOTD portfolio. This step will prioritize critical needs and available funding in a coordinated, cost-effective manner. ✓ ***PROJECT EXAMPLE:*** Similar to the work we recently completed with South Carolina DOT, we will leverage a multi-criteria analysis approach that draws on LADOTD and our experts to establish rating and weighting criteria. The bridges will be prioritized not only on structural condition but also based on a range of other data inputs, including traffic volumes, proximity to critical services such as hospitals and emergency services, potential community impacts, and potential conflicts with other regional

construction projects. By considering these additional factors, HDR will help LADOTD avoid reactive maintenance, reduce the likelihood of unexpected shutdowns, and maintain reliable access for each bridge site.

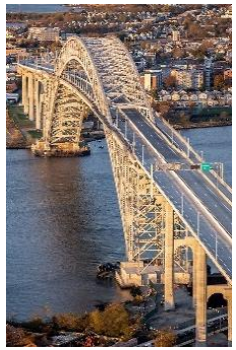
AMP Development: Building on the life cycle planning, deterioration modeling, and prioritization steps, HDR will develop a comprehensive AMP for the assigned bridges. This plan will serve as a strategic, actionable document to guide near- and long-term maintenance decisions, confirming each bridge remains serviceable until its scheduled replacement. The plan will include detailed, bridge-specific summary sheets that clearly outline required maintenance activities, their timing, and the resources needed to extend each structure's service life. These summaries will provide LADOTD with a straightforward reference for action, grounded in the broader AMP. Where appropriate, bridges will be grouped by recommended work and location, while simultaneously considering the overall construction schedule for the corridor.

Structure Preservation Project Development: HDR will prepare both a preliminary and final version of the AMP. The body of the plan will include evaluations for each structure, summarizing corridor context, current **assessment conditions**, **deficiencies**, risk factors associated with the phased modernization delivery, and treatment **recommendations for preservation, rehabilitation, or replacement, with prioritized improvements and planning-level cost estimates**. To support delivery and scheduling, the plan will also offer recommendations for bundling projects and for developing maintenance-of-traffic concepts that minimize mobility impacts. Supporting appendices will include inspection data, cost estimates, and calculations used in the analysis. Structural deficiencies will be illustrated through detailed sketches that clearly identify damage, dimensions, support locations, and traffic alignments, complemented by photographs documenting the visual condition. The plan will also include a meeting log and a list of references used to inform the analysis.

Bridge Inspection Services: HDR's approach to condition assessment field investigations starts with a deep understanding of the bridges before leaving the office. We will review as-built plans and previous routine/in-depth inspection reports, and highlight areas noted as defective. HDR will review the existing load rating and verify that it has not changed due to additional asphalt being placed on the bridge. Once we have reviewed the existing information, we will determine (using **NBIS procedures and protocols as applicable**) the level of detail and how long the inspection at each bridge site may take. We have experimented with more technology-based approaches, such as tablet computers and digital plan mark-ups, but ultimately our experience shows that nothing replaces a good photo log and hand-written field notes. The HDR team has the capability to use the full range of access methods. Whether it be under bridge inspection vehicles, bucket trucks, man lifts, or industrial rope access, our team has the experience to implement these techniques at the right times in the right places.

The HDR team prides itself on the extensive use of rope access techniques to reduce or eliminate the need for lane closures. HDR has invested over the years in rope access and has an engineering team of leaders who have Level III Society of Professional Rope Access Technicians (SPRAT 3) certification, allowing them to supervise rope access assignments. Currently, the HDR team has 66 rope access-certified inspectors. We will develop and execute traffic control plans in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) and coordinate with the LADOTD District Offices.

General Bridge Design & Rehabilitation:



Preliminary Design: When addressing defects with our repair recommendations, we will first determine the cause of the defect and then address the underlying issue in addition to the repair. Examples of typical root causes can be leaking expansion joints, water/sediment transport at abutments, coating failures, inadequate rebar cover, debonding overlays, and damaged bearing devices. We will develop repair schemes and discuss with LADOTD early in the design process. Our team will coordinate with LADOTD to hold a Pre-Design Meeting to confirm design criteria and discuss any critical areas or project preferences. Subsequently, we will revisit our PMP and QMP to confirm our design process, strategy, and quality reviews, thereby solidifying project goals/objectives with Bridge Design, Districts, and key stakeholders. We would propose a 60%, 95% (Plan-In-Hand), and 100% submittal schedule for most projects. 60% design will set geometry, develop MOT plans, identify any utility relocations/conflicts, ROW, construction limits, and the type, size, and location of the span arrangement and foundations. Should H&H be required, it will be accomplished during this stage as well. Our team will address review comments and complete development of the 95% package; attend the Plan-In-Hand meeting set by LADOTD to address additional comments as they arise; and develop any required railroad or environmental permits. Finally, local stakeholder coordination and public outreach will also take place during the preliminary design phase to avoid any changes during final design.

Final Design: Once NTP is issued and any environmental clearances are provided, our team will initiate the development of Final Plans, which will be delivered as 60%, 90%, 98% (if requested), and 100% submittals. Each submittal will go through our in-depth QC/QA process as noted in our developed QMP at project initiation. Detailed plan sheets, quantities, cost estimates, and any special provisions/specs will be developed, incorporating design review comments at each submittal. After the 100% submittal, our team will support LADOTD during the bidding phase, including responding to bidder RFIs, required amendments, and bid tab assessments.

Movable Bridge Rehabilitation: Movable bridges are highly complex machines that demand specialized knowledge to operate, maintain, and rehabilitate. Many of these structures are now decades old and require significant upgrades to avoid costly downtime. Breakdowns are inevitable, and when they occur, rapid response is critical to maintain the flow of highway, pedestrian, bicycle, and marine traffic. HDR has extensive experience addressing these challenges. Our engineers will provide constructible, maintainable designs that reduce life-cycle costs and minimize impacts to the traveling public. We support clients across a full spectrum of services, from emergency repairs and inspections to full rehabilitation studies. Our track record includes task-driven, on-call contracts such as the CSX Transportation Movable Bridge On-Call, VDOT Movable Bridge Limited Services, and FDOT District 4 Bridge Structures Services. Over the past five years, **HDR has delivered more than 120 repair and rehabilitation projects, including four major design efforts and three emergency**

responses in Louisiana alone. Our approach to rehabilitation is similar to that of fixed bridges, but involves a multi-disciplinary team with mechanical and electrical engineers added to the mix. Our approach prioritizes MOT, constructability, operability, load rating, and navigational clearances. Our design will address machinery components, span movement, lighting, and operator house updates, and consider equipment types, long-term maintenance, and operation capabilities.

Bridge Replacement: HDR's engineers have extensive experience delivering both **fixed and movable** bridge replacement projects. Through the AMP development process, we will collaborate with LADOTD to evaluate whether a structure warrants rehabilitation or full replacement. Our team is committed to minimizing traffic impacts through innovative construction phasing, maintenance of traffic (MOT) strategies, and careful consideration of applicable environmental constraints. Bridge types and alternatives will be evaluated early in project development in coordination with LADOTD and key stakeholders. HDR has developed ☆ **INNOVATIVE** bridge optimization tools that identify economical structural types as a starting point, streamlining the design process. Combined with close coordination on alignment, geometrics, geotechnical, and hydrology and hydraulics (H&H), this approach promotes cost-effective bridge solutions that meet clearance requirements and optimize span types and lengths.

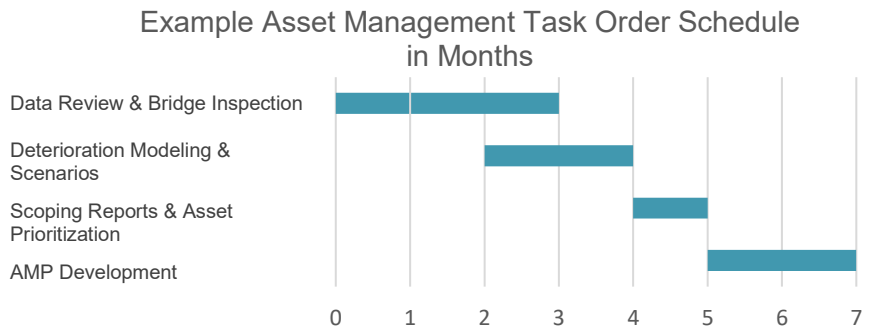
Roadway Design & Traffic Services: Our roadway team will design the at-grade roadway elements associated with the construction, replacement, rehabilitation, maintenance, and repair of bridge structures, while hydraulic analysis and design, traffic engineering, traffic control, and transportation management planning will be considered at the task order level and may influence the overall project limits. In accordance with LADOTD's project development process, topographic survey and base mapping will be completed at the outset of each task order to establish existing conditions. Upon completion, our roadway designers will advance the design for each task order as requested. At that stage, our team will provide detailed information for each assigned task order, evaluating specific needs for at-grade roadway improvements, hydraulic analysis, safety enhancements, and traffic-related services. The scope and level of effort for each of these elements will be determined based on the requirements of the individual task order. When roadway design is required, the process will follow LADOTD's standard progression through 30%, 60%, and 90% submittals, culminating in final plans, with regular reviews and coordination with LADOTD at each stage.

Throughout project development, our team will maintain close coordination among disciplines to confirm a seamless, consistent design. As needed, we will perform H&H and drainage analyses, including evaluation of roadway runoff, ditch and culvert capacity, cross-drain requirements, and outfall conditions, to confirm that drainage is conveyed appropriately and that design elements such as bent locations and low chord elevations are properly supported. These efforts will be closely coordinated with the bridge design team to maintain consistency across all project components.

Post-Design Construction Support Services: Our team will provide efficient, critical support during the post-design and construction phases of each project. We will review and develop RFI logs for timely tracking/responses, review contractor submittals/shop drawings for compliance with the contract documents and design, and prepare any required change orders.

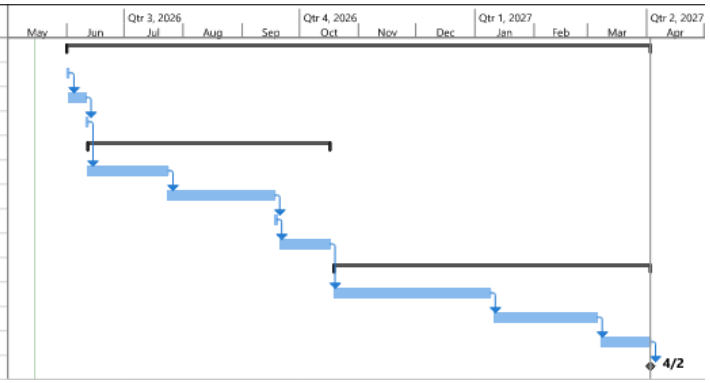
EXAMPLE TASK ORDER SCHEDULES AND ACTIVITIES FOR UNDERSTANDING

AMP Schedule: Consistent with the steps of our approach, HDR will conduct lifecycle cost and deterioration evaluations following bridge inspections to develop treatment scenarios and assess agency and user impacts. These analyses will support preliminary maintenance and rehabilitation strategies and inform the timing, scope, and prioritization of future work for LADOTD.



Design & Construction Related Engineering Services (CRES) Schedule: Although task order schedules will vary by scope and structure type, the image below shows a potential layout of the required tasks, a typical design, and the CRES task order for this contract. Our team will develop preliminary and final PS&E in accordance with the Stage 3 design steps/protocols in the LADOTD BDEM. Similar to our discussions above, we will coordinate with LADOTD to verify the traffic control approach, establish design criteria, and discuss environmental/ permitting issues. Our team will efficiently move through the deliverable phases and work with LADOTD to address any design comments. Once final PS&E are developed, our team will work closely with LADOTD during the bidding phase to answer any RFI's or develop any plan addenda, as well as attend pre-construction meetings.

Task Name	Duration
Task Order - Bridge Design & CRES	**220 days**
NTP	1 day
PMP/QMP Development & Initial Prep	7 days
Pre-Design Meeting	1 day
Preliminary Design	**91 days**
60% Plans	30 days
95% Plans	40 days
Plan-In-Hand Meeting	1 day
100% Plans	20 days
Final Design & CRES	**120 days**
60% Final Plans & Cost Estimate	60 days
95% Final Plans & Cost Estimate	40 days
100% Final Plans	20 days
CRES - AS NEEDED Through Const	0 days



**Preliminary Schedule, Subject to Change*

19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where **a)** the consultant selection was made by DOTD, and **b)** a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

1) one of the team's firms is responsible for the performance of the work;
2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;
3) the work has not yet been performed and invoiced; and
4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.

List only the portion of the fees attributable to firms on the team.

Firm(s) **ALL FIRMS** MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
HDR Engineering, Inc.	Bridge	4400024186/H.015472	LADOTD Br Preservation TO4	$106,185
	Planning	4400026365/H.015223.2	Baton Rouge to New Orleans Rail Corridor Environmental Study	$593,433
	Bridge	4400021517	Contract 5 for Movable Bridges (6)	$995,145
	Bridge	4400024186	LADOTD LA301 Priest Canal TO#5	$40,072
	Planning	4400032783/H.015223.2	Baton Rouge – New Orleans Passenger Rail	$5,955,620
	Bridge	4400024186	LADOTD_Br Preservation TO6	$122,930
	Other (Hydraulic Modeling)	440017091	LADOTD LWI Region 5 TO 5	$226,760
	Planning	4400030630 / H.015724.5	Kings Hwy: Healthcare and Development Corridor	$640,494
	Planning	44000323498 / H.972419.1	SHSP – VRU Safety Assessment	$705,258
	Planning	4400027876	HNTB TO3 Advisory Services	$88,894
Civil Design & Construction, Inc.	Survey	4400027093/H.014041	LA 92 ROW Maps	$5,028
	Survey	44-29196; H.016255.5	LA 1: WGS Riverplex RR Overp	$142,431
Moffat & Nichol Inc.	Bridge	44-29207 / H.009730.5	IDIQ Contract for Underwater Bridge Inspection – TO1,	$2,050,359
	Other (Sign Trusses & Radio)	44-31911 / H.011331.1	IDIQ Contract for Inventory and Inspection of Sign Trusses and Radio Towers – TO1 (242073/01)	$1,821,804
	Bridge	44-29683	IDIQ In-Depth Bridge Inspection Statewide (241360)	$657,160

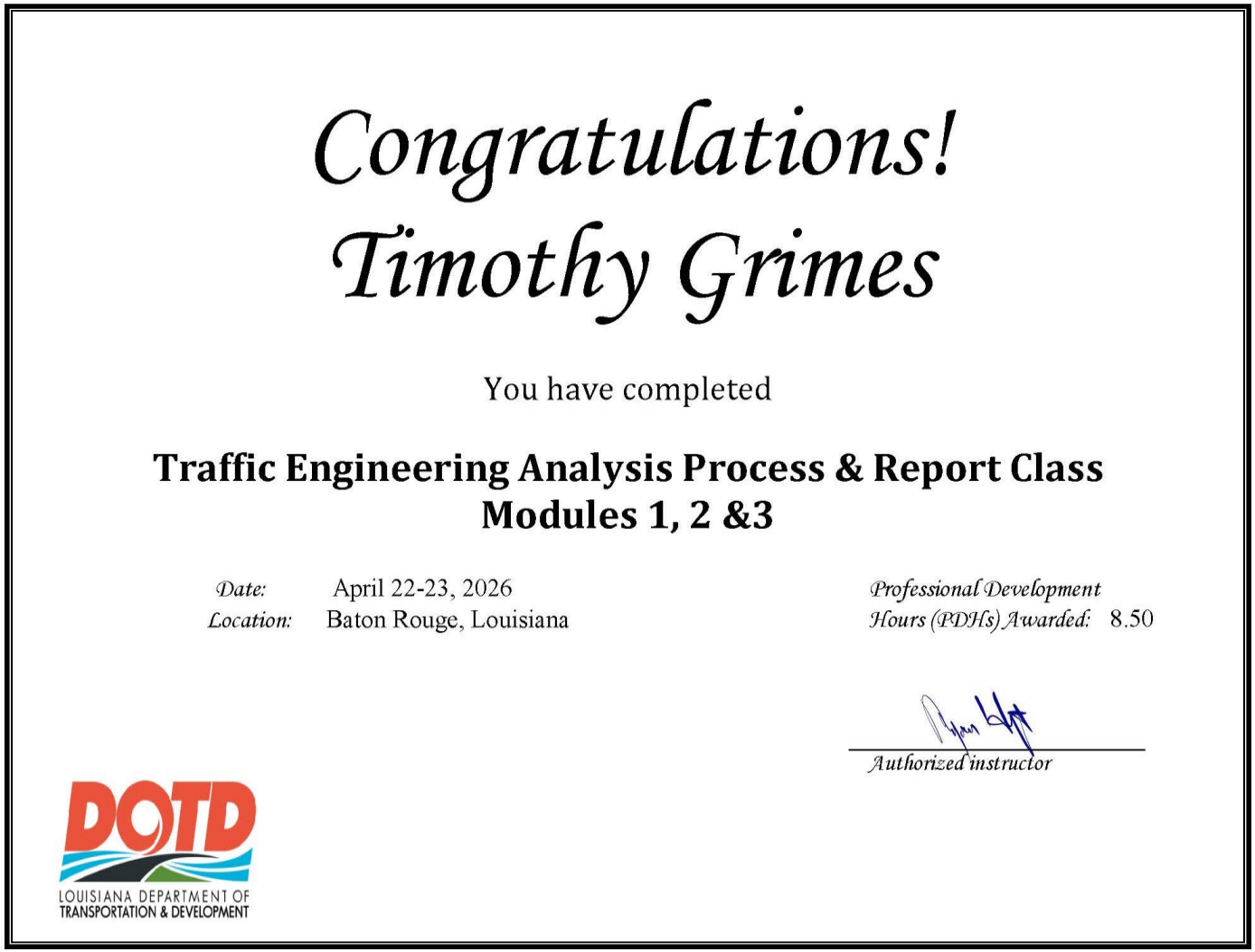
(Add rows as needed) DO NOT SUM

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

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

20. Certifications/Licenses:

HDR Three modules of the Traffic Engineering Process and Report Course



Congratulations!

Timothy Grimes

You have completed

Traffic Engineering Analysis Process & Report Class
Modules 1, 2 &3

Date: April 22-23, 2026
Location: Baton Rouge, Louisiana

Professional Development
Hours (PDHs) Awarded: 8.50

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

CDC Traffic Control Certifications

ATSSA
Safer Roads Save Lives

Christopher Ballard

has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 14-MAR-2025

CEU (If Applicable): 0.75

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

American Traffic Safety Services Association
ATSSA.com

ATSSA
Safer Roads Save Lives

Scott Benton

has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 23-FEB-2024

CEU (If Applicable): 0.75

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

ATSSA CERTIFIED

American Traffic Safety Services Association
ATSSA.com

ATSSA
Safer Roads Save Lives

Jacob Stoehr

has attended
Louisiana Traffic Control Supervisor Refresher

Completed: 14-MAR-2025

CEU (If Applicable): 0.75

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

American Traffic Safety Services Association
ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Alexander Wells
has attended
Louisiana Traffic Control Supervisor
Training Course

7/12/2023 to 7/12/2027
Training Valid Through

Vice President of Education and Technical Services

Baton Rouge, LA
Location

President, CEO

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

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA SAFER ROADS SAVE LIVES
American Traffic Safety Services Association

This is to affirm that

CHRIS BALLARD

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 2/29/2024
Exp. Date 2/29/2028
State Issued LA

Debbie Purcella
Instructor Name

Instructor Signature

V0000287042

Verify at Flagger.com

ATSSA SAFER ROADS SAVE LIVES
American Traffic Safety Services Association

This is to affirm that

SCOTT BENTON

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 2/2/2024
Exp. Date 2/2/2028
State Issued LA

Debbie Purcella
Instructor Name

Instructor Signature

V0000258961

Verify at Flagger.com

ATSSA *Safer Roads Save Lives* American Traffic Safety Services Association

This is to affirm that

JAKE STOEHR

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

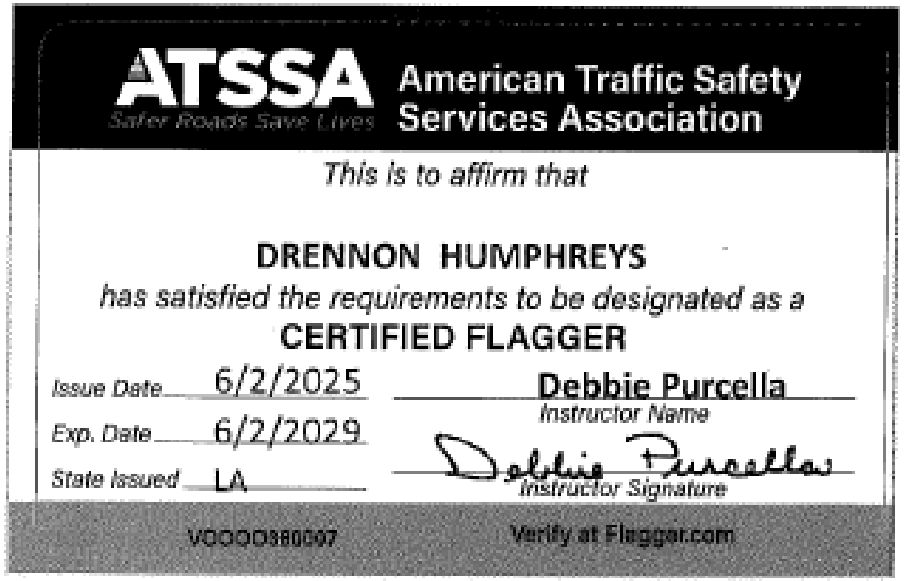
Issue Date 6/2/2025
Exp. Date 6/2/2029
State Issued LA

Debbie Purcella
Instructor Name

Instructor Signature

V0000258961

Verify at Flagger.com



ATSSA American Traffic Safety Services Association
Safer Roads Save Lives

This is to affirm that

DRENNON HUMPHREYS

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 6/2/2025
Exp. Date 6/2/2029
State Issued LA

Debbie Purcella
Instructor Name

Debbie Purcella
Instructor Signature

V0000380007

Verify at Flagger.com

ATSSA American Traffic Safety Services Association
SAFER ROADS SAVE LIVES

This is to affirm that

ALEXANDER WELLS

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Issue Date 1/29/2024
Exp. Date 1/29/2028
State Issued LA

Debbie Purcella
Instructor Name

Debbie Purcella
Instructor Signature

V0000262405

Verify at Flagger.com

HDR Secretary of State Certification

State of Louisiana Secretary of State

COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
HDR ENGINEERING, INC.	Business Corporation (Non-Louisiana)	OMAHA	Active

Previous Names

HDR INFRASTRUCTURE, INC. (Changed: 12/3/1987)

Business: HDR ENGINEERING, INC.
Charter Number: 34178558F
Registration Date: 6/17/1985

Domicile Address
1917 S. 67TH STREET
OMAHA, NE 68106

Mailing Address
1917 S. 67TH STREET
OMAHA, NE 68106

Principal Business Office
1917 S. 67TH STREET
OMAHA, NE 68106

Registered Office in Louisiana
201 RUE BEAUREGARD, STE. 202
LAFAYETTE, LA 70508

Principal Business Establishment in Louisiana
5750 JOHNSTON STREET
SUITE 105
LAFAYETTE, LA 70503

Status

Status: **Active**
Annual Report Status: **In Good Standing**
Qualified: 6/17/1985
Last Report Filed: 5/27/2025
Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

Agent: REGISTERED AGENTS INC
Address 1: 201 RUE BEAUREGARD, STE. 202
City, State, Zip: LAFAYETTE, LA 70508

CDC Secretary of State Certification

State of Louisiana Secretary of State

COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
CIVIL DESIGN & CONSTRUCTION, INC.	Business Corporation	PORT ALLEN	Active

Previous Names

Business: CIVIL DESIGN & CONSTRUCTION, INC.
Charter Number: 35961196D
Registration Date: 6/15/2005
Domicile Address
3251 SOUTHERN PACIFIC ROAD
PORT ALLEN, LA 70767
Mailing Address
P O BOX 857
PORT ALLEN, LA 70767
Principal Office Address
3251 SOUTHERN PACIFIC ROAD
PORT ALLEN, LA 70767

Status

Status: **Active**
Annual Report Status: **In Good Standing**
File Date: 6/15/2005
Last Report Filed: 5/20/2025
Type: Business Corporation

Registered Agent(s)

Agent: KARLA E. WESTON
Address 1: 7951 FALSE RIVER ROAD
City, State, Zip: NEW ROADS, LA 70760
Appointment Date: 6/15/2005

Officer(s)

Additional Officers: No

Officer: KARLA E. WESTON
Title: President
Address 1: 7951 FALSE RIVER ROAD
City, State, Zip: OSCAR, LA 70762

Moffatt & Nichol Secretary of State Certification

State of Louisiana Secretary of State

COMMERCIAL DIVISION
225.925.4704

Fax Numbers
225.932.5317 (Admin. Services)
225.932.5314 (Corporations)
225.932.5318 (UCC)

Name	Type	City	Status
MOFFATT & NICHOL INC.	Business Corporation (Non-Louisiana)	LONG BEACH	Active

Previous Names

MOFFATT & NICHOL, ENGINEERS, INC. (Changed: 11/17/2003)

Business: MOFFATT & NICHOL INC.
Charter Number: 34527896F
Registration Date: 5/23/1996

Domicile Address
4225 E. CONANT STREET, SUITE 101
LONG BEACH, CA 90808

Mailing Address
4225 E. CONANT STREET, SUITE 101
LONG BEACH, CA 90808

Principal Business Office
4225 E. CONANT STREET, SUITE 101
LONG BEACH, CA 90808

Registered Office in Louisiana
3867 PLAZA TOWER DR.
BATON ROUGE, LA 70816

Principal Business Establishment in Louisiana
301 MAIN STREET
SUITE 800
BATON ROUGE, LA 70801

Status

Status: **Active**
Annual Report Status: **In Good Standing**
Qualified: 5/23/1996
Last Report Filed: 5/8/2026
Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

Agent: C T CORPORATION SYSTEM
Address 1: 3867 PLAZA TOWER DR.
City, State, Zip: BATON ROUGE, LA 70816

21. <u>QA/QC Plan:</u>

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

22. Sub-consultant information:

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

Firm Name (Name must match 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**
Civil Design & Construction, Inc.	PO Box 857 Port Allen, LA 70767	Karla E. Weston, PE Kweston@cdcbr.com	(225) 765-1802
Moffatt & Nichol Inc.	301 Main Street, Suite 800 Baton Rouge, LA 70801-0009	Chace Hulon, PE chulon@moffattnichol.com	(225) 336-2075

23. Location:

If location is an evaluation criterion for this advertisement (see page 2) and the prime consultant intends to establish a local presence, describe the plan for doing so. **Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the Evaluation Criteria section of the advertisement**.