LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Statement of Qualifications | Contract No 4400035210

IDIQ Contract for Bridge Maintenance Preservation and Repair Statewide

SUBMITTED BY:

Hardesty & Hanover, LLC

3850 N. Causeway Blvd, Suite 1625

Metairie, LA 70002

T: 504.962.9212

SUB-CONSULTANTS:

APS Engineering & Testing, LLC

Bridge Diagnostics, Inc.

SJB Group, L.L.C.

Providence Engineering and Environmental Group LLC

Urban Systems, Inc

KTA-Tator, Inc.

May 2026

3850 N. Causeway Boulevard
Suite 1625
Metairie, LA 70002
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Louisiana Department of Transportation and Development
Consultant Contracts Services

May 21, 2026

Re: Contract Nos. 4400035210 IDIQ Contract for Bridge Maintenance Preservation and Repair Statewide

Dear Selection Committee Members:

Hardesty & Hanover (H&H) is submitting our qualifications to DOTD to provide bridge maintenance preservation and repair services under this IDIQ contract. We are proud of our long history working in Louisiana, dating back to 1896 with the historic Waddell A-Truss Bridge over Cross Bayou in Shreveport. As a leader in engineering, our firm brings a legacy of providing engineering excellence for 139 years. H&H has the full capability, availability, and extensive engineering experience to perform all contract services required. We have identified a large pool of qualified engineers and inspectors that will meet project schedule and achieve the goals of each Task Order assigned under this IDIQ. Our extensive experience will aid in maintaining safe, reliable, and sustainable infrastructure for our fellow Louisiana residents and stakeholders.

Proven Bridge Maintenance Preservation and Repair Services: H&H's proven team of qualified bridge engineers and inspectors are capable, local, experienced, professional, and readily available. Our team of highly experienced specialists have provided departments of transportation with decades of comprehensive bridge engineering services for all types of fixed and movable bridges. From initial troubleshooting, annual inspection, special assessments, and repair design services to peer review, emergency response, and O&M manuals development, we've dedicated our careers to maintaining and building bridge facilities that are reliable, efficient, and meet our clients' best interests and all applicable codes.

Subconsultants: The H&H Team includes subconsultants with extensive experience in their specialty areas. APS Engineering & Testing, LLC providing geotechnical services; Bridge Diagnostics, Inc. providing non-destructive testing; SJB Group, L.L.C. providing surveying services; Providence Engineering and Environmental Group LLC providing environmental engineering and permitting; Urban Systems, Inc providing traffic engineering services; and KTA-Tator, Inc. providing protective coating assessments. We have successfully delivered projects in partnerships with these subconsultants.

DOTD Experience: Our team brings comprehensive experience using DOTD standards and specifications with several team members working at DOTD for over 25 years and/or working on prior DOTD projects. Our thorough familiarity with DOTD procedures and design standards enables us to work accurately and efficiently. Together, we bring proven engineering services; successful delivery of similar, concurrent projects on time and on budget; resources that exceed the MPR requirements; and a roster of qualified professionals in all disciplines with availability to begin work immediately. H&H appreciates the opportunity to work with DOTD on this IDIQ contract. Please do not hesitate to contact us if additional information on our extensive qualifications is needed.

Sincerely,

Babak "Bobby" Naghavi, PE, PH, PhD
Project Manager and Point of Contact
504.605.7940
bnaghavi@hardestyhanover.com

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 exactly as registered with the Louisiana Secretary of State (SOS) where such registration is required by law; including punctuation; include screenshot from SOS at the end of Section 20)**	**Hardesty & Hanover, LLC**
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.0005124
6. Prime consultant mailing address	3850 N. Causeway Blvd. Ste. 1625 Metairie, LA 70002
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	3850 N. Causeway Blvd. Ste. 1625 Metairie, LA 70002
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Babak "Bobby" Naghavi, PE, PH, PhD, Regional Manager 504.605.7940 bnaghavi@hardestyhanover.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Babak "Bobby" Naghavi, PE, PH, PhD, Regional Manager 504.605.7940 bnaghavi@hardestyhanover.com

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response. **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: **May 21, 2026** Date:

11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s):	Firm(s)' %:
	No DBE goal has been set for this contract	

12. Discipline Table:

Discipline(s)	% of Overall Contract	Prime: H&H	APS Eng. & Testing	Bridge Diagnostics	SJB Group	Providence Eng. & Env. Group	KTA-Tator	Urban Systems	Each Discipline must total to 100%
Road	**2%**	100%							**100%**
Bridge	**93%**	96%		3%			1%		**100%**
Geotech	**1%**		100%						**100%**
Survey	**2%**				100%				**100%**
Traffic	**1%**							100%	**100%**
Environmental	**1%**					100%			**100%**

Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.

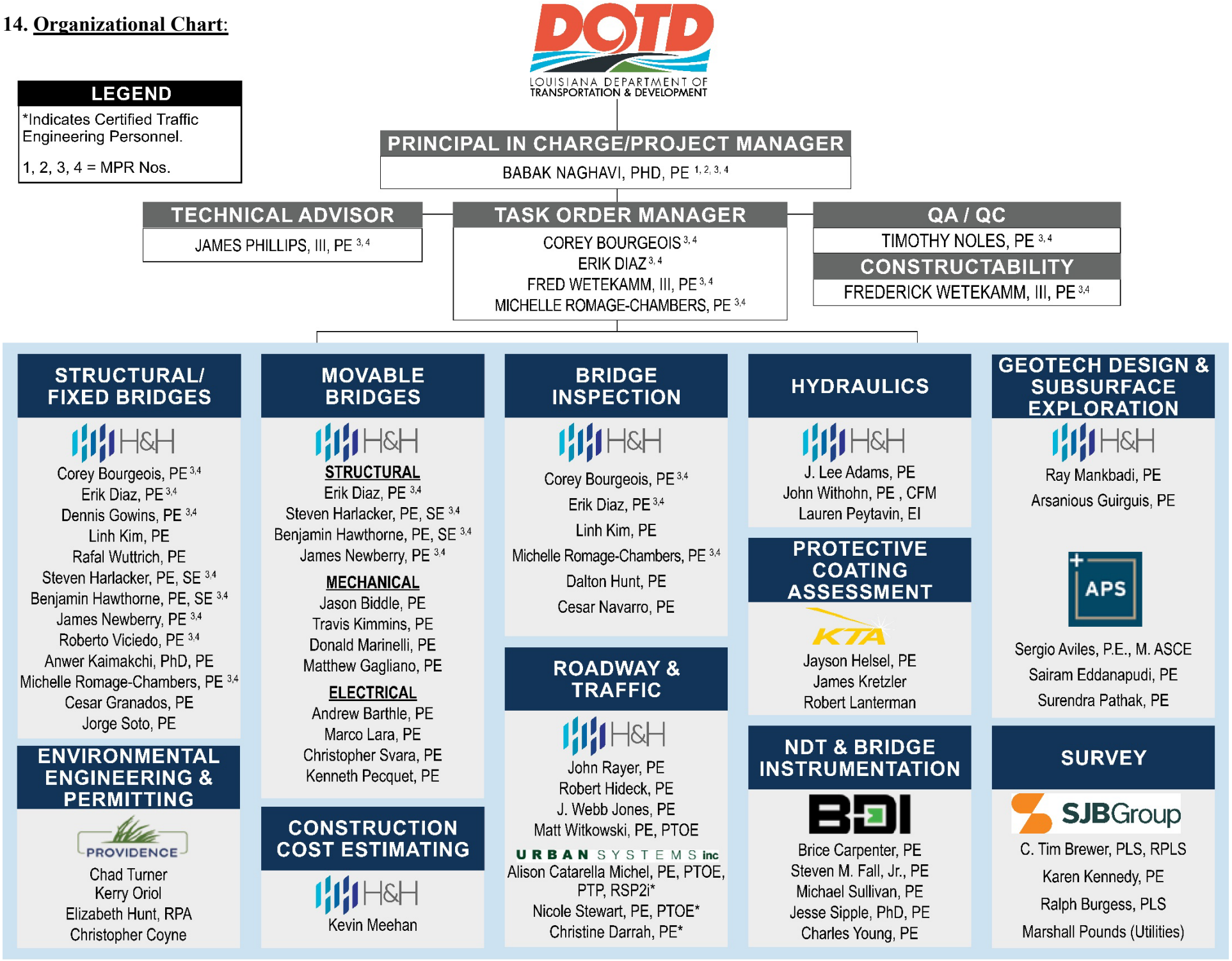
Percent of Contract	**100%**	**91%**	**1%**	**3%**	**2%**	**1%**	**1%**	**1%**	

13. Team Size:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Hardesty & Hanover, LLC	Principal	2	4
	Supervisor - Eng	10	16
	Engineer	18	28
	Engineer - Other	4	8
	Supervisor - Other	1	2
	Engineer Intern	6	12
	Administrative	1	2
APS Engineering & Testing, LLC	Supervisor - Eng	1	1
	Engineer	2	2
	Engineer Intern	1	1
	Senior Technician	2	3
	Clerical	1	2
Bridge Diagnostics, Inc.	Principal	1	2
	Supervisor - Eng	2	2
	Engineer	3	3
	Computer Analyst	3	3
	Engineer - Other	3	7
	Engineer Intern	3	8
	Senior Technician	4	4
	Supervisor - Other	4	12
	Administrative	1	1

SJB Group, L.L.C.	Surveyor	2	5
	Technician	2	5
	Party Chief	2	5
	Instrument Man	2	5
	Supervisor - Other	2	2
	Senior Technician	2	5
	Project Office Manager	1	1
	CADD Technician	2	2
	CADD Operator	2	2
	Principal	1	1
Providence Engineering and Environmental Group LLC	Environmental Manager	2	2
	Archaeologist	1	4
	Biologist/Wetlands	1	4
Urban Systems, Inc	Supervisor - Eng	1	2
	Engineer	2	2
	Engineer Intern	1	3
	CAD Technician	1	2
KTA-Tator, Inc.	Supervisor - Other	1	4
	Environmental Pro	1	2

14. Organizational Chart:



15. Minimum Personnel Requirements:

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	**Babak Naghavi, PE, PH, PhD**	Hardesty & Hanover, LLC	PE #20745 – Civil Engineer, Environmental Engineer	LA	09/30/2026
2	**Babak Naghavi, PE, PH, PhD**	Hardesty & Hanover, LLC	PE #20745 – Civil Engineer, Environmental Engineer	LA	09/30/2026
3	**Babak Naghavi, PE, PH, PhD**	Hardesty & Hanover, LLC	PE #20745 – Civil Engineer, Environmental Engineer	LA	09/30/2026
3	**James Phillips III, PE**	Hardesty & Hanover, LLC	PE #25091 – Civil Engineer	LA	03/31/2027
3	**Timothy Noles, PE**	Hardesty & Hanover, LLC	PE #31675 – Civil Engineer	LA	09/30/2027
3	**Corey Bourgeois, PE**	Hardesty & Hanover, LLC	PE #42362 – Civil Engineer	LA	09/30/2026
3	**Erik Diaz, PE**	Hardesty & Hanover, LLC	PE #37712 – Civil Engineer	LA	09/30/2027
3	**Frederick Wetekamm III, PE**	Hardesty & Hanover, LLC	PE #25369 – Civil Engineer, Environmental Engineer	LA	03/31/2028
3	**Dennis Gowins, PE**	Hardesty & Hanover, LLC	PE #24468 – Civil Engineer	LA	09/30/2027
3	**Steven Harlacker, PE, SE**	Hardesty & Hanover, LLC	PE #37057 – Civil Engineer, Structural Engineer	LA	09/30/2026
3	**Benjamin Hawthorne, PE, SE**	Hardesty & Hanover, LLC	PE #44620 – Civil Engineer, Structural Engineer	LA	09/30/2026
3	**James Newberry, PE**	Hardesty & Hanover, LLC	PE #45742 –Structural Engineer, Civil Engineer	LA	09/30/2027
3	**Roberto Viciedo, PE**	Hardesty & Hanover, LLC	PE #36533 – Civil Engineer	LA	03/31/2028
3	**Michelle Romage-Chambers, PE**	Hardesty & Hanover, LLC	PE #50677 – Civil Engineer	LA	03/31/2028
4	**Babak Naghavi, PE, PH, PhD**	Hardesty & Hanover, LLC	PE #20745 – Civil Engineer, Environmental Engineer	LA	09/30/2026
4	**James Phillips III, PE**	Hardesty & Hanover, LLC	PE #25091 – Civil Engineer	LA	03/31/2027

4	**Timothy Noles, PE**	Hardesty & Hanover, LLC	PE #31675 – Civil Engineer	LA	09/30/2027
4	**Corey Bourgeois, PE**	Hardesty & Hanover, LLC	PE #42362 – Civil Engineer	LA	09/30/2026
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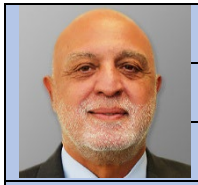
4	**Michelle Romage-Chambers, PE**	Hardesty & Hanover, LLC	PE #50677 – Civil Engineer	LA	03/31/2028

16. Staff Experience:

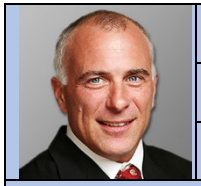


Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Babak Naghavi, PhD, PE, PH**	Years of relevant experience with this employer	9
Title	**Regional Manager**	Years of relevant experience with other employer(s)	35

Degree(s) / Years / Specialization	PhD / 1993 / Civil Engineering / Louisiana State University MS / 1982 / Civil Engineering / Louisiana State University BS / 1979 / Civil Engineering / Louisiana State University
Active registration number / state / expiration date	**Professional Engineer:** 20745 / LA / 9/30/2026 **Professional Hydrologist**: 95-H-1121 **Certifications**: Maintenance and Rehabilitation of Historic Bridges (LADOTD); NEPA Transportation Decision Making Workshop; Work Zone Traffic Control Supervisor/Flagger; NHI 130053 Safety Inspection of In-Service Bridges Refresher; NHI 133091 Underwater Bridge Inspection; NHI 130099A Bridge Inspection Nondestructive Evaluation
Year registered: 1983 / Discipline	Civil and Environmental Engineering
Contract role(s) / brief description of responsibilities	**Principal in Charge / Project Manager – Meets MPR 1, 2, 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Project Manager** for inspection, scoping, design, and construction-related engineering services (CRES) for five movable bridges in the LADOTD Movable Bridge Rehabilitation Program. Managed full structural, mechanical, electrical, and architectural rehabilitation to extend service life, improve load capacity, and bring systems into current code compliance. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards. Services included NBIS inspections, load ratings, NDT, strain gage testing, scope and report development, environmental and geotechnical coordination, TMP development, PS&E production, permit coordination, construction cost estimating, shop drawing and RFI review, on-call construction support, and full mechanical/electrical system testing and commissioning.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Project Manager** for the movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects include Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Tech Swing Bridge. Bobby oversaw design coordination, project meetings, plans/specifications production, bid support, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA - LADOTD** **Project Principal** supervising inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
01/19 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Project Principal** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction. The new bridge is constructed as an independent structure adjacent and north of the existing bridge with a new operator house. The project includes rehabilitation of the existing four-lane

	bridge with three lanes of traffic and a new pedestrian/bike lane. In addition to the new bridge design, all roadway approaches and intersections in the bridge vicinity (eastbound and westbound) will be redesigned to accommodate the new structure. Scope includes development of a Traffic Control Plan.
01/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Project Manager** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Ave Bridge, a movable Strauss-heel trunnion bridge that crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920 bascule bridge involved a structural inspection of the fracture critical steel, primary and secondary steel members, an electrical inspection of the electrical systems and controls, and a mechanical inspection of the machinery. The assessment revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. The road design services included a new alignment for the connecting road, along with all associated drainage structures. Additional remedial efforts along Almonaster Ave Bridge also included the improvement or replacement of the original fixed roadway approach spans. The sharp curve that existed on westbound Almonaster Ave was demolished, and a new road was constructed on an improved alignment. H&H developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
03/18 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Project Manager** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
11/24 – Present	**SR 33 Bridge Replacements, Franklin County, MS – Mississippi DOT** **Project Manager** for the Phase A Final Right-of-Way (ROW) Plans for roadway design and roadway hydraulic design for four bridge replacements along SR 33 (Bridge Nos. 31.9, 34.6, 34.9, and 35.3). The project scope includes roadway realignment, roadway hydraulic design, preliminary ROW design, and final ROW design. H&H is providing the realignment of the roadway to run parallel to the existing and redesigning of one intersection at the end of the project. A hydraulic study and report are to be completed to resize the existing pipes, if necessary, and to verify sizing for a reinforced box culvert. A set of preliminary ROW plans are to be created following MDOT guidelines and using the approved alignment from MDOT. Final right-of-way plans will be delivered after hydraulic design and roadway design have been finalized and a plan set has been created.
06/17 – Present	**H.002798.6 Bayou Teche Movable Bridge at Oaklawn, St. Mary Parish, LA - LADOTD** **Project Manager** responsible for design, calculations, and plan preparation of the bridge power distribution and relay-based control system for this movable bridge located in St. Mary Parish, LA. The new through steel girder swing-span rotates with hydraulically actuated slewing (push-pull) cylinders. H&H is currently providing construction phase services for the project.
05/13 – 02/17	**Glen Oaks Dr (Plank Rd to McClelland Dr) – Baton Rouge DPW** **Project Manager** for the $10M engineering design and construction of a three-lane concrete curb and gutter roadway with sidewalks and subsurface drainage on Glen Oaks Dr from Plank Rd to McClelland Drive. Glen Oaks Dr was a one-mile existing Urban Collector roadway. The project also included improvements to several intersections, full topographic survey, subsurface drainage system and outfalls, and hydrologic & hydraulics analysis for the outfalls.
01/09 – 08/10	**USACE Contract. W912P8-07-D-0055: Causeway Blvd Overpass Complex - USACE** **Project Manager f**or this project that involved the design of north and south roadway approaches for the overpass structures at Causeway Blvd located at Jefferson Parish, LA. The scope of work included precast concrete piles; cast-in-place pile bent caps and concrete decks; approach slabs; and a storm-water drainage pumping station. This project was designed to LADOTD specifications.



Firm Employed by **Hardesty & Hanover, LLC**			
Name	**Timothy Noles, PE**	Years of relevant experience with this employer	42
Title	**Principal**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S. / 1984 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 31675 / LA / 9/30/2027
Year registered	2005	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Quality Assurance / Quality Control Manager (QA/QC) – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/19 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Technical Advisor / Quality Control Manager** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Ave Bridge, a movable Strauss-heel trunnion bridge that crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historical Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. Developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing.
07/16 – 9/21	**SR A1A North Bridge Replacement, Fort Pierce, FL – Florida DOT** **Technical Advisor** for the planning and design of a new high-level fixed bridge carrying SR A1A and the East Coast Greenway over the Intracoastal Waterway, FEC Railroad, and Old Dixie Highway. Scope included staged construction to maintain traffic, elimination of at-grade rail crossing, design of new roadway alignments and access roads, and integration of an observation deck. H&H coordinated extensively with utilities, FEC Railroad, adjacent businesses, and permitting agencies. The project also included geotechnical, drainage, hydrogeology, lighting, signals, signage, and maintenance of traffic for both vehicular and marine users.
01/19 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Technical Advisor** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction. The new bridge is constructed as an independent structure adjacent and north of the existing bridge with a new operator house. The project includes rehabilitation of the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane. Scope includes improvements to bridge and roadway approaches for eastbound and westbound traffic as well as development of a Traffic Control Plan.
04/17 – Present	**I-395 Segmental Bridges**, **Miami, FL – Florida DOT** **Project Manager** for the design of the superstructure and performing the load ratings. H&H is designing seven new precast segmental bridges that are a part of the SR 836 / I-95 / I-395 corridor upgrade. This design-build project is being constructed by the Archer Western-De Moya Joint Venture. The overall construction value of the project is $800 million, and the segmental bridges have a deck area of 700,000 square feet (approximately $200 million). Construction is scheduled to be completed in late 2027.
08/16 - 06/18	**I-75 SB Exit Design from S of Bypass Canal to EB/WB, Tampa, FL – Florida DOT** **Technical Advisor** responsible for project oversight of plans preparation and engineering documentation. This two-mi. roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right of way acquisition or impacts to Florida Gas Transmission lines.

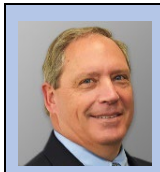
08/20 – Present	**H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourge, LA – LADOTD** **Technical Advisor / Quality Control Manager** ensuring consistent performance by the construction engineering and inspection staff throughout the term of the project, including services for a new vertical lift bridge and operator's house. Monitoring construction activities; reviewing construction engineering inspection field records and reports; determining compliance with field testing methods and results; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; and construction close-out.
02/08 – 12/10	**SR-5/US-1 Parker Bridge over ICWW, Palm Beach, FL – Florida DOT** **Principal-in-Charge/Lead Design Engineer** for construction management at-risk project which included in-depth inspection, condition report with load ratings, and rehabilitation recommendations. The project also included preparation of structural, architectural, mechanical, and electrical plans to rehabilitate this Hopkins Trunnion twin double-leaf bascule span bridge. The $8 million rehabilitation included hydraulic machinery retrofit, electrical system improvements, control house 2nd story addition, bridge widening, as well as roadway and embankment improvements.
01/15 – 03/17	**Broad Causeway Bridge over ICWW, Bay Harbor Islands, FL – City of Bay Harbor Islands** **Principal-in-Charge** for the project involving construction inspection for three bridges including a 1630-foot bascule span bridge. Scope included maintenance of traffic, roadway work, and bascule span rehabilitation including cathodic protection for the approach bridges substructure for $14 million.
09/07 – 01/09	**SR-814/Atlantic Boulevard Bridge, Pompano Beach, FL – Florida DOT** **Principal-in-Charge/Lead Design Engineer** for this $5 million Construction Management Risk to rehabilitate a Hopkins Trunnion double-leaf bascule span bridge. The project included hydraulic machinery retrofit; electrical system improvements, control house modifications, and bascule span structural steel rehabilitation and bridge railing replacement.
04/12 – 04/16	**Boca Grande Causeway Swing Bridge Replacement, Placida, Fl – Gasparilla Island Bridge Authority** **Technical Advisor/Quality Control Manager** for the design of the replacement of a structurally deficient swing span bridge located on the Boca Grande Causeway. The fixed portion of the bridge utilized Florida I-beam girders founded on hammerhead pier caps and cast in place footings with 24-inch precast concrete piles. The project also included the installation of a permanent steel sheet pile bulkhead wall with cast in place concrete caps. Construction of critical temporary sheet pile walls required for phased construction, and a total of 0.24 miles of roadway construction.
01/19 – 12/24	**SR 605 Movable Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Technical Advisor / Quality Control Manager** for the assessment, design, plan review, and quality control of SR 605 double-leaf bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services, statewide for MDOT. Work included inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches and development of maintenance and repair plans. All designs were in accordance with AASHTO, FHWA and MDOT guidelines and specs.
08/10 – 08/19	**Bayou Teche Bridge at Oaklawn, St. Mary Parish, LA – LADOTD** **Principal-in-Charge** providing inspection, engineering design, and post-design services for new Bayou Teche Bridge at Oaklawn project. Built in 1941 to carry LA Route 323 over Bayou Teche, the original bridge is being replaced with a new hydraulically operated swing bridge. H&H provided the electrical design for the bascule bridge in line with LADOTD's design requirements and standard design details. This bridge replacement project included new traffic signals, gates, and a barrier system design which were provided by LADOTD's roadway, structural, and mechanical designers.
08/08 – 08/13	**Judge Seeber Vertical Lift Bridge, New Orleans, LA - LADOTD** **Technical Advisor /Quality Control Manager** overseeing the task order involving the replacement of the vertical life bridge's entire electrical system, counterweight ropes, counterweight guides, and span locks in addition to miscellaneous structural repairs. Design work for this eligible for the National Register of Historic Places bridge was completed within three months to meet the FEMA funding deadline. The electrical system was replaced in-kind using secondary resistance control operated with a drum switch in accordance with LADOTD preference.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**James Phillips, III, PE**	Years of relevant experience with this employer	12
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	33

Degree(s) / Years / Specialization			B.S. / 1982 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer**: 25091 / LA / 03/31/2027
Year registered	1986	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Technical Advisor – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Technical Advisor** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Technical Advisor** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA - LADOTD** **Technical Advisor** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
06/20 – 12/20	**SR 609 Movable Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Chief Bridge Movable Bridge Engineer** for full rehabilitation of SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included developing standard and special bridge services, statewide for MDOT. Scope of work included inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, as well as the roadway approaches and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
1/18 - present	**Lapalco Boulevard Movable Bridges over Harvey Canal, Jefferson Parish, LA - Jefferson Parish DPW** **Technical Lead** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Boulevard to provide a facility carrying three lanes of traffic in each direction. In addition to constructing the new bridge immediately adjacent and north of the existing bridge, the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane will be rehabilitated. The scope of services also includes improvements to bridge and roadway approaches for eastbound and westbound traffic as well as the development of a Traffic Control Plan. This project is being designed according to LADOTD standards and specifications.

01/16-04/16	**District Seven Movable Bridge Work Program Evaluation, West Central Florida - Florida DOT District 7** **Chief Bridge Structural Engineer** responsible for developing a ten-year work program for eleven movable bridges (10 bascules, 1 vertical lift) owned and operated by FDOT D7. Prepared a condition assessment of each bridge based upon site reviews, recent bridge inspection reports, prior repair/rehabilitation projects and interviews with maintenance staff. Prepared a report describing the current state of the bridges and providing recommendations for routine and periodic repairs/rehabilitation over the next 10 years. Costs for the recommendations were included in the report.
11/14-11/15	**Flagler Memorial Bridge over ICWW, Palm Beach, FL - Florida DOT District 4** **Project Manager & Chief Bridge Structural Engineer** responsible for the post design services for a new bridge featuring twin double-leaf rolling-lift bascule spans. The project was constructed using a design-build approach. Assisted with review of requests for information (RFIs) and construction procedures for shop fabrication and field alignment, including roll testing. Performed site visits to the steel fabrication shop to observe construction and roll testing and provide guidance on adjustments to obtain alignment tolerances of the rolling tread surfaces.
05/18 - 2/21	**SR-A1A/North Causeway Bridge over ICWW, Fort Pierce, FL - Florida DOT District 4** **Project Manager & Chief Bridge Structural Engineer / Engineer of Record** for the 4000-foot-long bridge replacement project which replaces a bascule span with a high-level fixed bridge that has 85-foot vertical clearance over the navigable channel. The preferred replacement fixed bridge alternative includes the FIB superstructure and spans over Old Dixie Hwy and the FEC Railway. In addition to the new bridge, the project includes extending Juanita Ave east from US-1 to Old Dixie Hwy and provisions for a new access roadway for the businesses south and north of the new bridge along SR A1A.
08/12 – 02/14	**Laurel Street Bascule Bridge Rehabilitation, Tampa, FL – City of Tampa** **Project Manager / Chief Movable Bridge Engineer** for a project that involved emergency repairs and rehabilitation of a historic through truss single-leaf bascule bridge. Scope involved emergency repair of the rack pinion support structures and rack frames to correct severe corrosion and fatigue cracks. Rehabilitation included reconditioning of the drive machinery and replacement of the drive motors and control system.
01/15 - 12/17	**Beckett Bridge Replacement, Tarpon Springs, FL - Pinellas County Government** **Technical Lead** responsible for replacement of an existing historic bridge with a new 360-foot single-leaf, rolling-lift, bascule bridge that carries Riverside Drive over Whitcomb Bayou and features two traffic lanes, shoulders and a sidewalk. The movable span features steel plate girder main girders and floorbeam and an Exodermic deck that spans longitudinally between floorbeams. The bascule pier footing and approach pier caps feature precast concrete elements to facilitate accelerated bridge construction. Foundations are drilled shafts and pipe piles, designed to accommodate challenging site conditions including a relict sink hole under the bridge. A unique crank arm system drives the movable span, powered by redundant 20 HP electric motors and vector drives. Auxiliary machinery includes tail props and span locks. Project elements included relay-based control system, approximately a quarter mile of roadway, drainage, bridge architecture, and public involvement.
02/03 – 03/05	**Spokane Street Swing Bridge, Seattle, WA – Seattle DOT** **Project Manager / Engineer of Record** for investigation and design of replacement lift/turn cylinders for the world's largest concrete double-swing bridge. Project involved design of nine-foot diameter bore hydraulic cylinders for lifting and pivoting two 1.5-million-pound concrete spans. Replacement involved investigation of the failure mode of the original cylinders, including detailed FEA analysis, and development of a cylinder design that eliminated the stress concentrations found to have contributed to the failure. The span length between pivots is 480-ft. and each swing span has a length of 418-ft.
06/12 – 06/14	**Andrews Avenue Bascule Bridge Rehabilitation, Fort Lauderdale, FL – Broward County** **Chief Movable Bridge Engineer** responsible for hydraulic system design and review of structural and mechanical design, calculations, plans, and technical special provisions for this single-leaf bascule bridge. Scope included electrical and machinery rehabilitation of a single-leaf bascule span. Mechanical work included complete replacement of the hydraulic cylinder drive system and span locks.
09/98 – 04/06	**US 92 Hillsborough Avenue Vertical Lift Bridge Rehabilitation, Tampa, FL – Florida DOT** **Chief Movable Bridge Engineer / Engineer of Record** responsible for inspection and design for repair of an historic 1939 vintage vertical lift movable bridge over the Hillsborough River. The bridge features a 94-foot lift span. Inspected specific bridge systems and devised repairs to correct binding of the lift span guide assemblies. Performed QC reviews of the plans and technical special provisions for replacement of the counterweight wire ropes, sheaves and sheave bearings as well as miscellaneous structural repairs to the lift span towers.

	Firm employed by	**Hardesty & Hanover, LLC**		
	Name	**Frederick Wetekamm, III, PE**	Years of relevant experience with this employer	8
	Title	**Senior Project Engineer**	Years of relevant experience with other employer(s)	32
Degree(s) / Years / Specialization			M.E. / 2018 / Construction Management B.S. / 1984 / Civil Engineering	
Active registration number / state / expiration date			**Professional Engineer:** 25369 / LA / 03/31/2028 **Certifications:** Maintenance and Rehabilitation of Historic Bridges (LADOTD); ATSSA Traffic Control Supervisor and Flagger; FHWA NHI #139005, FHWA NHI Course #130053 Bridge Inspection Refresher Training, Driven Pile Foundations – Construction Monitoring	
Year registered	1993	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			**Constructability Reviewer & Task Order Manager - Meets MPR 3 and 4**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Constructability Reviewer & Senior Project Engineer** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements.
03/18 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Constructability Reviewer & Senior Project Engineer** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Project Manager** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Constructability Reviewer & Senior Project Engineer** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.

01/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Constructability Review Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span.H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design. Coordinated with Entergy New Orleans for ROW use for the new connector roads, USACE for reconstruction of the existing roadway over the floodwall, and CSX railroad for implementing a schedule for track time during construction.
11/15 – 03/18	**S.P. No 006196 Wisner Bridge Replacement, Orleans Parish, LA – LADOTD** **Project Manager** in responsible charge for contract administration, supervision of the Project Engineer, and LADOTD Certified Inspectors for construction inspection. This project scope was to replace the 1955 bridge with a new structure. The 1,500-foot-long new bridge consists of prestressed concrete pilings, with a combination of precast prestressed concrete girder spans and steel girder spans over I-610. Also coordinated with the Designer/ Engineer of Record, the City of New Orleans, and the LADOTD Program Manager from the inception of the project to provide the most effective design to meet the current needs of the public utilizing the current LADOTD BDEM and LSSRB. The bridge provides a dedicated protected bike lane. The total cost for the project was $22M.
09/22 – Present	**H.013897.6 I-10 & I-12 College Dr Flyover Ramp Design- Build, Baton Rouge, LA – LADOTD** **Project Manager** for design and construction quality control/quality assurance for this road and bridge design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will develop, maintain, and update Contractor Quality Management Plan and provide qualified Inspectors, material sampling, testing, independent testing labs to ensure contractors and off-site fabrication facilities meet project specifications and testing and acceptance of construction materials.
02/23 – Present	**H.015028.6 Bayou Barataria Movable Bridge Replacement (CE&I), Phase 1, LA 302, Jefferson Parish, LA - LADOTD** **Project Engineer** responsible for managing construction contract administration and construction engineering and inspection services for the Bayou Barataria Movable Bridge Replacement. This project consists of construction of the movable swing span bridge, operator's house, associated substructure elements, and pier protection system along relocated LA 302 in Jefferson Parish. Phase 2 consists of construction of new roadway alignment for LA45 to tie into LA 302 in Jefferson Parish. Assisted in coordination of utility location and relocations for Entergy, Cox, Jefferson Parish Water Dept. and Alpine Exploration (LNG lines).
01/96 – 12/07	**LADOTD Bridge Maintenance Engineer, LADOTD District 2, LA – LADOTD** **Bridge Maintenance Engineer** responsible for managing the program for Bridge Inspection, Operations and Maintenance Program, bridge operators, bridge repair crews, and bridge inspectors. The New Orleans Area has over 950 bridges (32 movable bridges), three tunnels, two navigation locks, and three drainage pumping stations. Was responsible for creating and distributing repair work orders to the appropriate personnel and coordinating the repairs, materials, equipment, labor, media information, and/or traffic control. Wrote major repair requests and generated project plans and specifications for repair projects and accident damages to the bridges for marine, vehicular and environmental damages. Served as the lead coordinator for the projects with LADOTD District and statewide forces, contractors, consultants, public officials, media, property owners, and the bridge maintenance supervisor. Provided construction inspection for his projects. Championed the first Bridge Operator Manual and the first Bridge Maintenance Manual for the movable bridges. Provided technical training to mechanics and electricians on implementing processes in the Manuals that increased the reliability and performance of the bridges. Aided the legal section providing documentation for the collection of reimbursements for repairs from accident damages to the movable and fixed bridges. Provided damage assessments (DIR) for federally reimbursed repairs from hurricanes and tropical storms. Has extensive experience with specialized traffic requirements for the bridge/tunnel couplets, District traffic and marine requirements for temporary bridge closures, and permit load crossings.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Corey Bourgeois, PE**	Years of relevant experience with this employer	3
Title	**Bridge Engineer**	Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		B.S. / 2013 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 42362 / LA / 09/30/2026 **Certifications:** NHI 130078 Fracture Critical Inspection Techniques for Steel Bridges; NHI 130092 Fundamentals of LRFR and Applications of LRFR For Bridge Superstructures; NHI 130081 Load and Resistance Factor Design (LRFD) For Highway Bridge Superstructures; NHI 130056 Safety Inspection of In-Service Bridges	
Year registered	2018	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities		**Task Order Manager, Structural/Fixed Bridge Engineer, & Bridge Inspector – Meets MPR 3 and 4**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Bridge Engineer** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Bridge Engineer** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
11/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Structural Engineer** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
11/23 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Bridge Engineer** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction. The new bridge will be constructed as an independent structure adjacent to the north of the existing bridge with a new operator house. The project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane, improvements to bridge and roadway approaches, and development of a Traffic Control Plan. All design work is accordance to LADOTD Standards and Specifications and reviewed by LADOTD. Load rating was performed using AASHTOWare BrDR load rating software.

08/17 – 01/22	**H.012071 US 51 Yellow Water River Bridge, Hammond, LA - LADOTD** **Project Manager** for this slab span bridge is located on a highly traveled section of US 51 in Hammond near Southeastern University. Due to rapidly deteriorating site conditions and other political pressure, this project was expedited to a much more compressed schedule than we typically see for bridge projects. He developed alternatives to maintain traffic during construction in this critical section of highway. A unique design was chosen where the bridge will be built in phased construction to allow for a complete replacement with a median turn lane.
04/16 – 05/19	**H.012411 LA 1054 at Big Creek Bridge Replacement, Tangipahoa Parish, LA - LADOTD** **Project Manager** for this emergency project where one of the roadways approaches completely washed out during the March 2016 flooding in Tangipahoa Parish, Louisiana. Since the bridge was a candidate for replacement, it was decided that the entire bridge should be replaced while the roadway was out of service. Corey assisted in coordinating FEMA for emergency funding while also performing all bridge design and construction support.
05/21 – 12/22	**H.014672 I-12: LA 1032 Overpass Repair, Tangipahoa, LA - LADOTD** **Project Manager** for this emergency repair project where an over-height vehicle completely destroyed an exterior prestressed concrete girder. This required the exterior shoulder to be closed in a very busy section of I-12. Corey served as Project Manager and procured the consultant and immediately began the task order creation with one of our in-house retainer contracts. He facilitated constant communication with the consultant making sure that this priority project was kept on schedule.
05/17 – 03/22	**H.000337 US 61 Bayou Manchac and Francois Bridges, East Baton Rouge & Ascension Parishes, LA - LADOTD** **Task Manager** for this replacement project consisting of twin 300-ft.-long concrete girder bridges including load rating. The superstructure was AASHTO Type IV girders and substructure was pile bents. Some unique challenges with this project included a severe skew, continuous deck units, and the crossing being part of the Scenic Rivers Program. Corey designed all bridge features including as-designed and load rating for this $10M project.
11/23 – Present	**Waco On-System Bridge Replacements Contract No. 36-0IDP5067, Waco District, TX – Texas DOT** **Structural Engineer** for this indefinite deliverable contract. This work authorization consists of replacing seven bridges on three roadways in three different counties in the Waco area. The new structures are precast beam slab bridges. H&H evaluated options and prepared bridge alternatives memos for each bridge accompanied by cost comparisons and bridge layout exhibits. Corey provided review of the final plans and created the final construction cost estimates. H&H is also providing services throughout the construction phase.
08/18 – 06/20	**H.000133 US 80 at KCS Railroad, Simsboro, LA - LADOTD** **Task Manager** for this replacement project for a 290-ft.-long railroad overpass in a S-curve. The bridge superstructure consisted of slab spans, and an LG-36 span over the railroad. The substructure was column bents with drilled shaft foundations. This bridge had various geometric difficulties including superelevation, horizontal and vertical curvature, and railroad clearances. Corey designed all bridge features including as-designed load rating for this $6.5M project.
03/24 – Present	**H.009730.5 LADOTD Movable Bridge Manual, New Orleans, LA - LADOTD** **Structural Engineer** responsible for the development of the LADOTD Movable Bridge Inspection Manual (including details, photos, illustrations, and specific examples); building a lesson plan and materials for the classroom training from the inspection manual; and providing classroom and field training. The manual will include bridge inspection principles and overview; movable bridge overview; mechanical, electrical, and structural inspection of movable bridges; operator house; and classroom and field training for electrical, mechanical, and structural).
11/17 – 11/21	**H.012622 I-12 Hog Branch Bridge Widening, Livingston Parish, LA - LADOTD** **Task Manager** for the third phase of widening projects along the I-12 corridor in Livingston Parish. The bridge consists of AASHTO type III girder superstructure and pile bent substructure. Corey performed load rating on the existing structure to determine if any strengthening was required. He was responsible for designing all bridge members for this $16M project.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Erik Diaz, PE**	Years of relevant experience with this employer	7
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		B.S. / 2008 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 37712 / LA / 09/30/2027 **Certifications:** NHI 130056 Safety Inspection of In-Service Bridges; Maintenance & Rehabilitation of Historic Bridges (LADOTD); NHI 130081 Load and Resistance Factor Design (LRFD) For Highway Bridge Superstructures; NHI 130078 Fracture Critical Inspection Techniques for Steel Bridges	
Year registered: 2013	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Task Order Manager, Structural/Fixed Bridge Engineer, Movable Bridge Engineer, & Bridge Inspector – Meets MPR 3 and 4**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/25 – Present	**H.013818 Golden Meadow Vertical Lift Bridge Rehabilitation, Golden Meadow, LA - LADOTD** **Project Manager** for this inspection and rehabilitation project for a 200-foot-long steel vertical lift bridge. After performing an In-Depth inspection of the bridge is complete, a LRFR load rating will be performed based on the inspection findings. A recommended rehabilitation scope of work will be created and once approved by the client, the plans will begin development. This bridge is considered a Historic Preservation Priority bridge therefore the rehabilitation will need to take extra care in maintaining as much as possible of the appearance and function of the bridge to when it was first built.
03/18 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Senior Structural Engineer** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Project Manager** for several task orders under this movable bridge preservation and rehabilitation IDIQ contract. Services include mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Senior Bridge Engineer** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.

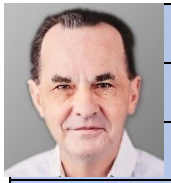
01/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Bridge Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. Erik provided the design of steel plate girders for the bridge. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
08/19 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Project Manager** for the pre-design inspection and design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction in an urban area. The new bridge will be constructed as an independent structure adjacent and to the north of the existing bridge with a new operator house. The project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane, improvements to bridge and roadway approaches, and development of a Traffic Control Plan. Erik provided the design of steel plate girders for the bridge. All design work is in accordance with LADOTD Standards and Specifications and reviewed by LADOTD. Load rating was performed using AASHTOWare BrDR load rating software.
07/16 – 07/17	**Two US-11 Bascule Bridges over Lake Pontchartrain Rehabilitation, Jefferson and St. Tammany Parishes, LA – LADOTD** **Senior Movable Bridge Structural Engineer** for the comprehensive rehabilitation of one bascule bridge and replacement of another bascule bridge over Lake Pontchartrain. The work on this project included the inspection of old spans, the rehabilitation design development for the north bascule span and fender, as well as the design of construction plans for a new south bascule span.
12/17 – 11/18	**Widening of I-12 Bridges in Livingston Parish, Livingston Parish, LA - LADOTD** **Bridge Engineer** for this project located on the heavily traveled I-12 in Livingston Parish, LA. Existing bridge traffic was required to be maintained during construction. H&H designed reinforced concrete slab spans, PPC girder spans, and reinforced concrete pile bents. Detailed and created plans for slab spans, PPC girder spans, and reinforced concrete pile bents. H&H also provided construction support by reviewing submittals and responding to RFIs.
12/12 – 10/15	**Houma Navigation Canal Bridge Rehabilitation, Houma, LA – LADOTD** **Structural Engineer** responsible for performing bridge inspections to identify repairs for rehabilitation as well as providing bridge rating to identify areas for strengthening. Also, designed and detailed various elements for bridge rehabilitation.
08/15 – 07/19	**Vermillion River Vertical Lift Bridges Rehabilitation, Vermillion Parish, LA – LADOTD** **Project Manager** for the inspection, rating, and final rehabilitation recommendations report for two steel vertical lift bridges over the Vermillion River. The work on this project included inspection and load rating to identify components of the bridge to be rehabilitated and evaluation of various alternatives for strengthening the bridge and increasing vehicular vertical clearance. H&H produced engineers cost estimate for repairs, and prepared final report of recommendations.
05/19 – 08/19	**Seabrook Bascule Bridge, New Orleans, LA – Port of New Orleans** **Project Manager** for the construction of repairs to the concrete bent cap at the toe of the span. Work on this project included design of bent cap strengthening due to cracking at bridge bearing, tracking contractor progress and construction compliance with design plans. Preparation of final acceptance report upon completion of construction.
12/15 – 10/19	**UPRR Angleton Bridge over the San Bernard River Replacement of Swing Bridge with New Vertical Lift, Sweeny, TX - UPRR** **Lead Senior Structural Engineer** for the design and construction of a new through plate girder vertical lift bridge over the San Bernard River near Sweeny Texas. The project included design of new steel through plate girder vertical lift, bridge protection cell (dolphin), approach spans and construction management. Erik provided the design of steel plate girders for the bridge. Erik provided the design of steel plate girders for the bridge. This project also included emergency bridge repairs due to failure of bridge pier from scour produced by Hurricane Harvey flooding.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Linh Kim, PE**	Years of relevant experience with this employer	6
Title	**Civil Engineer**	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			B.S. / 2017 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer**: 47527 / LA / 9/30/2027 **Certifications**: NHI 130081 Load and Resistance Factor Design (LRFD) For Highway Bridge Superstructures; ATSSA Traffic Control Supervisor and Flagger
Year registered	2023	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Structural/Fixed Bridge Engineer & Bridge Inspector**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Structural Engineer & Bridge Inspector** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
03/18 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Structural Engineer & Bridge Inspector** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Structural Engineer** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Bridge Inspector** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.

09/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Bridge Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
02/21 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Structural Engineer** for the pre-design inspection, rehabilitation, and widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction, as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal. The scope of services also includes the design of a new bridge to be constructed as an independent structure adjacent and north of the existing bridge with a new operator house. All design work is in accordance with LADOTD Standards and Specifications and being reviewed by LADOTD. Load rating was performed using AASHTOWare BrDR load rating software.
09/21 – 07/22	**Tennessee Bridge Inspection and Load Rating – Norfolk Southern Corp., Decatur, AL - Norfolk Southern Corp.** **Structural Engineer Intern** providing inspection, load rating, and engineering design services under the Systemwide Engineering and Design Services contract. The steel repairs at Gulf Division MP 362.60-A Decatur, AL task was awarded to H&H through this contract. The task involves the performance of an on-site inspection, the preparation of load rating calculations and the development of repair plans for the structure in accordance with the scope of work. The structure consists of three superstructure types: vertical lift span, deck plate girder span and seven through truss spans.
04/22 – 02/25	**SR826 Palmetto Design-Build Design and Post, Miami-Dade County, FL – Florida DOT** **Structural Engineer** for this bridge located in downtown Miami urban area. The bridge design requirement was to keep existing bridge and roadways open to traffic while widening construction was being performed. H&H performed design calculations for concrete superstructure and steel substructure elements for bridge widening and created details and plan sheets for superstructure and substructure elements for bridge widening.
09/19 – 11/19	**H.002176.5: LA 10 Bridges (Burton's Lake, Bayou HaHa, Bayou TawPaw) – LADOTD** **Civil Engineer Intern** created General Plans set for three different bridges after receiving information from Road Design and Hydraulics. Linh contributed to the preparation of 60% Preliminary Plans Set to be sent out Hydraulics, Property Survey, and Subgrade Soil Survey sections.
09/22 – Present	**I-10 & I-12 College Dr Flyover Ramp Design- Build, Baton Rouge, LA – LADOTD** **Structural Engineer** for design and construction quality control/quality assurance for this road and bridge design-build project which is located at the I-10 West exit to College Drive, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Responsibilities include the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will develop, maintain, and update Contractor Quality Management Plan and provide qualified Inspectors, material sampling, testing, independent testing labs to ensure contractors and off-site fabrication facilities meet project specifications.
01/19 – 04/19	**H.009498.5: LA 121: Calcasieu River Bridge, Lake Charles, LA – LADOTD** **Civil Engineer Intern** designed and detailed an LG-36 (I-Beam) Concrete Prestressed Girder Bridge using continuous deck spans on a horizontal curve with a 5% slope. The continuous deck spans were 240-ft.-long using four 60-ft.-long deck spans with a bridge width of 42.5 ft. The superstructure and girders were designed using Bentley's Conspan software and DOTD's Bridge Design Evaluation Manual. The substructure consists of pile bents that were designed using STAAD Modeling software and Excel.
09/19 – 11/19	**H.009482.5: LA 113: Jim Burney Branch Bridge – LADOTD** **Civil Engineer Intern** contributing to the preparation of 60% final plans review and submittal. Linh completed revisions for initial design due to comments from the district and Project Engineer reviewer. He completed a bridge rating using AASHTOWare Bridge Rating software and STAAD Analysis.



Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Dennis Gowins, PE**	Years of relevant experience with this employer	17
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization		MS / 1990 / Civil Engineering BS / 1978 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 24468 / LA / 09/30/2027	
Year registered: 1991	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Senior Structural/Fixed Bridge Engineer – Meets MPR 3 and 4**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/18 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Senior Structural Engineer** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
04/17 – Present	**I-395 Segmental Bridges**, **Miami, FL – Florida DOT** **Senior Structural Engineer** for the design of the superstructure and performing the load ratings. H&H is designing seven new precast segmental bridges that are a part of the SR 836 / I-95 / I-395 corridor upgrade. This design-build project is being constructed by the Archer Western-De Moya Joint Venture. The overall construction value of the project is $800 million, and the segmental bridges have a deck area of 700,000 square feet (approximately $200 million). Construction is scheduled to be completed in late 2027.
09/05 – 06/06	**Emergency Repairs for the I-10 Twin Span Bridges over Lake Pontchartrain, New Orleans, LA – LADOTD/FHWA** **Structural Engineer** responsible for emergency repairs made to the 5.4-mi.-long twin structures after damage Hurricane Katrina. As a subconsultant he provided all engineering and 24-hour continuous construction services to support the emergency repairs. Phase one of the emergency repairs was carried out in less than one month, 17 days earlier than initial estimates. The second phase of the project included reconstruction of the westbound structure. The bridge twin structures consist of 436, 65-ft. spans founded upon 54-in. cylinder pile bents. Repair procedures included new bents, helper bents, girder support saddles, pile jackets, deck repairs, jack supports, new neoprene bearings, new Teflon bearings, curb repairs, substructure modifications to accept ACROW bridges, erection equipment, span removal procedures and maintenance of traffic plans. Construction was simplified with the use of SPMT's. The project received numerous national awards.
08/14 – 10/15	**I-269 over Coldwater River, Marshall County, MS – Mississippi DOT** **Senior Bridge Engineer** responsible for the seismic analysis of this 4,054-ft.-long, 62 span bridge (17 units) carrying I-269 over Coldwater River. The 98-ft.-wide bridge carries six lanes of traffic with barriers. The 65-ft. spans are comprised of 9 Type III AASHTO beams on 11.5-ft. spacings with an 8-in. concrete deck. The bridge is supported on precast concrete pile bents with 24-in. prestressed concrete piles. A site-specific response spectrum analysis was performed with an extensive 3D finite element model. Nonlinear springs were applied along each pile element to emulate the response of the extremely variable sand / clay layers.
02/12 – 06/22	**I-59 / I-20 Elevated Interstate, Birmingham, AL – Alabama DOT** **Senior Bridge Engineer** responsible for the design of eight, steel curved-plate girder bridges with spans of over 300 ft. on radii as small as 600 ft. in addition to all fracture critical steel members on the project. These bridges were part of the $700 million project to replace Interstate 59/20 through the Central Business District of downtown Birmingham, AL. The project, which includes 1 million square feet of elevated bridge deck, was constructed in less than 12 months, and plays a significant role in the wider revitalization of the central business district.

07/17 – 06/20	**Orlando South Ultimate Interchange Improvements, Orlando, FL – Florida's Turnpike Enterprise** **Senior Structural Engineer** assisting with concept development, coordination, and project oversight of a complex interchange, including system and service movements. The project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. The project goals included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges.
03/08 – 08/08	**Widening of Florida's Turnpike from Atlantic Boulevard to Sawgrass Expressway, Broward County, FL – Florida DOT** **Structural Department Manager** responsible for managing the widening, which included a 6.8-mi.-long toll-road improvement project from Atlantic Blvd to Broward County Line. The project included the outside widening from six to eight lanes, one new bridge, the replacement of three existing bridges and the widening of five existing bridges. The bridge widening included those over Pompano Canal for SFWMD. In addition, the project includes a 4,800-ft.-long box culvert, over three miles of noise walls as well as MSE, tie-back and sheet-pile retaining walls.
06/06 – 03/07	**Replacement and Rehabilitation of the Route LA-70 over Belle River Bridge, Assumption Parish, LA – LADOTD** **Project Manager/Structural Engineer** leading the effort to replace and rehabilitate this structure. The approach aprons, pontoon structure, fender system, and associated rope/pulley opening mechanism of the existing 30-ft. by 120-ft. pontoon swing-span bridge were replaced/upgraded to accommodate two lanes of HS-20 loadings on the new pontoon structure. The design also included replacement/upgrades of the associated mechanical and electrical systems in addition to the structural evaluation on the new pontoon structure.
01/06 – 06/07	**Widening of the Huey P. Long Bridge over the Mississippi River, Jefferson Parish, LA -- New Orleans Public Belt Railroad** **Project Manager/Structural Engineer** for the independent design review of the proposed widening of the 1,850' main span cantilever truss spanning the Mississippi River. The main bridge consisted of a 790-ft. main span in conjunction with two 532-ft. cantilever side spans. In addition to this main bridge, an approach through truss of 532-ft. was analyzed for the proposed widening. The proposed widening to the existing bridge was to accommodate six 11-ft. lanes in addition to two rail lines. The current bridge can only accommodate four 9-ft. lanes in addition to the two existing rail lines. The analysis also included the investigation of the substructure elements.
06/08 – 12/08	**Restoration of the France Road Terminal Berth 4, New Orleans, LA – Port of New Orleans** **Design Engineer** responsible for the rehabilitation, design, and pile retrofits for this 300-ft. x 12-ft. wharf section and adjacent 80-ft. x 30-ft. entrance ramp. The design-build wharf project involved the retrofit of 260 steel pipe piles and other areas necessary to support the required permit, cranes, excavator, and extreme conveyer loadings. The pilings had significant corrosion and were retrofitted with a unique concrete infill/PT bar system.
08/08 – 10/10	**Replacement of the Little Blue Heron Bridge and Little Lake Worth Bridge, Palm Beach County, FL – Florida DOT** **Project Manager/Design Engineer** for the replacement of two deficient bridges. This project involved the replacement of these two deficient bridges with three- and eight-span, continuous, flat-slab bridges supported on pile bents with precast pile caps and 24-inch square prestressed piles and abutment treatments that include a king pile bulkhead system. An innovative top-down construction method was used to construct these bridges, with overall lengths of 296 feet and 90 feet. This allowed for the continuous maintenance of both directions of traffic.
05/04 – 06/05	**Extension of the Perimeter Center Parkway, Atlanta, GA - DeKalb County DOT/Georgia DOT** **Project Manager** responsible for managing the design and plans for the 1,338' bridge spanning Nancy Creek and I-285 for the County. The bridge consisted of 5 130' spans comprised of 72' bulb-tee girders and 2-span continuous units of composite steel-curved girders. The structure was supported upon multiple columns and drilled shafts in addition to several bents supported upon spread footings. The 111' wide bridge accommodates 4 lanes of traffic in addition to extensive sidewalks and a median. The geometry is quite complex in that the bents are highly skewed with a horizontal alignment on compound curves combined with numerous superelevation transitions.
11/03 – 12/06	**Fifth Street Bridge, Atlanta, GA - Georgia DOT** **Project Manager** responsible for the managing the design of this 2-span structure crosses 15 lanes of I-75/I-85 traffic connecting the Georgia Tech Technology Center and the Georgia Tech Campus. The bridge accommodates three lanes of traffic, bicycle, and future transit in each direction. The bridge won the 2007 PCI Award for Best Non-Highway Bridge and Sustainable Design. The bridge is 223' in width and has more than 125' of landscaped greenspace, comprised of multilayer landscaping, planters, retaining walls, lighting, and sidewalks. The superstructure consists of 74" prestressed concrete modified bulb tees with concrete strengths of 10,000 psi. The substructure consists of concrete columns founded on H-piles. A unique use of micro-piles and a tie back system for the abutments allowed for the re-use of the existing substructure.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Rafal Wuttrich, PE**	Years of relevant experience with this employer	11
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization		M.S. / 2001 / Civil Engineering B.S. / 1994 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 63030 / FL / 02/28/2027	
Year registered: 2005	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		**Senior Structural/Fixed Bridge Engineer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
02/21 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Senior Structural Engineer** for the pre-design inspection, rehabilitation, and widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction, as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal. The scope of services also includes the design of a new bridge to be constructed as an independent structure adjacent and north of the existing bridge with a new operator house. All design work is in accordance with LADOTD Standards and Specifications and being reviewed by LADOTD. Load rating was performed using AASHTOWare BrDR load rating software.
07/17 – 06/20	**Orlando South Ultimate Interchange Improvements – Florida's Turnpike Enterprise** **Senior Structural Engineer** assisting with concept development, coordination, and project oversight of a complex interchange, including system and service movements. The project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. The project goals included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges. The recommended configuration included improvements to systems interchange, modification to two adjoining interchanges, and new proposed service interchange.
01/21 – 02/25	**SR 826/Palmetto Expressway Capacity Improvement Design-Build, Miami-Dade County, FL – Florida DOT** **Senior Structural Engineer** responsible for design of modifications to the Ramp D Flyover Bridge. This project improves operations with an additional SB general purpose lane, auxiliary lanes, and improved shoulder widths, requiring major modifications to the NW 103rd Street interchange. H&H is the lead designer, responsible for roadway, drainage, permitting, traffic control, tolling and bridge design. Responsible for bridge modeling, staged construction analysis, temporary pier support analysis and design, bridge load rating, and plans production. To allow for widening of the mainline, the bridge section of the Ramp D Flyover Bridge required reduction by removing the existing exterior continuous steel plate girder line from End Bent 1 to Pier 6. Removal of one girder line resulted in force imbalances on numerous substructure locations, requiring modification of the existing substructure. Existing Piers 2 and 3 are hammerhead-type piers with single column on pile footings that required partial removal of the existing cap, use of post-tensioning connecting the existing pier cap to new column struts, and connection of PT to pier footing extension counterweights attached to the existing footing. Existing Pier 4 is a straddle-type pier that required strengthening to satisfy current AASHTO LRFD design specifications. Existing Pier 5 is a C-type pier that required replacement of the column and cap. Pier 5 work was staged using temporary steel piers connected to the existing footing with undercut anchors, and new cap and column using reinforcement anchored to the existing footing with undercut anchors. Existing Pier 6 required attachment of a new concrete counterweight with steel ballast to the existing pier cap. For the superstructure, the deck overhang required reconstruction for the reduced width, and bridge drainage system required replacement.

08/16 – 06/18	**I-75 SB Exit Design from S of Bypass Canal to EB/WB, Tampa, FL – Florida DOT** **Senior Structural Engineer** assisting with preparation of plans and engineering documentation. This two-mi. roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right of way acquisition or impacts to Florida Gas Transmission lines.
05/18 – 11/19	**SR 5 (Overseas Highway) over Moser Channel (7 Mile Bridge), Monroe County, FL – Florida DOT** **Senior Structural Engineer** responsible for performing structural design calculations and various other tasks, including Finite Element Analysis (FEA) for the custom temporary support system, a segmental post-tensioned concrete superstructure, to facilitate rehabilitation of columns at 16 intermediate piers and one expansion Pier 22 (replacement of bearings and concrete repairs). Weight transfer at intermediate piers was enabled by a pair of two-part friction collar steel weldments, each having a support arm with hydraulic jacks placed on top to provide lifting force separating superstructure from permanent column bearings. Friction between the steel weldments and the concrete columns was induced by clamping force from 24 steel rods stressed at 118 kips each. Maximum anticipated vertical reaction (service) at any of the two support points was 537 kips at each support arm, including restored traffic during pier repairs. The collars were fully load tested before traffic was allowed back on the bridge. Weight transfer at expansion Pier 22 is provided by a four-part friction collar, each with a supporting arm, thus a pair of arms supports each side of the expansion joint. An additional steel assembly wedge is on each side of the segment webs for additional support points.
04/17 – 04/24	**Gateway Expressway Improvement Design-Build, Pinellas County, FL – Florida DOT** **Senior Structural Engineer** responsible for quality control of design calculations and plans of four bridges in Segment 4. Structure designs included bridge widening of the existing I-275 SB over Gandy Blvd. (Bridge 22) and I-275 SB over Roosevelt Boulevard (Bridge 23) four-span prestressed concrete beam structures. I-275 NB over Roosevelt Boulevard (Bridge 24) replaced an existing four-span prestressed concrete beam structure with a new two-span prestressed concrete beam structure on a parallel alignment. I-275 over Big Island Gap (Bridge 29) modified an existing three-span prestressed concrete beam structure, which relocated the existing concrete median traffic railing and installed new bridge drainage components (scuppers and longitudinal conveyance system) for I-275 NB.
02/15 – 12/16	**I-75 at SR 50 Interchange Bridge Replacement & Widening, Hernando County, FL – Florida DOT** **Senior Structural Engineer** responsible for contributing to the design and plan preparations for the replacement of twin bridges on I-75 over SR 50. Additional engineering responsibilities included the design of the early works construction package, temporary and permanent wall design, and contributions to the new bridge superstructure design. The two 29- ft., 6-in. individual bridges carry the north and southbound traffic of I-75 to a single-point urban interchange at SR 50. The approximately 12-ft.-deep superstructure consists of weathering steel plate girder structures supported on end bents. Mechanically stabilized earth walls wrap around each bridge and continue for hundreds of feet before meeting grade. This design-build project also used a temporary widening of the existing southbound I-75 bridge as part of the maintenance of traffic plan during construction of the new bridge.
03/17 – 02/23	**SR 75 (US 231) from SR 30A (US 98) to Pipeline Road, Panama City, FL – Florida DOT** **Senior Structural Engineer** responsible for the design of a new 840-ft.- long steel bridge on SR 75, crossing US 231 and the CSX railroad, as part of a new single-point urban interchange (SPUI). The design consists of a single three-span continuous unit (215, 355, and 215 ft.) with steel plate girders and a concrete deck. The intermediate pier columns support integral post-tensioned concrete caps. Responsible for Bridge Development Report (BDR), and leading role for all aspects of structural design.
06/15 – 05/19	**I-75 CD Ramp over Sligh Avenue, Hillsborough County, FL – Florida DOT** **Senior Structural Engineer** responsible for the preliminary design, Bridge Development Report, and load rating of the widening of a 233-ft.-long three-span interstate ramp bridge over Sligh Avenue. The proposed widening of the superstructure and substructure included prestressed beams on a hammerhead pier substructure.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Steven Harlacker, PE, SE**	Years of relevant experience with this employer	30
Title	**Principal / Senior Structural Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S. / 1996 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 37057 / LA / 09/30/2026
Year registered	2012	Discipline	Civil Engineer, Structural Engineer
Contract role(s) / brief description of responsibilities			**Senior Structural Fixed & Movable Bridge Engineer – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage," "designed girders," "designed intersection," etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/18 – Present	**Replacement of the Connecticut River Bridge, Old Saybrook and Old Lyme, CT - Amtrak** **Project Manager / Engineer of Record** for the replacement of this movable bridge carrying two tracks of Amtrak Northeast Corridor traffic over the Connecticut River. Feasible study alternatives for rehabilitation or replacement were determined, and these were analyzed for estimated costs and for comparative benefits as related to the degree to which project needs are met. Navigation clearance requirements are taken from a Navigation Study previously prepared by H&H for the Connecticut River. Cost analysis and impacts to right-of-way, utilities, tidal marshlands, and navigation were investigated. A set of highly ranked alternatives was selected, termed "Best Solution Study Alternatives," each providing Amtrak combined advantages of cost and of technical benefits. Estimated construction costs for the best solution study alternatives were more than $100 million. Included were alignment and profiles layout for various rail gradient options. The existing bridge, constructed circa 1907, is a two-track, open deck, electrified railroad bridge, 1,564-foot-long, consisting of seven thru-truss spans, two deck girder spans, and one 158-foot Scherzer-type rolling lift span. In recent years, the draw span of the bridge has been operated approximately 3,700 times annually to accommodate navigation on the Connecticut River.
05/18 – Present	**Cribari Swing Bridge over the Saugatuck River, Westport, CT - Connecticut DOT** **Project Manager** for a rehabilitation Studies Report of this historic swing bridge (the oldest movable span in Connecticut). Preliminary structure and alignment information for the development of the Environmental Assessment and other NEPA/CEPA activities. To support the development of environmental documentation and comply with National and State environmental policies, H&H has developed preliminary structural concepts and roadway alignments for multiple permanent and temporary bridge solutions. Each of these alternatives have been developed to support CTDOT's extensive public outreach program, which includes participation in the Project Advisory Committee (PAC) presentations to communicate with key stakeholders and gather information for incorporation in Environmental Documents. The alternatives have also been developed in sufficient detail to determine environmental impacts and allow the designation of a preferred alternative. Our involvement includes the development of complex and highly detailed three-dimensional visualization models to illustrate possible solutions and foster PAC participation and engagement.
02/15 – 06/18	**Norwalk River (Route 136) and Yellow Mill (Route 130) Bascule Bridges Storm Hardening Design Services – Connecticut DOT** **Project Manager** for the rehabilitation and storm hardening of these bridges, damaged by flooding due to Superstorm Sandy. Directly responsible for structural, mechanical, & electrical design team management. This project includes provisions to improve the facility's performance during similar storms and provisions to rapidly restore the facility to functionality quickly in the event of a storm that exceeds the 100-year design storm.
12/11 – 05/12	**Saugus Drawbridge Rehabilitation, Saugus, MA – Massachusetts Bay Transportation Authority** **Movable Bridge Structural Project Engineer / Engineer of Record** responsible for the analysis and design supervision for this project involving comprehensive modeling, ratings analysis of as-inspected conditions, real-time structural monitoring, and resultant strengthening of an existing pier compromised by extensive structural deterioration. Responsibilities included development of load rating methods to determine existing substructure capacity and design of an interim strengthening concept which included a temporary pier to allow the bridge to remain in service at full capacity until a comprehensive replacement project was undertaken.

02/16 – 11/17	**Chapel Street Swing Bridge Rehabilitation & Painting, New Haven, CT – City of New Haven** **Project Manager** for the design of the Phase 1 Rehabilitation and the Phase 2 Painting contracts. This project included the replacement of mechanical and electrical components, selective superstructure rehabilitation, substructure, and fender work. H&H performed construction inspection services during the Phase I Structural, Mechanical, and Electrical rehabilitation project. Services included field inspection in accordance with the current CTDOT Construction Manual and CTDOT Standard Specifications for the duration of the construction project. Responsibilities included conducting field inspections, attending progress meetings and special meetings as required, and assisting in resolving contract inquiries and addressing field changes. H&H was also responsible for ensuring that the Contractor adhered to all contract requirements and made all required submittals in a timely manner. To support field inspection, H&H office engineers were responsible for maintaining records and documenting the progress of the contract work. H&H responsibilities also included reviewing the Contractor's CPM, bar charts, and/or other project schedules and reviewing contractor-submitted requisitions for payment, which included certifying that quantities submitted for payment are accurate.
12/12 – 12/17	**Sarah M. Long Vertical Lift Bridge, Portsmouth, NH & Kittery, ME – Maine DOT** **Movable Bridge Structural Engineer/QA Engineer** responsible for preliminary concept development, preliminary design, and final design services for this complete vertical lift bridge replacement. Responsibilities included developing preliminary design concepts, conducting cost evaluations, and performing engineering evaluations, as well as creating preliminary and final design documents for the chosen 300-foot-long steel box girder lift bridge alternative. QC activities ensure that the lift span design meets the requirements of the Quality Plan. Preliminary concept development involved evaluating variable alignments, structural types, and materials. The selection of a best-fit structure considered bridge engineering, vessel collision resistance, span operation, aesthetics, and construction.
03/11 – 04/13	**Murray Morgan Vertical Lift Bridge Rehabilitation Design-Build, Tacoma, WA – City of Tacoma** **Movable Bridge Structural Engineer/QC Engineer** responsible for supervising the structural design aspects of the complete structural, mechanical, and electrical rehabilitation of this 100-year-old, National Register of Historic Places eligible lift bridge. The scope included total design services from preliminary engineering through construction support services as part of a Design-Build team with PCL Constructors. As the Structural Engineer in Charge, this project required oversight of a multi-disciplinary design effort that included bridge member strengthening and seismic upgrades. As QC Engineer, reviewed and verified preliminary and final design documents prepared by multiple collaborators for contract compliance.
02/10 – 12/10	**Fairhaven-New Bedford Swing Bridge Rehabilitation, New Bedford, MA – Massachusetts DOT** **Movable Bridge Project Engineer / Engineer of Record** during the preliminary investigation of the source and possible remedy of cracks in the bottom chord of the swing span of the swing bridge carrying Route 6 over the Acushnet River. The preliminary investigation included the development of a comprehensive computer model and subsequent fatigue analysis to determine the approximate constant amplitude fatigue stress range of this 120-year-old bridge and to estimate the remaining fatigue life of the structure. The Preliminary Structures Report presented the results of the fatigue analysis, focusing on rehabilitation techniques available to the department to minimize the likelihood of future crack development.
12/09-05/10	**Rehabilitation of the Grand Avenue Swing Bridge, New Haven, CT - City of New Haven** **Movable Bridge Project Engineer / Engineer of Record** leading the preparation of an alternatives study report to provide the city with viable rehabilitation alternatives for the Swing Span. The study focused on methods of supporting the span during extensive operating machinery replacement, alternatives for bridge deck replacement, an investigation of the bridge approaches, scour susceptibility of the original piers, and mitigation techniques to allow the bridge approaches and piers to remain in place. The study provided for a rehabilitation scope of services and order of magnitude cost estimates for the recommended scope and cost and considerations associated with more and less involved rehabilitation alternatives. An on-site condition inspection was also conducted to confirm that the proposed scope was adequate to address the bridge's condition.
11/09 –12/09	**First Lieutenant Derek S. Hines Memorial Swing Bridge Design-Build, Amesbury MA – Massachusetts DOT** **Lead Movable Bridge Structural Engineer** responsible for determining bid phase structural improvements to a preliminary design furnished as part of a Design-Build bid package. Bid phase design consisted of redesign of the swing girders, redesign of the pivot girder system, in-depth evaluation and design of the bridge deck, and determination of superstructure loads using the AASHTO LRFD Movable Bridge Code to allow the design of a new pivot pier. Coordination between structural and geotechnical engineers was essential for the design team to complete the pivot pier computations and allow the contractor to make an accurate bid.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Benjamin Hawthorne, PE, SE**	Years of relevant experience with this employer	21
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S. / 2005 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 44620 / LA / 09/30/2026
Year registered	2011	Discipline	Structural Engineer
Contract role(s) / brief description of responsibilities			**Senior Structural Fixed & Movable Bridge Engineer – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/20 – Present	**Middletown Swing Railroad Bridge Rehabilitation, Middletown, CT – Connecticut DOT** **Project Manager** for the rehabilitation of a 300-foot, single-track swing span, four 200-foot through truss approach spans, and a 60-foot through girder span. The structure is serves Providence & Worcester Railroad customers in Portland, CT. Rehabilitation and repair details are based on results of an in-depth structural, mechanical, and electrical inspection and load rating of the structure. Structural repairs target primary members in poor condition and any elements that do not rate for a 286K carload. Additional work includes safety upgrades to the access system and fender system repairs. Swing span operating system rehabilitation includes replacement of low-torque high-speed mechanical equipment and upgrades to the electrical system.
07/13 – 05/19	**Sarah M. Long Vertical Lift Bridge, Kittery, ME – Maine DOT** **Movable Bridge Structural Engineer** on joint-venture team for a complete vertical lift bridge replacement. Responsible for design of the steel box girder lift span and associated structural elements. Ben was involved in all phases of the project, providing design services for the preliminary design, final design, and design support during construction, including providing a preliminary design report, plans, design and design check computations, ratings, specifications, and estimates, for the replacement of the Sarah Mildred Long Bridge located on U.S Route 1 Bypass between Kittery and Portsmouth. The bridge carries Pan Am Railway and highway traffic and was designed in accordance with AREMA and AASHTO specifications.
05/18 – 08/18	**Cribari Swing Bridge over the Saugatuck River Rehabilitation, Fort Lauderdale, FL – Florida DOT** **Movable Bridge Project Engineer / Engineer of Record** for a rehabilitation Studies Report of this historic swing bridge (the oldest movable span in Connecticut). Responsible for developing the preliminary structure type study and alignment alternatives in support of the Environmental Assessment. Structure type study included investigation of feasible alternatives and preliminary structural analysis of concepts. Assessed general structure dimensions to demonstrate visual impact of the alternatives to the public and other stakeholders.
06/18 - 09/21	**Replacement of Amtrak Bridge over the Connecticut River, Old Saybrook, Middlesex County, CT - Amtrak** **Project Engineer / Engineer of Record** for the replacement of this bridge that carries 2-tracks of electrified rail. The existing through-truss approach spans and rolling lift bascule truss span will be replaced with a new offline structure comprised of girder approach spans and a 205 feet long fixed trunnion through truss bascule span. The new structure is designed in accordance with AREMA and Amtrak policies. Ben was responsible for leading the design and coordination of all aspects related to the movable bascule truss span – from the drilled shaft foundation to the overhead catenary system (OCS). The fixed trunnion bascule utilizes a passive transition joint in the OCS and its supports are integrated into the structural system. As Deputy Project Manager, Ben oversaw the completion of the Joint Permit Application and completion of the contract documents.

01/17 – Present	**East Haddam Swing Bridge over the Connecticut River Rehabilitation, Haddam, CT – Connecticut DOT** **Movable Bridge Project Engineer / Engineer of Record** responsible for the preparation of load ratings and feasibility study reports in support of a rehabilitation of this 4-span truss swing bridge. The bridge, which opened in 1913 and has been posted on the National Register of Historic Places, carries two lanes of Route 82 traffic over the Connecticut River and includes a deck truss span, through truss span, and a 465-foot-long through truss swing span. Rated elements included gusset plates, pins, tension and compression members, truss chord box members subject to bending, floorbeams, and stringers. The structural feasibility study evaluated the addition of an external sidewalk to allow pedestrian access across the bridge, which has a narrow 24.5-foot roadway. Load rating and feasibility analysis included the use of AASHTOWare Bridge Rating software and the creation of a 3D computer model using Midas Civil finite element analysis software. Ben has remained involved in the rehabilitation project through preliminary and final design as a **Senior Structural Engineer** providing technical expertise and review of truss strengthening, floor system replacement, and cantilever sidewalk development.
12/11 – 01/13	**Saugus Drawbridge Rehabilitation, Saugus, MA – Massachusetts Bay Transportation Authority** **Movable Bridge Structural Engineer** responsible for analysis and design for this project involving comprehensive modeling, ratings analysis of as inspected conditions, real time structural monitoring, and strengthening of an existing pier compromised by extensive structural deterioration. Responsibilities included development of load rating methods to determine existing substructure capacity and design of an interim strengthening concept including a temporary pier to allow the bridge to remain in service at full capacity until a comprehensive replacement project can be undertaken. Temporary pier design included an integrated fender design that incorporated energy absorbing elements to provide adequate protection of the existing pier in a narrow footprint and in an area of poor soil conditions. As a sub-consultant on this project, it required cooperation of multiple parties to balance existing structural capacities, emphasis on rapid construction, and the need to maintain traffic prior to and during construction of the interim strengthening.
02/10 – 12/10	**Fairhaven/New Bedford Swing Bridge Rehabilitation, New Bedford, MA – Massachusetts DOT** **Assistant Team Leader/ Movable Bridge Structural Engineer** responsible for field inspection, report preparation, and structural and economic feasibility analysis of preliminary rehabilitation and replacement options for this thru-truss swing bridge. Developed truss chord member strengthening concepts including post-tensioning using high strength rods. This on-call task provided a Preliminary Structures Report for the movable segment of the Fairhaven/New Bedford Swing Bridge that carries Route 6 over the Acushnet River.
10/11 – 03/12	**General Edwards Rolling Lift Drawbridge Emergency Inspection and Rehabilitation, Lynn, MA – Massachusetts DOT** **Assistant Team Leader/Movable Bridge Structural Engineer** responsible for in-depth field inspection and report preparation of the two-span, four-leaf, rolling lift bridge and adjacent fixed span approach structures. A subsequent emergency inspection, required after deformation was noted in the rolling lift rack support, resulted in the design of a temporary strengthening system for the rack support columns.
12/09 – 01/10	**Grand Avenue Swing Bridge Rehabilitation, New Haven, CT – City of New Haven** **Inspector/ Movable Bridge Structural Engineer** responsible for field inspection, report preparation, and feasibility and economic analysis of preliminary rehabilitation and replacement options for this 220 foot-long, thru-truss swing bridge.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**James Newberry, PE, SE**	Years of relevant experience with this employer	10
Title	**Movable Bridge Structural Engineer**	Years of relevant experience with other employer(s)	9

Degree(s) / Years / Specialization			M.S. / 2006 / Civil Engineering B.S. / 2006 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 45742 / LA / 09/30/2027
Year registered	2011	Discipline	Structural Engineer, Civil Engineer
Contract role(s) / brief description of responsibilities			**Structural Fixed & Movable Bridge Engineer – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/19 – Present	**Beckett Bridge Replacement, Tarpon Springs, FL – Pinellas County** **Project Manager** responsible for the replacement of an existing historic single-leaf bascule bridge with a new 360-foot-long bridge that includes a single-leaf, rolling-lift, bascule span. The bridge carries Riverside Drive over Whitcomb Bayou and features two traffic lanes and a sidewalk. The movable span is 60'-9" long from center of roll to tip of the leaf in the closed position, and features steel plate girder main girders and floor beam and an Exodermic deck that spans longitudinally between floor beams. The simply supported approach spans have a typical length of 60'-0" and consist of prestressed flat slab (standard Florida Slab Beams) with substructure abutment and pier caps that feature precast concrete elements to facilitate accelerated bridge construction. Foundations are drilled shafts and pipe piles, designed to accommodate challenging site conditions including a relict sinkhole under the bridge. Responsible as EOR for approach span substructure and foundations, and retaining walls. Engineer responsible for final design of bascule span structural elements including main girders, floorbeams, counterweight, and span balance. Project Engineer responsible for oversight and coordination of work for all disciplines, and delivery of project to the County.
07/17 – 08/19	**Pinellas County Movable Bridge Repairs, Pinellas County, FL – Florida DOT** **Project Manager** responsible for the management of plans development for miscellaneous structural, mechanical, and electrical repairs to the Welch Causeway and Indian Rocks WB Bridges. Scope of repairs included repairs to bascule span structural steel, installation of new electrical equipment, and rehabilitation of machinery components. Also responsible for post design coordination, which included coordination of shop drawing reviews, plans revisions, and responding to RFIs from the contractor.
08/16 – 02/17	**Hillsborough River Vertical Lift Bridge Repair, Tampa, FL – Florida DOT** **Movable Bridge Structural Engineer** responsible for the post-design services for vertical lift bridge, including coordination of shop drawing reviews, plans revisions, and responding to RFIs from the contractor. The project included preparation of mechanical and electrical plans to repair/rehabilitate this historical span-driven vertical lift bridge. The rehabilitation included sheave replacement, wire rope replacement, span lock repairs, and electrical system upgrades.
01/24 - Present	**Platt Street Bridge Rehabilitation, Hillsborough County, FL | Hillsborough County** **Structural Engineer of Record** responsible for design and detailing of the sidewalk improvements. H&H was retained to evaluate existing bridge components for their suitability to modify the existing sidewalks using solid aluminum plates and to provide supporting engineering analysis, and other technical documents. The Platt Street Bridge over the Hillsborough River in downtown Tampa was built in 1926 and consists of seven reinforced concrete girder approach spans and a steel girder double leaf bascule span. The roadway carries four 10-foot one-way eastbound lanes out of South Tampa and has sidewalks on both sides.

02/21 – Present	**Broadway Bridge Bascule Span Deck Retrofit, Portland, OR - Multnomah County Public Works** **Structural Engineer** providing structural engineering design development for this double-leaf bascule span deck replacement project. The retrofit design for this rall-type, steel truss, double-leaf bascule required that the FRP roadway and sidewalk decks on the bascule span be replaced. H&H's project scope included the assessment and analysis of potentially viable retrofit deck alternatives; the development of deck retrofit plans, specifications, and cost estimates (PS&E) for the recommended alternative; and construction engineering support services. The bascule span length from rall wheel to rall wheel is 278 feet, with a total bridge length of 1613 feet long, including steel truss approach spans, and a bridge width 70 feet. Design responsibilities include design of new bascule span half-filled steel grid deck, replacement of all stringers, new aluminum deck plate sidewalk, and balancing of the bascule span.
08/11 – 07/13	**Sargent Barge Swinging Barge (Platoon) Bridge Rehabilitation, Matagorda County, TX – Texas DOT** **Movable Bridge Structural Engineer / Engineer of Record** responsible for design and preparation of repair plans for miscellaneous structural elements including cable anchorages for the barge span, abutments (foundations, backwall, and cap), bulkheads, and temporary work platforms. Also responsible for design of repairs to the timber approach span stringers. Project scope included replacement of the timber leveling spans with steel framed open grid decks and the operating machinery, replacement of the bridge winch machinery and controls, structural repairs, and replacement of the traffic gates and miscellaneous roadway modifications.
09/08 – 04/09	**Tamiami Swing Bridge Emergency Repairs, Miami, FL – Florida DOT** **Movable Bridge Structural Designer** responsible for the new grid deck, stringers, and sub-stringers to replace the existing members on the swing span. Drafted all sheets in the structure plan sets. The movable bridge specialty engineering services were performed using a design-build approach as a subconsultant to a contractor. Performed in-depth field review, inspection, and measurements of the bridge to assess the conditions requiring emergency repair, clarify scope of work, and verifying the configuration, member sizes, and dimensions with limited or non-existent existing plans of the bridge. Repairs to the steel framing included replacement of deteriorated floor system and bracing members over the operating machinery including a portion of the steel roadway flooring. Repairs to the machinery included replacement of the pivot bearing bronze disk, balance wheel lower track, rack, main drive pinion, shaft and bearings, selected gear sets, speed reducer, machinery brake, machinery support frame, end wedges and end wedge electric linear actuators. Prepared shop drawings used to fabricate the steel and machinery to reduce project costs and time. The design, procurement, fabrication, installation, alignment, and testing were performed in a compressed schedule of 120 days.
06/05 – 06/09	**Anna Maria Island (SR 64) over Gulf IWW Bascule Bridge Rehabilitation, Bradenton, FL – Florida DOT** **Movable Bridge Structural Engineer** participated in plan preparations and quantity calculations. The project involved the in-depth inspection, evaluation, and rehabilitation design of a 50-year-old, 3,120-foot-long bridge with a double-leaf trunnion bascule main span. The project included bascule leaf structural steel repairs and modifications; concrete repairs, including hydro-demolition and concrete overlay of the bridge deck; cathodic protection systems; new auxiliary electrical room; replacement of the machinery frame; reconditioning of the operating machinery; replacement of the electrical power and controls; and bridge operator's facilities renovation.
07/07 – 02/08	**Wilson Pigott (SR 31) over Okeechobee Waterway Bascule Bridge Rehabilitation, Fort Myers, FL – Florida DOT** **Movable Bridge Structural Engineer** performed the span balance calculations, assisted with design calculations of other structural components, reviewed, and analyzed load test data to assist in the assessment of priority repairs. Services called for the in-depth inspection, evaluation, load rating per LRFR methodology, and rehabilitation design of this 50-year-old, 3,120-foot-long bridge with a double-leaf trunnion bascule main span. Responsibilities included performing independent peer review of the machinery repairs and steel grid deck replacement – plus performing peer review of the capacity evaluation of the unique precast, post tensioned concrete beams of the approach spans.
03/09 – 12/10	**LaBelle Drawbridge (SR 29) Repairs & Rehabilitation, Labelle, FL – Florida DOT** **Movable Bridge Structural Engineer** produced various designs of structural components for repairs to the approach and bascule spans, including the bascule leaf cantilever bracket, stringers, approach span bearing pads, and mast arms on the approaches. Checked the adequacy of the existing approach span diaphragms for jacking the spans. Provided quality control check of the bascule span balance calculations. Load rated the 40-foot approach span prestressed concrete beams, bascule span stringers and stringers over machinery, main girder, grid deck, and floorbeams. Load rated the flanking span stringers and floorbeams.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Roberto Viciedo, PE**	Years of relevant experience with this employer	29
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			B.S. / 1995 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 36533 / LA / 03/31/2028
Year registered	2011	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Senior Structural/Fixed Bridge Engineer – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/18 – 06/19	**SR 609 Bascule Bridge over Old Fort Bayou Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Structural Engineer** for developed structural rehabilitation design and provided construction phase services for SR 609 bascule bridge as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services statewide for MDOT. The scope of work included inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans.
05/10 – 12/16	**SFRTA Railroad Bridge over New River** Fort Lauderdale, FL | Florida DOT District 4 | 5/2010-12/2016 **Project Manager/Task Lead** responsible for the design of rolling-lift bascule span superstructure and construction support services. Overall scope included preliminary PD&E study and final design for the off-line replacement of a single-leaf heavy rail bridge owned and operated by SFRTA and used by CSX Freight and Tri-Rail as an alternate route. The project included inspection of the structural, mechanical, and electrical systems and the development of rehabilitation and replacement options (swing and bascule span) with conceptual drawings, alignments, and cost estimates. The preferred alternative consisted of three 41-foot prestressed concrete approach spans and a 103-foot rolling-lift-span designed using the AREMA code.
11/04 – 07/05	**Pine Tree Drive Bridge over the Flamingo Waterway, Miami Beach, FL - Miami-Dade County Public Works Department** **Project Manager** responsible for general project coordination including inspection, report of deficiencies, design, and detailing of concrete repairs. Typical maintenance included spall repair, milling and resurfacing, cathodic protection, painting structural steel, and application of Class 5 finish to exposed concrete surfaces. Contract plans detailed MOT and detours. This 180-foot-long, structural steel fixed bridge has a 32-foot-long main span and 23-foot-long concrete slab approach spans supported on concrete pile bents. Included in the scope of work was the bridge condition report, cost estimates, plans, specifications, permit acquisition, and shop drawing review.
01/19 – 08/21	**SR 3/Christa McAuliffe Bridge over Canaveral Barge Canal, Merritt Island, FL - Florida DOT** **Project Manager / Project Engineer** in charge of general project coordination and a task for the design, detail of repairs, load rating analysis, and preparation of cost estimates during the design phase. Also provided construction support services for this $3.9 million span lock replacement project for twin double-leaf bascule bridges. The existing underdeck span locks were removed and replaced with new barrier mounted span locks.

01/11-3/17	**Flagler Memorial Bridge over ICWW, Palm Beach, FL - Florida DOT District 4** **Structural Engineer** responsible for the design of twin double-leaf rolling lift bascule span superstructures, load rating, and construction support services for the $95 million design-build project that included replacement of the entire bridge off-line and parallel to the existing bridge to maintain traffic for this busy causeway connecting West Palm Beach to Palm Beach. The replacement bridge, completed in 2018, included a twin double-leaf rolling lift bascule span bridge with a 150-foot rolling-lift-span over the navigable channel; twelve 150-foot pre-stressed concrete approach spans; and approach roadway work.
05/16 -10/20	**SR-A1A/North Causeway Bridge over ICWW, Fort Pierce, FL - Florida DOT District 4** **Structural Engineer** for the 4000-foot-long bridge replacement project which replaces a bascule span with a high-level fixed bridge that has 85-foot vertical clearance over the navigable channel. The preferred replacement fixed bridge alternative includes the FIB superstructure and spans over Old Dixie Hwy and the FEC Railway. In addition to the new bridge, the project includes extending Juanita Ave east from US-1 to Old Dixie Hwy and provisions for a new access roadway for the businesses south and north of the new bridge along SR A1A.
02/19-12/25	**SR 75 (US 231) Reconstruction, SR 30A (US 98) to South Pipeline Road, Panama City, FL – Florida DOT District 3** **Structural Engineer** for the new 840-foot steel bridge on SR77 crossing US 231 and the CSX railroad. H&H is providing design services for the single point urban interchange at SR 77 over US 231 and CSX RR improvement project. Work includes design for roadway and drainage design of the intersection, lighting design for the entire project, and bridge design for new major steel structure.
02/14 – 12/21	**SR 968/SW 1st Street Bridge Over Miami River, Miami, FL - Florida DOT District 6** **Project Engineer / Structures Task Leader** responsible for general project coordination, design, load rating, and managing construction support services phase for the replacement of the nationally registered historic bridge crossing the Miami River. The new 507-foot bridge included a 315-foot double-leaf bascule span over a widened 125-foot navigation channel. Two new approach spans consisting of prestressed concrete beams provided at least 16.5 feet of clearance over North and South River Drives.
07/04 – 07/10	**SR 7/NW 5th Street Bascule Bridge Over Miami River | Miami, FL - FLORIDA DOT DISTRICT 6** **Project Engineer** responsible for design, load rating analysis and construction support services for this $50-million bridge replacement project which included double-leaf bascule spans, bridge, control tower, approach roadways, and riverwalk. The 180-foot bridge used the appearance of a deck truss Chicago-style trunnion bascule span to fit in with the historic and aesthetic character of Miami's Little Havana community.
04/98 – 08/07	**SR 786/PGA Boulevard Bridge Over ICWW, Palm Beach Gardens, FL - Florida DOT District 4** **Structural Engineer** responsible for the design, detail of repairs, load rating analysis, and preparation of cost estimates. This $15-million multi-phase rehabilitation project included in-depth inspection, condition report with load ratings and recommendations, preparation of structural, mechanical, and electrical rehabilitation plans, and bascule span replacement plans for this twin double-leaf bascule span bridge. Project design utilized existing bascule pier foundations and approach span structure to minimize costs. The design required multi-phase construction to maintain traffic.
02/08 – 12/10	**SR-5/US-1 Parker Bascule Bridge Rehabilitation, Palm Beach, FL – Florida DOT** **Bridge Project Engineer** responsible for general project coordination for the $8 million, twin double-leaf Hopkins trunnion bascule span bridge rehabilitation project. Scope included in-depth inspection, condition report with load ratings, and rehabilitation recommendations as well as the preparation of structural, architectural, mechanical, and electrical plans for the hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway, and embankment improvements

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Anwer Kaimakchi, PhD, PE**	Years of relevant experience with this employer	5
Title	**Bridge Engineer**	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			PhD / 2021 / Civil Engineering M.S. / 2017 / Civil Engineering B.S. / 2013 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 97140 / FL / 2/28/2027
Year registered	2023	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Structural/Fixed Bridge Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/21 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Structural Engineer** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications. Specifically, Anwer provided load rating services for the Box Girder bridges based on inspection findings and plan details for Bridge No. 147.9A at I-59 and Bridge No. 131.5B at I-20 located near Meridian in Lauderdale County. The analyses included developing a finite element model of each bridge and for load ratings to follow LFR considering MDOT's permitted vehicle legal loads.
10/22 – 12/22	**Sunshine Skyway Bridge, Tampa, FL – Florida DOT** **Structural Inspector** for the Sunshine Skyway Bridge carrying I-275 over Tampa Bay, the Sunshine Skyway is a 21,878-ft.- long bridge with 8,860-ft. of precast segmental structures. The 4,000-ft.-long precast segmental main span unit which includes a 1200-ft.-long center cable-stayed span and was built in balanced cantilever. The high-level approach spans are 135 ft. in length and were built in span-by-span with external tendons. Dr. Al-Kaimakchi recently participated in the bi-annual walk-through visual inspection as part of H&H's Asset Management contract for the Sunshine Skyway Bridge Corridor.
03/22 – 06/22	**Garcon Point Bridge, Santa Rosa County, FL – Florida DOT** **Inspector** for the Garcon Point Bridge. This 3.5-mile-long precast segmental bridge has 140-foot typical spans and a 225-foot main span over the Intracoastal Waterway. The 140-foot spans were erected span-by-span, and the 225-foot span was erected balanced cantilever. The high-level piers were precast and post-tensioned. Anwer's most recently participated in the vibration testing of all external tendons to develop a benchmark that will be used to plan future maintenance activities if required.

09/22 – 02/23	**Replacement of Smith Point Bridge (CR 46) over Narrow Bay, Suffolk County, NY – Suffolk County DPW** **Bridge Designer** for the 1812-ft.-long Smith Point Bridge, the new bridge will replace the existing bascule bridge with a high-level fixed bridge on a westerly alignment that touched down in an underutilized area of Smith Point County Park. The new bridge consists of prestressed concrete girders with typical span lengths of 165 ft. The original bridge was designed by H&H in the 1950s and was reaching the end of its service life due to the harsh oceanfront environment at this site. The bridge serves as the sole access route to the eastern end of Fire Island and is the route to Smith Point County Park as well as Fire Island National Seashore. Mr. Al-Kaimakchi developed a 3D LARSA model to determine the dead and transient loads of the bridge, determining the size and number of piles, and pile cap thickness by creating FBPier models for all piers. In addition, he developed the reinforcement detailing for pile and pile cap. He verified the pier columns were adequate for strength limit state using XTRACT program.
05/22 – 08/22	**I-82 Columbia River Bridge at Umatilla, Umatilla, OR – Washington State DOT** **Bridge Designer** for the load rating of the I-82 westbound structure that is a cast-in-place balanced cantilever segmental bridge that opened to traffic in 1988. The bridge has eight spans and a length of 3,365 ft. The bridge features two approximately 660-ft. spans crossing the Columbia River. These two spans are supported by fixed, twin-walled columns. These columns provided overturning stability during cantilever construction. In service, the twin-wall piers provide increased longitudinal flexibility to accommodate creep, shrinkage, and thermal movements. The superstructure of the I-82 westbound bridge is a variable depth box girder with a width of approximately 51 ft. The bridge carries two 12-ft. lanes, shoulders, and a barrier separating the pedestrian lane. H&H completed an in-depth load rating of the I-82 westbound bridge. Dr. Al-Kaimakchi was involved in the three-dimensional model using CSiBridge software including construction stages and calculated the time-dependent properties of the concrete. Dr. Al-Kaimakchi reviewed flexural and shear capacities of the concrete segments.
01/22 – 05/22	**Gold Star Memorial Bridge on Interstate Route 95, New London, CT – Connecticut DOT** **Bridge Designer** for the Gold Star Bridges, consisting of two separate structures carrying I-95 and US Route 1 north and south bound over the Thames River between Groton and New London, CT are the largest bridges in the State and provide a vital transportation link through all New England. H&H performed an in-depth Load Rating of the I-95 Northbound structure. This structure was originally constructed in 1943, with a major rehabilitation completed in 1973. The structure consists of a combination of original girder spans, original approach trusses, and a reconstructed main channel span truss all topped with a reconstructed floor system. The main channel span is a three-span continuous welded box truss with a suspended center span. Dr. Al-Kaimakchi conducted load rating analyses for girders on northbound original girder spans where he modeled northbound original girder spans (9 to 21, 35 and 36) using Midas Civil program to calculate loads. He calculated and checked the flexural and shear capacities of girders on the northbound original girder spans following AASHTO LRFD design specifications.

	Firm Employed by	**Hardesty & Hanover, LLC**		
	Name	**Michelle Romage-Chambers, PE**	Years of relevant experience with this employer	2
	Title	**Lead Bridge Engineer**	Years of relevant experience with other employer(s)	29

Degree(s) / Years / Specialization			M.S. / 2008 / Civil Engineering B.S. / 2000 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 50677 / LA / 03/31/2028 **Certifications:** FHWA NHI-130055 Safety Inspection of In-Service Bridges
Year registered		Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Task Order Manager, Senior Structural/Fixed Bridge Engineer, & Bridge Inspector – Meets MPR 3 and 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/23 – 05/24	**Routine Bridge Inspections, Statewide, TX – TxDOT Dallas, Fort Worth, Corpus Christi, and Atlanta Districts** **Project Engineer & Bridge Inspector** who assisted on multiple routine bridge inspections in Frisco, Texas. Michelle also served as team leader on 40 routine on-system inspections for the Atlanta District. In addition, she assisted with load ratings and reports. These efforts were part of the TxDOT Routine Bridge Inspection contract providing bridge inspection and load rating services throughout the State of Texas.*
06/13 – 03/15	**Northbound & Southbound FM 973 at the Colorado River Bridge, Travis County, TX – TxDOT Austin District** **Bridge Engineer** for this metro project which included two separate structures on FM 973. Michelle managed the design for both structures and designed prestressed concrete beams, concrete substructure, and drilled shafts for the northbound structure. Her team designed the southbound structure for the additional load of a waterline.
12/08 – 10/14	**US 281 at the Colorado River Bridge, Marble Falls, TX – TxDOT Austin District** **Design Project Manager and Demolition Designer** for the replacement of a functionally obsolete steel deck truss bridge with two new segmental bridges. Michelle managed all aspects of plans, specifications, and estimates for the twin structures through the 100% submittal. She coordinated the efforts of the following disciplines: geotechnical, utilities, roadway, drainage, and bridge design. The bridge was to be demolished by explosives within 5 ft. of one of the new structures. Michelle prepared for the unexpected, ensuring a snooper truck was on site with a crew during the demolition so that the new structure could be inspected immediately. The snooper crew patched a damaged wastewater line before it became a problem for the hundreds of local citizens and a story for the on site press.
03/15 – 08/18	**UPRR Overpass at LP 82, San Marcos, TX – TxDOT Austin District** **Assistant Area Engineer** who coordinated construction activities with Texas State University, the City of San Marcos, and UPRR and supervised the construction inspection for the project. This project included a new railroad grade separation, mechanically stabilized earth (MSE) walls, new railroad crossing on Post Rd., stormwater drainage system, sidewalks, aesthetics, and landscaping. The new railroad grade separation consisted of a curved continuous steel plate girder unit, post tensioned straddle bents, integral bent cap, and prestressed concrete girders.
05/15 – 02/16	**Fischer Store Rd. Bridge, Hays County, TX – TxDOT Austin District** **Project Manager/Bridge Engineer** who conducted a site visit following the Memorial Day floods of 2015, which washed out the existing prestressed beam structure that spanned the Blanco River in Hays County. Michelle directed the design, assisted Hays County with obtaining Category 6 funding, and supervised the inspection of the construction of the new bridge. She developed a work plan, and she confirmed roadway and bridge teams understood the plan. The design added web walls and beam shear keys to protect the structure against similar floods in the future. The long detour

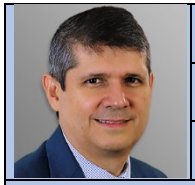
	created a hardship for the local citizens, causing a challenge. Michelle accelerated the design and construction schedule by maintaining the existing alignment, using existing abutments and challenging the design team to complete the project design phase within two weeks. She requested the design team to require welded wire reinforcement for the bridge deck, prestressed precast caps, and prestressed beams to accelerate the construction schedule. The innovative design was completed within two weeks. The contractor constructed and opened the bridge within 80 days after letting.
03/14 – 04/14	**FM 696 at Big Sandy Creek Bridge, Bastrop County, TX – TxDOT Austin District** **Bridge Design Engineer** for this project which provided repair details to address a critical finding. Inspectors identified severe section loss in existing pile foundations during a routine inspection. Michelle developed repair details using channel sections to restore the piles capacity and concrete collars to prevent future deterioration.
11/15 – 10/19	**RM 2244, Westlake, TX – TxDOT Austin District** **Assistant Area Engineer/Project Manager** who coordinated multiple utility conflicts and resolutions with Austin Electric, AT&T, and city water lines. Michelle also coordinated with the City and local citizens to address concerns with trees, sight distance issues, and public preferences. This project involved the widening of RM2244 to a 5-lane roadway with shoulders. The project construction included signals, storm drains, sidewalks, MSE walls, soil nail walls, concrete retaining walls, and sidewalks.
05/15 – 12/17	**Post Rd. at the Blanco River Bridge, Hays County, TX – TxDOT Austin District** **Assistant Area Engineer/Project Manager** who managed the design and construction of this emergency replacement project for TxDOT Austin District. The Post Rd. bridge was a structure washed out by flooding. The bridge was located under UPRR's bridge and consequently in the railroad right-of-way. The design maintained the original slightly curved alignment and profile. Once the bridge hydraulic study was complete, Michelle selected the prestressed slab beam superstructure and developed an accelerated schedule for design completion. The greatest challenge for the bridge replacement was obtaining UPRR's consent. Michelle facilitated coordination with UPRR to get the railroads approval of the Exhibit As. Unfortunately, it took two years to get the railroad's approval. Her experience, however, coordinating with the UPRR on this project was invaluable and guided her as she developed plans for the example project to stay clear of the railroad ROW, if at all possible. Michelle assisted the County with obtaining Category 6 funds and provided them with updates during design and construction. During construction, Michelle responded to RFIs, negotiated changes with the contractor, reviewed the schedule and approved construction pay estimates. For similar situations, a designer may consider providing a temporary structure to carry traffic such as a rail flat car until the new bridge can be built to reopen the roadway before construction is completed.
05/15 – 10/16	**US 290 E Convict Hill Rd. to W Joe Tanner Ln., Austin, TX – TxDOT Austin District** **Assistant Area Engineer/Project Manager** who supervised inspection staff, addressed construction issue, provided updated project information to the public, and inspected the new striping prior with inspection staff to ensure the newly striped intersection was opened on time. The project added a continuous left turn at the intersection of William Cannon Dr. and US 290.
07/12 – 09/12	**FM 1977 at San Marcos River Bridge, Caldwell County, TX – TxDOT Austin District** **Bridge Design Engineer** who designed a 200-ft., skewed prestressed concrete slab beam structure. Michelle developed geometry, beam designs, and bent caps designs. She provided primary bid and alternate bid details to accommodate steel H piles and prestressed concrete piles.
07/10 – 04/11	**SH 71 at Riverside Dr., Travis County, TX – TxDOT Austin District | 7/2010-4/2011** **Bridge Design Engineer** who designed four prestressed beam structures over SH 71 at Riverside Dr. Michelle designed beams, special haunch details, bent caps, and drilled shafts. She assisted with RFIs during construction. The project lowered the main lanes of SH 71 to accommodate the new structures at Riverside Dr.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Cesar Granados, PE**	Years of relevant experience with this employer	28
Title	**Senior Lead Bridge Engineer**	Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			B.S. / 1994 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 64221 / FL / 02/28/2027
Year registered	2006	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Senior Structural/Fixed Bridge Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/18 – 03/19	**SR-609 Bridge, IDIQ Master bridge Design Contract, Ocean Springs, MS – Mississippi DOT** **Project Engineer** leading structural, mechanical, and electrical design teams for full rehabilitation of SR-609 bascule bridge as a task order to the IDIQ Master Bridge Contract. Scope includes engineering assessment, structural and geotechnical design for bridges and retaining walls; hydraulic design for bridges; design for roadway, traffic signals, ITS, and roadway lighting; as well as design and constructability review services. All designs will be completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.
03/17 – 12/19	**North Causeway Bridge over ICWW, Fort Pierce, FL – Florida DOT** **Structural Engineer** contributing to the structural engineering design services for the replacement of the SR-A1A North Causeway Bridge. Scope of services included the alignment, segmental bridge super and substructure design, drainage, MOT, ITS, geotechnical, hydrogeology, lighting, signalization, signage, paving marking, utility/railroad/marine coordination, permitting, public involvement, maintenance, control, and protection of vehicular and marine traffic, as well as additional roadway design services which addressed adjacent state, frontage, and access roads, and railway crossings affected by the project.
04/16 – 7/18	**Coconut Isle Bridge Replacement Fort Lauderdale, FL – City of Fort Lauderdale** **Project Manage**r providing oversight of comprehensive design as well as providing structural design services for the Bridge Alternatives Study and complete set of final engineering plans for a single-span fixed concrete replacement bridge. Scope of work includes permitting, geotechnical investigation, load rating, drainage, utility coordination, bridge bulkhead wall design, temporary bridge, MOT, public involvement support as well as bid-phase and post-design services.
02/14 – 02/17	**SR 968/SW 1st Street Bridge over Miami River, Miami, FL – Florida DOT** **Lead Project Engineer** responsible for the design coordination and plan development of the bascule pier design, control house, access tunnel design for the replacement of the nationally registered historic SW 1st Street Bridge over the Miami River. The existing 650 feet, 13-span bridge was constructed in 1929 and is the gateway crossing into downtown Miami. The new 507 feet bridge included a 315 feet double-leaf bascule span over a widened 125 feet navigation channel. 2 new approach spans consist of prestressed concrete beams providing at least 16.5 feet of clearance over North and South River Drives. Bascule span's Exodermic concrete deck provided protection of steel superstructure and a safer/quieter riding surface.

01/11 – 03/17	**SRI-A1A/Flagler Memorial Bridge over ICWW, Palm Beach, FL – Florida DOT** **Structural Engineer** responsible for the design of intermediate piers, substructures, bascule piers, as well as control and access houses. This $95 million design-build project included the replacement of the entire bridge off-line and parallel to the existing bridge to maintain traffic for this busy causeway connecting West Palm Beach to Palm Beach. The replacement bridge, completed in 2018, is a twin double-leaf rolling lift bascule span bridge with a 150 feet rolling-lift span over the navigable channel; 12 150 feet pre-stressed concrete approach spans; and approach roadway work.
01/08 – 08/16	**Gasparilla Island Swing Bridge over ICWW, Placida, FL – Placida, FL** **Structural Engineer** responsible for intermediate piers, substructures, bascule piers, as well as the control and access houses. The project involved the final design for the replacement of a 220 feet swing-span bridge with a new 678 feet bridge including a 250 feet deck girder swing-span and approach spans utilizing Florida I-Beams. Embankments were supported by MSE walls and protected by new bulkheads and revetment. In addition to the bridge structures, a new pile-supported tender house was included in the scope.
10/12 – 03/14	**SR-1A/Hillsboro Inlet Bridge over ICWW, Pompano Beach, FL – Florida DOT** **Lead Project Engineer** for the rehabilitation of a single-leaf bascule bridge. The project scope included mechanical/electrical rehabilitation, deck replacement, and minor structural repairs. The span locks were replaced and relocated to the rest pier. The need for an additional submarine cable originally included in the scope was eliminated. Instead, designers utilized a multiplexor on a Florida movable bridge for the first time. The project included a $1 million JPA with the City of Pompano Beach as well as sidewalk improvements and control house renovation.
01/20 – 03/11	**NW South River Bridge over Tamiami River Canal, Miami, FL – Miami-Dade County Public Works** **Structural Engineer** responsible for control house structural design, plan development, and technical specifications, as well as bascule pier and design detailing plans. The project involved the preliminary design of movable bridge alternatives during the PD&E, final design, and currently construction support services of a 123 feet simple trunnion single-leaf through-girder bascule span bridge to replace the historical Tamiami Canal Swing Bridge constructed in 1921. The project included providing a four-lane-wide bridge with 6 feet and 12 feet shared sidewalks and control house within a 80 feet limited right-of-way and low bridge profile which resulted in the need to use through-bascule girders. The floor system consisted of floor beams and an Exodermic bridge deck with no steel stringers and lateral bracing. Architectural features to the bridge and control house were also included in the detailed design.
01/14 – 03/17	**Bay Harbor Causeway Bridges, Bay Harbor Island, FL – Town of Bay Harbor Islands** **Structural Engineer** responsible for providing preliminary and final engineering analysis and design services for control house rehabilitation and bascule span and fender repairs for the Bay Harbor Bridge. Services also included structural steel superstructure painting, concrete spall, and crack repairs to the substructure including cathodic protection, bridge railing repair, structural steel repair, as well as machinery and electrical repairs to the bascule span operating systems.
07/14 – 10/16	**I-75 Express Lanes Segment D, C-11 Canal Bridge, Davie, FL – Florida DOT** **Structural Engineer** responsible for quality assurance services and superstructure design for the design-build of Segment D, a 3.7mile-long portion of the I-75 Express Lanes Project. The design/build delivery project included constructing express lanes in the existing median; constructing entrance and exit ramps for the express lanes at various locations; constructing Sheridan Street Interchange improvements; installing sound barrier walls; drainage, signage, lighting, and landscaping; upgrading traffic monitoring cameras, dynamic message signs and installing toll gantries. Segment D is located south of Sheridan Street to the north of Griffin Road in Broward County.

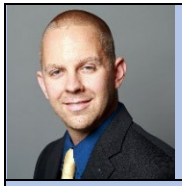


Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Jorge Soto, PE**	Years of relevant experience with this employer	10
Title	**Senior Structural Engineer**	Years of relevant experience with other employer(s)	18

Degree(s) / Years / Specialization			B.S. / 1998 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 59509 / FL / 2/28/2027
Year registered	2003	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Senior Structural/Fixed Bridge Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/23 – Present	**Venetian Causeway Bridge Replacement, Miami, FL – Miami-Dade Department of Transportation and Public Works** **Structural Engineer** responsible for design, detailing, and preparation of plans of the bascule leaves for this bridge replacement project. Also, responsible for the review of the bascule pier calculations.
05/22 – 06/23	**Linton Boulevard Bascule Bridge Load Rating Analysis, Delray Beach, FL – Palm Beach County** **Structural Engineer** responsible for the load rating analysis and review of stringers, floorbeams, and main girders of this double leaf bascule bridge. The load ratings were performed for LFR and LRFR.
06/21 – Present	**SR 826/Palmetto Expressway Capacity Improvement Design-Build, Miami-Dade County, FL – Florida DOT** **Structural Engineer of Record** responsible for design and plans production for two fixed bridge widenings. The bridges consist of three spans with modified AASHTO Type II beams on a skew. Each span ranges from 42-ft to 50-ft.
12/17 – 11/18	**Andrews Avenue Bascule Bridge over the New River, Fort Lauderdale, FL – Broward County** **Structural Engineer** responsible for providing structural engineering design and support services during the post design of the rehabilitation of a single-leaf bascule span. Machinery rehabilitation included a new span drive hydraulic cylinder and HPUs. Additional electrical work included complete replacement of the electrical system including new span HPU pump motors, controls, new relays, amplifier cards.
06/16 – 1/23	**SR 968/SW 1st Street Bridge over Miami River, Miami, FL – Florida DOT** **Structural Engineer** providing engineering design services during the design and post design phases for the replacement of the nationally registered historic bridge crossing the Miami River. Responsible for the design of bascule pier footings and foundations, king piles bulkhead walls, bascule leaf main girder, and floor beam and counterweight box. Constructed in 1929, the existing 13-span, 650.5-foot, the bridge was the Miami River gateway crossing into downtown Miami. The new 507-foot bridge includes a 315-foot double-leaf bascule span over a widened 125-foot navigation channel. Two new approach spans consist of prestressed concrete beams providing at least 16.5 feet of clearance over North and South River Drives. The bascule span's Exodermic concrete deck protects the steel superstructure and provides a safer and quieter riding surface.

08/14 – 04/16	**Florida DOT District 4 Structural Engineer, Broward and Palm Beach Counties, FL – Florida DOT** **Structural Engineer** for FDOT District 4. Duties included leading and mentoring the in-house structures design group on in-house designs, plans reviews, and provided structural oversight for the full gamut of structure types ranging from miscellaneous structures and fixed bridges. Also assisted in the development of scope services and staff hours estimates and negotiations for the Department and assisted the District Structures Engineer with managing the districtwide design contracts. Also, served as part of Technical Review Committees or Technical Advisory Groups for selecting consultants for various projects.
04/16 – 03/21	**Coconut Isle Bridge Replacement, Fort Lauderdale, FL – City of Fort Lauderdale** **Structural Engineer** providing structural design services for the Bridge Alternatives Study and complete set of engineering plans for a single-span fixed concrete replacement bridge. Scope of work includes permitting, geotechnical investigation, load rating, drainage, utility coordination, bridge bulkhead wall design, temporary bridge, MOT, public involvement support as well as bid-phase and post-design services.
12/16 – 12/17	**Districtwide Miscellaneous Structural Projects & Minor Design, Miami, FL – Florida DOT** **Structural Engineer** responsible for the development of plans, specifications, load rating, and estimates under the Districtwide On-Call Structures contract. For the US 1 Bridge over Channel 2 TWO, the scope consisted of repairs to prestressed AASHTO beams and a reinforced concrete deck. Impressed current cathodic protection was also installed on the six-foot drilled shaft.
04/16 – 12/16	**Atlantic Isle Lagoon Bridge, Sunny Isles, FL – Florida DOT** **Structural Engineer** contributing to the feasibility study to rehabilitate Bridge No. 874218 under a Districtwide On-Call Structures contract. Responsible for the condition assessment, as well as the review of previous biennial inspection and load ratings reports, analysis, report study, and the development of several rehabilitation alternatives that would retain the aesthetics and coquina façade of this historic bridge. Constructed in 1925, the crossing is a low-level closed-spandrel-filled cast-in-place reinforced concrete arch. The lagoon bridge, which has substandard traffic barriers and roadway geometry, had been deemed structurally deficient and functionally obsolete, also showed some structural deterioration.
01/19 – 02/19	**Beckett Bridge Replacement, Tarpon Springs, FL – Pinellas County** **Structural Engineer** responsible for providing quality control review of the bridge structural systems. Rehabilitation design services for this double-leaf bascule bridge was completed under a Districtwide On-Call Structures contract, Scope included preparation of structural, architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins Trunnion twin double-leaf bascule span bridge. The rehabilitation included hydraulic machinery retrofit, electrical system improvement & control house modifications.
05/17 – Present	**Jupiter Federal Bridge Replacement, Jupiter, FL – Florida DOT** **Structural Engineer** responsible for providing analysis of superstructure leaf and counterweight box, floor beams, and foundation analysis for the preliminary and final design phases of this bascule bridge replacement project. Also, **Project Engineer** for a new observation deck consisting of three 60-foot spans using Florida Slab Beams (FSB). The FSBs were designed with CFRP/SS strands and GFRP rebar to provide corrosion protection. The intermediate bent caps were designed with GFRP rebar. H&H is serving as Engineer of Record for the project which addresses the structural and functional deficiencies of the existing US-1/SR-5 Jupiter Federal Bridge from CR-A1A (Ocean Boulevard) to Beach Road. Scope includes the development of vertical and horizontal alignment for bridge replacement alternatives and the study of the resulting impacts. The design incorporates intersection improvements and improves traffic functions at both ends of the approximately 2,960-foot long (0.56 mile) project corridor into the bridge replacement design. The project will include ADA access ramps to the eight-foot sidewalks and a new seven-foot buffered bike lane for additional safety.



Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Jason Biddle, PE**	Years of relevant experience with this employer	15
Title	**Mechanical Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.E. / Mechanical Engineering / 2010
Active registration number / state / expiration date			**Professional Engineer:** 43431 / LA / 9/30/2027
Year registered	2019	Discipline	Mechanical Engineer
Contract role(s) / brief description of responsibilities			**Movable Bridge Mechanical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Movable Bridge Mechanical Engineer** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Mechanical Engineer** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
01/21 - Present	**Replacement of BR 3-164 on SR 36 Cedar Beach Road, Slaughter Beach, DE - Delaware DOT** **Project Engineer / Mechanical Engineer** for the replacement of the existing bobtail swing span with an innovative new Dutch style bascule span. To maintain the existing profile grade, a modified orthotropic steel deck was designed that results in minimal structure depth. A combination of metalizing and galvanization will provide the necessary protective coating in this highly corrosive environment. In addition to the new movable span, the existing approach spans will be replaced with new precast, prestressed, solid slab spans. The new bridge design focuses on accelerated bridge construction techniques to minimize road closures and associated detours. The proposed bridge structure was designed to increase the existing hydraulic opening, thereby improving the flow characteristics of the canal in this high scour area. Responsibilities for the project include various project management tasks, technical supervision, design coordination between disciplines, and review of CPM schedule.
12/22 - Present	**Rehabilitation of Wilmington Drawbridges, Wilmington, DE – Delaware DOT** **Lead Mechanical Engineer / Engineer of Record** for the portion of the task involving developing Work Orders for various priority structural, mechanical, and electrical repairs to be completed at the bridges while the long term bridge rehabilitation project plans are being developed. The Work Order repairs included warning gate replacement, stringer and bearing repairs, bascule leaf misalignment investigations, span lock shimming, speed reducer oil leakage repairs, sump pump replacement, new span drive machinery auxiliary drive installation, and limit switch replacement. Jason led the development of the mechanical repairs, oversaw the development of the Work Orders for other disciplines, reviewed contractor shop drawings, and provided on-site engineering support as repairs were completed. **Lead Mechanical Engineer** for the project involving rehabilitation design for 3 movable bridges. Responsibilities for the rehabilitation design for the 3 movable bridges which include mechanical rehabilitation design of repairs and replacement of portions of the span drive machinery and span lock machinery at each bridge.

03/22 - 06/23	**Delaware Third Street Bridge Emergency Span Lock Repairs, Wilmington, DE | Delaware DOT** **Lead Mechanical Engineer** for the project involving inspection and repair to the Third Street bridge (BR 1-693) span locks due to a malfunction that damaged the machinery and supports. Responsibilities for the project included performing emergency inspection of the damaged span lock, evaluation of various temporary span lock concepts, development of temporary span lock operating winch system using readily available components, and design of permanent repairs including new motors and reducers. Also provided shop drawing review, RFI response, and assisted with coordination between DelDOT, its contractor, and vendors.
06/18 – 09/20	**City of Baltimore Bridge Design Services On-Call Contract, Baltimore, MD – City of Baltimore** **Movable Bridge Mechanical Engineer** developed mechanical remedial plans for the Hanover Street Bridge, a double-leaf rolling lift to restore operational capability. Also developed maintenance contract bid documents to cover routine maintenance for the electrical and mechanical systems at the City's two movable bridges. Responsibilities included developing and reviewing special provisions, maintenance checklist, and cost estimates. Design responsibilities included assessing components to determine the required repairs, developing contract documents (repair details, special provisions, and cost estimates) for the tail lock machinery repairs as well as shop drawing review services for the replacement span lock machinery.
04/15 – 11/21	**Rehoboth Avenue Bascule & Savannah Road Rolling Lift Bridge Rehabilitation, Lewes, DE – Delaware DOT** **Project Engineer / Mechanical Engineer of Record** for the rehabilitation of the Rehoboth Avenue Bridge (single-leaf bascule) and Savannah Road Bridge (double-leaf Scherzer rolling lift bascule). Responsibilities included performing the special rehabilitation inspection of the mechanical systems, preparing reports, and preparing rehabilitation plan sets for mechanical systems. Also providing construction support services during construction including shop drawing review.
05/17 – 07/21	**US-17 Swing Bridge over the Perquimans River Design-Build, Perquimans County, NC – North Carolina DOT** **Movable Bridge Mechanical Engineer** providing preliminary and final mechanical engineering designs for this swing bridge replacement project that will replace the existing swing bridge with a new, off-line bridge. The swing span structure consists of a center-pivot Warren through truss supporting the concrete deck. Although similar in appearance to the existing swing span, the new span will improve geometrics, increase load carrying capacity and vertical clearance, and include all the conveniences of a modern operational system. Responsibilities for project include reviewing final detail updates for various portions of the mechanical system prior to release for construction. H&H's responsibilities include the complete design of the new swing span, including structural, mechanical, electrical, and geotechnical engineering.
8/2018-present	**Centerville Turnpike (Bobtail Swing) Bridge Rehabilitation, Chesapeake, VA - City of Chesapeake, Bridge, and Structures Division** **Mechanical Engineer / Engineer of Record** for the rehabilitation of the Centerville Turnpike Bridge (bobtail swing). Responsibilities include performing the scoping inspection and developing contract documents for the rehabilitation of the turning machinery, stabilizing machinery, and wedge machinery.
06/12 – 02/20	**I-695 Drawbridge over Curtis Creek Rehabilitation, Baltimore, MD – Maryland Transportation Authority** **Movable Bridge Mechanical Engineer** involved with the mechanical rehabilitation of this parallel double-leaf bascule. Responsible for assessing traffic control options with temporary bridge operations options during construction, assessing final machinery configuration options for the replacement of span lock mechanical components and report preparation. Construction support services provided during the rehabilitation included specialized on-site inspection of the machinery during construction, inspection of the machinery during routine and test operations throughout construction, and assessment of the new span drive machinery reducers after shop testing.
12/12 – 01/14	**Front Street & Cedar Creek Bridge Emergency Repairs – Delaware DOT** **Movable Bridge Mechanical Engineer** for the rehabilitation design for emergency repairs. Repairs at the Front Street Bridge (single-leaf bascule) included replacing the motor, brake thrusters, electrical wiring, navigation lights, bascule pier lights, disconnect switches and purging mechanical components of contaminated lubricant. Repairs at the Cedar Creek Bridge (bobtail swing) included replacing electrical wiring, navigation lights, limit switches, flexible lubrication lines, and purging mechanical components of contaminated lubricant. Responsibilities including the development of rehabilitation plans, shop drawing review, and on-site engineering support.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Travis Kimmins, PE**	Years of relevant experience with this employer	8
Title	**Senior Mechanical Engineer**	Years of relevant experience with other employer(s)	15

Degree(s) / Years / Specialization			M.S. / 2003 / Mechanical Engineering B.E. / 2001 / Mechanical Engineering
Active registration number / state / expiration date			**Professional Engineer:** 43676 / LA / 03/31/2028
Year registered	2019	Discipline	Mechanical Engineer
Contract role(s) / brief description of responsibilities			**Senior Movable Bridge Mechanical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Senior Mechanical Engineer** for the evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Senior Mechanical Engineer** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
01/20 – Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans** **Movable Bridge Mechanical Engineer** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of a movable Strauss-heel trunnion bridge. H&H's 2019 assessment of the circa-1920 National Register of Historic Places eligible bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.
03/19 – 12/23	**SR-605 Movable Bascule Bridge over Industrial Waterway, Harrison County, MS - MDOT** **Mechanical Engineer / Engineer of Record** led the design of the mechanical rehabilitation and managed mechanical construction services during construction of these twin double-leaf rolling bascules. The full rehabilitation of SR-605 bascule bridge, issued as a task-order to the IDIQ Master Bridge Contract, included engineering assessment, mechanical, electrical, and structural design in addition to the preparation of Traffic Control Plans. All designs were completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications. H&H performed construction phase services.

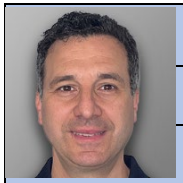
11/20 – 03/23	**SR 609 Bascule Bridge Rehabilitation, Ocean Springs, MS - MDOT** **Mechanical Engineer** responsible for conducting plans review of mechanical rehabilitation plans involving a full mechanical rehabilitation of the operating machinery as well as the HVAC and plumbing systems for the control house. Also provided construction support services as part of the full rehabilitation of the SR 609 bascule bridge. Issued as a task order to the IDIQ Master Bridge Contract, the scope of this task order included developing standard and special bridge services, statewide for MDOT. Scope of work included inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, as well as the roadway approaches and development of maintenance and repair plans. All designs were in accordance with AASHTO, FHWA, and MDOT guidelines and specifications. H&H performed construction phase services.
07/23 – 12/23	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA - LADOTD** **Movable Bridge Mechanical Engineer** performing mechanical inspection of movable structures such as steel vertical lift bridges and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
02/23 - Present	**H.015028.6 Bayou Barataria Movable Bridge Replacement (CE&I), Phase 1, LA 302, Jefferson Parish, LA - LADOTD** **Movable Bridge Mechanical Engineer** responsible for mechanical construction engineering and inspection services for the Bayou Barataria Movable Bridge Replacement. This project consists of construction of the movable swing span bridge, operator's house, associated substructure elements, and pier protection system along relocated LA 302 in Jefferson Parish.
08/21 - Present	**H.001498.6 (CE&I); LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourg, LA - LADOTD** **Movable Bridge Mechanical Engineer** providing mechanical engineering inspection for a newly designed 100-foot-long vertical lift bridge and operator's house. The scope of the project includes improving the safety and vehicular movements within the project corridor by realigning approximately 405 feet of LA 316 to the west to avoid conflict with the new bridge structure and approach slabs. During the construction of the new vertical lift bridge and operator house, Mr. Kimmins is providing mechanical engineering inspection services.
09/19 – Present	**Jupiter Federal Bridge Replacement, Jupiter, FL – FDOT** **Mechanical Engineer / Engineer of Record** responsible for mechanical systems design for this bascule bridge replacement project. H&H serves as Engineer of Record, which addresses structural and functional deficiencies of the existing US 1/SR-5 Jupiter Federal Bridge. Scope includes the development of vertical and horizontal alignment for bridge replacement alternatives and study of the resulting impacts. The design incorporates intersection improvements and enhances traffic flow at both ends of the approximately 2,960-foot-long project corridor, integrating it into the bridge replacement design. Providing construction inspection support services and quality reviews on all shop drawing reviews and RFI responses.
10/19 – 01/20	**Annual Inspection of Almonaster Railroad Bascule Bridge over the Industrial Canal, New Orleans, LA – Port of New Orleans** **Movable Bridge Mechanical Engineer** for an annual inspection of the Almonaster Avenue Railroad Bascule, which involved a structural inspection of the fracture critical steel, primary and secondary steel members, an electrical inspection of the electrical systems and controls, and a mechanical inspection of the machinery.
10/20 – 02/21	**Broadway Bridge over the Harlem River Rehabilitation, Bronx & Manhattan, NY - New York City DOT** **Movable Bridge Mechanical Engineer** for the rehabilitation of the Broadway Bridge over the Harlem River. Project mechanical construction inspection work includes clean and inspect all the ropes and replace select ropes; replacement of primary reducers and provide shaft for auxiliary power; replacement of all pillow block sleeve bearing bushings; replacement of motor and machinery brakes; removal of abandoned rope oiling system; replacement of upper and lower air buffers; replacement of span lock machinery; replacement of elevators; balancing the lift span; repair of centering device. Responsible for reducer testing witnessing and performed thermal photography to aid in inspection/reporting effort.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Donald Marinelli, PE**	Years of relevant experience with this employer	21
Title	**Senior Mechanical Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			M.E. / 2010 / Mechanical Engineering B.S. / 2005 / Mechanical Engineering, 2005
Active registration number / state / expiration date			**Professional Engineer:** 43538 / LA / 09/30/2027
Year registered	2019	Discipline	Mechanical Engineer
Contract role(s) / brief description of responsibilities			**Senior Movable Bridge Mechanical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/20 – Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans** **Movable Bridge Mechanical Engineer** for the bridge assessment and complete rehabilitative engineering design required for the partial replacement of this Strauss-heel trunnion bridge. H&H's 2019 assessment of the circa-1920, National Register of Historic Places eligible bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&H developed design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. Main trunnion bearings were rehabilitated.
05/18 – 06/18	**SR 609 Movable Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Movable Bridge Mechanical Engineer** responsible for conducting strain gage balance testing as part of the full rehabilitation design of the SR 609 bascule bridge. Issued as a task-order to the IDIQ Master Bridge Contract, the scope of this task order included developing standard and special bridge services, statewide for MDOT. Work included inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, as well as the roadway approaches and development of maintenance and repair plans.
10/19 – 01/20	**Annual Inspection of Almonaster Railroad Bascule Bridge over the Industrial Canal, New Orleans, LA – Port of New Orleans** **Movable Bridge Mechanical Engineer** for an annual a structural inspection of the fracture critical steel, primary and secondary steel members, an electrical inspection of the electrical systems and controls, and a mechanical inspection of the machinery.
12/21-03/24	**Chesapeake & Delaware (C&D) Canal Rehabilitation, Middletown, DE - Carload Express & Delmarva Central Railroad** **Project Engineer / Mechanical Engineer of Record** for the rehabilitation design of the C&D Canal railroad lift bridge. Responsibilities included completion of the design level inspection, repair recommendations, final design and bid phase services. Don coordinated with the railroad, USACE, and local stakeholders through DE and MD Pilot's Association meetings for railroad and canal outages. Rehabilitation scope included trunnion shaft and bearing inspection, reducer replacement, motor and brake replacement, counterweight guide repairs, span lock rehabilitation, electrical system replacement, signal system replacement (designed by a sub), and minor structural repairs. After bids came in, the project did not proceed. The federal grant funds were returned to FRA.
08/08 – 08/10	**Woodrow Wilson Memorial Bridge, Washington, DC - Maryland DOT/State Highway Administration** **Movable Bridge Mechanical Engineer** responsible for preparing trunnion, span lock and tail lock maintenance manuals for the new bascule leaves, developing load rating for bascule spans, and operating bridge for one year prior to initiation of the asset management contract. Scope included providing engineering support during bridge operations following the construction. Responsibilities included the operation of eight bascule leaves and all ancillary devices from the control house, visual inspection of the machinery rooms, electrical rooms, lock platforms, and pedestrian walkways during openings, troubleshooting during malfunctions and failures, recording electrical measurements during operations and reporting all deficiencies. The new bridge carries twelve lanes of Interstate I-95/495 traffic.

09/05 – 06/13	**Pennington Avenue Drawbridge Rehabilitation, Baltimore, MD – City of Baltimore** **Movable Bridge Mechanical Engineer / Engineer of Record** responsible for the rehabilitation design, construction support, and construction inspection of the mechanical systems as part of substructure and superstructure rehabilitation for the twin, double-leaf Hopkins trunnion-type bascule bridge. Mechanical system design included rehabilitation of the span drive machinery, trunnion bearings and live load bearings and the complete replacement of the center lock and tail lock machinery.
07/14 – 07/19	**I-695 Drawbridges: Comprehensive Engineering Design Services, Statewide, MD – Maryland Transportation Authority** **Project Engineer / Mechanical Engineer of Record** involving the structural, mechanical, and electrical rehabilitation of the I-695 Drawbridges over Curtis Creek as part of the Construction Management at Risk (CMAR) project. Responsibilities included overall project management during the design and construction phases of the multi-discipline design team, development of the RFP for MDTA's first CMAR contract, coordinating design work with subconsultants, coordination with Construction Manager throughout design, and mechanical system replacement and rehabilitation. The mechanical system design included the new span drive machinery configuration, center lock and tail lock machinery rehabilitations, and live load bearing adjustments. Responsibilities also included construction support services included shop drawing review, on-site support, and witnessing field testing.
04/15 – 11/21	**Rehoboth Avenue Bascule & Savannah Road Rolling Lift Bridge Rehabilitation, Lewes, DE – Delaware DOT** **Project Engineer / Mechanical Engineer of Record** for the rehabilitation of the Rehoboth Avenue Bridge (single-leaf bascule) and Savannah Road Bridge (double-leaf Scherzer rolling lift bascule). Responsibilities included performing the special rehabilitation inspection of the mechanical systems, preparing reports, and preparing rehabilitation plan sets for mechanical systems. Also providing construction support services during construction including shop drawing review.
05/09 – 08/17	**2008 MDOT/SHA Movable Bridge Engineering Services, Statewide – Maryland DOT/State Highway Administration** **Lead Movable Bridge Mechanical Engineer** for the on-call contract to perform structural, mechanical, and electrical condition inspection, evaluation, and design for emergency bridge repair and/or rehabilitation services of movable bridges, statewide, for the State Highway Administration's Bridge Inspection and Remedial Engineering Division. Responsibilities included planning AASHTO routine inspection of movable bridges statewide, performing the inspection of the mechanical systems at each bridge, inspection report preparation, rehabilitation design, and on-call field assignments because of operational issues.
02/05 – 08/06	**South Branch Lift Bridge, Design for Ropes Rehabilitation, Chicago, IL – AMTRAK** **Movable Bridge Mechanical Engineer** responsible for providning mechanical engineering design services for developing plans for new operating rope linkages and new sheave assembly, as well as developing rope tensioning procedure as part of the replacement design of the end connection and tensioning devices for the operating ropes.
04/06 – 04/15	**2008 and 2005 Bridge Safety Inspection Services Contracts, Statewide – Delaware DOT** **Movable Bridge Mechanical Engineer** providing mechanical inspections evaluations and strain gage balance testing of the bascule bridges, creating a mechanical system O&M Manual, developing a mechanical system maintenance program for each bridge, and emergency response for operational failures. Serviced eight movable bridges owned by DelDOT. H&H was responsible for AASHTO routine and in-depth inspections for eight of Delaware's movable bridges, creation of operations and maintenance manuals for all eight movable bridges, documentation of the mechanical and electrical as-built conditions, and emergency response of operational failures.
04/15 – 10/16	**Washington State On-Call Movable Inspection, Statewide – Washington DOT** **Movable Bridge Mechanical Engineer** for on-call services to support the State Bridge and Structures Office with special engineering expertise and design support services for new movable bridge design and existing movable bridge rehabilitation on a task order, on-call basis. Provided in-depth mechanical inspections and reports on the Chehalis River Bridge, Hood Canal Bridge and Heron Street Bridge.



Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Matthew Gagliano, PE**	Years of relevant experience with this employer	29
Title	**Senior Mechanical Engineer**	Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		M.S. / 2018 / Mechanical Engineering B.S. / 1994 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 37500 / LA / 03/31/2027	
Year registered: 2012	Discipline	Mechanical Engineer	
Contract role(s) / brief description of responsibilities		**Senior Movable Bridge Mechanical Engineer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
02/23 - Present	**H.015028.6 Bayou Barataria Movable Bridge Replacement (CE&I), Phase 1, LA 302, Jefferson Parish, LA - LADOTD** **Mechanical Engineer** assisting in the mechanical construction engineering and inspection services for the Bayou Barataria Movable Bridge Replacement. This project consists of construction of the movable swing span bridge, operator's house, associated substructure elements, and pier protection system along relocated LA 302 in Jefferson Parish.
10/15 – 02/18	**Norwalk River (Route 136) and Yellow Mill (Route 130) Bascule Bridges, HUD Movable, Storm Hardening Design Services, Norwalk and Bridgeport, CT – Connecticut DOT** **Lead Mechanical Engineer** responsible charge for managing construction inspection for the rehabilitation and storm hardening of two movable bridges, damaged by flooding due to Superstorm Sandy. The rehabilitation included structural, mechanical, and electrical upgrades as well as revisions to the Department's Operation and Maintenance procedures before and after major coastal storms. This project included provisions to improve the facility's performance during similar storms and provisions to rapidly restore the facility to functionality quickly in the event of a storm that exceeds the 100-year design storm. Mr. Gagliano was responsible for the design, preparation of contract drawings, specifications, and cost estimate for new counterweight pit dewatering systems. Design featured a three-tier pump-out system consisting of a primary diaphragm pump filtering and oil-water separator system, a high-volume sump pump backup system, and a tertiary standpipe for hookup of a trailer-mounted diesel power pump capable of flow rates over 2,000 gallons per minute.
02/13 – 03/18	**Tom Adams Bridge Rehabilitation, Charlotte County, FL - Charlotte County** **Lead Mechanical Engineer** responsible for managing this rehabilitation project for a double-leaf bascule span carrying four lanes of traffic. The project featured a new multi-level control house with unobstructed 360-degree views. Mr. Gagliano was responsible for the design and construction oversight of new operating machinery for double-leaf trunnion bascule span meeting AASHTO standards. New operating machinery replaced existing Hopkins machinery within its original envelope and is a compact installation operated by 20 hp motors and gear reduction transmission. Design of HVAC and plumbing using Florida Building Code for new control house featuring a 4 ton air conditioner system and a wastewater pump with force main extension.
11/18 – 08/23	**Rehabilitation of Route 1 Bridge over Housatonic River, Milford, CT - CTDOT** **Project Engineer** for the inspection of the operating machinery and electrical repairs of the double leaf movable span. Repairs include refurbishing gear reducers, adding collars to the machinery shafts and new dewatering pumps for the counterweight pit. Reviewed contractor submittals, attended progress meetings, performed key construction milestone site inspections.
01/19 - Present	**Connecticut River, Old Saybrook, CT - Amtrak** **Mechanical Engineer of Record** for design of new operating machinery featuring a 60-inch diameter fixed trunnion for the Northeast corridor railroad new bridge's 200 feet bascule span. Bridge designed to carrier twin high speed rails. Responsible for design of the span locks, tail locks, HVAC and plumbing for the new control house.

05/23 – Present	**Rehabilitation of Mystic River Bridge over Mystic River, Mystic, CT - CTDOT** **Project Engineer** for rehabilitation study report to investigate repairs to the bridge structure, operating machinery, electrical system, and control house of the historical heel trunnion type bascule span. Repairs include refurbishing gear reducers and reconditioning trunnion bearings.
12/16 – 11/18	**Spuyten Duyvil Swing Bridge Rehabilitation, New York, NY - Amtrak** **Mechanical Enginee**r **/ Engineer of Record** for final design on rehabilitation of this railroad bridge's movable span between Manhattan and the Bronx. He was responsible for design computations, modeling, and production of contract drawings for innovative replacement of swing bridge rim bearing with 4 bogie assemblies. Reviewed shop drawings, perform construction inspection, and attended construction progress meetings. The bridge's mechanical and electrical systems were damaged in 2012 by Super Storm Sandy. The project included rehabilitation of the center bearing, end machinery systems, electrical systems, and masonry at the piers. Responsible for mechanical design.
02/12 – 01/15	**Metro-North Railroad Movable Bridge Inspection New Haven Line, New Haven, CT - Connecticut DOT Rail** **Lead Mechanical Engineer** responsible for mechanical & electrical inspections of 5 movable bridges on the Metro North Railroad New Haven line as a sub-consultant to WSP. Routine and/or verification inspection of the Walk Bridge over the Norwalk River, Devon Bridge over the Housatonic River, Saugatuck Bridge, Cos Cob Bridge over the Mianus River in Greenwich, and Peck Bridge in Bridgeport. Movable spans are either a swing span or twin single-leaf bascules carrying four tracks. Inspections and subsequent reports were conducted and prepared according to the Connecticut Department of Transportation Office of Rail Railroad Bridge Inspection Manual. Inspected and evaluated movable span according to AREMA standards.
02/07 – 03/08	**17th Avenue Bridge over Miami River, Miami, FL - Miami-Dade County Public Works Department** **Lead Mechanical Engineer / Engineer of Record** for design for the replacement of the mechanical and electrical systems on this 1928 double-leaf bascule bridge. This design-build project (teamed with PCL Construction Inc.) rehabilitated the 3 girder, 148 feet double-leaf bascule span. The project included the detailed inspection of the mechanical and electrical systems, the preparation of a Design Report, detailed design of the replacement of the existing mechanical drive gear system and electrical system with a new hydraulic motor system and electrical systems. Responsible for the design of machinery, preparation of contract drawing, review and signing and sealing shop drawings, and construction support.
01/12 – 06/14	**General Edwards Bridge, Task No. 2 Construction Phase Services, Boston, MA - MASSDOT** **Mechanical Engineer** involved in the design of mechanical repairs. The project consisted of the replacement of an inoperable primary bridge control system and upgrades to the prime movers, motor, and machinery brakes, related mechanical operating components, and stabilize the granite veneer of the 4-bascule bridge towers. The scope also included retrofitting the pin and hanger systems with a redundant support system in the event of a failure and preparing a Preliminary Structures Report in anticipation of complete rehabilitation of the historic structure. The General Edwards Bridge consists of 13 steel multi-deck girder spans including a 106 feet main twin double-leaf bascule span. Several spans are suspended from fracture critical pin and hanger systems to accommodate thermal expansion and contraction.
01/24 – 08/24	**I-275 Tolls (38th Avenue North to 4th Street North) Design, Pinellas County, FL - FDOT** **Mechanical Engineer of Record** responsible for design plans, calculations, and specifications for the toll facilities' mechanical systems. This project includes the construction of express lanes along I-275 from north of 38th Avenue North to north of 4th Street North for a total distance of approximately 7.5 miles. H&H is developing toll facility plans, modified special provisions, technical special provisions, reports, and design calculations per the latest General Tolling Requirements (GTR).
08/19 - Present	**East Haddam Swing Bridge, East Haddam, CT - CTDOT** **Lead Mechanical Engineer** responsible charge for machinery rehabilitation and construction support. This historical bridge features a swing span of 456 feet long through truss supported on a pivot bearing and built in 1913. Operating machinery was sized for increased resistance due to addition of a pedestrian sidewalk on the swing span. Machinery rehabilitation includes new span drive machinery featuring an open bevel gearset with an axially adjustable bevel gear, and new rack and pinions. New larger discs and modified oil box design for the pivot bearings. Balance wheels, center, and edge wedge machinery assemblies refurbing requirements specified. Specified and detailed refurbishing requirements for barrier gates including new hydraulic cylinder assemblies and repairs to its hydraulic power unit. Lead technical expert in construction meetings.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Andrew Barthle, PE**	Years of relevant experience with this employer	22
Title	**Senior Electrical Engineer**	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			B.S. / 2003 / Electrical Engineering
Active registration number / state / expiration date			**Professional Engineer:** 34062 / LA / 3/31/2027
Year registered	2008	Discipline	Electrical and Computer Engineering
Contract role(s) / brief description of responsibilities			**Senior Movable Bridge Electrical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Senior Electrical Engineer** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Senior Electrical Engineer** for the evaluation and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
01/20 – 04/23	**Almonaster Avenue Railroad Bridge over the Industrial Canal, New Orleans, LA – Port of New Orleans** **Electrical Engineer** contributing to the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge. H&H's 2019 assessment of the circa-1920 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure. H&H developed necessary design plans to replace the span drive and span lock machinery, operating strut, guide assembly, live load bearings, counterweight trunnion pin, and bushing. The main trunnion bearings were rehabilitated and repositioned.
06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Electrical Engineer** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
04/18 – 08/22	**SR 609 over Old Fort Bayou Bascule Bridge Rehabilitation, Gulfport, MS – Mississippi DOT** **Electrical Engineer of Record** responsible for the electrical design and construction support for the full rehabilitation of the SR 609 bascule bridge as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services statewide for MDOT. The scope of work

	includes inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.
01/19 – 08/20	**SR 605 Over Industrial Waterway Canal Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Electrical Quality Control Engineer** responsible for the assessment, design, plan review, and quality control of electrical systems for the SR 605 double-leaf bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included providing standard and special bridge services, statewide for MDOT. Scope included the inspection of structural, mechanical, and electrical components of the bridge and roadway approaches and the development of maintenance and rehabilitation/repair plans for elements identified during inspection. All designs were prepared in accordance with AASHTO, FHWA and MDOT guidelines & specs.
08/08 – Present	**H.002798.6; Bayou Teche Swing Bridge at Oaklawn, St. Mary Parish, LA – Louisiana DOTD** **Electrical Engineer** responsible for providing electrical design calculations, plan preparations and post-design services for the bridge power distribution and relay-based control system for this movable bridge. Built in 1941, the original National Register of Historic Places eligible bridge was replaced with a new hydraulically-operated swing bridge. H&H provided the electrical design for the bascule bridge in line with LADOTD's design requirements and standard design details and coordinated closely with the other design disciplines to assure success. All design deliverables were made in accordance with the project schedule. Due to permitting issues, design activities were placed on hold for several years extending the schedule. H&H is currently providing construction phase services for the project.
08/16 - 5/21	**SR-A1A/North Causeway Bridge over ICWW, Fort Pierce, FL - Florida DOT District 4** **Electrical Engineer** for the 4000-foot-long bridge replacement project which replaces a bascule span with a high-level fixed bridge that has 85-foot vertical clearance over the navigable channel. The preferred replacement fixed bridge alternative includes the FIB superstructure and spans over Old Dixie Hwy and the FEC Railway. In addition to the new bridge, the project includes extending Juanita Ave east from US-1 to Old Dixie Hwy and provisions for a new access roadway for the businesses south and north of the new bridge along SR A1A.
02/23 – Present	**Venetian Causeway over Biscayne Bay, Miami Beach, FL - Miami-Dade County** **Lead Electrical Engineer / Engineer of Record** responsible for the delivery of final design and post-design services for the replacement of the double-leaf, rolling-lift bascule bridge (Bridge 10) along the historic Venetian Causeway. The 305 foot long replacement bridge includes 77 foot longarched approach spans flanking a 151 foot long double-leaf bascule span with cruciform aesthetic railings. The bridge is designed to meet the resilience demands of Biscayne Bay including sea-level rise.
05/18-12/18	**I-110 Bridge over the Back Bay of Biloxi, Harrison, MS - Mississippi DOT** **Lead Electrical Engineer** for routine/fracture critical inspection of I-110 Bridge over the Back Bay of Biloxi for the Mississippi Department of Transportation. Inspection included electrical, mechanical, and structural inspection of all components of the bascule and anchor spans and NBIS and element inspection for the entire bridge.
10/19-10/21	**Seabrook Railroad Bascule Bridge Annual Inspection, New Orleans, LA - Port of New Orleans** **Electrical Engineer** for the annual inspection of the Seabrook Trunnion Bascule Bridge crossing the Inner Harbor Navigation Canal in New Orleans. Services included routine and fracture critical inspection involving the structural, mechanical, and electrical inspection of all components of the bascule, counterweight, and tower spans per the Bridge Safety Management Program. Also conducted NBIS and element inspection for the entire bridge.
12/17-5/18	**SR 75 (US 231) Reconstruction, SR 30A (US 98) to South Pipeline Road, Panama City, FL – Florida DOT** **Electrical Engineer f**or the new 840-foot steel bridge on SR77 crossing US 231 and the CSX railroad. H&H is providing design services for the single point urban interchange (SPUI) at SR 77 over US 231 and CSX RR improvement project. Work includes design for roadway and drainage design of the intersection, lighting design for the entire project, and bridge design for new major steel structure.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Marco Lara, PE**	Years of relevant experience with this employer	8
Title	**Senior Electrical Engineer**	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization			BS / 2004 / Electrical Engineering
Active registration number / state / expiration date			**Professional Engineer:** 44115 / LA / 03/31/2028
Year registered	2019	Discipline	Electrical Engineer
Contract role(s) / brief description of responsibilities			**Senior Movable Bridge Electrical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/20-Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans** **Movable Bridge Electrical Engineer** for the bridge assessment and complete rehabilitative engineering design and construction inspection services required for the rehabilitation and roadway replacement of the Strauss-heel trunnion bridge. H&H's 2019 assessment of the circa-1920 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure.
03/18 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Senior Electrical Engineer** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
08/21 – 01/22	**Lapalco Boulevard Movable Bridge over Harvey Canal, Westwego, LA - Jefferson Parish DPW** **Movable Bridge Electrical Engineer** contributing to the pre-design electrical inspection and resulting Bridge Design Report (BDR) for the rehabilitation and widening of the existing four-lane Lapalco Boulevard project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lanes as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal to be constructed as an independent structure immediately adjacent and north of the existing bridge with a new operator house. Improvements to bridge and roadway approaches and development of a Traffic Control Plan was also included.
04/18-03/21	**SR 75 (US 231) Reconstruction, SR 30A (US 98) to South Pipeline Road, Panama City, FL – Florida DOT District 3** **Project Electrical Engineer / Engineer of Record** responsible for technical review of the 60% constructability roadway lighting design consisting of calculations and plan preparations, including Lighting Design Analysis Report (LDAR) and Lighting Justification Report (LJR). H&H is providing design services for the single-point urban interchange (SPUI) at SR 75 over US 231 and CSX RR improvement project
04/09 – 06/13	**Crescent Beach Bridge Rehabilitation (SR 206), St. Johns County, FL – Florida DOT** **Movable Bridge Electrical Engineer / Engineer of Record** responsible for rehabilitation of existing double-leaf, trunnion bascule bridge. Rehabilitation consisted of replacement of electrical power and controls with new Motor Control Center (MCC) and programmable logic controller (PLC) and replacement of drum switches and wound rotor motors with flux vector motors, drives, and brakes. Also included replacement of traffic gates, new open grid decking, and tender house improvements. Permit application was created for submarine cable replacement. Duties included shop inspections, witness testing, field inspection, and estimate of completion.

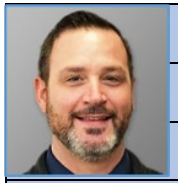
03/18 – 07/19	**Cass Street Bascule Bridge over Hillsborough River, Tampa, FL - Hillsborough County Government** **Movable Bridge Electrical Engineer / Engineer of Record** responsibilities included producing and developing calculations and design plans for the rehabilitation of this historic double-leaf bascule bridge. The major rehabilitation involved replacing obsolete and aging electrical equipment such as the programmable Logic Controller (PLC), motor control panels and cabinets; conduit and wiring associated with a generator, automatic transfer switch, safety interlock, etc.; auxiliary drive bevel gear bushing, span drive motor, span lock & pinion, span lock brake & bushings; and emergency Drive bevel gear, shaft bushing, bearing &couplings, live load shoe, and lighting. H&H is providing design plans for structural rehabilitation and controller system replacement. Services included inspections of the structural, electrical, and mechanical components; a bridge development report; structural, electrical, and mechanical construction plans; temporary traffic control plans (TTC); specifications; engineer's estimate of probable construction cost; and post-design services.
03/18 – 07/19	**Brorein Street Bascule Bridge over Hillsborough River, Tampa, FL - Hillsborough County Government** **Movable Bridge Electrical Engineer** responsibilities included producing and developing calculations and design plans for this double-leaf bascule bridge rehabilitation. This rehabilitation involved replacing aging electrical equipment, such as the main drive motors, brakes, motor control panels, span drive system and lock motor, limit switches, lighting, and upgrading the electrical service. H&H provided designs for the National Register of Historic Places eligible bridge including a structural rehabilitation and controller system replacement. Services included inspections of the structural, electrical, and mechanical components; a bridge development report; structural, electrical, and mechanical construction plans; TCP; specifications; engineer's estimate of probable construction cost;
05/17 – 07/17	**Arthur Kill Vertical Rail Lift Bridge, Elizabethport, NJ / Staten Island, NY – New York City Economic Development Corporation** **Movable Bridge Electrical Engineer** responsible for performing in-depth inspections of the existing span drive, limit switches, motor control center, termination cabinets, control console, and bridge electrical system on the Arthur Kill Vertical Lift Bridge. With a single-track tower drive and a 558-foot-long span, *this bridge has the longest lift span of any bridge of its type in the world*. Observed bridge operations and visually evaluated aerial cables. Performed electrical testing of electrical service, motors, motor brakes, and span locks. Reviewed previous bridge inspection reports and prepared checklist for field evaluation of corrected and uncorrected deficiencies.
1/10-10/15	**Ocean Avenue Bridge, Lantana, FL - Palm Beach County** **Movable Bridge Electrical Designer** responsible for electrical design of power distribution layout and plan sheets of relay-based control system with PLC monitoring and diagnostic alarm system for the replacement of double-leaf bascule bridge. Span motor controls are flux vector drive with encoder feedback. Performed lighting analysis and design of electrical equipment room, control house, and bascule piers. Provided standby generator sizing, power flow and voltage drop studies, short circuit analysis, and lighting panel calculations. Duties include shop drawing review, shop inspections, witness testing, field inspection, and estimate of completion.
07/10 – 01/13	**Sargent Barge Swinging Barge (Platoon) Bridge Rehabilitation, Matagorda County, TX – Texas DOT** **Movable Bridge Electrical Designer.** Drafted electrical repair plans for power distribution system, panel schedules, control schematics, equipment layouts and conduit & cable schedules. Design includes a programmable logic controller (PLC) control-based system utilizing wireless modems to eliminate the submarine cable. Operating system includes two winches on vector controlled variable speed drives, integrated to control back tension on the payout winch in each direction, to maintain absolute control of the barge in tidal currents. The center span is a 125-foot cable operated swinging barge with motor operated leveling spans and aprons on each end. Project scope included replacement of the timber leveling spans with steel framed open grid decks and the operating machinery, replacement of the bridge winch machinery and controls, structural repairs, and replacement of the traffic gates and miscellaneous roadway modifications.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Christopher Svara, PE**	Years of relevant experience with this employer	31
Title	**Senior Electrical Engineer**	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			B.S. / 1993 / Applied Physics B.S. / 1993 / Electrical Engineering
Active registration number / state / expiration date			**Professional Engineer:** 44080 / LA / 03/31/2028
Year registered	2019	Discipline	Electrical Engineer
Contract role(s) / brief description of responsibilities			**Senior Movable Bridge Electrical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Senior Electrical Engineer** supporting movable bridge preservation and rehabilitation task orders under an LADOTD IDIQ contract, including mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.
01/19 – Present	**SR 605 Movable Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT** **Movable Bridge Electrical Engineer** for the assessment, design, plan review, and quality control of SR 605 double-leaf bascule bridge, as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services, statewide for MDOT. Scope of work includes inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, as well as the roadway approaches and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
08/08 – 08/13	**Judge Seeber Vertical Lift Bridge over Inner Harbor Navigational Canal (SP 700-99-0430), New Orleans, LA – LADOTD** **Lead Movable Bridge Electrical Engineer / Engineer of Record** provided inspection and rehabilitative design services for the electrical rehabilitation of a 250-foot tower-drive vertical lift span. The rehabilitation design of this Preservation Priority Bridge encompassed various electrical elements including a new control system, new distributed power distribution system, motor controllers, control desk, and limit switches. Provided the electrical design, including calculations, design drawings, and specifications. During the construction phase, provided construction support services for the construction, including shop drawing review, and responded to various Requests for Information.
08/10 – 07/13	**Murray Morgan Vertical Lift Bridge Rehabilitation**, **Tacoma, WA – City of Tacoma** **Lead Movable Bridge Electrical Engineer / Engineer of Record** responsible for developing the electrical design required to replace the complete electrical system on a span drive lift bridge. Scope for this National Register of Historic Plans listed bridge included providing the electrical design, including calculations, design drawings, and specifications as well as providing construction support services for the construction, including shop drawing review, Requests for Information, meetings, on-site testing, and start up. This rehabilitation design included a new programmable logic control system, a radio communication system to reduce cables from the movable span to the fixed piers, control desk, new distributed power distribution system consisting of a movable span, near side, and far side electrical equipment locations, motor drives, utility service, and power distribution.

08/17 – 07/19	**I-90 Lacey V Murrow Pontoon Bridge Rehabilitation, Seattle, WA – Washington State DOT Bridge Preservation Office** **Movable Bridge Electrical Engineer** for an I-90 Lacey V Murrow Bridge electrical inspection and rehabilitative design project. H&H's electrical inspection of eastbound I-90 revealed that the electrical switchgears and five pairs of transformers needed to be replaced and the neutral and ground conductors needed to be separated. H&H's rehabilitative recommendations also required that submersible fuses in three pontoons be reconfigured and reinstalled, and that a fault current and arc flash hazard analyses be performed on all medium voltage equipment. H&H was responsible for the in-depth inspection, associated inspection report, subsequent electrical system design, and construction support services.
07/10 – 04/16	**SR 520 Evergreen Point Floating Bridge and Landings Project, Seattle, WA – Washington State DOT Bridge Preservation Office** **Movable Bridge Electrical Engineer** on this design-build project to replace the SR 520 Floating Bridge with a new parallel bridge and maintenance facility. Prepared a design-build Request for Qualifications and Request for Proposal for the replacement SR 520 Evergreen Point Floating Bridge and Bridge Maintenance Facility. The floating bridge work included preliminary design and complete technical requirements for a specialized structure. The Maintenance Facility included preliminary design and complete technical requirements for LEED compliant facility. Work also included support during the bidding and selection process as well as reviewing the design-build team's design submittals, attending task force meetings with the design-build team to keep the project requirements clear, and reviewing construction submittals.
06/17 – 04/18	**Centerville Swing Bridge over the Chesapeake & Albemarie Canal Rehabilitation, Chesapeake, MA – City of Chesapeake** **Lead Movable Bridge Electrical Engineer** for the rehabilitation of the Centerville Swing Bridge's bascule span. The project consisted of a site inspection to verify the condition of the electrical systems. After the site visit, a detailed scope of work was developed to identify the rehabilitation work that was required. Once the scope was defined and approved by the City, then construction plans, specifications, calculations, and cost estimates were prepared for a complete electrical rehabilitation of the bridge electrical system. The planned scope of work also included construction support servic
12/98 – 12/01	**Chehalis River Bascule Bridge Rehabilitation, Aberdeen, WA – Washington State DOT Bridge Preservation Office** **Movable Bridge Engineer** responsible for field inspection and subsequent design of the new electrical system for this Warren deck truss bascule bridge. Electrical designs were prepared for hydraulic center lock rehabilitation, traffic and pedestrian gate replacement, and new bridge electrical control and indication modifications. Project scope also included site inspection to evaluate existing equipment to determine what systems needed replacement versus maintenance. Design work included new control system, power distribution, hydraulic center locks, and gates as well as construction support services. Construction should be completed by Summer 2021.
10/99 – 03/01	**Woodrow Wilson Bascule Bridge Replacement Contract, Washington, DC – Maryland State Highway Admin. / Virginia DOT** **Movable Bridge Electrical Engineer / Engineer of Record** designing the new electrical systems for a new 12-lane bascule bridge to replace the existing I-95 Potomac River crossing. The new bridge is comprised of four side-by-side double-leaf bascule spans, each with a 270-foot center-to-center trunnion spacing and an overall bridge width of 249 feet. Responsibilities include the complete design of the completely new electrical systems. Features of the span include a composite concrete deck, moment-resisting span locks, tail locks, and the option of independent or group leaf operation. The bridge has been designed to accommodate future transit system plans.



Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Kenneth Pecquet, PE**	Years of relevant experience with this employer	7
Title	**Electrical Engineer**	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			B.S. / 2012 / Electrical Engineer
Active registration number / state / expiration date			**Professional Engineer:** 47471 / LA / 09/30/2027
Year registered	2023	Discipline	Electrical and Computer Engineer
Contract role(s) / brief description of responsibilities			**Movable Bridge Electrical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/23 – 12/23	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA - LADOTD** **Electrical Engineer** for West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges. The electrical system routine inspection included inspecting accessible components of the main bridge power distribution, bridge grounding system, motor controls, control systems (panel and consoles), electrical systems for the traffic control lighting system, traffic gate assemblies, traffic resistance barriers, span lock motors, span drive braking system, span drive motors, limit switches and related conduit and wiring.
01/20 – Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans** **Movable Bridge Electrical Engineer** for the bridge assessment, rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge's electrical system. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure.
10/19 – 12/20	**SR 609 Movable Bascule Bridge over Old Fort Bayou Rehabilitation, Ocean Springs, MS - MDOT** **Movable Bridge Electrical Engineer Intern** contributing to the electrical design services for the full rehabilitation of SR 609 bascule bridge, as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services, statewide for MDOT. Scope of work includes inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, as well as the roadway approaches and development of maintenance and repair plans.
12/24 - Present	**IDIQ Contract for Movable Bridge Preservation Task US 165 Red River MB Ped Gates (Jackson St.), Rapids Parish, LA – LADOTD** **Electrical Engineer** developing plan sheets, creating electrical general plan in accordance with LADOTD policies and standards, adding new operable pedestrian gates for pedestrian walkway on the fixed spans beyond both ends of the lift span.
08/23 - Present	**H.009730.5 LADOTD Movable Bridge Manual, New Orleans, LA - LADOTD** **Electrical Engineer** responsible for the development of the electrical components of the LADOTD Movable Bridge Inspection Manual (including details, photos, illustrations, and specific examples); building a lesson plan and materials for the classroom training from the inspection manual; and providing classroom and field training. The manual will include: bridge inspection principles and overview; movable bridge overview; mechanical, electrical, and structural inspection of movable bridges; operator house; and classroom and field training for electrical, mechanical, and structural).
08/22 - Present	**H.001498.6 (CE&I); LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourg, LA - LADOTD** **Electrical Construction Engineer** delivering construction engineering and inspection services for a new vertical lift bridge and operator's house. Services include daily monitoring of all construction activities; maintaining all construction field records; coordinating with DOTD, contractor, parish government, and utilities; performing field testing; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; and construction close-out.

12/19 – 08/24	**Bayou Teche Movable Bridge at Oaklawn, Franklin, LA - LADOTD** **Electrical Engineer** providing the electrical design for the movable bridge as well as the bridge parking and walkway lighting. The lighting design includes photometric analysis in accordance with IES standards, selection of luminaires and electrical equipment, and complete change order plan sheets detailing the placement of lights, connections to the existing electrical system, and item lists. H&H performed a field survey and review of bridge plans to complete an arc flash hazard analysis of the bridge electrical system using industry standard analysis software.
11/18 – 08/21	**Lake Pontchartrain Causeway Safety Bay Improvements (CE&I), Metairie, LA - Greater New Orleans Expressway Commission** **Electrical Engineering Construction Inspector** responsible for providing construction engineering and inspection services required during the Safety Bay improvement project. Mr. Pecquet's responsibilities included conducting construction engineering and inspection services required during the safety bay improvement project for inspection of all safety bays power, lighting, communication, CCTV, and traffic signal systems. Responsibilities included field inspections, documentation, preparation of daily reports, participation in construction progress meetings, and construction closeout.
02/23 - Present	**H.015028.6 Bayou Barataria Movable Bridge Replacement (CE&I), Phase 1, LA 302, Jefferson Parish, LA - LADOTD** Electrical Construction Engineer assisting in the construction contract administration and electrical construction engineering and inspection services for the Bayou Barataria Movable Bridge Replacement. This project consists of construction of the movable swing span bridge, operator's house, associated substructure elements, and pier protection system along relocated LA 302 in Jefferson Parish.
04/19 – Present	**Jupiter Federal Bascule Bridge Replacement, Jupiter, FL – FDOT** **Movable Bridge Electrical Engineer Intern** contributing to the design of this bascule bridge replacement project. The SWAT process of overlapping the design phase with the PD&E phase requires that the preliminary design phase includes coordination and support of the NEPA process in developing the Type 2 Categorical Exclusion documentation. H&H will serve as Engineer of Record for the project which addresses the structural and functional deficiencies of the existing US-1 / SR-5 Jupiter Federal Bridge from CR-A1A (Ocean Boulevard) to Beach Road. Work includes the development of vertical and horizontal alignment for bridge replacement alternatives and the study of the resulting impacts. The design incorporates intersection improvements and improves traffic functions at both ends of the approximately 2,960-foot long (0.56 mile) project corridor into the bridge replacement design. The project will include ADA access ramps to the 8-foot sidewalks and a new 7-foot buffered bike lane for additional safety.
12/19 – 01/21	**Bayou Teche Swing Bridge at Oaklawn (H.002798.6), St. Mary Parish, Louisiana - LADOTD** **Movable Bridge Electrical Engineer Intern** responsible for providing post-design electrical design calculations and plan revisions for the bridge power distribution and relay-based control system for this movable bridge. Built in 1941, the original historically significant bridge was replaced with a new hydraulically operated swing bridge. H&H provided the electrical design for the bridge in line with LADOTD's design requirements and standard design details and coordinated closely with the other design disciplines to ensure success. All design deliverables adhered to the schedule. Due to permitting issues, design was were placed on hold for several years extending the schedule.
08/19 - Present	**Lapalco Boulevard Movable Bridge over Harvey Canal, Westwego, LA - Jefferson Parish DPW** **Electrical Engineer** contributing to the pre-design electrical inspection and resulting Bridge Design Report (BDR) for the rehabilitation and widening of the existing four-lane Lapalco Boulevard project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lanes as well as the design of a new three-lane double bascule movable bridge crossing of Harvey Canal to be constructed as an independent structure immediately adjacent and north of the existing bridge with a new operator house. Improvements to bridge and roadway approaches and development of a Traffic Control Plan was also included. Project is being designed to LADOTD standards and specifications.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Dalton Hunt, PE**	Years of relevant experience with this employer	4
Title	**Structural Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S. / 2021 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 51514 / LA / 9/30/2026 **Certifications:** ATSSA Traffic Control Supervisor and Flagger
Year registered	2026	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Structural Bridge Inspector**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/22 – 10/24	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation), Statewide, MS – Mississippi DOT** **Structural Designer** for bridge inspection and rehabilitation services under this IDIQ Master Bridge Contract. Scope includes inspections and developing standard and special bridge services for multiple bridges across Mississippi. Services include structural and geotechnical design for bridges and retaining walls; mechanical and electrical bridge components; hydraulic design for bridges; design for roadway, traffic signals plans, ITS, and roadway lighting; design review services and constructability review. In addition, the contract includes specialized services such as: bridge scope analysis, bridge load rating, bridge safety or repair inspections, and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specifications.
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Roadway Engineer** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
01/23 – Present	**H4400023909: IDIQ Contract for Movable Bridge Preservation, Statewide, LA – LADOTD** **Structural Designer** for several task orders under this movable bridge preservation and rehabilitation IDIQ contract. Services include mechanical, structural, and electrical improvements for swing and lift bridges throughout Louisiana. Projects included the Boudreaux Canal Swing Bridge, Jackson Street Vertical Lift Bridge, and Bayou Teche Swing Bridge. Services include the design, plans/specifications production, and construction-phase services for hydraulic systems, operator facilities, ADA-compliant pedestrian gates, bridge control systems, lighting, traffic signals, standby power, navigation aids, and structural support elements in accordance with LADOTD, AASHTO, NEC, and ADA requirements.

06/23 – Present	**H.009730.5 In-Depth Bridge Inspection of Complex Structures, Statewide, LA – LADOTD** **Structural Bridge Inspector** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Inspection of two steel truss bridges (Jimmie Davis, Miller's Bluff, and Krotz Springs) and West Fork, LA 433 over Bayou Bonfouca, and LA 657 over Bayou Lafourch movable bridges have been completed to date.
01/22 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Bridge Designer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. Erik provided the design of steel plate girders for the bridge. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
03/22 – 10/23	**H.014363.5 IDIQ Contract for ADA Design Projects Statewide, Slidell, LA – LADOTD** **Civil Designer** responsible for the evaluation and consideration of current sidewalk features of Robert Blvd. in Slidell, LA. Plans were designed and revised in-house in preparation of the overhaul of sidewalks and adding of ADA compliant handicap ramps and landing areas along the roadway to bring the sidewalks up to current LADOTD standards. Services include preliminary plans, final plans, construction engineering, project proposal plans, and inspection for LADOTD Sidewalk Improvements to Conform to ADA Guidelines. The project begins at the intersection of LA 1091 (Robert Blvd) with US 190 (Gause Blvd) in the city limits of Slidell, Louisiana, then continues North along LA 1091 for 2.0+/- miles to a location 175 ft. north of the intersection of LA 1091 with Country Club Blvd. The survey will extend along all major side roads 50 ft. from the PT of the curbing in each direction.
09/22 – Present	**I-10 & I-12 College Dr Flyover Ramp Design- Build, Baton Rouge, LA – LADOTD** **Field Engineer Intern** for design and construction quality control/quality assurance for this road and bridge design-build project which is located at the I-10 West exit to College Dr, in advance of the I-10 & I-12 West merge. H&H serves as Design-Builder's Construction Quality Control Firm (CQCF) and oversees all Design Quality Control and Construction Quality Control activities for the project. Scope includes the development and implementation of Comprehensive Quality Plan to ensure the design and construction conforms to all specified requirements. H&H will develop, maintain, and update Contractor Quality Management Plan and provide qualified Inspectors, material sampling, testing, and independent testing labs to ensure contractors and off-site fabrication facilities meet project specifications.
06/22 – Present	**H.002798.6 Bayou Teche Movable Bridge at Oaklawn, St. Mary Parish, LA – LADOTD** **Civil Designer** assisting in the design, calculations, and plan preparation of the bridge power distribution and relay-based control system for this movable bridge located in St. Mary Parish, LA. The new through girder swing-span rotates with hydraulically actuated slewing (push-pull) cylinders.
04/22 – Present	**H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourge, LA – LADOTD** **Field Engineer Intern** delivering construction engineering and inspection services for a new vertical lift bridge and operator's house. Services include daily monitoring of all construction activities; maintaining all construction field records; coordinating with DOTD, contractor, parish government, and utilities; performing field testing; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; construction close-out, etc.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Cesar Navarro, PE**	Years of relevant experience with this employer	2
Title	**Structural Engineer**	Years of relevant experience with other employer(s)	6

Degree(s) / Years / Specialization			M.S. / 2021 / Structural Engineer B.S. / 2020 / Structural Engineering
Active registration number / state / expiration date			**Professional Engineer:** 150690 / TX / 09/30/2026 **Certifications:** NHI-130056: Safety Inspection of In-Service Bridges
Year registered	2023	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Structural Bridge Inspector**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/23 - Present	**LADOTD In-Depth Bridge Inspection of Complex Structures, Statewide, LA - LADOTD** **Bridge Inspector** for the inspection of complex structures such as cantilever trusses, cable-stayed bridges, steel vertical lift bridges, and plate girder bascule bridges statewide under separate task orders. Cesar assisted in inspecting the Jimmie Davis bridge over the Red River. The bridge consisted of a truss system over the Red River with adjacent sections being pin & hanger spans with prestressed concrete girders on the approach spans.
06/25 - Present	**SNBI Data Collection, Statewide, LA - LADOTD** **Structural Inspector** for retrieving and verifying the Specifications for the National Bridge Inventory (SNBI) data for InspectX for hundreds of bridges statewide for Louisiana Department of Transportation and Development (LADOTD). Tasks include review of pertinent documents such as rehabilitation plans, as-built plans, shop drawings, and inspection reports. These documents were obtained from various LADOTD offices including General Files, Bridge Design Section, Bridge Maintenance Section, and District offices. Necessary information will be collected from the site when such information is unavailable from the plans. Cesar assisted with over 40 bridges. Additionally, he performed QA/QC reviews for 20 additional bridges in New Orleans which included concrete and steel members.
07/23 – 03/24	**Routine Bridge Inspection, Statewide, TX - TxDOT** **Structural Inspector** assisted on multiple routine bridge inspection contracts by inspecting for scour, delamination, spalling, cracks, erosion damage and other defects. He assisted in providing bridge inspection and load rating services for the TxDOT Routine Bridge Inspection contract throughout the state of Texas. Cesar was involved in the inspection of over 100 bridge structures. The contract runs from 2022 through 2027.
01/25 - Present	**Structures Management Unit LSC – NBIS Inspections, Statewide, NC - North Carolina DOT** **Structural Inspector** providing NBIS element level inspection and appropriate documentation of the condition of over 40 bridges across North Carolina consisting of timber, steel and concrete.
06/24 – 03/25	**TxDOT CRP Off-System Bridge Replacements, Corpus Christi District, TX - TxDOT** **Structural Designer** for this bridge replacement contract as part of H&H's On/Off-System IDIQ contract for TxDOT. This Work Authorization includes three off-system bridges and three culverts within two TxDOT area office jurisdictions. These six project locations are being delivered in three separate PS&E packages on an accelerated schedule. Cesar contributed to CR 216 at Salt Creek, CR 414 at Salt Branch and Carmel Hills at Beldon Hollow.

10/22 – 05/23	**Campbell Army Airfield (CAAF) Repairs, Fort Campbell, KY - American Engineers Inc.** **Structural Designer** assisted in inspecting concrete slabs throughout the airfield for defects. The defects included popouts, alkaline silica reactions, longitudinal cracks, corner breaks, spalling, joint seal damage, patching failures and settlement among other defects. Mr. Navarro assisted with the PCC conditional assessment, design for the pavement replacement/ repairs and proposed airfield pavement markings design. This project involved the on-site conditional evaluation of over 40,000 PCC panels covering over 1.5 million square yards (SY) of the airfield ramps and taxiways. Civil design plans were developed for the partial repair or full replacement of any damaged PCC panels or aircraft tie-downs. This effort included bringing all the existing airfield runways, ramps and taxiways up to conformance with the latest UFC**.**
07/23 – 08/23	**Engineering Services, Transportation Development and Design, Hillsborough County, FL - Hillsborough County** **Structural Designer** worked on existing and new signal design along with custom spread footer design. This contract involves providing general/civil engineering services to support transportation capital improvements including but not limited to intersection improvements, new signals, traffic signal interconnection, road diets, complete streets, road widening, road resurfacing and reconstruction and bridge rehabilitation and replacement.
01/21 – 02/22	**SH 21 at FM 2346 & SH 21 at FM 2000, Madison County & Burleson County, TX - TxDOT** **Engineering Assistant II** for this project consisting of installing a left turn lane along with a mill and overlay on SH 21 at FM 2346. The project also included installing a left turn lane on FM 2000, a right turn lane on SH 21 SB, and extending the existing left turn lane on SH 21 SB along with an overlay on FM 2000. Mr. Navarro compiled the plan set for this project in which he created 3D models, earthwork quantities, summaries, sequence of work, SW3P sheets, General Notes, and construction schedule. He performed hydraulic calculations and managed utility coordination.
05/23 – 05/24	**Indiana DOT Design Review, Statewide, IN - Indiana DOT** **Structural Designer** performed multiple plan reviews of roadway projects and bridge projects. The reviews consisted of checking project documentation, standards, correspondence, engineering assessment reports, summary of quantities, maintenance of traffic, design computations and the submitted plan sets. Design reviews verify compliance with AASHTO guidelines, INDOT Standards and Specifications and constructability.
08/22 – 05/24	**Hillsborough School Zone Crossings, Hillsborough County, FL - Hillsborough County** **Structural Designer** worked on existing and new signal design along with custom spread footer design. Assisting in providing preliminary design and engineering and final plans for 15 school zone crossings including multiple signal designs and custom spread footer designs.
07/23 – 04/24	**Bikeways and Pedways Project , Wimberley, TX - Hays County** **Structural Designer** assisted in designing a sidewalk in accordance with the Texas Department of Transportation's standards and Hays County's preferences. His work also included the production of the plan set. The sidewalk improvements are part of a multi-phase Wimberley Valley Trails plan and will provide 0.84 mi. of contiguous safe and accessible path that connects Danforth Junior High to the Wimberley Public Library. It includes storm drainage, retaining walls, cross walks, and sidewalks.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**John Rayer, PE**	Years of relevant experience with this employer	2
Title	**Roadway Engineer**	Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization		BS / 2018 / Civil Engineering	
Active registration number / state / expiration date		Professional Engineer: 47089 / LA / 03/31/2027	
Year registered	2022	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities		**Roadway Engineer**	

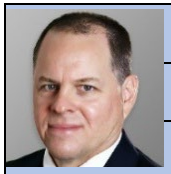
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/25 – Present	**H4400021516: Bridge Rehabilitation for Five Movable Bridges, Lafourche, Terrebonne, and Pointe Coupee Parishes, LA – LADOTD** **Roadway Engineer** for the inspection, evaluation, and rehabilitation design services for five movable bridges under LADOTD Contract No. 4400021516 as part of the LADOTD Movable Bridge Rehabilitation Program. Supported structural, mechanical, electrical, and architectural rehabilitation efforts to extend bridge service life, improve load capacity, and achieve current code compliance. Project services also included NBIS in-depth inspections, load ratings using AASHTOWare BrR, NDT and strain gage testing, scope and report development, design calculations, PS&E production, technical specifications, permit coordination, construction cost estimates, shop drawing and RFI review, and mechanical/electrical system inspections and functional testing. Four bridges carry historic designations, including the Golden Meadow Bridge Preservation Priority structure, with all rehabilitation designed in accordance with LADOTD historic bridge requirements and the Secretary of the Interior's Standards.
10/24 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Roadway Engineer** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Ave Bridge, a movable Strauss-heel trunnion bridge. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure.
10/24 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Roadway Engineer** for the design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Blvd to provide a facility carrying three lanes of traffic in each direction. The new bridge is constructed as an independent structure adjacent and north of the existing bridge with a new operator house. The project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane. In addition to design of the new bridge, all roadway approaches and intersections in the vicinity of the bridge (eastbound and westbound) will be redesigned to accommodate the new structure. Scope includes development of a Traffic Control Plan.
11/24 – Present	**SR 33 Bridge Replacements, Franklin County, MS – Mississippi DOT** **Roadway Engineer** for the Phase A Final Right-of-Way Plans for roadway design and roadway hydraulic design for four bridge replacements along SR 33 (Bridge Nos. 31.9, 34.6, 34.9, and 35.3). The project scope includes roadway realignment, roadway hydraulic design, preliminary right-of-way design, and final right-of-way design. H&H is providing the realignment of the roadway to run parallel to the existing and redesigning of one intersection at the end of the project. A hydraulic study and report are to be completed to resize the existing pipes, if necessary, and to verify sizing for a reinforced box culvert. A set of preliminary right-of-way plans are to be created following Mississippi Department of Transportation's (MDOT) guidelines and using the approved alignment from MDOT. Final right-of-way plans will be delivered after hydraulic design and roadway design have been finalized and a plan set has been created.

04/24 – Present	**H.009730.5 SNBI Data Collection, Statewide, LA - LADOTD** **Engineer responsible** for retrieving, verifying, and entering the Specifications for the Nation Bridge Inventory (SNBI) data into InspectX for the bridges statewide for Louisiana Department of Transportation and Development (LADOTD). Tasks include review of pertinent documents such as rehabilitation plans, as-built plans, shop drawings, and inspection reports. These documents will be obtained from various LADOTD offices including General Files, Bridge Design Section, Bridge Maintenance Section, and District offices. Necessary information will be collected from the site when such information is unavailable from the plans.
01/21 – 12/23	**H.012001 – LA 339: Canal & Creek Bridges, Various Locations, LA – LADOTD** **Roadway Engineer** for this bridge replacement project. The goal of the project was to replace three existing bridges with new, reinforced concrete box culverts on LA 339. John developed the 60% final roadway plans and calculations as well as the cost estimates for each phase of the project. The estimated cost for this project at 60% Final Plans was approximately $2,500,000. This project is scheduled to bid in 2025.
06/21 – 10/22	**H.008358 – Black Bayou Bridge, Madisonville, LA – LADOTD** **Roadway Engineer** for this bridge replacement project in Madisonville, Louisiana along the Tchefuncte River on LA 1077. John's role for the project was to develop the alignment of the roadway and the diversion roadway for construction. John also developed the cost of construction for the roadway aspects of the project. The construction cost of the project at bid was $4,291,639.25.
01/21 – 11/22	**H.010885 – LA 91: Bayou Plaquemine Brule BR Replacement, Acadia Parish, LA – LADOTD** **Roadway Engineer** for this bridge replacement project in Acadia Parish, LA. The existing pontoon bridge was to be replaced with a new bridge that met vertical requirements for boat traffic. John's responsibilities as Roadway Designer including creating an alignment for the new bridge to reconnect to the existing roadways. The bridge and roadway needed to be lengthened and raised substantially more than was originally proposed to allow for adequate vertical clearance in the waterway, which resulted in the project being put on hold due to the added construction costs.
06/18 – 8/20	**I-10 Widening through Baton Rouge, Baton Rouge, LA – LADOTD** **Roadway Designer** for this project which consisted of developing alternatives and cost estimates for the expansion of I-10 through Baton Rouge, Louisiana from the I-10/I-12 split to LA 415. John's role for this project was to calculate the quantities and costs. After presenting alternatives and developing estimates, the final estimated cost, with contingencies, was approximately $1 billion.
06/18 – 12/20	**LA 336, Breaux Bridge, LA – LADOTD** **Roadway Designer** for this restoration project located in downtown Breaux Bridge, Louisiana. The project consisted of the restoration of a historical lift span bridge. John's responsibilities on this project included developing calculations and drawings for the lift and bridge sections.
01/23 – 10/24	**Emerald Forest Blvd. to LA 59 Expansion Study, Covington, LA – St. Tammany Parish** **Roadway Engineer** for this project consisting of an alignment study for a new roadway to be proposed between US 190 and LA 59 in Covington, Louisiana. John's responsibilities on this project included developing three alternatives to present to St. Tammany Parish. Each alignment consisted of multiple roundabouts at intersections along the proposed roadways.
03/23 – 10/24	**Pontchartrain Yacht Club Bulkhead Improvements, Mandeville, LA – Pontchartrain Yacht Club** **Lead Roadway Engineer** for the replacement of the bulkhead around the Pontchartrain Yacht Club in Mandeville, Louisiana. As Lead Engineer, John was responsible for the preparation of plans and calculations of the bulkhead section.
09/24 – Present	**US 90 Bridge Replacement, Terrell County, TX – TxDOT** **Roadway QC Reviewer** for the replacement of two US 90 bridges at Sanderson Canyon. One of the existing bridges is 322 ft. long, with eight spans of approximately 40 ft. each, and the new bridge will be 339 ft. long with three spans of 113 ft. each. The other existing bridge is 520 ft. long with 13 spans of approximately 40 ft. each and is over existing UPRR tracks; the new bridge will be 623 ft. long with four spans varying from 138 ft. to 150 ft. each. John's responsibilities include independent review of bridge plans prepared by the prime.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Robert Hideck, PE**	Years of relevant experience with this employer	12
Title	**Senior Roadway Engineer**	Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		B.S. / 2002 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 41953 / Louisiana / 03/31/2028	
Year registered: 2017	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Senior Roadway Engineer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Roadway Design Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
07/16 – 9/21	**SR A1A North Bridge Replacement**, **Fort Pierce, FL** – Florida DOT **Roadway Design Engineer** for the planning and design of a new high-level fixed bridge carrying SR A1A and the East Coast Greenway over the Intracoastal Waterway, FEC Railroad, and Old Dixie Highway. Scope included staged construction to maintain traffic, elimination of at-grade rail crossing, design of new roadway alignments and access roads, and integration of an observation deck. H&H coordinated extensively with utilities, FEC Railroad, adjacent businesses, and permitting agencies. The project also included geotechnical, drainage, hydrogeology, lighting, signals, signage, and maintenance of traffic for both vehicular and marine users.
01/21 – 02/25	**SR 826/Palmetto Expressway Capacity Improvement Design-Build, Miami-Dade County, FL – Florida DOT** **Engineer of Record** responsible for roadway, traffic control, tolling, and S&PM design services. This project improves operations with an additional SB General purpose lane, auxiliary lanes, and improved shoulder widths, requiring major modifications to the NW 103rd St interchange. The project also includes revised access to the NB and SB revises express lanes, requiring a new toll site and improvements to the adjoining frontage road system. H&H is the lead designer, responsible for roadway, drainage, permitting, traffic control, tolling, and bridge design.
09/15 – 12/18	**44th Ave E from 45th St E to 44th Ave Plaza E, Braden River Segment, Manatee County, FL – Manatee County** **Roadway Engineer of Record/Senior Roadway Engineer** responsible for roadway and traffic control design and plans preparation. The project included the design for the reconstruction and extension of 44th Ave East from 45th St East to 44th Ave Plaza East. The design plans include reconstruction from a two-lane roadway to a four-lane divided urban roadway. A new bridge was designed to cross over the Braden River, as well as a realignment of Morgan Johnson Rd and Caruso Rd to provide route continuity.
01/16 – 05/18	**I-75 SB Off-Ramp from S of Bypass Canal to EB/WB I-4, Hillsborough County, FL – Florida DOT** **Roadway Engineer** responsible for the roadway and temporary traffic control design and plans preparation for this two-mi. roadway improvement project that included ramp widening, an extension of the ramp to provide off-line queueing, and an extended auxiliary lane on I-75. A unique aspect of the design team's approach was incorporation of operational improvements into a long-term buildout. This project was expedited for construction based on no right of way acquisition or impact to Florida Gas Transmission lines.

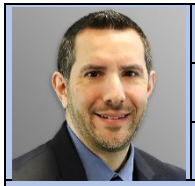
11/24 – Present	**SR 33 Bridge Replacements, Franklin County, MS – Mississippi DOT** **Senior Roadway Engineer** for the Phase A Final Right-of-Way Plans for roadway design and roadway hydraulic design for four bridge replacements along SR 33 (Bridge Nos. 31.9, 34.6, 34.9, and 35.3). The project scope includes roadway realignment, roadway hydraulic design, preliminary right-of-way design, and final right-of-way design. H&H is providing the realignment of the roadway to run parallel to the existing and redesigning of one intersection at the end of the project. A hydraulic study and report is to be completed to resize the existing pipes, if necessary, and to verify sizing for a reinforced box culvert. A set of preliminary right-of-way plans are to be created following MDOT guidelines and using the approved alignment from MDOT. Final right-of-way plans will be delivered after hydraulic design and roadway design have been finalized and a plan set has been created.
01/16 – 06/23	**Sand Lake Rd (SR 482) Interchange, Orange County, FL - Florida's Turnpike Enterprise** **Senior Roadway Engineer** responsible for the traffic control design and plans preparation. As a sub-consultant, H&H prepared the temporary Traffic Control Plans design for the construction of a new interchange located on the Florida Turnpike and Sand Lake Rd (SR 482) in Orange County, Florida. As part of H&H's innovative design, ramp construction took place early to allow mainline traffic to be diverted during off peak hours while bridge reconstruction over the Turnpike is ongoing. This project also included coordination with FDOT District 5 for the reconstruction of Sand Lake Road.
04/17 – 05/23	**SR 75 (US 231) from SR 30A (US 98) to Pipeline Road, Panama City, FL – Florida DOT** **Engineer of Record** responsible for design and preparation of roadway, signing and pavement marking, and temporary Traffic Control Plans. H&H is providing design services for the single point urban interchange (SPUI) at SR 77 over US 231 and CSX RR improvement project. Work includes design for roadway and drainage design of the intersection, lighting design for the entire project, and bridge design for a new 840-ft. steel bridge.
07/17 – 06/20	**Orlando South Ultimate Interchange Improvements – Florida's Turnpike Enterprise** **Senior Roadway Engineer** responsible for concept development, coordination, and project oversight of a complex interchange, including system and service movements. The project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. The project goals included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges.
03/07 – 10/13	**Veterans Expressway (SR 589) Widening from Memorial Highway to Gunn Highway – Florida's Turnpike Enterprise** **Project Engineer** responsible for roadway design, preparation of plans, coordination of sub-consultants and multiple disciplines, post-design services, and civil/site design for six toll sites. As part of the expansion, the existing conventional cash toll collection method was converted to an AET collection method. The project included two full interchanges and four partial interchanges. Due to the proximity to the Tampa International Airport, aviation permits were required throughout the project corridor and extensive coordination was required with the FAA. This activity included meeting with aviation agency staff and the design team to adjust design element locations and/or elevations for the acquisition of FAA determinations required for HCAA permits. The project also included the milling and resurfacing of the existing roadway, as well as widening and reconstruction.
03/15 – 03/17	**Fort Hamer Bridge Approaches, Upper Manatee River Rd to Fort Hammer Road, Manatee County, FL – Manatee County** **Project Roadway Engineer** responsible for roadway and temporary Traffic Control Plans. This project included the design of over a mile of approach roadway for a new bridge over the Manatee River, connecting Upper Manatee River Rd with Fort Hamer Road. The project was designed for stage construction with the two lanes being delivered with initial construction.



Firm employed by	**Hardesty & Hanover, LLC**		
Name	**J. Webb Jones, PE**	Years of relevant experience with this employer	14
Title	**Senior Highway Engineer**	Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization		B.S. / 2001 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 56950 / Florida / 2/28/2027	
Year registered: 2001	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities		**Senior Roadway Engineer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/16 – 9/21	**SR A1A North Bridge Replacement, Fort Pierce, FL – Florida DOT** **Senior Roadway Engineer** for the planning and design of a new high-level fixed bridge carrying SR A1A and the East Coast Greenway over the Intracoastal Waterway, FEC Railroad, and Old Dixie Highway. Scope included staged construction to maintain traffic, elimination of at-grade rail crossing, design of new roadway alignments and access roads, and integration of an observation deck. H&H coordinated extensively with utilities, FEC Railroad, adjacent businesses, and permitting agencies. The project also included geotechnical, drainage, hydrogeology, lighting, signals, signage, and maintenance of traffic for both vehicular and marine users.
07/17 – 06/20	**Orlando South Ultimate Interchange, Orange County, FL - Florida's Turnpike Enterprise** **Deputy Project Manager** responsible for concept development of alternatives. This project includes an evaluation of a complex interchange that provides both direct and indirect ramping between Orange Blossom Trail and the adjacent two limited access highways. The project goals included: construction of direct connection ramps between freeways, an ultimate 10-lane typical section of the turnpike, implementation of AET, consideration of express direct connections, and improvement of surface street operations with two new reliever interchanges. The recommended configuration included improvements to the systems interchange, modification to two adjoining interchanges, and new proposed service interchanges.
01/16 – 12/17	**I-75 (SR 93A) SB Off-Ramp form S of Bypass Canal to EB/WB I-4, Hillsborough County, FL – Florida DOT** **Project Manager/Engineer of Record** responsible for project coordination and oversight. This two-mi. roadway improvement project included the addition of a new auxiliary lane for southbound I-75 from south of the Bypass Canal to the southbound off-ramp and widening the I-75 southbound off-ramp from one to two lanes. A unique aspect of the design approach was the incorporation of this design into a long-term buildout of the interchange. This project was expedited for construction based on no right of way acquisition or impacts to Florida Gas Transmission lines.
01/16 – 10/17	**SR 826/Sunny Isle Twin Bridge Improvements, Sunny Isle, FL – Florida DOT** **Roadway Design Lead/Signing and Pavement Marking Engineer of Record** responsible for signing and pavement marking and roadway design, as well as temporary traffic control (TTC) plans. The project included a vibration study of the bridge control house; design recommendations for improvements, public involvement, permitting, TTC plans, roadway, drainage, signing and pavement markings analysis and plans, and construction cost estimates. Both four-lane bridges have 16 spans with pre-stressed AASHTO concrete and steel beams and a double-leaf trunnion bascule span.
01/21 – 02/25	**SR 826/Palmetto Expressway Capacity Improvement Design-Build, Miami-Dade County, FL – Florida DOT** **Senior Roadway Engineer** responsible for QC on this project. This project improves operations with an additional SB General purpose lane, auxiliary lanes, and improved shoulder widths, requiring major modifications to the NW 103rd St interchange. The project also includes revised access to the NB and SB express lanes, requiring a new toll site and improvements to the adjoining frontage road system. H&H is the lead designer, responsible for roadway, drainage, permitting, traffic control, tolling, and bridge design.

01/16 – 12/23	**Sand Lake Rd Interchange, Orange County, FL - Florida's Turnpike Enterprise** **Senior Roadway Engineer** responsible for the temporary Traffic Control Plans design for the construction of a new interchange located on the Florida's Turnpike and Sand Lake Rd (SR 482) in Orange County, Florida. As part of an innovative design, ramp construction will take place early to allow mainline traffic to be diverted during off peak hours while bridge reconstruction over the Turnpike is ongoing. This project also includes coordination with FDOT District 5 and the reconstruction of Sand Lake Rd.
11/16 – 02/19	**Gateway Express Improvements, Pinellas County, FL – Florida DOT** **Project Engineer** responsible for technical oversight of temporary Traffic Control Plans. This project will deliver limited and controlled access connections from the Bayside Bridge on the north, US 19 on the west, and the St. Pete Clearwater International Airport to I-275 general purpose and new express lanes. H&H's scope on this design-build project includes contributing to FDOT's Alternative Technical Concepts (ATC) process; developing temporary traffic control plans design for Segments 2 and 4; project tolls design (four sites) for Segments 1, 2 and 4; and structures design for four bridges in Segment 4.
03/13 – 10/14	**Central Polk Pkwy (Segment 1) from Polk Pkwy SR540 to SR 35 (US 17), Polk County, FL – Florida DOT** **Engineer of Record/Senior Engineer** responsible for roadway design and plans production. This project required the use of Corridor Modeler software to aid in the design of a new six-lane expressway facility. The project included the design of a one-mi. new alignment, over two mi. of widening, and a new interchange at SR 540 including over two mi. of new ramp alignments. This segment was among several that were under design to complete the northeasterly connection of Central Polk Pkwy to I-4.
01/14 – 12/15	**Gandy Blvd Bridge Approaches, Pinellas Count, FL – Florida DOT** **Senior Engineer** responsible for QA/QC for the Traffic Control Plans for the construction of a 2.5-mi.-long segment of improved grade-separated lanes to increase capacity on the Gandy Bridge approach using design-build delivery. The project is 2.5 mi. long, includes three grade separations, and is being delivered substantially under budget with design-build delivery.
07/13 – 02/14	**Turnpike Mainline (SR 91) Interchange at I-4 Design-Build, Orange County, FL – Florida's Turnpike Enterprise** **Project Engineer** responsible for the design and preparation of traffic control and roadway plans. The project included operational improvements, including mainline auxiliary lanes and ramp lane additions. A unique feature of the proposed design was a new ramp structure, replacing the need for widening, to avoid FGT impacts.
04/17 – 03/20	**SR 75 (US 231) from SR 30A (US 98) to Pipeline Road, Panama City, FL – Florida DOT** **Senior Roadway Engineer** responsible for preparation of roadway and temporary Traffic Control Plans. The project consists of providing design services for the single point urban interchange (SPUI) at SR 77 over US 231 and CSX RR improvement project. The work includes roadway and drainage design of the intersection, lighting design for the entire project, and design for new 840-ft. steel bridge.
01/16 – 05/20	**Districtwide Interstate Program Manager (IPM) – Florida DOT** **Senior Engineer** responsible for concept development and review of plans. This multi-discipline, indefinite quantity contract provided as-needed services to support the Florida DOT work program for all interstate highway improvements in the five-county FDOT District region. The geographic limits include over 150 mi. of I-275, I-4, and I-75 and key contributing arterials.
07/12 – 02/15	**SR 212 (Beach Boulevard) Landscaping from St. Johns Bluff Road to San Pablo Road, Duval County, FL – Florida DOT** **Engineer of Record/Senior Engineer** responsible for design and production of traffic control plans. The project involved roadway design for over 5.6 miles, including landscaping and irrigation improvements for proposed bold landscaping within existing medians on Beach Boulevard, from St. Johns Bluff Road to San Pablo Road in Jacksonville.
07/23 – Present	**SR 535 Interchange Improvements at I-4 & WB Express Lane Extension from west of SR 536 to west of Daryl Carter Parkway Design-Build, Orange County, FL – Florida DOT** **Chief Engineer** responsible for temporary traffic control design and plans preparation. The interchange improvements will partially reconstruct I-4 and SR 535 (Apopka-Vineland Road) to enhance safety and improve access to and from westbound I-4. The extension project will add a single, buffer-separated, westbound managed lane to I-4 from west of SR 536 to west of Daryl Carter Parkway.



Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Matt Witkowski, PE, PTOE**	Years of relevant experience with this employer	12
Title	**Transportation Planning Engineer**	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization	MBA / 2001 / Business Administration B.S. / 1999 / Civil Engineering
Active registration number / state / expiration date	**Professional Engineer:** 41787 / LA / 09/30/2027 **Professional Traffic Operations Engineer:** 2522 / 11/24/2026
Year registered: 2017 — Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities	**Senior Roadway & Traffic Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/19 – Present	**Traffic Engineering Staff Augmentation, Statewide, NJ – New Jersey DOT** **Deputy Project Manager** responsible for staffing augmentation services for NJDOT – DTE. Assignments included the preparation of Traffic Signal Design plans for new traffic signals and upgrades to existing signals, preparation of traffic signage and striping plans, performance of traffic studies to determine if traffic control devices are warranted including signals, signing, and striping, performance of traffic studies to determine ADA compliance at signalized, unsignalized, and midblock crossings, the design of new facilities to meet ADA compliance, performance of traffic studies to determine traffic signal operational needs and optimized signalized corridors/integrated signals into central systems/coordinated corridors, lighting analyses for signalized, unsignalized, and midblock locations, and lighting warrants for highway corridors.
08/19 – 11/23	**East Haddam Bridge (Route 82) Over the Connecticut River, East Haddam/Haddam, CT – Connecticut DOT** **Traffic Engineering Task Manager** responsible for the analysis and design of a two-way, one-lane alternating temporary traffic signal for multiple rehabilitation stages for a swing bridge. Design included portable traffic signal installations for each construction stage, along with traffic signal timings and the interaction with the permanent bridge traffic signals. Bridge traffic signals were redesigned on the west side of the bridge and updated on the east side. Provided oversight for updated signing and pavement marking plans and the development of a regional detour.
01/18 – 01/21	**Bridge Vertical Under Clearance Statewide, Various Locations, NJ – New Jersey DOT** **Traffic Engineer** for professional engineering design services for the preparation of Bridge Vertical Under Clearance TE-9 sign work orders and related plans for over 140 locations statewide. Project is under the supervision of the Bureau of Traffic Engineering.
05/16 – 07/18	**SR-710/Beeline Highway Interchanges from Northlake Boulevard to Blue Heron Boulevard, Palm Beach County, FL – Florida DOT** **Traffic Engineer** responsible for performing a Traffic Signal Warrant analysis using FDOT District 4 and MUTCD standards. Provided oversight for the design and development of traffic signal plans at 4 intersections and coordination with electrical engineer performing lighting analysis and design. Project involves the expansion and reconstruction of a 3-mile divided suburban highway segment, increasing from 4 to 6 lanes in each direction, incorporating highway widening improvements, upgraded traffic signals, and a new traffic signal at a previously unsignalized location. The Turnpike Bridge over SR-710 will be replaced.
11/15 – 02/17	**Region 8 Design-Build of Bundled Bridges, Duchess and Columbia County, NY – New York State DOT** **Traffic Engineer** responsible for providing detour route analyses and temporary signal design services to subconsultant design-build team for 6 fixed bridge and culvert crossings in rural locations. Detour routes were analyzed for bridge closure alternatives. Synchro/SimTraffic analysis software was used, and traffic signal timing modifications and geometric modifications were recommended for impacted locations. Temporary traffic signals were designed for locations with a projected increase in volume, including multiple two-way, one-lane systems.

02/16 – 08/17	**Local Concept Development Studies for Bergen and Essex Counties, Town of Harrison and City of Newark, NJ – North Jersey Transportation Planning Authority** **Lead Traffic Engineer** responsible for existing and future conditions traffic analyses for two signalized intersections and the section of Bridge Street over the Passaic River. Project involves the replacement of the Bridge Street Bridge over the Passaic River. Evaluated existing lighting conditions, performed crash analyses, and provided written reports with recommendations to alleviate overrepresented crash types. Assisted in the development of alternatives including upgraded roadway sections and additional auxiliary lanes at intersections.
01/15 – 06/17	**Roadway Improvements for County Route 537 Corridor, Freehold Township, NJ – Monmouth County** **Lead Traffic Engineer** responsible for the redesign of 5 existing traffic signals. Traffic task manager for federally funded improvements to the CR 537 corridor between Sentinel Road and the U.S. Route 9 Interchange. Provided oversight for the analysis of existing and future conditions and for highway lighting and ITS design initiatives. Project included implementation of ADA facilities fully compliant with Federal ADAAG standards and close coordination with Monmouth County engineering staff.
11/14 – 08/18	**Final Design for the Route 168 Newton Lake Dam, Camden County, NJ – New Jersey DOT** **Traffic Engineering Task Manager** for the final design (FD) phase of a dam replacement project that involved the redesign of an existing traffic signal. Duties included traffic signal plan preparation, electrical layout and design, intersection lighting analysis, review of maintenance of traffic plans, and the design of an interim traffic signal plan.
05/11 – 11/14	**Traffic Signal Design for I-295 and Route 42 Missing Moves Contract No. 025950541, Camden and Gloucester County, NJ – New Jersey DOT** **Traffic Task Manager** for the design of a new traffic signal and the preparation of traffic signing and striping plans for a project involving the addition of 2 new connector roadways between I-295 and Route 42 in the vicinity of the Borough of Bellmawr to provide connections that do not currently exist.
01/16 – 04/18	**Intersection Improvements at Route 38 and South Church Street, Moorestown Township, NJ – New Jersey DOT** **Traffic Engineer** in charge of preliminary engineering phase for $8 million intersection improvement project to improve operation and capacity. Three new interconnected traffic signals as well as the widening of approximately 1-mile section of Route 38 and adjacent side streets will provide necessary dedicated turning lanes as well as appropriate deceleration lane lengths. Design effort includes development of horizontal and vertical geometrics including 'best fitting' of new Route 38 baseline to minimize right-of-way impacts. Highway sections were prepared to detail proposed roadway lane configurations. Pavement cores were utilized to identify the limits of existing underlying concrete pavement to remain and to establish limits for full depth pavement reconstruction versus concrete pavement repair and placement of a new overlay. Controlling Substandard Design Elements (CSDEs) to remain were identified and a Design Exception Report will be developed and submitted to NJDOT and Federal Highway for approval. In addition to construction, traffic signing and striping plans, traffic signal plans, highway lighting plans are required. Traffic control and staging plans will be developed and will include a temporary traffic signal. Drainage and utility designs will also be prepared for the project.
07/08 – 07/12	**Route 30/130 Collingswood Circle, Phase B, Collingswood, NJ – New Jersey DOT** **Traffic Engineer** responsible for traffic analysis for no build and build condition for multiple intersections along Route 30/130 which included the design of an upgraded traffic signal for the $40.5 million Cooper River Bridge replacement and improvements at North Park Drive. Included creating a separate northbound right turn lane, minor widening of the east approach to accommodate three standard lanes and the addition of a second receiving lane to the east of the intersection, with minor widening of the west approach to accommodate two standard lanes. Assisted in the development and oversight of maintenance of traffic plans and designed a temporary traffic signal utilizing wood poles and span wires for multiple construction stages.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**J. Lee Adams, PE**	Years of relevant experience with this employer	18
Title	**Senior Water Resources / Hydraulics Engineer**	Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		BS / 1995 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 41739 / LA / 09/30/2027	
Year registered	2017 Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Senior Hydraulics Engineer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Hydraulics Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
01/22 – 12/22	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Hydraulics Engineer** for the design of a six-lane bascule bridge parallel and adjacent to the existing bridge. The new bridge will carry three westbound lanes, and the existing bridge will be modified to carry three eastbound lanes plus a pedestrian and bicycle path. Project scope includes the design of a new three-lane double-leaf bascule bridge and approach spans that will be north of and parallel to the existing bridge, as well as design modifications to the existing bridge to reconfigure it to include three eastbound lanes plus a pedestrian and bicycle path. H&H's preliminary design work included a visual structural inspection of the fracture critical elements, primary and secondary structural members, as well as electrical and mechanical systems inspections. Responsible for evaluating the scour susceptibility of the sites planned improvements.
09/15 – Present	**Route 42 Bridges over Blackwood Railroad Trail, Gloucester, Camden County, NJ - New Jersey DOT** **Deputy Project Manager/Stormwater Management Task Leader** responsible for coordinating all disciplines in the preparation of Preliminary Engineering services. The project involved replacing a pair of three-span, fixed bridges conveying the northbound and southbound freeways over the former railroad ROW, with a single tunnel structure. Multistage construction and extensive utility relocation were involved. The project included acceleration and deceleration lane improvements and triggers State Storm Water Management Rules due to proposed impervious coverage. Design work was performed per the NJDEP regulations at NJAC 7:8. NJAC 7:13 compliance is also a factor as several storm outfalls discharge to the regulated floodplain. Prepared highway spread calculations and developed storm water management plan involving stormwater pipe hydraulic grade line. Calculations were performed using rational method per NJDOT RDM Chapter 10. Prepared the design of storm water management detention and retention basin for water quality, quantity, and recharge. Utilized NRCS TR-55/TR-20 flood routing calculations and methodologies to size basin and outlet features. Recharge requirement was evaluated using the State's NJGRS Spreadsheet. Water quality was achieved by retaining the water quality storm event beneath the low-level outlet. Quantity reduction was achieved by detaining storms more than the WQ event.
01/23 – Present	**Rehabilitation of Dock Bridge, Newark, Essex County, NJ - Amtrak** Lead Hydraulics & Hydrology Engineer for the rehabilitation design of Dock Bridge, a complex, three-span-driven vertical lift rail bridge that crosses the Passaic River between Newark and Harrison. The purpose of the project is to bring the bridge to a state of good repair. Responsible for securing NJDEP Waterfront Development Permitting and USACE Nationwide Permits.

10/17 – 10/18	**Rehabilitation of Route 202 Bridge over Housatonic River, Litchfield County, CT – Connecticut DOT** **Lead Hydraulics Engineer** for the rehabilitation of the Connecticut DOT Route 202 over Housatonic River. The bridge is a single span simply supported Pratt through truss variant carrying two lanes of traffic. Constructed in 1953, this steel truss bridge is comprised of a combination rolled and built-up truss members framed into riveted gusset plates. The site is subject to flood flows that carry woody debris and inundate the span. Mr. Adams assessed the debris loading risk, modeled design flows, and estimated lateral hydraulic forces on the superstructure to assist the structural design team with bridge seat rehab design.
05/16 – 06/20	**Bridge Street Bridge over Passaic River, Newark & Harrison, NJ – North Jersey Transportation Planning & Authority** **Hydraulics Team Leader** responsible for evaluating stream stability and coastal site conditions for the existing bridge and replacement alternatives for the federally funded Local Concept Development (LCD) phase for major rehabilitation or replacement of this deteriorating swing span bridge. Mr. Adams also evaluated stormwater management system operation, capacity impacts, and environmental permitting implications for same.
08/23 – Present	**Phase II – Hydraulic Analysis and Scour Evaluation of Various Turnpike & Parkway Bridges, Statewide, NJ – New Jersey Turnpike Authority** **Project Engineer and Lead Hydraulics Engineer** for the Phase II scour evaluation of two major bridges and 33 routine bridges over waterways on the NJ Turnpike and the Garden State Parkway facilities. Phase II Scour Evaluations are being performed in accordance with FHWA Hydraulic Engineering Circular No. 18 (HEC-18), "Evaluating Scour at Bridges" that includes preparation of individual report for each bridge. Work efforts involve preparation of field inspection, geotechnical sample collection, Hydrologic and Hydraulic Analysis, Scour Analyses, Foundation Stability Assessment, and a prioritized list of bridges recommended for development of a Plan of Action and/or Scour Countermeasure design and construction.
11/21 – Present	**Replacement of Structure No. W112.72B/Interchange 16W–Ramp over Berry Creek Canal, Bergen County, NJ – New Jersey Turnpike Authority** **Lead Hydraulics Engineer** for the preliminary and final engineering design to replace the existing structure with a three-span continuous steel girder bridge supported on deep foundations and the rehabilitation of a culvert (Str. #W112.26). As lead hydraulic engineer, developed SMS SRH-2D global model to estimate and route the tidal prism and define the boundary conditions in accordance with HEC-25 methodologies. Developed finer detailed 2D model to determine proposed bridge scour parameters and estimate scour per HEC-18 for tidal bridges in cohesive materials.
12/12 – 12/13	**Rumson – Seabright Bridge Over Shrewsbury River, Monmouth County, NJ – County of Monmouth** **Hydraulics Engineer** responsible for evaluating scour vulnerability for the existing Rumson Road Bridge S-32 and several replacement alternatives during the Local Concept Development Phase. Prepared cost estimates for scour countermeasure alternatives and performed field condition inspection of bridges and culverts. Performed hydraulic vulnerability analysis per NJDOT guidance and developed hydraulic modeling per FHWA's HEC-25 guidance. During Preliminary Design, responsible for assessing stormwater management NJDEP regulatory requirements, evaluating existing system capacity, and designing stormwater system improvements for the Preliminary Engineering Phase of work. Prepared final design stormwater system improvements and prepared the final bridge hydraulics analysis, including modeling tidal hydraulic conditions during the stages of construction, and supported the engineering effort necessary for NJDEP Waterfront Development, USCG, and USACE permitting.
01/22 – 12/22	**Strong River Scour Analysis, Scott, MS – Mississippi DOT** **Sr. Hydraulics Engineer** for hydrology and hydraulics to perform a qualitative and quantitative analysis of the channel and develop a Scour Analysis Report according to MDOT's Bridge Scour Evaluation Study Phase I & II guidelines. The two-phase approach began with preliminary findings and conclusions based on a survey of conditions and application of simple geomorphic concepts. This initial data collection phase supported the second phase, which was dedicated to engineering analysis and quantitative measurements of the structure and surrounding environment.
05/17 – 12/20	**Route 25A Bridge Over Brackett Brook, Grafton County, NH – New Hampshire DOT** **Supervising Hydraulics Engineer** for the rehabilitation or replacement of this NHDOT Red Listed bridge. Responsible for supervising the hydrologic and hydraulic analysis necessary to define the floodplain, floodway, and existing conditions; determine design loads, scour depths; and provide quality control. The two-span concrete deck bridge was in poor condition and considered scour critical during floods. Scope of work included an engineering feasibility study and report detailing type, span, and location (TS&L); preliminary and final design; permitting; and construction support services.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**John Witthohn, PE**	Years of relevant experience with this employer	10
Title	**Water Resources / Hydraulics Engineer**	Years of relevant experience with other employer(s)	13
Degree(s) / Years / Specialization		BS / 2003 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 41575 / LA / 09/30/2027	
Year registered	2017 Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Hydraulics Engineer**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Hydraulics Engineer** for the bridge assessment, complete rehabilitative engineering design, and road design services required for the partial replacement of the Almonaster Ave Bridge and a new connector road. H&H's 2019 assessment of the circa-1920, eligible for the National Register of Historic Places bridge revealed that improvements to the electrical and mechanical systems, superstructure, and the connecting roads were required to return this bridge to its full operating capability. The road design services included a new alignment for the connecting road including all drainage structures. H&H also developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.
01/22 – 12/22	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Hydraulics Engineer** for the design of a six-lane bascule bridge parallel and adjacent to the existing bridge. The new bridge will carry three westbound lanes, and the existing bridge will be modified to carry three eastbound lanes plus a pedestrian and bicycle path. Project scope includes the design of a new three-lane double-leaf bascule bridge and approach spans that will be north of and parallel to the existing bridge, as well as design modifications to the existing bridge to reconfigure it to include three eastbound lanes plus a pedestrian and bicycle path. H&H's preliminary design work included a visual structural inspection of the fracture critical elements, primary and secondary structural members, as well as electrical and mechanical systems inspections. Responsible for evaluating the scour susceptibility of the sites planned improvements.
03/23 – Present	**NJ Route 179 Bridge Replacement over Back Brook, Hunterdon County, NJ – New Jersey DOT** **Hydraulics Engineer** for the Conceptual Design of the replacement of Route 179 Bridge over Back Brook. Responsible for hydrologic and hydraulic analysis of existing and proposed bridge hydraulics, and the design of a wider bridge opening to provide natural stream banks and terrestrial species passage in compliance with NJDEP Flood Hazard Area rules on threatened and endangered species in fragmented habitat, per the NJAC 7:13.
01/22 – 12/22	**Strong River Scour Analysis, Scott, MS – Mississippi DOT** **Hydraulics Engineer** responsible for hydrology and hydraulics to perform a qualitative and quantitative analysis of the channel and develop a Scour Analysis Report according to MDOT's Bridge Scour Evaluation Study Phase I & II guidelines. The two-phase approach began with preliminary findings and conclusions based on a survey of the conditions and the application of simple geomorphic concepts. This initial data collection phase supported the second phase, which was dedicated to engineering analysis and quantitative measurements of the structure and its surrounding environment. H&H performed a hydraulic analysis, evaluated the stability of the channel, and assessed scour depths for the dual-bridge crossing and recommended NBIS Item 113 coding.
12/19 – 01/22	**East Haddam Swing Bridge over the Connecticut River Rehabilitation, Haddam, CT – Connecticut DOT** **Hydraulics Engineer** responsible for the rehabilitation of this 4-span truss swing bridge. The bridge, which opened in 1913 and has been posted on the National Register of Historic Places, carries two lanes of Route 82 traffic over the Connecticut River and includes a deck truss span, through truss span, and a 465-foot-long through truss swing span. Rated elements included gusset plates, pins, tension and compression members, truss chord box members subject to bending, floorbeams, and stringers. The structural feasibility study evaluated the addition of an external sidewalk to allow pedestrian access across the bridge, which has a narrow 24.5-foot roadway. Responsibilities include design coordination and development for all architectural components of the project.

10/18 – 06/19	**Grand Avenue Bridge over Quinnipiac River, City of New Haven, CT – Connecticut DOT** **Hydraulics Engineer** responsible for performing independent technical reviews and QA/QC reviews of the hydrologic and hydraulic analyses, and the bridge scour analysis for the rehabilitation or replacement design of this bridge. The multi-span moveable bridge is in poor condition and certain piers considered scour susceptible during coastal floods. The bridge superstructure is vulnerable to wind and wave forces during coastal flood conditions, which affects the structural rehabilitation and retrofit of the bridge bearings. John's participation in the review of the hydraulic forces calculations as a result of tidal floods, wind, waves, and debris blockage forces, aided in developing predictions of mean sea-level rise for future resiliency during the project's design life.
05/17 – 12/20	**Route 25A Bridge Over Brackett Brook, Grafton County, NH – New Hampshire DOT** **Hydraulics Engineer** for the preliminary design of the replacement of Rt 25A Bridge over Brackett Brook. Responsible for hydrologic and hydraulic analysis of existing 45°skewed bridge and two proposed bridge spans alternatives in accordance with NHDOT Bridge Design Manual; the design of a wider bridge opening in compliance with NHDES Stream Crossing Guidelines for wildlife continuity and terrestrial species passage; and scour analysis and countermeasure design on the selected alternative. Also prepared the hydraulic sections of the Rehabilitation Study Report (RSR) and the Type Size & Location (TSL) Study Report, currently under review by NHDOT.
01/16 – 07/18	**NJ Route 17, Sprout Brook Culvert Replacement, Paramus, NJ – New Jersey DOT** **Hydraulics Engineer** responsible for Preliminary Engineering Phase and Final Design Phase of hydrologic and hydraulic analysis of existing and proposed drainage conditions of this bridge replacement and highway widening project, and the design of the proposed stormwater management system. The project involves replacing a pair of three-span, fixed bridges conveying the NB and SB freeways over the former railroad ROW, with a single tunnel structure, in accordance with NJDOT and NJDEP requirements.
12/16 – 06/20	**Saugus Draw Bridge Rehabilitation, Saugus, MA - Massachusetts Bay Transportation (MBTA)** **Hydraulics Engineer** responsible for providing conceptual hydrologic and hydraulic analysis and scour evaluation in support of the rehabilitation and/or replacement evaluation of Bridge No. S-05-040 (A53) over the Saugus River, in Essex County. The Saugus Draw Bridge is a multi-span, single-leaf bascule bridge that carries MBTA's Newbury Port/Rockport Commuter Rail Service and freight trains over the river estuary, which is the only bridge linking this "eastern route" with the City of Boston. Responsibilities included the review and evaluation of all existing hydrologic and hydraulic data, tidal records, topographic and bathymetric mapping, and bridge as-built data, in order to provide a bridge scour evaluation suitable for the Conceptual Design Alternatives Analysis phase of this project.
05/17 – 12/20	**Route 25A Bridge Over Brackett Brook, Grafton County, NH – New Hampshire DOT** **Hydraulics Engineer** for the rehabilitation or replacement of this NHDOT Red Listed bridge. Responsible for supervising the hydrologic and hydraulic analysis necessary to define the floodplain, floodway, and existing conditions; determine design loads, scour depths; and provide quality control. The two-span concrete deck bridge was in poor condition and was considered scour critical during floods. Scope of work included an engineering feasibility study and report detailing type, span, and location (TS&L); preliminary and final design; permitting; and construction support services.

Firm employed by	**Hardesty & Hanover, LLC**		
Name	**Lauren Peytavin, EI**	Years of relevant experience with this employer	1
Title	**Water Resources Designer**	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		MS Certificate / 2021 / Coastal Engineering BS / 2018 / Civil Engineering	
Active registration number / state / expiration date		**Engineer in Training:** 33772 / LA / 09/30/2026	
Year registered: 2018	Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Hydraulics Designer**	

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).
05/22 - 01/24	**Almonaster Bridge Environmental Assessment, New Orleans, LA - Port of New Orleans** **Project Designer** responsible for the assessment of the Almonaster Ave. Bridge Rehabilitation and New Connector Road project. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. Lauren prepared Environmental Assessment/Environmental Impact documentation for the project that meets the criteria for LADOTD, LA DEQ, FHWA, NEPA and all federal and state compliance standards. Lauren was responsible for the analysis and estimation of project impact across a comprehensive panel of criteria, including recommendations of design alternatives as needed. She drew on her experience with roadway construction, wetland, and waterway permits to assist in permit acquisition for the Port of New Orleans for this project.
06/25 – Present	**H.004396 Lapalco Blvd. Movable Bridge over Harvey Canal, Jefferson Parish, LA - Jefferson Parish DPW/LADOTD** **Water Resources Designer** for the design of a new three-lane double bascule movable bridge crossing of Harvey Canal and the widening of the existing four-lane Lapalco Blvd. to provide a facility carrying three lanes of traffic in each direction. The new bridge will be constructed as an independent structure adjacent to and north of the existing bridge with a new operator house. The project includes rehabilitation of the existing four-lane bridge with three lanes of traffic and a new pedestrian and bicycle lane, improvements to bridge and roadway approaches, and development of a Traffic Control Plan. John is performing quality control on the roadway elements of this project. All design work is in accordance with LADOTD Standards and Specifications and reviewed by LADOTD.
07/25 – Present	**SR 33 Bridge Replacements, Franklin County, MS – Mississippi DOT** **Hydraulics Designer** for the Phase A Final Right-of-Way Plans for roadway design and roadway hydraulic design for four bridge replacements along SR 33 (Bridge Nos. 31.9, 34.6, 34.9, and 35.3). The project scope includes roadway realignment, roadway hydraulic design, preliminary right-of-way design, and final right-of-way design. H&H is providing the realignment of the roadway to run parallel to the existing and redesigning of one intersection at the end of the project. A hydraulic study and report are to be completed to resize the existing pipes, if necessary, and to verify sizing for a reinforced box culvert. A set of preliminary right-of-way plans are to be created following Mississippi Department of Transportation's (MDOT) guidelines and using the approved alignment from MDOT. Final right-of-way plans will be delivered after hydraulic design and roadway design have been finalized and a plan set has been created.
06/20 - 01/24	**RR082 Lakeshore Group E - Roadway Rehabilitation and Repair, New Orleans, LA - New Orleans Department of Public Works** **Assistant Project Engineer** assisted in the design of the full reconstruction of two blocks of Ring St. in the Lakeshore Neighborhood. Design objectives included removal and replacement of the existing roadway surface, redesign of the roadway profile, and non-paving incidental repairs. Lauren was responsible for cost and materials estimates and preparation of final design plans utilizing AutoCAD Civil3D.

06/25 – Present	**Clay Street Bridge over Passaic River, Newark, NJ - Hudson County New Jersey** **Water Resources Designer** for the Preliminary Drainage Design and Report for the replacement of the Clay Street swing bridge in New Jersey. The project scope includes Hydraulics and Hydrology Report production, including assessment of existing and proposed conditions in compliance with New Jersey Administration Code and New Jersey Department of Transportation engineering standards. Ms. Peytavin created models for Hydrologic assessment and Hydraulic assessment of existing and proposed project affects under prerequisite storm events, quantifying the project in accordance with New Jersey and the Department of Environmental Quality. These regulatory model results were then recorded in a formal report to be submitted in project preliminary planning.
05/23 – 01/24	**Clayton's Pond Drainage Analysis and Design, Norco, LA - St. Charles Parish Dept of Public Works** **Hydraulics Modeler** responsible for review and hydraulic analyses of the hydraulic design models provided by St. Charles Parish in anticipation of survey completion. Lauren evaluated the input elements of the models per expectations of the project area, such as soil quality, storm runoff, design storms, and model scenario output of the existing drainage system in anticipation of updating these models to illustrate Gaea's design recommendations. Lauren coordinated project needs with the St. Charles Parish Department of Public Works, attended conceptual meetings, and facilitated clarification of survey scope on behalf of the subcontractor.
01/22 - 01/24	**Orpheum Levee Slope Pave, New Orleans, LA - Southeast Louisiana Flood Protection Authority** **Project Designer** provided engineering design, drainage analysis, quantifying materials, and cost estimate for approximately 3,000 linear ft. of levee slope pave on the west side of the 17th Street Canal. She designed the pave of the levee slope for the purpose of mitigating rutted slope due to large vehicular traffic along Orpheum Ave. and preserving structural integrity of the levee. Assessed the potential impacts of paving the protected side of the levee on adjacent drainage infrastructure by quantifying storm runoff and time of concentration. She provided full-scope design direction and input, including alternative methods to direct rainfall and runoff, and review of plans for submittal. She also navigated permit requirements for this project.
06/18 - 01/24	**RR031 Dillard A Roadway Rehabilitation and Repair, New Orleans, LA | New Orleans Department of Public Works** **Project Designer** for the engineering and design of 186 blocks of roadway reconstruction, including full road rehabilitation and replacement, utility design, and incidental road repair. Lauren utilized existing survey data to establish new road profiles, performed drainage calculations with HYDRWIN hydraulic computer software developed by the LADOTD, designed upgrades and improvement to the stormwater drainage and incidental road repair, and designed new utilities, including water, sewage, and drainage. Project deliverables included typical sections, summary of quantities, plan and profile sheets, construction cost estimates, and cross-section profiles.
11/17 - 01/24	**RR011 Broadmoor Group C, New Orleans, LA - City of New Orleans** **Project Designer** for this FEMA-funded roadway enhancement and reconstruction project located in the Broadmoor Neighborhood of New Orleans. Lauren assisted in the design of two full block removals and replacements, including surface asphalt, upgrade of utilities including water and storm drainage, implementation of ADA-compliant ramps, and point repairs of the sidewalk and driveways. She utilized drainage calculations, performed with the use of the HYDRWIN for the drainage system design and upgrade. Tasks for this project include site visits, design meetings, design deliverables, and resolution of review comments.
05/18 - 11/21	**Hagan-Lafitte Drainage Design and Green Infrastructure, New Orleans, LA - City of New Orleans** **Hydraulics Modeler** for engineering design and PCSWMM modeling for this large FEMA-funded project to improve drainage and reduce flooding in the Hagan-Lafitte Neighborhood. With the use of the PCSWMM model, Lauren identified areas most vulnerable to flooding within the neighborhood to strategically design and place green and grey infrastructure facilities for the greatest possible flood reduction. She assisted with production of project drawings and flood maps, as well as project inspection while work was under construction.
11/17 - 07/18	**Tennessee River Conditions at RM 260.25 (Wilson Lake) with Respect to Boat Collision with Barge, Lauderdale County, AL - USACE** **Hydraulic Data Analyst** performed a forensic analysis of Tennessee River conditions at River Mile 260.25 to determine the cross-sectional velocity distribution at RM 260.25. Lauren evaluated stage and discharge data provided by the Tennessee Valley Authority in conjunction with pool stage data provided by the Navigation Branch of Nashville U.S. Army Corps of Engineers (USACE) to determine velocity at the time and point of interest. She mapped bathymetric survey data provided by the Navigation Branch of the Nashville District USACE in both ArcGIS and AutoCAD software programs.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Kevin Meehan**	Years of relevant experience with this employer	6
Title	**Principal Estimator**	Years of relevant experience with other employer(s)	29

Degree(s) / Years / Specialization			B.S. / Civil Engineering / 1999 / Rutgers University
Active registration number / state / expiration date			N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities			**Cost Estimator**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
02/17 – Present	**Raritan River Lift Bridge, Perth Amboy, NJ – NJ TRANSIT** **Principal Estimator** for a $500 million replacement of the Raritan River Drawbridge on North Jersey Coast Line. The project includes a half-mile long structure with a movable swing span at the navigational channel and more than 3,000 square feet of approaches between the Perth Amboy and South Amboy stations in New Jersey. Responsibilities included preparation of the construction costs for the project, including repackaging of the estimate when this major project was split up into three smaller construction contracts..
08/19-03/20	**Rehabilitation of Amtrak Bridge No. 8.50A, 8.50B, & 8.50C (Dock Bridge), Newark and Harrison, NJ - Amtrak** **Principal Estimator** for the rehabilitation of Dock Bridge, which is a vertical lift bridge over the Passaic River between the cities of Newark and Harrison, New Jersey that carries four tracks of the Amtrak NEC and two tracks of the PATH Newark-WTC transit line. The project will decommission the moveable span. As part of the Amtrak Gateway Program, H&H provided engineering support services to assist Amtrak in preparing an FRA SOGR Grant Application for repairs to the Dock Bridge. The scope of work included a condition assessment, repair and reconstruction alternatives, a life cycle cost analysis, replacement bridge cost estimate, and construction schedule development. H&H also provided subconsultant oversight for Order of Magnitude cost estimates for replacing the electrical traction system, the third rail system, and other short and long-term repair recommendations.
07/18-Present	**Resident Engineering and Inspection for Broadway Bridge over the Harlem River Rehabilitation, New York, NY - New York City DOT** **Principal Estimator** for this two-tiered vertical lift bridge project, which includes complete rehabilitation of civil, structural, electrical, and mechanical components of the bridge. The upper deck carries NYCTA's IRT subway line. The lower deck carries two northbound and three southbound lanes of vehicular traffic. It also has two seven-foot-wide sidewalks for pedestrians. The current structure, a double deck vertical lift bridge to carry the subway and vehicular traffic, was built in 1960. Work includes extensive replacement or rehabilitation of numerous mechanical and electrical components of the structure. Including span lock machinery, CCTV and security system, roadway and navigational lighting, control and machinery houses, bearing bushings, power supply, submarine cables, elevators, new generators, air buffers, new gates and signals.
022/21-12/21	**East Haddam Swing Bridge over the Connecticut River, East Haddam, CT – Connecticut DOT** **Principal Estimator** for the rehabilitation of the East Haddam Swing Bridge (CTDOT Bridge 1138). Design efforts were focused on rehabilitating structural, mechanical, and electrical systems and upgrading components to improve reliability and decrease maintenance. The bridge rehabilitation included structural strengthening of the trusses and floor system to support all Connecticut Legal Loads after construction of the sidewalk. The bridge rehabilitation also included the replacement of the approach span bridge decks with an emphasis on constructability and reduced weight and preliminary and final design development of the sidewalk.

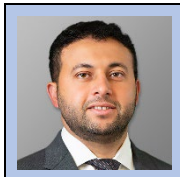
10/20 – 10/25	**Replacement of Four Bridges on the Bronx River Parkway Over NYCT, Metro-North, Amtrak, and CSX, Bronx, NY - New York State DOT** **Principal Estimator** for this replacement project of four bridges. H&H is working on preliminary design (Phases I-IV) which include topographical survey; ROW mapping; hazardous waste/contaminated materials screening; in-depth inspection, evaluation of fatigue prone details; level I load ratings; repair details for flag conditions; interim repairs to expansion joints; existing median barrier modifications, seismic evaluation; development of rehabilitation/replacement alternatives utilizing steel trapezoidal box girders, prestressed concrete beams and concrete segmental box girders; evaluation of environmental, wetland, and land use impacts, including tree survey and development of Section 4(f) documents.
10/20 – Present	**Replacement of Three Culverts and the Bronx River Parkway Bridge, Westchester County, NY - Westchester County DPW** **Principal Estimator** for this project providing design and construction support of the complete replacement of three culverts and a bridge on the historic Bronx River Parkway, including scour protection and roadway resurfacing of the existing roadway. The project will consist of land survey, utility identification, traffic analysis, hazardous material testing, soil testing, archeological study, cost estimating, load rating and structural, civil, geotechnical and architectural design.
12/20 -4/2022	**Long Slip Fill and Rail Enhancement Phase II, Hudson County, NJ – NJ TRANSIT** **Lead Cost Estimator** during design of Phase II of this project which will allow for longer train service operations and enable NJ TRANSIT to recover more quickly from storm events. Developed capital construction cost estimates for early and final design submissions, supported alternatives analysis, bid item sorting and tracked changes in scope and cost. The project will construct six new tracks, undergrade bridge, viaduct, special trackwork, OCS, three new platforms and a crew quarters facility.
10/11 – 09/20	**Transportation Infrastructure in the Public Sector, Mercerville, NJ - JCMS, Inc.** **Lead Estimator** for a team of cost estimators coordinating multiple concurrent projects with an emphasis on infrastructure, transportation and the public sector. Developed and coordinated engineer's cost estimates for public projects, from conceptual design through bid phase. Projects range from $3 million to $300 million. Over $1 billion brought to contract. Developed cost modeling, alternative analysis, Lifecycle Cost Analysis, and Value Engineering. Developed and coordinated independent cost analyses for change orders. Developed fee proposals, attended sales presentations and coordinated with marketing department in pursuit of new or additional work. Enlarged department from 1.5 full time equivalents to a staff of eight by developing relationships, confidence and trust with partners and clients.
12/20-2/22	**Northeast Corridor Mid Line Loop, Middlesex County, NJ – NJ TRANSIT** **Project Estimator** during the Concept Development phase to improve commuter rails service on the NEC by eliminating a grade crossing conflict that exists at approximately MP32 @ Jersey Avenue Station/County Yard Facility. The project involves the addition of a new electrified loop track several miles long adjacent to and over the NEC. Developed direct and indirect costs for construction and developed contingencies and soft costs according to FTA guidelines
01/17-05/18	**Repairs, Remediation, Flood Mitigation and Resiliency at Hoboken Terminal and Yard, Hudson County, NJ – NJ TRANSIT** **Cost Estimator** during the early and final design phases of multiple packages for repairs and improvements to the terminal and yard that suffered significant flooding damage as a result of Superstorm Sandy in 2012. The project is to restore the terminal and yard operations, while at the same time increasing the system's resiliency - its ability to withstand and recover quickly from future storms. Estimates were created for each submission from concept to final design and bid packaging.
02/09 – 10/11	**National September 11th Memorial And Museum, New York, NY - URS** **Senior Estimator** for the National September 11th Memorial and Museum. Project estimator developing bid package estimates, change order estimates, allocating costs. Provided detailed takeoff and pricing for sitework, sitework utilities, foundations, superstructure and architectural building elements. Analyzed and tracked cost impact of revisions, changes, addenda, etc. Negotiated contract pricing and change orders with subcontractors and general contractors.

Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Raymond Mankbadi, PE**	Years of relevant experience with this employer	20
Title	**Director Geotechnical Engineering**	Years of relevant experience with other employer(s)	27

Degree(s) / Years / Specialization			M.S. / 1985 / Civil Engineering B.S. / 1978 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 41609 / LA / 9/30/2027
Year registered	2017	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Senior Geotechnical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/20 – Present	**H.014530: Almonaster Ave Bridge Rehabilitation and New Connector Road, New Orleans, LA - Port of New Orleans/LADOTD** **Lead Geotechnical Engineer** for the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Ave Bridge, a movable Strauss-heel trunnion bridge. The Almonaster Ave Bridge crosses over the Industrial Canal and provides two vehicular lanes and a single railroad track crossing down the center of the span. H&H's 2019 assessment of the circa-1920 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure.
06/19 – 09/20	**SR-605 Bascule Bridge over Industrial Waterway, Gulf Port, MS – Mississippi DOT** Lead Geotechnical Engineer responsible for design, plan review, and quality control for full rehabilitation design of the SR-605 bascule bridge as a task-order to the IDIQ Master Bridge Contract. The scope includes engineering assessment; mechanical, electrical, and structural designs; and preparation of Traffic Control Plans. All designs will be completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.
03/18 – 06/19	**SR-609 Bascule Bridge Rehabilitation, IDIQ Master Bridge Design Contract, Ocean Springs, MS – Mississippi DOT** Lead Geotechnical Engineer responsible for generator foundation design of SR-609 bascule bridge as a task-order to the IDIQ Master Bridge Contract for standard and special bridge services statewide. The scope of work included inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches, and development of maintenance and repair plans.
01/19 – Present	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Lead Geotechnical Engineer** for a six-lane bascule bridge parallel and adjacent to the existing bridge. The new bridge will carry three westbound lanes and the existing bridge will be modified to carry three eastbound lanes plus a pedestrian and bicycle path. The project scope includes the design of a new three-lane double-leaf bascule bridge and approach spans that will be north of and parallel to the existing bridge, as well as design modifications to the existing bridge to reconfigure it to include three eastbound lanes plus a pedestrian and bicycle path.
04/17 – Present	**I-395 Segmental Bridges**, **Miami, FL – Florida DOT** **Geotechnical Technical Advisor** for the design of the superstructure and performing the load ratings. H&H is designing seven new precast segmental bridges that are a part of the SR 836 / I-95 / I-395 corridor upgrade. This design-build project is being constructed by the Archer Western-De Moya Joint Venture. The overall construction value of the project is $800 million, and the segmental bridges have a deck area of 700,000 square feet (approximately $200 million). Construction is scheduled to be completed in late 2027.

11/20 – 01/21	**Four Tunnel Inspections as per TOMIE Manual, New York, NY – New York City DOT** **Lead Geotechnical Engineer** for the in-depth inspection and condition assessment of the 1st Ave and Park Ave tunnels as part of a broader NYCDOT ESA assignment. These findings were documented in a Routine Inspection Report format developed by H&H in conjunction with NYCDOT, including prioritized recommendations for further maintenance and rehabilitation. In addition to the inspection. Inspection reports were prepared to SNTI and TOMIE specifications.
02/12 – 03/13	**Study & Preliminary Design for RFK Bridge to Northbound Harlem River Dr (RK-23), New York, NY - Triborough Bridge and Tunnel Authority** **Lead Geotechnical Engineer** responsible for the feasibility study for a new ramp to provide a direct connection from the RFK Bridge to the northbound Harlem River Dr located in the Borough of Manhattan, New York City. The need for the proposed connector ramp results from vehicular movement experiencing delays, local congestion, and local community pollution. The study evaluated various alignment alternates for a one way, one lane passenger vehicle ramp operation with provision for passing a stalled vehicle by another of the same type for a design speed of 35 mph. The structure is anticipated to carry an ADT over 19,000 vehicles per day. The study identified the most prudent and feasible alternatives to provide a direct connection from the RFK Bridge to northbound Harlem River Dr. Design of the new structure must meet current standards to the extent possible, while also avoiding, lessening, or mitigating impacts and effects to surrounding properties and jurisdictions.
02/14 – 12/16	**Rehabilitation of Swing Bridge (BNSF #32.06) over Bayou Des Allemands | Des Allemands, Lafourche & St. Charles, LA - BNSF Railway Co.** **Lead Geotechnical Engineer** for a 90-ft. single track swing span, two jump spans, and ten approach spans of prestressed concrete box beam, crosses the Des Allemands Bayou in Des Allemands, LA. The 90-ft. swing span was replaced on the existing substructures which were reinforced by adding micropiles. Two jump spans were rehabilitated as well. H&H provided professional engineering services for the development of final bridge and track designs, permitting, construction contract documents, construction management and construction support for the rehabilitation of the bridge. The estimated construction cost is about $15 million. The project included the replacement of spans all associated mechanical and electrical components as well as evaluation, rating and improvement of swing span substructure and foundations.
05/12 – 06/13	**Design-Build for RFK Bridge Manhattan-Queens Ramp Replacement (RK-73), New York, NY - Triborough Bridge and Tunnel Authority** **Lead Geotechnical Engineer** in charge of preparing subsurface investigation, foundations design, seismic retrofit design of permanent and temporary foundation, and developing geotechnical report. The RK-73 project included the design and construction of Ramp MQ of the Robert F. Kennedy Bridge through a design-build contract on Randall's Island. The ramp replacement included roadway widening and seismic design retrofit.
01/12 – 10/16	**Garden State Pkwy SB & NB Bridges over Great Egg Harbor & Drag Channel, Atlantic & Cape May Counties, NJ - NJ Turnpike Authority** **Lead Geotechnical Engineer** responsible for all geotechnical aspects of the design and construction including pile foundation design, soil improvement, sign structures, retaining walls, reinforcement embankment on soft soils and instrumentation for two new bridges crossing Great Egg Harbor and Drag Channel. ($140M). The project also included cofferdam for deep water and water nose mitigation for protection of the fish. Prestressed Concrete piles were utilized in the foundations and CMC for soil improvement. All work was performed in accordance with AASHTO LRFD Bridge Specifications and FHWA Geotechnical Engineering Manuals and Circulars.
12/11 – 05/17	**Flagler Memorial Bascule Bridge Replacement Design/Build, West Palm Beach, FL – Florida DOT** **Geotechnical Engineer of Record** responsible for all geotechnical aspects of the design and construction including subsurface investigation program development, foundation design, cofferdam, geotechnical analysis, and report preparation. This project consisted of complete replacement of the existing bridge with a new four-lane divided bridge. 60-in. diameter drilled shaft embedded in overburden soils with post grouted tip are utilized to support new bridge structure and the approach roadway embankment are supported on 36-in. diameter drilled caissons.



Firm Employed by	**Hardesty & Hanover, LLC**		
Name	**Arsanious Guirguis, PE**	Years of relevant experience with this employer	15
Title	**Geotechnical Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			MS / 2014 / Geotechnical Engineering BS / 2011 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 41969 / LA / 03/31/2028
Year registered	2017	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Geotechnical Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/19 – 06/19	**H.004396 Lapalco Blvd Movable Bridge over Harvey Canal, Jefferson Parish, Louisiana - Jefferson Parish DPW/LADOTD** **Geotechnical Engineer** for a six-lane bascule bridge parallel and adjacent to the existing bridge. The new bridge will carry three westbound lanes and the existing bridge will be modified to carry three eastbound lanes plus a pedestrian and bicycle path. The project scope includes the design of a new three-lane double-leaf bascule bridge and approach spans that will be north of and parallel to the existing bridge, as well as design modifications to the existing bridge to reconfigure it to include three eastbound lanes plus a pedestrian and bicycle path. H&H's preliminary design work included a visual structural inspection of the fracture critical elements, primary and secondary structural members, as well as electrical and mechanical systems inspections.
01/23 – Present	**Replacement of the Park Avenue Viaduct Design-Build, New York, NY – Metropolitan Transit Authority** **Lead Geotechnical Engineer** providing design-build services for the full replacement of the Park Avenue Viaduct between the north side of East 115th Street and the south side of East 123rd Street along Park Avenue. The section of the Viaduct to be replaced within the scope of this project is an elevated steel structure, between Bent 21 and Bent 53, carrying four, third rail powered tracks. Approximately 750 trains per day travel the Harlem, Hudson, and New Haven lines on the Viaduct to enter Grand Central Terminal servicing hundreds of thousands of customers per day. Mr. Guirguis is responsible for the foundation design that comprised of 16-inch diameter micropiles socketed into bedrock constructed below the existing Park Avenue Viaduct structure while in service in low overhead room conditions. Also responsible for the subsurface exploration program, load testing program, preparation of foundation design reports, and CSS submittals and field work falling under the geotechnical discipline.
05/22 – 12/22	**New Bridge Superstructure Replacement, Woolwich-Wiscasset, Maine – Maine DOT** **Geotechnical Engineer** providing all geotechnical engineering design and construction services required for the rehabilitation of this 33-foot single-span bridge. The existing bridge carries two lanes, with a timber deck and timber railing on steel stringers. The existing integral abutments are comprised of concrete caps on steel piles and are to remain. The proposed is a single span multi-steel girder bridge with cast-in-place deck. Mr. Guirguis is responsible for analyzing the existing substructure, integral abutments, and pile foundation design.
03/18 – 03/20	**Promenade over FDR Drive from East 81st Street to East 90th Street, New York, NY – New York City DOT** **Lead Bridge Geotechnical Engineer** for a project involving the rehabilitation or replacement of superstructure and substructure elements. The scope also includes protection or replacement/relocation of all utilities on the structure as well as protection or replacement/relocation of all electrical and mechanical systems within the project limits; landscape design; ADA compliance; and new pedestrian. Reconstruction and repair of structural elements required work from the top of the promenade deck within the park and from the southbound FDR Drive roadway level located beneath the promenade. Maintenance of vehicular, pedestrian, and bicycle traffic throughout construction was a critical concern. Constructability and staging guided the overall approach to the project.

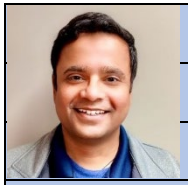
08/12 – 10/18	**Harlem River Drive Viaduct over East 127th Street, New York, NY – New York City DOT** **Geotechnical Bridge Engineer** responsible for providing field inspection of borings as well as rock corings and overseeing crosshole seismic testing. Assisted in preparing subsurface (boring) investigation, created final bore logs and subsurface profile, and developed geotechnical report. Geotechnical Engineer in charge of preliminary design and final design of pier foundations (drilled shafts). Also, responsible on all responses related to geotechnical Request for Information and submittals. Engineer in charge of reviewing and inspecting all drilled shaft load tests (O-Cell's), video inspection of rock socket and drilled shaft remediation. Provided field engineering support as required to resolve technical and construction issues. The Harlem River Drive project included the full replacement of the ten-span Harlem River Drive Viaduct over the entrance ramp at East 127th Street in the Borough of Manhattan.
04/22 – 08/25	**Tuttle Road Bridge, Cumberland, Maine – Maine DOT** **Geotechnical Engineer** providing all geotechnical engineering services required for the design of the replacement of this two-lane, nine span structure carrying Tuttle Road over I-295, Route 1, and a railroad track. Project scope includes a Preliminary Design Report, preliminary design, final design, and construction support services. Mr. Guirguis is responsible for embankment design with lightweight fill, pile foundation design, and inspection of borings.
08/21 – 04/24	**Northfield Bridge Replacement, Northfield, VT – Vermont Agency of Transportation** **Lead Geotechnical Engineer** for this three-span bridge replacement project. The proposed structure is a single span multi-girder integral abutment bridge located in downtown Northfield. The bridge replacement will take place during a 12-week traffic closure and utilizes ABC methods to accelerate construction. Mr. Guirguis was responsible for administering the subsurface exploration program, preparing the lab assignment, developing the geotechnical design report that included characterizing the subsurface conditions, evaluating proposed foundation alternatives, presenting a foundation recommendation and discussing construction considerations. The foundation evaluation for the proposed integral abutments comprised of a single pile analysis using L-Pile following VTrans design guidelines and axial geotechnical pile capacity analysis.
10/19 – 10/21	**Design-Build for Access Improvements to the Hunts Point Interstate, Contract 1, Bronx, NY – New York State DOT** **Geotechnical Engineer** involved in reviewing Geotechnical related design and CSS submittals. This is a $1.7 billion, 3-phase design-build project to improve access between the Hunts Point Peninsula and the Sheridan and Bruckner Expressways for vehicular traffic and to address structural and operations deficiencies related to the existing infrastructure. The project includes 12 bridges and viaduct structures, and the site covers more than 1.5 miles of existing infrastructure including highways, expressways, services roads and city streets, parkland, and pedestrian accessways.
04/15 – 10/18	**Structural Rehabilitation of Four Overhead Bridges, Mount Vernon, NY – Metro-North Railroad** **Geotechnical Engineer** for a project involving the superstructure replacement and substructure rehabilitation of the following four overhead vehicular bridges spanning the Metro-North tracks in the City of Mount Vernon, New York: 6th Avenue Bridge (NH 13.51): a 61-feet span steel through girder bridge; 10th Avenue Bridge (NH 13.31): a 106-foot span steel deck truss bridge; 14th Avenue Bridge (NH 13.10): a 92-foot span steel pony truss bridge; Fulton Avenue Bridge (NH 14.07): a 159-feet span through truss bridge. Mr. Guirguis is responsible for the subsurface (boring) investigation and developing a geotechnical report for each bridge. He is in charge for designing rock anchors to resist current seismic loads and provided an assessment of the existing foundation's ability to support new bridge loads.

Firm employed by: **A P S Engineering and Testing, LLC**			
Name	**Sergio Aviles, PE, M. ASCE**	Years of relevant experience with this employer	14
Title	**President / Geotechnical Manager**	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			BS Civil Engineering/2001/Geotechnical
Active registration number / state / expiration date			**Professional Engineer:** 0033571 / LA / 03/31/2028 ATSSA Work Zone Traffic Control Technician, Flagger, Water Well Contractor's License
Year registered	2007	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Geotechnical Design Manager**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/19 – Present	**Project No. H.0041005.5 and .6: I-10 LA415 to Essen Lane on I-10 and I-12** **Geotechnical Engineer** for the Geotechnical Investigation comprised the advancement of 77 deep borings along the project alignment, spanning from the Washington Street Exit to the LSU Lakes. A P S performed 16 over-water borings utilizing barge-mounted drilling platforms and 61 land-based borings using truck-mounted rigs. Subsurface characterization included Shelby tube sampling, Standard Penetration Testing (SPT), and split-spoon recovery to obtain representative soil profiles. Laboratory testing included approximately 1,000 tests, including Unconsolidated Undrained (UU) Triaxial Compression tests for shear strength evaluation and Atterberg Limits for plasticity classification, in accordance with ASTM standards. Pile foundation performance was assessed through dynamic testing services, including Pile Driving Analyzer (PDA) instrumentation and signal matching via CAPWAP analysis. These tests provided real-time data on pile capacity, drivability, and soil-pile interaction, supporting axial load design and installation recommendations. Mr. Aviles serve as Geotechnical Manager, providing technical oversight across all phases—from field exploration and lab testing to analysis and reporting. His leadership ensured conformance with DOTD specifications, QA/QC protocols, and schedule adherence.
06/20 – 04/23	**Rural Bridge Replacement Initiative Phase I** **Geotechnical Engineer** for this project. The scope included geotechnical investigation and design for the replacement of 60 bridge structures along the LA state highway system. Geotechnical Investigation consisted of drilling, laboratory testing, soil classification, and site characterization. Engineering analysis included slope stability analysis (when applicable) and pile capacity analysis for foundations to support the new bridge structures. Mr. Aviles served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.
03/19 – 05/25	**Project No. H.001344 US 190: LA 437 to US 190 BUS** **Geotechnical Engineer** for the Geotechnical Investigation and Design of the proposed new bridge. The scope of work included the drilling and testing of 19 deep borings to support bridge foundation design recommendations. In addition to deep foundation investigations, A P S performed site-specific testing of subsurface soils, base materials, and concrete placement zones to evaluate compliance with structural and geotechnical performance criteria. Laboratory testing supported classification, strength, and constructability assessments for proposed bridge elements. A P S also provided PDA instrumentation, testing, and CAPWAP analysis. Mr. Aviles served as Geotechnical Manager for the investigation and design team. He provided direct oversight of field operations, laboratory analysis, and engineering deliverables, ensuring technical accuracy, and timely completion across all phases of the project. overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.

01/22 – 05/24	**Project No. H.001352.6 and H.002273.5 Comite River Diversion Bridge at LA 67, LA 19, and LA 19 RR Bridge** **Geotechnical Engineer** for the Design of this Diversion CMAR project. A P S performed the Geotechnical Investigation and Design for the project. The scope also included testing of subsurface soils, base materials, and concrete placement areas to evaluate compliance with design standards for the proposed roadway and bridge structures. A P S performed four Pile Driving Analyzer (PDA) tests during construction monitoring to assess pile performance and verify installation criteria. Mr. Aviles served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing all phases of exploration, analysis, and reporting.
09/21–05/24	**Port Hudson-Pride Road (LA-964 – LA-19)** **Geotechnical Engineer.** The scope included **Geotechnical Investigation** to enable an evaluation of an acceptable foundation for the proposed pavement rehabilitation and new bridge. A total of 26 borings were drilled and tested for Geotechnical recommendations for the City of Baton Rouge. Mr. Aviles served as Geotechnical Manager for the investigation and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.
11/19–12/23	**Project No. H.010155: US 90 Railroad Overpass SE of LA 85** **Geotechnical Engineer.** A P S was selected as part of the winning team for the Geotechnical Investigation and Design for the proposed new overpass. A total of 12 deep borings were drilled and tested for Geotechnical recommendations. Mr. Aviles served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.
03/21–11/22	**Nicholson Drive Segment 2 (Bluebonnet Blvd-Ben Hur Rd.)** **Geotechnical Engineer.** The scope included a comprehensive geotechnical investigation to support foundation recommendations for proposed pavement rehabilitation and new bridge construction. A total of 32 borings were drilled and tested to characterize subsurface conditions and develop geotechnical design parameters for the City of Baton Rouge. Mr. Aviles served as Geotechnical Manager for the Geotechnical Investigations and Design Team, providing hands-on leadership and technical oversight throughout all phases of the project to ensure accuracy, quality, and timely delivery.
03/15–04/15	**Holly Drive Bridge Replacement- St. Tammany Parish** **Geotechnical Engineer.** The scope included **Geotechnical Investigation** for the replacement of a bridge structure in Covington, Louisiana. A P S performed piles vertical resistance analyses for square PPC piles with sizes ranging 16-inch, 18-inch and 24-inches, roadway design, and culvert design. Mr. Aviles served as Geotechnical Manager for the Geotechnical Investigations and Design Team, overseeing every phase of the project with hands-on leadership to ensure technical excellence and on-time delivery.



Firm employed by: **A P S Engineering and Testing, LLC**			
Name	**Sairam Eddanapudi, PE**	Years of relevant experience with this employer	14
Title	**Chief Geotechnical Engineer**	Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization		ME / 2002 / Civil Engineering BE / 1999 / Civil Engineering,	
Active registration number / state / expiration date		**Professional Engineer:**. 35129 / LA / 03/31/2028 ATSSA Work Zone Traffic Control Technician	
Year registered	2009 Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Geotechnical Engineer/Laboratory QA Manager**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/19–Ongoing	**Project No. H.0041005.5 and .6: I-10 LA415 to Essen Lane on I-10 and I-12** **Geotechnical Engineer.** The Geotechnical Investigation comprised the advancement of 77 deep borings along the project alignment, spanning from the Washington Street Exit to the LSU Lakes. A P S performed 16 over-water borings utilizing barge-mounted drilling platforms and 61 land-based borings using truck-mounted rigs. Subsurface characterization included Shelby tube sampling, Standard Penetration Testing (SPT), and split-spoon recovery to obtain representative soil profiles. Laboratory testing included approximately 1,000 tests, including Unconsolidated Undrained (UU) Triaxial Compression tests for shear strength evaluation and Atterberg Limits for plasticity classification, in accordance with ASTM standards. Pile foundation performance was assessed through dynamic testing services, including Pile Driving Analyzer (PDA) instrumentation and signal matching via CAPWAP analysis. These tests provided real-time data on pile capacity, drivability, and soil-pile interaction, supporting axial load design and installation recommendations. Mr. Eddanapudi serves as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data. His leadership ensured conformance with DOT specifications, QA/QC protocols, and schedule adherence.
11/19–12/23	**Project No. H.010155: US 90 Railroad Overpass SE of LA 85** **Geotechnical Engineer.** A P S was selected with the winning team for the Geotechnical Investigation and Design for the proposed new overpass. A total of 12 deep borings were drilled and tested for Geotechnical recommendations. Mr. Eddanapudi served as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data.
03/19–05/25	**Project No. H.001344 US 190: LA 437 to US 190 BUS** **Geotechnical Engineer.** A P S was selected as part of the winning team for the **Geotechnical Investigation** and Design of the proposed new bridge. The scope of work included the drilling and testing of 19 deep borings to support bridge foundation design recommendations. In addition to deep foundation investigations, A P S performed site-specific testing of subsurface soils, base materials, and concrete placement zones to evaluate compliance with structural and geotechnical performance criteria. Laboratory testing supported classification, strength, and constructability assessments for proposed bridge elements. A P S also provided PDA instrumentation, testing, and CAPWAP analysis. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.

06/20–04/23	**Rural Bridge Replacement Initiative Phase I** **Geotechnical Engineer.** The scope included geotechnical investigation and design for the replacement of 60 bridge structures along the LA state highway system. Geotechnical Investigation consisted of drilling, laboratory testing, soil classification, and site characterization. Engineering analysis included slope stability analysis (when applicable) and pile capacity analysis for foundations to support the new bridge structures. Mr. Eddanapudi served as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data.
03/19–05/25	**Project No. H.001344 US 190: LA 437 to US 190 BUS** **Geotechnical Engineer.** A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for foundation recommendations. The scope also includes conducting testing on the subsurface, base and concrete placement at the site to enable an evaluation of an acceptable standard for the proposed structures. Mr. Eddanapudi served as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data.
01/22–05/24	**Project No. H.001352.6 and H.002273.5: Comite River Diversion Bridge at LA 67, LA 19, and LA 19 RR Bridge** **Geotechnical Engineer.** A P S was selected as part of the winning team for the Design of the Diversion CMAR project. A P S performed the Geotechnical Investigation and Design for the project. The scope also included testing of subsurface soils, base materials, and concrete placement areas to evaluate compliance with design standards for the proposed roadway and bridge structures. A P S performed four Pile Driving Analyzer (PDA) tests during construction monitoring to assess pile performance and verify installation criteria. Mr. Eddanapudi served as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data.
09/21–05/24	**Port Hudson-Pride Road (LA-964 – LA-19)** **Geotechnical Engineer.** The scope included Geotechnical Investigation to enable an evaluation of an acceptable foundation for the proposed pavement rehabilitation and new bridge. A total of 26 borings were drilled and tested for Geotechnical recommendations for the City of Baton Rouge. Mr. Eddanapudi i served as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data.
03/15–04/15	**Holly Drive Bridge Replacement- St. Tammany Parish** **Geotechnical Engineer.** The scope included Geotechnical Investigation for the replacement of a bridge structure in Covington, Louisiana. A P S performed piles vertical resistance analyses for square PPC piles with sizes ranging 16-inch, 18-inch and 24-inches, roadway design, and culvert design. Mr. Eddanapudi served as Chief Engineer for the Project Design Team, providing technical Design leadership and managing quality assurance for all laboratory testing to ensure accuracy, compliance, and reliability of geotechnical data.

Firm employed by **A P S Engineering and Testing, LLC**			
Name	**Surendra Pathak, PE**	Years of relevant experience with this employer	11
Title	**Senior Supervisor Engineer**	Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		MSCE / 2013 / Civil Engineering BE / 1998 / Civil Engineering	
Active registration number / state / expiration date		**Professional Engineer:** 43487 / LA / 09/30/2027 ACI Certified Technician Pile Dynamic Analyzer Proficient Rank ATSSA Work Zone Traffic Control Supervisor, Flagger	
Year registered	2019 Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities		**Geotechnical Engineer/QA-QC Field Testing, PDA Testing Leader**	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/19–Ongoing	**Project No. H.0041005.5 and .6: I-10 LA415 to Essen Lane on I-10 and I-12** **Geotechnical Engineer.** The Geotechnical Investigation comprised the advancement of 77 deep borings along the project alignment, spanning from the Washington Street Exit to the LSU Lakes. A P S performed 16 over-water borings utilizing barge-mounted drilling platforms and 61 land-based borings using truck-mounted rigs. Subsurface characterization included Standard Penetration Testing (SPT), Shelby tube sampling, and split-spoon recovery to obtain representative soil profiles. Laboratory testing included approximately 1,000 tests, including Unconsolidated Undrained (UU) Triaxial Compression tests for shear strength evaluation and Atterberg Limits for plasticity classification, in accordance with ASTM standards. Pile foundation performance was assessed through dynamic testing services, including Pile Driving Analyzer (PDA) instrumentation and signal matching via CAPWAP analysis. These tests provided real-time data on pile capacity, drivability, and soil-pile interaction, supporting axial load design and installation recommendations. Mr. Pathak serves as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.
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06/20–04/23	**Rural Bridge Replacement Initiative Phase I** **Geotechnical Engineer.** The scope included geotechnical investigation and design for the replacement of 60 bridge structures along the LA state highway system. Geotechnical Investigation consisted of drilling, laboratory testing, soil classification, and site characterization. Engineering analysis included slope stability analysis (when applicable) and pile capacity analysis for foundations to support the new bridge structures. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise.

03/19–05/25	**Project No. H.001344 US 190: LA 437 to US 190 BUS** **Geotechnical Engineer.** A P S was selected as part of the winning team for the Geotechnical Investigation and Design of the proposed new bridge. The scope of work included the drilling and testing of 19 deep borings to support bridge foundation design recommendations. In addition to deep foundation investigations, A P S performed site-specific testing of subsurface soils, base materials, and concrete placement zones to evaluate compliance with structural and geotechnical performance criteria. Laboratory testing supported classification, strength, and constructability assessments for proposed bridge elements. A P S also provided PDA instrumentation, testing, and CAPWAP analysis. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.
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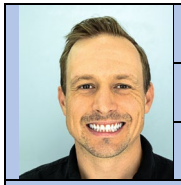
03/15–04/15	**Holly Drive Bridge Replacement- St. Tammany Parish** **Geotechnical Engineer.** The scope included Geotechnical Investigation for the replacement of a bridge structure in Covington, Louisiana. A P S performed piles vertical resistance analyses for square PPC piles with sizes ranging 16-inch, 18-inch and 24-inches, roadway design, and culvert design. Mr. Pathak served as the Senior Supervisor Engineer on the Project Design Team, providing foundation design expertise, and acted as Team Leader for Pile Dynamic Analyzer (PDA) testing and analysis.



Firm employed by **Bridge Diagnostics Inc. (BDI)**			
Name	**Brice Carpenter, PE**	Years of relevant experience with this employer	16
Title	**Senior Engineer**	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S., Civil Engineering, May 2007 M.S., Civil Engineering, May 2009
Active registration number / state / expiration date			**Professional Engineer:** 39341 / LA / 03/31/2027
Year registered	2014	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Instrumentation / Field Based Evaluation**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
10/24 - Ongoing	**Multi-Phase Field-Verified Evaluation of the Bayou Ramos Bridges - Louisiana Department of Transportation and Development / Morgan City** **Project Engineer.** The Bayou Ramos bridges are currently load posted due to deterioration present along many of the prestressed concrete girder ends. To reevaluate these structures' current live-load capacity, BDI was contracted to provide a multi-phase evaluation. This evaluation included an initial load rating evaluation where multiple strut-and-tie method (STM) procedures were considered and evaluated, a diagnostic load test-based evaluation used to validate both structural behavior and STM capacity assumptions, and a monitoring program set to provide crucial information on the current activity level of the observed deterioration. Brice Carpenter served as project engineer responsible for testing/monitoring plan development and application, evaluation team management, and QA/QC of various project tasks.
07/24-02/25	**Refined Load Rating of Falmouth Bridge for Emergency Repair Response - Virginia Department of Transportation/ Fredericksburg District** **Project Engineer.** Inspections on the Falmouth Bridge carrying Cambridge St. (US-1) over the Rappahannock River in Falmouth, VA showed significant advancement of corrosion of steel members, especially floorbeams and beam/girder ends near deck expansion joints. BDI performed diagnostic load testing and used the accumulated data to calibrate a finite-element model of the bridge for use in a load rating evaluation. Load rating results indicated that the deterioration of the girders and floorbeams resulted in significantly deficient ratings for these members. BDI's assessment informed emergency repairs for this structure. Mr. Carpenter served as project engineer responsible for overseeing the testing plan design, development and implementation, field-verified finite element modeling, load rating, and reporting.
01/25 – 02/25	**Bayou La Loutre Bridge Balance Testing- CEC** **Project Engineer.** As part of CEC's rehabilitation of this vertical lift bridge in Yscloskey, LA, BDI provided bridge balance testing services. This evaluation was performed by installing torque sensors attached to the operating shafts and using the collected response data to compute balance criteria for the structure. Brice served as the project engineer, responsible for client coordination, design and implementation of instrumentation plans, data processing and assessment, balance calculations, and reporting.
01/24-03/24	**Load Test & Field-Verified Load Ratings for CFRP Retrofit Bridge - VDOT Fredericksburg District** **Project Engineer.** As part of the structure's repair plan, the condition of this historic reinforced concrete T-beam bridge was assessed following a CFRP retrofit. BDI was contracted to perform diagnostic load testing and subsequent field-verified load rating as part of the approval process for the repair strategy utilized. Submittals included load testing and rating reports presenting the collected data and providing results of the evaluation. Brice Carpenter served as lead analysis and load rating engineer for this project, responsible for instrumentation and testing plan design and implementation, field-verified finite-element modeling, load rating calculations, and reporting.

10/21-05/22	**Load Test and Field-Verified Load Ratings of 10 Structures, LA - LADOTD/Forte & Tablada** **Lead Analysis Engineer.** BDI performed refined load ratings of ten structures based on diagnostic load testing of each structure. The evaluated structures ranged from short-span reinforced concrete slabs to culverts of various types with minimal fill depths. In all cases, the bridges were selected for refined analysis based on their inability to meet posting requirements using more standard evaluation techniques. BDI's approach served to validate structure response characteristics in an effort to increase or remove posting requirements. Mr. Carpenter was the lead analysis engineer for the project and provided instrumentation plan design, finite-element model calibration and analysis, load rating calculations, and related reporting.
04/21-05/21	**Bayou Teche Pier Testing, LA - LADOTD** **Project Engineer.** As part of a Forte and Tablada DOTD complex inspection task order, BDI assisted the inspection team quantify movement observed by their team in the center pier of this swing bridge during operation. Rotation and displacement of the pier were measured during bridge openings to access this inspection finding. Mr. Carpenter was the project engineer responsible for testing plan development, installation of instrumentation and data acquisition, assessment of data quality during testing procedures, analysis and interpretation of accumulated data, and report generation.
07/20-01/21	**LA507 Over I-20 ABC Span Move Monitoring - JB James Construction LLC** **Field/Analysis Engineer.** During the replacement of this bridge's superstructure, accelerated bridge construction was utilized where spans were cast nearby and moved into place during short outages. BDI provided monitoring services during the span moves. Mr. Carpenter was a field/analysis engineer responsible for installation of instrumentation and data acquisition, data collection during span move operations, on-site data analysis and interpretation, data processing and reporting.

Firm employed by **Bridge Diagnostics Inc. (BDI)**			
Name	**Steven M Fall, Jr, PE**	Years of relevant experience with this employer	6
Title	**Project Manager**	Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			BS / 2019 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 0048637 / LA / 09/30/2026
Year registered	2024	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Non-Destructive Testing 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).
05/23 – Present	**Retainer Contract for Non-Destructive Evaluation of Statewide Structures (DOTD Contract 4400025002)** **Project Manager.** Louisiana Department of Transportation awarded BDI with the retainer contract for Non-Destructive Evaluation of Statewide Structures. This IDIQ has 8 Task Orders awarded and will continue until 2025. These task orders include but are not limited steel inspection using Ultrasonic testing and Magnetic Particle Testing; deck evaluations via non-destructive testing methods including SounDAR, Ground Penetrating Radar, Infrared Thermography, and High Resolution Imaging; material sampling using coring; NHI routine and fracture critical inspections; and emergency response efforts. Mr. Fall serves as the project manager for this contract and is responsible for the testing plan development and application, team management, and QA/QC of various project tasks.
11/23 – 12/23	**Paris Road Emergency Bridge Inspection in Chalmette, LA** **Inspection Lead.** After noting a critical finding in a routine inspection on bridge recall 001621 by LADOTD on Paris Rd., BDI was called to perform an emergency in-depth inspection on the underside of the structure along with an NDE of the deck. The inspection results lead to repairs on the bridge and the reopening of the structure. Mr. Fall was the inspection lead on this project for both the NBIS emergency inspection and the Non-destructive testing and evaluation of the structure. He was also responsible for the project management and reporting on the structure.
01/21 – 05/23	**Task Orders for Retainer Contract for Non-Destructive Evaluation of Statewide Structures (DOTD Contract 4400017163)** **Staff Engineer.** Louisiana Department of Transportation awarded BDI with the retainer contract for Non-Destructive Evaluation of Statewide Structures. This IDIQ had 13 Task Orders awarded and lasted until 2023. These task orders include but are not limited steel inspection using Ultrasonic testing and Magnetic Particle Testing; deck evaluations via non-destructive testing methods including SounDAR, Ground Penetrating Radar, Infrared Thermography, and High Resolution Imaging; material sampling using coring; NHI routine and fracture critical inspections; and emergency response efforts. Mr. Fall served as a staff engineer for this project and was responsible for the testing plan development and application, team management, and field application of the various project tasks.
06/22-06/22, 06/23-06/23	**Counterweight Balance Testing of the Seabrook Bascule Bridge (Port of New Orleans) in New Orleans, LA** **Project Engineer.** This bridge is a Strauss double heal-trunnion bascule bridge that carries St. Claude Avenue over the Industrial Canal. It is subject to hurricane winds and salt water and therefore has extreme corrosion and operational issues. During an inspection, the counterweight-to-span link bushings were found to be broken and falling out of the bearing hub. BDI was subcontracted by HNTB to measure force and moment in the truss link member and evaluate the span balance and operational friction. Operational test results showed high levels of friction and asymmetry in both the friction and lifting torque. Tests were initially performed to identify operational issues and again after bushings were replaced and drive torque imbalance conditions were addressed. BDI's instrumentation and data analysis was essential to identifying and solving the operational problems. The primary relevance of this project is identification and quantification of operational performance of bascule bridges.

07/2019 – 01/20	**Counterweight Balance and Friction Assessment of the St. Claude Bride (LADOTD) in New Orleans, LA** **Field Instrumentation / Operational Testing.** BDI performed a counterweight Balance and friction assessment of the St. Claude Bridge to assist LADOTD to bring their bridge into lifting specifications and to determine the friction in each member during lifts. Mr. Fall installed all gages on the shafts and some gages on the steel members of the bridge, performed all testing, and helped report on these findings to help LADOTD balance the counterweight in the bridge and analyze the friction in each member. Mr. Fall was a team member responsible for field instrumentation and operational testing.
04/21 – 05/21	**LA 324 over Bayou Teche** **Project Lead.** As part of Gresham Smith's advanced inspection team, BDI was contracted to perform short-term testing on the pivot pier of this swing bridge. During initial inspection, the pivot pier was observed to significantly rotate/translate during the opening operation. BDI's testing was performed as part of an emergency response to the inspection findings and consisted of taking laser displacement measurements of the pier during operational swings. Through this testing, BDI verified that up to 6" of movement was occurring at the end of the opening operation and provided short- and long-term recommendations. Mr. Fall was a team member responsible for team coordination, field instrumentation and testing, data processing and review, and reporting.

Firm employed by **Bridge Diagnostics Inc. (BDI)**			
Name	**Michael Sullivan, PE**	Years of relevant experience with this employer	7
Title	**Engineer**	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			B.S. / 2016 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 51384 / LA / 09/30/2026
Year registered	2021	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Project Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/23 – Present	**Retainer Contract for Non-Destructive Evaluation of Statewide Structures (DOTD Contract 4400025002)** **Associate Project Manager.** Louisiana Department of Transportation awarded BDI with the retainer contract for Non-Destructive Evaluation of Statewide Structures. This IDIQ has 8 Task Orders awarded and will continue until 2025. These task orders include but are not limited steel inspection using Ultrasonic testing and Magnetic Particle Testing; deck evaluations via non-destructive testing methods including SounDAR, Ground Penetrating Radar, Infrared Thermography, and High Resolution Imaging; material sampling using coring; NHI routine and fracture critical inspections; and emergency response efforts. Mr. Sullivan serves as associate project manager for several task orders associated with this contract, responsible for the testing plan development and application, team management, and QA/QC of various project tasks.
02/26 – 03/26	**US 61 Bonnet Carré Bridge Superload Inspection & Monitoring** **Assistant Project Manager.** BDI was contracted by Deep South Crane to perform pre- and post-transport inspections and real time structural monitoring of the US 61 Bonnet Carré Bridge as required by LADOTD to support the safe crossing of a superheavy industrial load. Michael served as Assistant Project Manager, supporting project planning and oversight of inspection and monitoring activities, as well as site supervisor for the monitoring effort, coordinating field operations and installation of instrumentation. During the superheavy load crossing, he was responsible for monitoring real time structural response data to confirm the bridge was performing as expected and not experiencing distress, playing a key role in ensuring the safety of the transported load, the bridge structure, and the traveling public.
01/24 – 06/24	**Comite River Railroad Bridge Live Load Testing & Rating** **Site Supervisor and Load Rating Engineer.** BDI was contracted by James Construction Group to perform live load testing and load rating of the Comite River Bridge, a multi span prestressed concrete adjacent box beam railroad bridge, to verify structural performance before and after concrete repairs. Mr. Sullivan served as the site supervisor and load rating engineer for the project, overseeing field testing activities and coordinating sensor installation and controlled locomotive load tests in an active rail environment. He also led data processing and interpretation efforts, performing the load rating analyses of the structure in accordance with AREMA specifications. The analysis accounted for rail specific load configurations, ballast and track system effects, and serviceability criteria to produce field-verified load ratings. The results of the analysis overall that indicated that the observed load distribution and deflection performance was better than expected, and that the structure performed satisfactorily both before and after the concrete repairs were completed.
10/25 – 12/25	**Idaho Unknown Bridge Investigation & Load Testing** **Site Supervisor & Analysis Engineer.** ITD engaged BDI to investigate and evaluate multiple bridges in southeast Idaho with limited documentation and/or uncommon construction types, including a reinforced concrete slab bridge, a prestressed channel girder bridge, and two historic post-tensioned block beam bridges. Michael served as site supervisor for field investigations and live load testing, and as an analysis engineer. He oversaw NDE data collection and live load testing field activities, then led the interpretation of field data and structural evaluations. One representative block beam bridge was load tested due to the unusual construction method, unknown structural composition, and observed deterioration causing difficulty in the application of typical rating procedures and creating uncertainty in the structures' load path. Michael helped develop as-inspected plans for each of the bridges

	(including locations of steel reinforcing bars/strands) and field-verified finite-element models to interpret measured behavior and produce reliable load ratings that reflected actual bridge performance.
08/24 – 07/25	**Falmouth Bridge Live Load Testing & Emergency Repair Load Ratings** **Site Supervisor & Load Rating Engineer.** Following an inspection which discovered advanced corrosion on the Falmouth Bridge carrying US 1 over the Rappahannock River, VDOT engaged BDI to perform diagnostic live load testing and field-verified load rating analyses to assess the bridge's structural performance and remaining load-carrying capacity. Mr. Sullivan served as site supervisor for the live load testing and was a member of the load rating team. The testing program included installation of instrumentation and controlled live load testing using VDOT dump trucks across representative spans to capture in situ structural behavior. The live load test data was used to calibrate a refined finite element model and develop initial field-verified load ratings, which showed a significant loss of capacity due to the observed deterioration. In response, VDOT implemented traffic restrictions on the bridge while emergency repairs were made, based on BDI recommendations. BDI re-rated the bridge after the repair work was completed, verifying the effectiveness of each repair and allowing the structure to be safely reopened to traffic.
09/23 – 05/24	**I-355 Des Plaines River Bridge Live Load Testing & Field-Verified Analysis** **Site Supervisor.** BDI was contracted to investigate the structural effects of suspected loss of continuity at the I-355 Des Plaines River Bridge following inspections that identified significant cracking in prestressed concrete continuity diaphragms over interior piers. Mr. Sullivan served as site supervisor for the live load testing program and provided engineering support during subsequent analysis, overseeing field operations, coordinating instrumentation and testing activities, and supporting nighttime testing operations under active traffic conditions. Live load testing and field-verified finite element modeling confirmed reduced continuity at deteriorated diaphragms, while demonstrating satisfactory load-carrying performance of the bridge due to improved transverse load distribution and increased system stiffness.
09/21 – 05/23	**Sikanni Chief River Bridge Emergency Live Load Testing** **Site Supervisor & Field Engineer.** Following a fuel tanker crash that caused extensive fire damage to the Sikanni Chief River Bridge along the Alaska Highway, WSP engaged BDI to perform emergency diagnostic live load testing to evaluate the bridge's residual load-carrying capacity and determine safe vehicle load limits. Mr. Sullivan served as site supervisor and field engineer for the testing program, overseeing instrumentation and sensor installations, and directing live load testing operations on both damaged and undamaged spans under challenging emergency-response conditions. He later performed similar responsibilities during a second phase of live load testing after repairs were completed, supporting the assessment of rehabilitation effectiveness. Data collected during both testing phases was used by the client to safely reopen the bridge to traffic and to confirm the satisfactory performance of the repaired structure.

Firm employed by **Bridge Diagnostics Inc. (BDI)**			
Name	**Jesse Sipple, PhD, PE**	Years of relevant experience with this employer	12
Title	**Vice President, Services Division Manager**	Years of relevant experience with other employer(s)	7

Degree(s) / Years / Specialization			PhD / 2013 / Civil Engineering MS / 2008 / Civil Engineering BS / 2007 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 41028 / LA / 03/31/2027
Year registered	2016	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Instrumentation Subject Matter Expert**

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).
2022 - Present	**West Seattle High Bridge Investigation and Monitoring, WA** *Seattle Department of Transportation (SDOT)* Dr. Sipple served as **Project Manager** and **Senior Engineer** for the West Seattle High Bridge Structural Health Monitoring program during the bridge's closure, repair, and reopening. He developed a temperature-correction methodology for the distributed fiber optic strain (DFOS) system using vibrating wire strain data to improve accuracy and reliability of the distributed measurements. Dr. Sipple also worked with SDOT and WSP to develop monitoring response procedures and emergency action plans supporting construction and reopening activities.
2020 - Present	**Virgin River Gorge Testing & Monitoring, AZ** Dr. Sipple served in progressively senior roles on the I-15 Virgin River Bridges Structural Health Monitoring project, ranging from **Project Engineer** to **Project Manager** and ultimately **Principal Engineer.** Under ADOT's Accelerated Innovation Deployment grant through FHWA's Technology and Innovation Deployment Program, BDI performed load testing and long-term structural health monitoring on multiple fracture-critical bridges along the I-15 corridor through the Virgin River Gorge. Dr. Sipple supported the design, implementation, and ongoing operation of the monitoring systems, including development of reporting methodologies to interpret large volumes of monitoring data. He also led instrumentation, controlled load testing, analysis, and reporting efforts while supporting system deployment and ongoing performance evaluation for this long-term monitoring program.
06/19 – 08/19	**US84 NATCHEZ CANTILEVER TRUSS MONITORING, LA** *Piasecki Steel* Dr. Sipple served as **Project Manager** and **Monitoring Lead** for structural health monitoring during multiple pin replacement operations on the Natchez cantilever truss bridge over the Mississippi River. He oversaw project coordination, implementation of the monitoring program, interpretation of monitoring data, and communication of real-time structural response information to the project team during active construction operations involving replacement of critical bridge pins. Dr. Sipple also managed development of the project deliverables and monitoring summaries provided to the client. BDI performed structural health monitoring of critical truss members, tension rods, and temporary load path systems during pre-, active-, and post-construction activities to evaluate structural response and verify performance during the pin replacement operations.

07/20-01/21	**LA507 Over I-20 ABC Span Move Monitoring, LA** *JB James Construction LLC* Dr. Sipple served as **Project Manager** and **Lead Project Engineer** for structural monitoring during the accelerated bridge construction (ABC) span moves for the LA 507 bridge replacement over I-20 in Louisiana. He oversaw instrumentation, monitoring implementation, and real-time interpretation of structural response data during the span transport operations, while coordinating results with the bridge move team to support safe execution of the moves. BDI provided instrumentation and real-time structural monitoring for transport and placement of four composite steel beam spans using self-propelled modular transporters (SPMTs), including evaluation of steel and concrete stresses to verify structural integrity during the ABC operations.
02/20 – 11/20	**Live Load Testing and Field-Verified Load Rating of 16 Bridges, VA** *Virginia Department of Transportation* Dr. Sipple served as **Quality Control Manager** and **Senior Technical Oversight Lead** for a statewide VDOT live load testing and field-verified load rating program involving 16 bridges across multiple VDOT districts. He provided technical oversight for instrumentation, controlled load testing, finite element model calibration, and load rating deliverables, while supporting the project team in maintaining scope, schedule, budget, and technical quality throughout execution. BDI performed diagnostic load testing, field instrumentation, finite element model calibration, and field-verified load rating evaluations for a variety of bridge structures in accordance with VDOT and AASHTO requirements to support refined load ratings and bridge asset management decisions.
6/19-1/20	**St. Claude Bascule Bridge Balancing** Dr. Sipple served as the **Project Quality Control Engineer** for the structural evaluation and lift operation testing of the St. Claude Strauss heel trunnion bascule bridge over the Inner Harbor Navigation Canal in New Orleans, Louisiana. He supported interpretation of measured structural responses and evaluation of bridge operational performance, including assessment of toe reaction, imbalance moment, and frictional effects within the lift system. Dr. Sipple was also responsible for quality control oversight of the testing program, including review of balance calculations, shaft torque interpretation, friction evaluation, and structural response assessment. BDI performed instrumentation, operational testing, and structural performance evaluation of the movable bridge system to assess counterweight balance, machinery behavior, and counterweight link performance during lift operations.
2022 - Present	**West Seattle High Bridge Investigation and Monitoring, WA** *Seattle Department of Transportation (SDOT)* Dr. Sipple served as **Project Manager** and **Senior Engineer** for the West Seattle High Bridge Structural Health Monitoring program during the bridge's closure, repair, and reopening. He developed a temperature-correction methodology for the distributed fiber optic strain (DFOS) system using vibrating wire strain data to improve accuracy and reliability of the distributed measurements. Dr. Sipple also worked with SDOT and WSP to develop monitoring response procedures and emergency action plans supporting construction and reopening activities.

Firm employed by	**Bridge Diagnostics, Inc. (BDI)**		
Name	**Charles Young, PE**	Years of relevant experience with this employer	7
Title	**Vice President**	Years of relevant experience with other employer(s)	6

Degree(s) / Years / Specialization	MS / 2017 / Civil Engineering BS / 2012 / Civil Engineering
Active registration number / state / expiration date	**Professional Engineer:** 42773 / LA / 03/31/2027
Year registered: 2018 / Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities	**NDT Subject Matter Expert**

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).
12/22-Present	**IDIQ Contract for Nondestructive Evaluation of Structures Statewide (DOTD Contract No. 4400025002)** Mr. Young is the **Project Manager** for statewide NDE of structures for DOTD under this contract. Scope items include testing of bridge decks, concrete substructures, steel elements such as welds and pin and hanger assemblies, unknown foundations, tunnels, culverts, and other highway transportation infrastructure. Mr. Young assists DOTD and the project team with successfully implementing NDE and inspection technologies for application and best methods for analysis and reporting of findings into DOTD's AssetWise.
05/23-Present	**Twin Spans and Six Mile Bridge Inspection and NDE** Mr. Young acted as the **Project Manager.** The objective of this project is to perform a comprehensive inspection and NDE of the reinforced concrete bridge decks of the Twin Spans and Six Mile Bridges in Louisiana. Also included are supplemental inspection access techniques including unmanned aerial systems (UAS). Nondestructive evaluation includes a multi-technology bridge deck assessment including Deck Acoustic Response, Ground Penetrating Radar, Infrared Thermography, and High-Resolution Imagery. This work is being performed under LADOTD contract 4400025002.
01/19-12/22	**IDIQ Contract for Nondestructive Evaluation of Structures Statewide (DOTD Contract No. 4400015262)** Mr. Young is the **Project Manager** for statewide NDE of structures for DOTD under this contract. Scope items include testing of bridge decks, concrete substructures, steel elements such as welds and pin and hanger assemblies, unknown foundations, tunnels, culverts, and other highway transportation infrastructure. Mr. Young assists DOTD and the project team with successfully implementing NDE and inspection technologies for application and best methods for analysis and reporting of findings into DOTD's AssetWise.
07/21–10/22	**I-10 Over Atchafalaya Basin Inspection and NDE** Mr. Young acted as the **Project Manager.** The objective of this project is to perform an NHI routine and fracture critical (NSTM) inspection of the bridge carrying I-10 over the Atchafalaya Basin between New Baton Rouge and Lafayette along with targeted NDE techniques at various critical portions of the structure. Also included are supplemental inspection access techniques including unmanned aerial systems (UAS). Nondestructive evaluation includes a multi-technology bridge deck assessment including Deck Acoustic Response, Ground Penetrating Radar, Infrared Thermography, and High-Resolution Imagery. This work was performed under LADOTD contract 4400015262.

10/20–09/22	**Bonnet Carre Spillway Inspection and Nondestructive Evaluation, LA** Mr. Young acted as the **Project Manager.** This project involved an NHI routine and fracture critical (NSTM) inspection of the Bonnet Carre Spillway Bridge and targeted NDE techniques at various critical portions of the structure. Two cycles of Routine and NSTM inspections were conducted for this structure. This work was performed under an IDIQ Contract for Non-destructive Evaluation of Structures for DOTD. Also included were supplemental inspection access techniques including unmanned aerial systems (UAS). Nondestructive evaluation includes a multi-technology bridge deck assessment including Deck Acoustic Response, Ground Penetrating Radar, Infrared Thermography, and High-Resolution Imagery. This work was performed under LADOTD contract 4400015262.
08/19–07/20	**NDE of City Park Lake Bridge LA** Mr. Young was the **Project Manager** for the NDE of the City Park Lake Bridge in Baton Rouge, LA. This project included a routine inspection of the structure, along with NDE technologies including ground penetrating radar (GPR), deck acoustic response (DAR), infrared thermography (IR), and high-resolution video (HRV). The remote inspection was performed on the substructure utilizing visual inspection and IR. This work was performed under LADOTD contract 4400015262.

Firm employed by **SJB Group, LLC**			
Name	**Charles "Tim" Brewer, PLS, PS, RPLS, LS, PS, RF**	Years of relevant experience with this employer	4
Title	**Principal-in-Charge**	Years of relevant experience with other employer(s)	28
Degree(s) / Years / Specialization	B.S. / 1988 / Forestry Management		
Active registration number / state / expiration date	PLS.0005009 / Louisiana / 09/30/2027		
Years Registered	2009	Discipline	Professional Land Surveyor
Contract role(s) / brief description of responsibilities	**Principal Land Surveyor**		

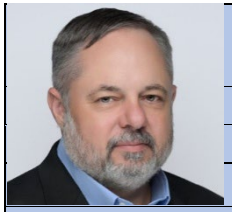
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/24 – Present	**LADOTD Project No. H.003931 – I-10 Calcasieu River Bridge P3 Project, Calcasieu Parish, LA** **Surveyor of Record/Project Manager.** SJB Group provided an additional Topographic Survey and Right-of-Way Mapping for this project, which is the largest in LADOTD history. This project covers a 5.5 mile stretch of Interstate 10 and includes 15 bridges and 19 ramps. The topographic survey component of the project include recovery and verification of existing control, preparation of the primary and secondary control sketch, supplemental topographic survey and dtm preparation.
12/21 – Present	**LADOTD Project No. H.004100 I-10 Widening from LA 415 to Essen, East Baton Rouge Parish, LA** **Surveyor of Record/Project Manager.** SJB Group conducted property and partial Topographic Surveys as well as Right-of-Way Mapping, a long a 4.4-mile stretch of Interstate 10 from LA 415 to Essen Lane in East Baton Rouge Parish for the LADOTD widening project. Field surveying and mapping covered more than 100 parcels, and included drainage and access servitudes, and railroad rights-of-way. Deliverables included property maps, base and final Right-of-Way Maps, MicroStation design files, and a parcel input file for acquisition parcels.
9/25 – 01/26	**LADOTD Project No. H.000112 US 190: UPRR Overpass, Opelousas, LA** **Surveyor of Record/Project Manage**r. Managed topographic surveys for the I-49 and UPPR Railroad Bridge in Opelousas, as well as the US 190 and Bayou Teche Bridge replacements. Oversaw crew coordination, topography work, review and integration of Mobile LiDAR data. Traditional Field work and coordination of SUE.
10/23 – 12/24	**LADOTD Project No. H.005121.5 LA1 – LA415 Connecter, East Baton Rouge Parish, LA** **Project Manager.** The project was a topographic survey by conventional survey methods and mobile LiDAR Scanning for the design of a roadway to connect LA 415 to LA 1. The project is a supplement to previously performed surveying for the realignment of the project due to recent development and construction. The project limits include areas of roadway into forested lands, agricultural fields, residential, commercial, industrial, and retail areas.
09/22 – 06/25	**MDOT Project No. SJB-PS 2022 IDIQ Contract Statewide** **Surveyor of Record/Contract Manager.** The projects include topographic surveys, boundary surveys to produce the property surveys, hydraulic survey pdf files of the roadway centerlines, creek centerlines, floodplain profiles, and right-of-way determination. The projects are performed according to the Mississippi Department of Transportation Survey Manual. SJB Group has completed three work assignments under the contract.

08/22 – 04/24	**LADOTD Contract No. 44-17597 - Rural Bridge Replacement Initiative, Districts 03, 07, 61, 62** **Surveyor of Record/Project Manager.** Sub to Burk-Kleinpeter. This project included a Topographic Survey, Right-of-Way Mapping, and roadway design performed for the proposed bridge replacements for LADOTD Districts 03, 07, 61, and 62. Each site required a complete property map and the preparation of Right-of-Way Maps with supporting data for right-of-way acquisition.
03/22 – 08/22	**LADOTD Project No. H.009300.5 Hooper Road Widening, Baton Rouge, LA** **Surveyor of Record/Project Manager.** SIB Group has performed several iterations of a Topographic Survey for LADOTD for the Hooper Road widening project. This submittal included the segment of Hooper Road from Sullivan Road (LA 3034) to Greenwell Springs Road (LA 37). A complete, detailed topographic survey and the verification of the control network and verification of utility data provided by utility operators.
8/20 – 3/22	**LADOTD Contract No. 4400017597 – Rural Bridge Replacement Initiative** **Project Manager**. Sub to Burk-Kleinpeter, Inc. This project included a Topographic Survey, Right-of-Way mapping, and roadway design performed for the proposed 33 bridge replacements for LADOTD Districts 03, 07, 61, and 62. Each site required a complete property map and the preparation of right-of-way maps with supporting data for right-of-way acquisition. The Topographic Survey of the project limits of each bridge included a complete inventory for each drainage structure (type, size, length, and invert) and cross sections of all drainage ways.
10/20 – 8/22	**LADOTD Project No. H.002176.50 – LA 10 Bridges** **Project Manager.** The LA 10 Bridges project in St. Landry parish included Right-of-Way surveys for three sites for this project, produce base right-of-way maps, along with signed and sealed right-of-way maps for the three sites. SJB surveyed the affected properties and determined the existing right-of-way for LA Hwy 10 and multiple state-claimed water bodies. Submission of preliminary property survey map depicting the existing right-of-way and property lines within the project limits.
6/18 – 11/21	**LADOTD Project No. H.012001 – LA 339 Canal and Creek Bridges** **Project Manager.** The LA 339 Canal and Creek Bridges project in Vermillion Parish included Right-of-Way surveys for 3 sites. SJB surveyed the affected properties and determined the existing right-of-way for LA Highway 339 and multiple intersecting streets. Submission of preliminary property survey map depicting the existing right-of-way and property lines within the project limits.

Firm employed by **SJB Group, LLC**			
Name	**Karen Kennedy, PE**	Years of relevant experience with this employer	4
Title	**V.P. of Engineering**	Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization		B.S./ 1995 / Civil Engineering	
Active Registration Number / State / Expiration		**Professional Engineer:** 28547 / Louisiana / 09/30/2027	
Years Registered	1999	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities		**Engineering and Subsurface Utility Engineering 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).
8/24–Ongoing	**LADOTD Project No. H.003931 Calcasieu River Bridge Public** **Utility Coordinator.** SJB Group, LLC is providing Utility Coordination for the I-10 Calcasieu River Bridge project—LADOTD's largest to date. Coordination supports utility relocations in a dense industrial corridor, ensuring timely construction and budget compliance throughout project duration.
11/20 - 6/24	**State Project No. H.013029 Control Section No. 454-01 I-12 @ Sherwood Forest Ped/Bike Safety** **Engineer of Record.** This project consisted of a topographic survey, utility investigation and engineering design for multiuse paths on both sides of S. Sherwood Forest Boulevard extending from S. Harrell's Ferry Road northward to Old Hammond Hwy. The project aimed to not only improve pedestrian and bicycle mobility by connecting to the existing bike lanes north of Old Hammond Hwy but also had a goal of improving pedestrian safety especially at interstate interchanges. Working with MOVEBR and LADOTD, SJB along with Gresham Smith developed appropriate pedestrian crossings to minimize impact on vehicular traffic, while also greatly enhancing overall safety. The project is the first of its kind for this type of interstate crossing in Baton Rouge and the surrounding regions
02/23 – 05/25	**East Baton Rouge Parish Flood Risk Reduction Project on Jones Creek Channel Improvements, East Baton Rouge Parish** **Engineer of Record.** This project required Quality Level "B" Subsurface Utility Engineering including all subsequent Quality Levels for approximately 4.2 miles of channel improvements along upper Jones Creek and several of its tributaries. SJB Group assisted in development of the project scope to meet all the needs for completion of this critical project. Extensive records research was performed to note all utilities throughout the project limits. Quality Level "B" designating was performed at all bridge crossings along the channel to locate all utility lines. In addition, any standalone utility lines discovered during records research that intersected the channel were investigated to achieve Quality Level "B" data. SJB Group was also tasked with providing Utility Coordination during the design phases of the project.
8/21 – 04/24	**City/Parish Project No. 20-CP-HC-0044 – MOVEBR Widening of Lee Drive (Highland to Perkins)** **SUE Engineer.** This project involved ASCE 38-02 Quality Level C SUE services for all utilities within the project corridor as a sub-consultant. Prior to Quality Level C services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. This corridor is heavily congested with utilities making the accurate location of such a critical part of the ultimate design of the project.

10/22 – 5/23	**City-Parish Project No. 20-CP-US-0099 – MOVEBR Airline Highway, North (Florida Blvd to Interstate I-110).** **SUE Department Manager/Engineer of Record.** SJB Group completed ASCE 38-02 Quality Level D services for the project as a sub-consultant to Huval & Associates. There is a heavy congestion of utilities within these project limits and identification of utility owners and approximate locations is critical to the preliminary design of the project.
08/22 – 09/23	**LADOTD Task Order No. H.001820.5-3 – LA 485 Bridges Near Allen Construction Inspection.** **SUE Project Manager.** SJB Group will provide construction coordination and monitoring for the relocation of three water mains in conflict with the project alignments at three bridge locations.
04/22 – 03/23	**City-Parish Project No. 20-CP-US-0100 – MOVEBR Airline Highway, South (Parish Line to Bluebonnet Blvd) SUE Department Manager/Engineer of Record.** SJB Group will complete ASCE 38-02 Quality Level D services for the project. There is a heavy congestion of utilities within these project limits and identification of utility owners and approximate locations is critical to the preliminary design of the project.
4/22 – 11/22	**LADOTD Project No. H.031797 – LA30: EBR PL I-10** **SUE Department Manager/Engineer of Record.** Sub to Michael Baker. SJB Group was contracted to provide Property Surveys, GIS, LiDAR Scanning, and SUE as a sub-consultant to Michael Baker to further the feasibility studies of the LA 30 corridor from the East Baton Rouge Parish Line to I-10 in Gonzales. This corridor is a key industrial corridor for rail and freight traffic and needs significant additional roadway capacity. Careful planning was required to ensure a successful project addressing all potential impacts including existing utilities which is often the driving factor in the design of a project. This project required ASCE 38-02 Quality Level “D” services throughout the entire project limits. Due to the significant number of pipelines within the corridor, SJB Group also conducted field observations to determine the order of the pipelines within the right-of-way. These field observations of pipeline markers resulted in several additional pipelines being identified beyond the records that were received.



Firm employed by **SJB Group, LLC**			
Name	**Ralph D. Burgess, PLS**	Years of relevant experience with this employer	1
Title	**Surveyor/ Survey Department Manager**	Years of relevant experience with other employer(s)	26
Degree(s) / Years / Specialization	B.S. in Industrial Technology Design | 2004 | Southeastern Louisiana University		
Active registration number / State / Expiration	PLS.0005040 / LA / 09/30/2026		
Years Registered	2010	Discipline	Professional Land Surveyor
Contract Role(s) / Brief Description of Responsibilities	**Survey Manager**		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
9/25 – 01/26	**LADOTD Project No. H.000112 US 190: UPRR Overpass, Opelousas, LA** **Surveyor of Record/Project Manager.** Managed topographic surveys for the I-49 and UPPR Railroad Bridge in Opelousas, as well as the US 190 and Bayou Teche Bridge replacements. Oversaw crew coordination, topography work, review and integration of Mobile LiDAR data. Traditional Field work and coordination of SUE.
9/25 – 01/26	**Office of Louisiana Highway Construction Bridge Bundle 6 - O.B.2025.03.048, Vermilion Parish, LA** **Survey Manager/Responsible Charge**. This project is a complete topography and property survey for seven bridges. Managed a complete topography and property survey for seven bridge projects, overseeing crew coordination, control and topographic data processing, and property/right-of-way calculations. Directed creation and review of survey control, topographic, and property survey packets to ensure accuracy and compliance with project standards.
9/25 – 10/25	**Office of Louisiana Highway Construction Bridge Bundle 6 - O.B.2025.03.047, Vermilion Parish, LA** **Survey Manager/Responsible Charge.** Oversaw a complete topographic and property survey for a single bridge, ensuring compliance with project standards. Responsibilities included coordinating field crews, processing survey control and topography data, and calculating property boundaries and right-of-way limits. The manager prepared survey control, topographic survey, and property survey packets for submittal and review by the supervising professional, maintaining accuracy and quality throughout the project.
08/24 - Ongoing	**LADOTD Project No. H.003931 – I-10 Calcasieu River Bridge P3 Project, Calcasieu Parish, LA** **Department Manager.** SJB Group provided an additional Topographic Survey and Right-of-Way Mapping for this project, which is the largest in LADOTD history. This project covers a 5.5 mile stretch of Interstate 10 and includes 15 bridges and 19 ramps. The topographic survey component of the project include recovery and verification of existing control, preparation of the primary and secondary control sketch, supplemental topographic survey and dtm preparation.
09/23 – 12/23	**LADOTD Project No. H.015619.5 LA 106, Evangeline Parish, LA** **Survey Manager/Responsible Charge.** This project involved an 8-mile pavement preservation for District 03. It primarily had limited topography with some areas requiring full topography according to LADOTD standards. Mr. Burgess worked with the district to finalize survey scoping, managed and directed the topographic survey, and coordinated with local utility companies for asset locations in areas needing full topography. Upon project completion, Mr. Burgess conducted a comprehensive quality control and assurance review of the topography submittal. The topographic data was gathered using traditional methods.

07/20 – 10/21	**LADOTD Project No. H.013989 Greybow Rd. Palmetto Creek, Beauregard Parish, LA** **Surveyor of Record/Project Manager.** The project included the completion of property surveys, base right of way maps, and final right of way maps that were required for the project. Responsible for field crew coordination, review of title takeoff & title reports, right of way calculations, review production of maps, final QA/QC, and final deliverables to the Client. The Surveys were performed to LADOTD Location and Survey Standard.
02/21 – 07/22	**LADOTD Project No. H.013958 Carpenters Bridge Rd. Whiskey Chitto Creek** **Surveyor of Record/Project Manager.** Managed and directed the topographic survey while coordinating with local utility companies for asset location. Conducted thorough quality control and quality assurance reviews of all topography submissions and drainage maps. The topographic data for this project was collected using both traditional means and methods. Additionally, this project included property surveys and right-of-way mapping in accordance with LADOTD standards.
01/21 – 06/21	**LADOTD Project No. H.013959 Reeds Bridge Rd. Calcasieu River Relief, Allen Parish, LA** **Surveyor of Record/Project Manager.** Managed and directed the topographic survey while coordinating with local utility companies for asset location. Conducted thorough quality control and quality assurance reviews of all topography submissions and drainage maps. The topographic data for this project was collected using both traditional means and methods. Additionally, this project included property surveys and right-of-way mapping in accordance with LADOTD standards.
07/20 – 04/21	**LADOTD Project No. 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, LA** **Survey or Record/Project Manager**. Working as a sub-consultant on this project was responsible for topographic surveying the LA 67 and LA 19 sites of the Comite River Diversion project. This included merging of data from a previous survey on one portion of the site and field verifications of that data. The topographic data for this project was collected traditionally.
10/16-11/16	**LADOTD Project No. H.012728.5 LA 443 Emergency Bridge Replacement, Tangipahoa Parish, LA** **Surveyor of Record/Project Manager**. Mr. Burgess oversaw all surveying activities necessary to support the design and construction phases. This included managing field data collection, ensuring accurate mapping, and verifying critical control points for the replacement structure. I coordinated closely with engineers, contractors, and DOTD representatives to maintain project compliance and resolve technical issues. Additionally, I ensured that all deliverables met DOTD standards and were completed on schedule to support the accelerated emergency replacement timeline.
08/16 – 01/18	**LADOTD Project No. H.011235 I-49 Verot School Road, Lafayette, LA** **Surveyor of Record/Project Manager.** Responsible for managing and directing the topographic survey and coordinating with the SUE subconsultant for all utility locates. Reviewed and conducted QC/QA of all topography submittals and drainage maps. The topographic data for this project was collected both traditionally and by utilizing 3D Scanning methods. Collaborated with the SUE subconsultant and firm crews to obtain and incorporate all utility data.

Firm employed by **SJB Group, LLC**			
Name	**Marshall Pounds**	Years of relevant experience with this employer	2
Title	**Utility Coordinator Specialist**	Years of relevant experience with other employer(s)	26

Degree(s) / Years / Specialization			N/A
Active registration number / state / expiration date			N/A
Year registered	N/A	Disicpline	N/A
Contract role(s) / brief description of responsibilities			**Utility Coordination Specialist**

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).
8/24–Ongoing	**LADOTD Project No. H.003931 Calcasieu River Bridge Public** **SUE Field Manager.** SJB Group, LLC is providing Utility Coordination for the I-10 Calcasieu River Bridge project—LADOTD's largest to date. Coordination supports utility relocations in a dense industrial corridor, ensuring timely construction and budget compliance throughout project duration.
10/23 – 12/24	**MA-23-06 LA 73 at LA 74 Roundabout** **SUE Field Manager**. This project included a Property Survey, Topographic Survey, Right-of-Way Mapping, Quality Level "B" Subsurface Utility Engineering, and Quality Level "A" Subsurface Utility Engineering, for a proposed roundabout at the intersection. Utilities included water, gas, telephone, electric, cable, and fiber optic. Topographic survey, geophysical investigation and the utility records were used to complete the drawings prepared in accordance with ASCE 38-02 standards. Engineering judgement was used to correlate records and above ground surveyed features.
10/23 – 08/24	**MA-22-04 LA 73 at Cornerview Roundabout.** **SUE Technician.** Property Survey, Topographic Survey, Right-of-Way Mapping, Quality Level "B" Subsurface Utility Engineering, Drainage Design, Quality Level "A" Subsurface Utility Engineering, Geotechnical Investigation, Roundabout Report, Preliminary and Final Design Plans for a proposed roundabout at the intersection. Utilities included water, gas, telephone, electric, cable, and fiber optic. Topographic survey, geophysical investigation and the utility records were used to complete the drawings prepared in accordance with ASCE 38-02 standards. Engineering judgement was used to correlate records and above ground surveyed features.
8/21 – 04/24	**City/Parish Project No. 20-CP-HC-0044 – MOVEBR Widening of Lee Drive (Highland to Perkins)** **SUE Field Manager.** This project involved ASCE 38-02 Quality Level C SUE services for all utilities within the project corridor as a sub-consultant. Prior to Quality Level C services, extensive Quality Level D records research was completed to aid in the subsequent SUE design. This corridor is heavily congested with utilities making the accurate location of such a critical part of the ultimate design of the project.
10/22 – 5/23	**City-Parish Project No. 20-CP-US-0099 – MOVEBR Airline Highway, North (Florida Blvd to Interstate I-110).** **SUE Field Manager.** SJB Group completed ASCE 38-02 Quality Level D services for the project as a sub-consultant to Huval & Associates. There is a heavy congestion of utilities within these project limits and identification of utility owners and approximate locations is critical to the preliminary design of the project.

Firm employed by	**Providence Engineering and Environmental Group LLC**		
Name	**Chad Turner**	Years of relevant experience with this employer	5
Title	**Director Natural Resource & Coastal Services**	Years of relevant experience with other employer(s)	12

Degree(s) / Years / Specialization			BS / 2008 / Biological Sciences
Active registration number / state / expiration date			Richard Chinn 38-Hour Wetland Delineation Training, N/A, #5680
Year registered	2009	Discipline	Wetlands
Contract role(s) / brief description of responsibilities			**Environmental Manager**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/09 - 06/13	**Louisiana Department of Transportation and Development, Environmental Section.** **Environmental Impact Specialist.** Mr. Turner was responsible for NEPA compliance for federal and state transportation projects. His duties included: wetland delineations and reporting; threatened and endangered species surveys and reporting; preparation of in-house Categorical Exclusions and Environmental Assessments; and oversight of third-party NEPA documents and other environmental studies. During his time, Mr. Turner conducted over 100 wetland delineations for a variety of transportation projects, including on- and off-system bridge replacements, road realignments and widenings, and new road construction.
08/24 – Present	**Aucoin & Associates, Inc., Replacement Bridge LA 648: Drain Canal Bridge SPN. H.011963** **Project Manager.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the LA 648 bridge over an unnamed drainage canal in Lafourche Parish. Additionally, prepared and submitted a Joint Permit Application to the Louisiana Department of Energy and Natural Resources and the U.S. Army Corps of Engineers.
01/14 - 09/14	**Huval & Associates, Inc, East Baton Rouge Parish Multiple Bridge Replacements.** **Wetland Biologist.** On behalf of the City of Baton Rouge/Parish of East Baton Rouge Department of Public Works, conducted wetland delineation and completed Wetland Findings Reports for the Morvant Road (1 and 2), Milldale Road, and Port Hudson Pride Road bridges in East Baton Rouge Parish. For each location, prepared and submitted a Pre-Construction Notification to the USACE, New Orleans District for authorization under Nationwide Permit 12.
06/15 - 09/15	**City of Baton Rouge Parish of East Baton Rouge, Pecue Lane/I-10 Interchange SPN. H.004104** **Project Manager.** Provided wetland delineation and reporting for construction of an interchange at I-10 and Pecue Lane adding multiple through lanes on Pecue Lane, entrance/exit ramps on eastbound and westbound I-10. Replacement of two-lane Overpass Bridge and Pecue Lane / Wards Creek bridge, extension to Reiger Road with new intersection at Pecue Lane, and related work. Responsibilities included field investigations, preparation of environmental document, map creation in GIS, and GIS environmental impact analysis.

02/20 - 09/23	**City of Baton Rouge Parish of East Baton Rouge, MoveBR Capacity Project.** **Project Manager.** Mr. Turner served as project manager for four MOVEBR transportation projects in East Baton Rouge Parish: Old Hammond Highway Segment 1, Phases A and B (City-Parish Project No. 19-CP-HC-0034); Bluebonnet Boulevard (Perkins Road to Picardy Boulevard) (City-Parish Project No. 19-CP-HC-0034); Highland Road at Siegen Lane Intersection (City-Parish Project No. 20-CP-HC-0004); Sherwood Forest Extension (Greenwell Springs Road to Joor Road) (City-Parish Project No. 20-CP-HC-0014). Service provided included wetland delineations, preparation of Wetland Data Reports/Requests for Jurisdictional Determination, and submittal of Pre-Construction Notifications to the USACE for authorization under Nationwide Permit 12.
04/24 - 10/24	**Morgan Goudeau & Associates, Inc., Eight Off-System Bridge Replacements across Six Projects (H.014986, H.015013, H.015014, H.015015, H.015016, H.015050).** **Project Manager.** Services provided included wetland delineations and Wetland Findings Reports.
05/24 - Present	**Atlas Technical Consultants LLC, MRB South GBR: LA 1 to LA 30 Connector SPN H.013284** **Wetland Project Manager.** Providence provided NEPA, wetlands, Phase I ESA, and public outreach compliance assistance for the proposed new bridge crossing of the Mississippi River in Iberville Parish, LA. Served as the Wetland Project Manager for the 1,716-acre delineation across 3 proposed alignments. Responsibilities included management of five teams of biologists, coordination with Atlas/DOTD for survey access/landowner permissions, primary Technical Review of Wetland Findings Report, and coordination of a site visit with members of Atlas, LADOTD, and the USACE.

Firm employed by	**Providence Engineering and Environmental Group LLC**		
Name	**Kerry Oriol**	Years of relevant experience with this employer	26
Title	**NEPA Project Manager**	Years of relevant experience with other employer(s)	11

Degree(s) / Years / Specialization			B.S. / 1989 / Fish & Wildlife Biology
Active registration number / state / expiration date			NEPA and Transportation Decision Making
Year registered	2002	Discipline	Wetlands
Contract role(s) / brief description of responsibilities			**NEPA Environmental Manager**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/02 - 01/08	**Future I-49 South Environmental Impact Statement- Route US 90, SIU 1 Raceland to Davis Pond Diversion, State Project No. 700-92-0011, Federal Aid Project No. HP-920(501), Louisiana Department of Transportation and Development (LADOTD). Lafourche and St. Charles Parishes, LA**. **Environmental Impact Statement/NEPA Specialist.** Preparation of a NEPA Environmental Impact Statement (EIS) for the future Interstate I-49 South, Raceland to Westbank Expressway (I-310), Route US 90, SIU 1, Raceland to the Davis Pond Diversion, a length of approximately 23 miles through communities, the coastal zone, and wetland habitats. Complex issues involved the coastal ecosystem, hurricane protection levees, scenic streams, farmlands, oil and gas activities, wetlands/floodplains, threatened/endangered species, lack of adequate rights-of-way, navigable water crossings, along with commercial and residential developments. The project required close coordination with the community, special interest groups, and regulatory agencies. Considerable effort was made to ensure all potentially affected stakeholders were granted access to project information via both traditional and non-traditional public involvement methods. Door-to-door distribution of materials was conducted in several neighborhoods. Numerous public and town hall meetings were held with all stakeholders, including public officials, landowners, concerned citizens, industrial organizations and other entities to ensure all voices were heard. Outreach events were also conducted at local festivals and local facilities to reach the largest possible audience. Website, updates, newsletters were used as well. **A** Record of Decision (ROD) was issued for this project on January 24, 2008.
01/19 - Present	**Atlas Technical Consultants, LLC, Mississippi River Bridge GBR: LA 1 to LA 30 Connector, EBR, WBR, Ascension, Iberville, LA.** **Environmental Project Manager.** This project includes an Enhanced Planning investigation with the objective of constructing a new crossing of the Mississippi River. Providence, as a subconsultant to Atlas Technical Consultants, LLC, is providing environmental services that include identifying the preliminary purpose and need (P&N), revising, submitting and updating P&N; permitting agency coordination; reviewing of studies and plans for data gaps; GIS figures; identifying corridors that meet P&N; identifying alternative boundaries; developing/submitting Environmental Screening methodology; compiling environmental inventory for alternatives for use in narrowing alternatives; support outreach and engagement overview, providing appropriate input for the CARB-D website, developing a draft Final Report for Phase I, addresses comments from Phase I, preparing materials and attending agency brief meetings/focus group meetings, and public meetings. Responsibilities: Management of project schedule, NEPA process and NEPA document development, development of the purpose and need statement, environmental and alternatives analyses, environmental justice analysis, organization of agency meetings, public outreach/involvement meetings and materials, development of public information and agency involvement plans, and coordination of public events, development of relocation plan, preparation of decision documents.

01/19 - 03/22	**LADOTD, LA 1/LA 415 Connector Environmental Assessment (EA) Reevaluation, State Project No. H.005121, Federal Aid Project No. H005121 West Baton Rouge Parish, LA.** **Environmental Project Manager.** A reevaluation of an existing EA for a LA 1/LA 415 Connector involving a new bridge over the Gulf Intracoastal Waterway, necessary to consider a change in bridge height and possible relocation of approved right-of-way. Efforts include a vessel study and reevaluation of traffic data to assess design modifications and potential right-of-way modifications. Management of project schedule, NEPA process and NEPA document revision, including revision of supporting technical studies, coordination with state agencies, environmental, analyses, organization of agency meetings, and development of public information and agency involvement plans.
01/17 - 02/21	**LADOTD, I-10 Corridor Study: LA 415 to Essen on I-10 and I-12, Stage 1 Environmental Assessment, State Project No. H.004100.2, Federal Aid Project No. H004100, East and West Baton Rouge Parishes, LA.** **Environmental Project Manager.** A study of I-10 through Baton Rouge to develop feasible improvements and to obtain an environmental decision to implement improvements to I-10 and I-12 from the LA 415 interchange to the I-10 and I-12 interchanges at Essen Lane. Efforts include the analysis of existing conditions along I-10 along with implementation of various concepts to recommend a preferred alternative. Various concepts include widening existing infrastructure and revising interchanges. Extensive public outreach is included in this project to ensure public input is received throughout the process. Management of project schedule, NEPA process and NEPA document development, coordination of all work with six subconsultants, environmental and alternatives analyses, environmental justice analysis, organization of agency meetings, public outreach/involvement meetings and materials, development of public information and agency involvement plans, and coordination of public events, development of relocation plan, preparation of decision documents.
09/11 – Present	**Northwest Louisiana Council of Governments (NLCOG), I-49 Inner Connector Stage 1 Environmental Impact Statement / NEPA, State Project No. 700-09-0171 (H.003915), Shreveport, Caddo Parish, LA.** **Environmental Project Manager.** Environmental Impact Statement (EIS) and interchange reports for the proposed I-49 Inner City Connector. Project involves all necessary engineering and environmental investigations to obtain environmental clearance on construction of a connector linking the existing I-49 to future I-49 North around Shreveport. Management of project schedule, NEPA process and NEPA document development, development of purpose and need statement, environmental and alternatives analyses, environmental justice analysis, organization of agency meetings, public outreach/involvement meetings and materials, development of public information and agency involvement plans, and coordination of public events, development of relocation plan, preparation of decision documents.
01/20 - 05/21	**Traylor Brothers, Inc., Comprehensive Environmental Protection Plan for State Project Number H004791 Belle Chasse Bridge and Tunnel, Plaquemines Parish, LA.** **Environmental Project Manager.** The preparation of a Comprehensive Environmental Protection Plan (CEPP) for the implementation of a LADOTD transportation project. This first in the state plan requested by the LADOTD involved the preparation of a master document designed to ensure commitments made in project's Environmental Assessment and permits as well as other applicable environmental regulatory requirements would be met before, during, and immediately after project construction. Multiple individual plans and training modules were developed to be housed within the CEPP with the goal of having no violations of environmental permits, mitigation, commitments, or regulations. Development of the plan format and content, preparation of multiple sections and training materials, consistency review, and quality review. The plan was completed and accepted by the client and LADOTD in May 2021 with Providence team members providing construction oversight and inspection that will continue through completion of construction.
05/24 - Present	**Atlas Technical Consultants LLC, MRB South GBR: LA 1 to LA 30 Connector SPN H.013284** **Wetland Project Manager.** Providence provided NEPA, wetlands, Phase I ESA, and public outreach compliance assistance for the proposed new bridge crossing of the Mississippi River in Iberville Parish, LA. Served as the Wetland Project Manager for the 1,716-acre delineation across 3 proposed alignments. Responsibilities included management of five teams of biologists, coordination with Atlas/DOTD for survey access/landowner permissions, primary Technical Review of Wetland Findings Report, and coordination of a site visit with members of Atlas, LADOTD, and the USACE.

Firm employed by	**Providence Engineering and Environmental Group LLC**		
Name	**Elizabeth Hunt, RPA**	Years of relevant experience with this employer	2
Title	**Principal Investigator**	Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization			M.A. / Anthropology / 2017 B.A. / Anthropology / 2012
Active registration number / state / expiration date			Register of Professional Archaeologist, 17020
Year registered	2017	Discipline	Archaeologist
Contract role(s) / brief description of responsibilities			**Archaeologist**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
02/21 – 04/21	**DOTD, Cultural Resources Survey of 2 acres for the proposed Bonita Bridge replacement site, Morehouse Parish, LA.** **Project Director.** Ms. Hunt served as the Project Director for the survey of approximately two acres in Morehouse Parish, Louisiana. The survey was conducted for the DOTD, on behalf of the Federal Highway Administration (FHWA). The survey was conducted for the proposed replacement site of the Union Pacific Railroad Overpass Bridge. Prior to initiation of fieldwork, Ms. Hunt conducted background and archival research including previously conducted archaeological investigations and previously recorded archaeological sites and historic structures in the region. No archaeological resources were recorded. Given the lack of cultural resources recorded during the survey, a negative findings report was produced for submittal to the Louisiana State Historic Preservation Office (SHPO) as part of consultation under Section 106 of the National Historic Preservation Act (NHPA). Ms. Hunt served as a co-author for this technical report.
02/26 - Present	**Sugar House Road Extension, Rapides Parish, LA.** **Principal Investigator.** A Phase I Cultural Resource Survey was conducted for the Sugar House Road Extension project, which involved evaluating a 26.3-acre Area of Potential Effect (APE) and a 300-foot indirect buffer. Ms. Hunt carried out archival research, a field survey, and documented 15 above-ground resources, all of which were recommended as not eligible for listing on the National Register of Historic Places (NRHP). The survey confirmed that no archaeological sites were present, supporting the conclusion of "no historic properties affected" for compliance with the FHWA regulations.
01/23 – 08/23	**Louisiana Department of Transportation and Development (DOTD), Cultural Resources Survey of 11 acres for the proposed I-49 South, Route US 90 expansion location at Verot School Road, Layfette Parish, LA.** **Project Manager.** Ms. Hunt served as the Principal Investigator for the survey of approximately 11 acres in Layfette Parish, Louisiana. The survey was conducted by DOTD, on behalf of the FHWA. The survey was conducted for the proposed expansion of 1-49 South, Route US 90 at the segment of Verot School Road. Prior to initiation of fieldwork, Ms. Hunt contacted landowners for permission to survey and conducted background and archival research including previously conducted archaeological investigations and previously recorded archaeological sites and historic structures in the region. Ms. Hunt wrote and prepared the Phase I Cultural Resources Report and provided the document to DOTD for comment before submitting it to SHPO for concurrence.

04/24 – 10/24	**Gulf South Pipeline Company, LLC Phase I Cultural Resources Survey of the Index 301-4 Replacement Project, Bogalusa, Washington Parish, LA.** **Principal Investigator.** Ms. Hunt served as the Principal Investigator for the proposed PN 15340 Index 301-4 Replacement Project in Bogalusa, Washington Parish, Louisiana. The proposed APE measured approximately 61 acres (24.5 hectares). The Phase I Cultural Resources Survey consisted of a pedestrian survey and the 142 shovel test pits across the APE. Additionally, an above-ground resources survey was completed. The survey resulted in the relocation and update of one previously recorded site, identification of one isolated find, and examination of three aboveground resources adjacent to the APE. Based on the findings it was suggested that site 16WA98 was potentially eligible for the NRHP and should be avoided. The client then designed their workplan to have a 50-foot avoidance buffer around the site 16WA98 to avoid any disturbance to the site. Neither the isolated find nor the above ground resources were recommended eligible for the NRHP. No additional archaeological or above-ground resource investigations are recommended for the proposed project. The report was submitted to the SHPO for review and concurrence.
04/23 - 05/24	**Cornerstone Chemical Company- UBE C1 Chemicals America, INC., Archaeological and Historical Consultation Letter, Jefferson Parish, LA** **Principal Investigator.** Provided Cornerstone Chemical Company – UBE C1 Chemicals America, Inc., with a letter that initiated consultation to identify historic properties for proposed construction in Jefferson Parish, Louisiana. This letter was submitted to the SHPO in pursuance of Section 106 and the lead federal agency, the United States Army Corps of Engineering (USACE). This letter provided information on the proposed project area, proposed activities, previously conducted investigations and recorded cultural resources within and adjacent to the project area and requested assistance from SHPO for concurrence.
03/24 - 04/25	**Phase I Cultural Resources Survey of the Groom Road/Brushy Bayou Storm System Project, East Baton Rouge Parish, LA** **Principal Investigator.** Ms. Hunt served as Principal Investigator for a Phase I cultural resource survey of approximately 4.8 acres in Baker, East Baton Rouge Parish, Louisiana. The survey consisted of 84 STPs. Three positive shovel tests were determined to be isolated finds and are not recommended eligible for the NRHP. No newly recorded archaeological sites or previously recorded sites were identified during the investigation. TerraXplorations Inc. was subcontracted to conduct the aboveground resources survey for the indirect APE. The aboveground resources survey identified one previously recorded LHRI resource, one NRHP-listed property, and 29 newly recorded LHRI aboveground resources. Based on results of the current survey, one previously recorded NRHP-listed property, the Baker High School Auditorium (13001125), remains eligible for listing in the NRHP under Criterion C based on the structure's design and construction which includes a prominent and unique exterior. Ms. Hunt served as a co-author for a technical report that was submitted to the LA DOA, SHPO as part of consultation under Section 106 of NHPA.
01/25 - 04/25	**Negative Findings: Phase I Cultural Resources Survey of the PN 16413 BEP-140 Line Lowering Project, Calcasieu Parish, LA** **Principal Investigator.** Ms. Hunt served as the Principal Investigator for the Phase I cultural resources of approximately 14 acres across three project areas. The Phase I cultural resource survey consisted of a pedestrian survey and the excavation of 53 shovel test pits. Based on survey results, no cultural material or archaeological sites were encountered. No aboveground resources 50 years or older were identified using the LA DOA cultural resources online database, historic aerials, topographic maps, or during fieldwork. This will result in a report submitted to SHPO recommending no additional archaeological or above-ground resource investigations for the proposed project.

Firm employed by	**Providence Engineering and Environmental Group LLC**		
Name	**Christopher Coyne**	Years of relevant experience with this employer	5
Title	**Biologist III**	Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			B.S. / 2020 / Natural Resource Ecology and Management
Active registration number / state / expiration date			Richard Chinn 38-Hour Wetland Delineation Training, N/A, #8969
Year registered	2021	Discipline	
Contract role(s) / brief description of responsibilities			**Wetland Biologist**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/21 - 10/21	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Crawford Road / Tiger Branch, SPN H.014229.5, Caddo Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Crawford Road Bridge over Tiger Branch in Caddo Parish.
08/21 - 9/21	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Nation Road/ Coulee Duralde, SPN. H.014220.5, Acadia Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Nation Road Bridge over Coulee Duralde in Acadia Parish.
08/21 - 12/21	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Ruffin Drive Over Drain to Youngs Bayou, SPN. H.014232.5, Ouachita Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Ruffin Drive Bridge over a drain to Youngs Bayou in Ouachita Parish.
08/21 - 12/21	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Auguillard Road Over Coulee, SPN. H.014226.5, St. Martin Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the St. Martin Auguillard Road Bridge over an unnamed coulee in St. Martin Parish.
03/22 - 03/22	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Doshie Road Over Cherry Winche Creek Tributary, SPN. H.014263.5, Tangipahoa Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the North Hoover Road Bridge over an unnamed creek in Tangipahoa Parish.
09/21 - 12/21	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Randall Road Over Yellow Water River SPN. H.014262.5, Tangipahoa Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Randall Road Bridge over Yellow Water River in Tangipahoa Parish.
02/24 - 05/24	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Hales Road Bridges SPN. H.014986.5, Richland Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Hales Road Bridges over Hurricane Creek and an unnamed creek in Richland Parish.

04/24 - 05/24	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program North Joseph St Over Creek SPN. H.015016.5 Jefferson Davis Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the North Joseph Street Bridge an unnamed creek in Jefferson Davis Parish.
04/24 - 04/24	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Stateline Rd Over Creek SPN. H.015014.5 Tangipahoa Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Tangipahoa Stateline Road Bridge an unnamed creek in Tangipahoa Parish.
07/24 - 08/24	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Gravolet Road Over Drainage Canal SPN. H.015050.5, Plaquemines Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Gravolet Road Bridge over an unnamed drainage canal in Plaquemines Parish.
07/24 - 08/24	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Sibley Rd and Chappepeela Rd Bridges SPN. H.015013.5 Tangipahoa Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Sibley Road Bridge over Morgan Branch and the Chappepeela Road Bridge over Brushy Branch in Tangipahoa Parish.
07/24 - 10/24	**Morgan Goudeau & Associates, Inc., Off-System Highway Bridge Program Zeagler Cutoff Over Creek SPN H.015015.5 LaSalle Parish, LA.** **Field Biologist.** Conducted a wetland delineation and completed a Wetland Findings report for the replacement of the Zeagler Cutoff Bridge over an unnamed creek in LaSalle Parish.
08/24 - Present	**Aucoin & Associates, Inc., Replacement Bridge LA 648: Drain Canal Bridge SPN. H.011963, Lafourche Parish, LA.** **Field Biologist.** Conducted wetland delineation and completed a Wetland Findings report for the replacement of the LA 648 bridge over an unnamed drainage canal in Lafourche Parish. Additionally, prepared and submitted a Joint Permit Application to the Louisiana Department of Energy and Natural Resources and the U.S. Army Corps of Engineers.
05/24 - Present	**Atlas Technical Consultants LLC, MRB South GBR: LA 1 to LA 30 Connector SPN H.013284, Multiple Parishes, LA.** **Field Biologist.** Providence provided NEPA, wetlands, Phase I ESA, and public outreach compliance assistance for the proposed new bridge crossing of the Mississippi River in Iberville Parish, LA. Role in the project included conducting wetland delineations on 3 alignment alternatives covering approximately 1,716 acres, subsequent wetland data reporting, and assisting with Phase I Environmental Site Assessment field surveys.

Firm employed by **KTA-Tator, Inc.**			
Name	**Jayson Helsel, PE**	Years of relevant experience with this employer	27
Title	**Senior Coating Consultant**	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			MS / Chemical Engineering / University of Michigan BS / Applied Science with High Honors / US Coast Guard Academy
Active registration number / state / expiration date			**Professional Engineer:** 30090 / LA / 9/30/2026 **Certifications**: AMPP Senior Certified Coatings Inspector (#N-7356) Protective Coatings Specialist (#2011-930-152) Certified Concrete Coatings Inspector (#25374)
Year registered	2002	Discipline	Chemical Engineer
Contract role(s) / brief description of responsibilities			**Senior Coatings Consultant / Structure Asset Management Plan Development**

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).
03/26 - Present	**St Francisville Bridge over the Mississippi River, St. Francisville, Louisiana** **Senior Coatings Consultant.** As a subconsultant to HNTB Corporation (HNTB) KTA has completed a corrosion assessment of the St Francisville Bridge over the Mississippi River located in St. Francisville, Louisiana. The purpose of this assessment was to determine the condition of the exposed weathering steel members and the condition of the existing coatings on the painted portions of the structure in order to develop a maintenance painting strategy. As part of the preliminary design services, Mr. Helsel provided a coating condition assessment (visual, coating thickness, adhesion) sampling, laboratory testing (infrared spectroscopy and lead, cadmium, and chromium testing), chloride testing/remediation, provided maintenance painting recommendations for this project, and provided an opinion of probable construction costs.
04/25 – 11/25	**Dulac Bayou Bridge, Dulac, Louisiana** **Senior Coatings Consultant.** The Dulac Bayou Bridge in Dulac, Louisiana carries LA0057 and two lanes of traffic plus two sidewalks for pedestrians over the Dulac Bayou. The total bridge length is 460 feet with a swing span length of 135 feet, including an open grid deck design. The bridge was constructed in 1971, and most of the structure reportedly still has the original coating system. As a subconsultant to TRC Engineers, as part of the preliminary design services, Mr. Helsel provided a coating condition assessment (visual, coating thickness, adhesion) sampling, laboratory testing (infrared spectroscopy and lead, cadmium, and chromium testing), chloride testing/remediation, provided maintenance painting recommendations for this project, and provided an opinion of probable construction costs.
05/17 – 06/19	**Betsey Ross Bridge, Philadelphia, PA** **Senior Coatings Consultant.** In 2017 – 2019, KTA provided Coating-Related Support for DRPA on the Betsy Ross Bridge. In 2017-2019, as a subconsultant to STV Incorporated (STV), KTA provided as-needed technical coatings-related support services on this project involving the painting and steel repairs to the New Jersey approach to this bridge (Contract BR-19-2016 Phase I). Specifically, KTA assisted STV in the review of coatings-related contractor submittals (e.g., Containment Working Drawings/Procedures (SSPC Guide 6), Lead Health and Safety Compliance Program, Waste Handling Plan, Environmental Compliance Plan, Surface Preparation and Painting Plans, Coating Materials Submittals, etc.) for general conformance with the requirements of the project construction specification. Mr. Helsel provided coatings engineering/consulting services (coatings submittal review).
06/17 – 06/20	**On-Call Structural Coating Consulting Agreement, Various Locations** **Senior Coatings Consultant.** KTA provided coatings-related services on a third consecutive on-call structural coating consulting agreement (426-17-050A – 2017-2020). Structural coating consulting services consisted of performing coating condition assessments, conducting coating condition analyses, proposing painting priorities for steel structures, laboratory paint testing for composition and physical properties, coating failure analysis, developing technical specifications for the cleaning and painting of steel structures. Mr. Helsel provided coatings engineering/consulting services on this contract.

Firm employed by **KTA-Tator, Inc.**			
Name	**James Kretzler**	Years of relevant experience with this employer	15
Title	**ASNT Level III**	Years of relevant experience with other employer(s)	14

Degree(s) / Years / Specialization			High School Graduate
Active registration number / state / expiration date			ASNT Level III MT, PT, RT, UT (#186946, expiration 10/31/2030) AWS Certified Welding Inspector (#07020431, expiration 2/1/2028) AAMP Basic Coatings Inspector (#54804, expiration 09/30/2026)
Year registered	n/a	Discipline	
Contract role(s) / brief description of responsibilities			**ASNT Level III / Structure Asset Management Plan Development**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/15 - Present	**Various Fabrication Projects for Clients in the Transportation Industry** **NDE Department Manage**r managing the NDE Department of the KTA Steel, Concrete, and NDE Group. He has financial and operational responsibilities along with business development, hiring, and training for non-destructive examination services. He is providing Level III services internally for KTA and externally for clients that includes writing and reviewing NDE procedures and certifying NDE technicians. He is also providing NDE training services for Level II Magnetic particle, Level II Dye Penetrant inspection as well as Ultrasonic Level I and Level II classes covering UT thickness, straight beam, and angle beam inspections.
10/21 – 12/21	**Various Bridges throughout North Dakota – North Dakota DOT** **Project Manager** for Phased Array Ultrasonic Testing (PAUT) on various bridges throughout the state. KTA was a subconsultant to another engineering firm.
3/16 – 5/16	**I-10 Calcasieu Bridge, Baton Rouge, LA – Louisiana DOTD** **NDE Supervisor** for the UT inspection of the bridge pins on this structure. Mr. Kretzler reviewed the inspection data and issued an opinion regarding the condition of the pins. KTA was a subconsultant to another engineering firm.
06/15 – 12/19	**Steel Fabrication Inspection Contract Statewide – New York State DOT** **Project Manager** for the CWI/NDT inspection and coating inspection services during the fabrication of bridge girders at various shop locations. KTA also provided material sampling services for flat bar and rebar, and verified welding tests in accordance with NYSDOT standards. KTA was the prime consultant for this contract.
12/12 – 8/15	**Steel and Concrete Fabrication Inspection Contracts Statewide – Connecticut DOT** **Project Manager** on three consecutive multi-year contracts for steel and concrete fabrication inspection and coatings inspection services during fabrication operations at various shops. KTA was and is the prime consultant for all of these contracts.
12/12 – 07/15	**Steel Fabrication Inspection Contracts Statewide – Pennsylvania DOT** **NDE Supervisor** overseeing the responsibilities of QA inspectors on bridge fabrication projects in various shops throughout Pennsylvania and Ohio. He reviewed NDE procedures, completed site audits on NDE technicians, and oversaw all NDE activities on various projects.

06/08 – 12/12	**Employee of A&A Consultants, McKees Rocks, PA** **NDE/CWI Inspector** providing these services to three inspection consultant companies as a subconsultant. Mr. Kretzler conducted these inspections for Pennsylvania DOT bridge projects involving girders, cross frames, and tooth dams. He managed and trained a staff of 9 inspectors.
05/08, 12/09, 1/10	**Employee of A&A Consultants, McKees Rocks, PA** **Inspector** performing various inspections for the North Shore Connector Project in Pittsburgh, PA. He performed visual and dye penetrant weld examinations for a temporary bridge and shoring on Tony Dorset Drive spanning the "cut and cover" portion of the light rail system (served as A&A Consultants' Structural Steel Inspection Supervisor). Mr. Kretzler also provided inspections of 30 light poles for this project at Jett Industries, Ellwood City, PA in December 2009, and completed MT/VT inspection of splice plate welds on retaining wall pilings and smoke wall rebar in January 2010.

Firm employed by **KTA-Tator, Inc.**			
Name	**Robert Lanterman**	Years of relevant experience with this employer	24
Title	**Supervisor-Other (Senior Coatings Consultant)**	Years of relevant experience with other employer(s)	6

Degree(s) / Years / Specialization			BE / 1999 / Chemical Engineering
Active registration number / state / expiration date			AMPP Senior Certified Coatings Inspector (#13505; expiration 5/23/2025) AMPP Certified Protective Coatings Specialist (#2015-820-136; expiration 12/31/2027)
Year registered	n/a	Discipline	
Contract role(s) / brief description of responsibilities			**Senior Coatings Consultant / Sampling and Laboratory 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 – Present	**Pennsylvania Department of Transportation, Harrisburg, PA.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman is providing sampling services and is supervising laboratory heavy metals testing services for the rehabilitation of the coating system on the Fort Duquesne Bridge in Pittsburgh, PA. KTA is serving as a subconsultant.
03/24 – 04/24	**Louisiana Department of Transportation and Development, Baton Rouge, LA.** **Coatings Consultant.** Mr. Lanterman performed document review and coating condition assessment services for the US 190 Krotz Springs Bridges (eastbound and westbound) in St. Landry Parish. He prepared a report detailing the findings of the assessment and providing recommendations for the maintenance of the coating system on this bridge. KTA served as a subconsultant.
03/22 – 03/22	**South East Philadelphia Transportation Authority (SEPTA), Philadelphia, PA.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman evaluated the existing coating condition (visual examination, coating thickness and adhesion measurements, substrate examination, and coating sample procurement) on the eastern end of the Market Street Frankford Elevated Viaduct and provided recommendations on appropriate maintenance strategies, opinions of probable construction cost, and modification of the existing SEPTA surface preparation and coating application specifications for use in bidding the work to prospective contractors. KTA served as a subconsultant.
09/21 – 12/21	**Louisiana Department of Transportation and Development, Baton Rouge, LA.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman performed a coating condition assessment and assisted with the development of surface preparation, coating application, and environmental/worker protection and containment specifications/drawing notes for the rehabilitation of the IWGO Bridge in Baton Rouge. KTA served as a subconsultant.
07/20 –08/20	**Cuyahoga County (OH) Department of Public Works, Cleveland, OH.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman provided coating condition assessment supervision for coatings laboratory testing, development of a maintenance painting strategy and recommendations, and development of an opinion of probable costs for the maintenance painting of the Denison Harvard Bridge in Cleveland. KTA served as a subconsultant.

02/20 – 05/20	**Louisiana Department of Transportation and Development, Baton Rouge, LA.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman provided coating condition assessment services, supervision of coatings laboratory testing, and report preparation for the rehabilitation of the coating system on the Jackson Street (Red River) Lift Bridge in Alexandria, LA. KTA served as a subconsultant.
02/18 – 06/19	**Delaware River Port Authority, Camden, NJ.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman provided coating consulting and project engineering services for a coating condition assessment of the NJ approach spans to the Walt Whitman Bridge in Gloucester, NJ. He performed a coating condition assessment of the spans to develop future maintenance painting strategies. KTA served as a subconsultant.
03/17 – 05/17	**Louisiana Department of Transportation and Development, Baton Rouge, LA.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman performed a coating condition assessment, supervised coatings laboratory testing, and prepared a report with recommendations for the rehabilitation of the coating system on the US 90 Morgan City Bridge and Nearby Structures in Morgan City, LA. KTA served as a subconsultant.
02/17 – 03/17	**Louisiana Department of Transportation and Development, Baton Rouge, LA.** **Coatings Consultant / Sampling and Laboratory Testing.** Mr. Lanterman performed a condition assessment of the weathering steel tower and girders on the I-310 Luling Bridge in Luling, LA. He prepared a report detailing the conditions found and providing recommendations for the remediation of the corrosion problems on this bridge. KTA served as a subconsultant.

Firm employed by **Urban Systems, Inc.**			
Name	**Alison Catarella-Michel, P.E., PTOE, PTP, RSP$_{2i}$**	Years of relevant experience with this employer	25
Title	**President/Transportation Engineer**	Years of relevant experience with other employer(s)	3

Degree(s) / Years / Specialization			BS / 1997 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 30261 / Louisiana / 03/31/2027 **Professional Traffic Operations Engineering:** 1023 / Louisiana / 11/06/2026 **Professional Transportation Planner:** 626 / 11/20/2026 **Road Safety Professional 2i:** 148 / 03/20/2029
Year registered	2002	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Traffic Engineering Manager / QA-QC**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/21 - 05/23	**Huey P. Long Bridge Widening - (Westbank and Eastbank Approaches and Main Bridge Deck Widening)** **Lead Traffic Engineer/Traffic Engineering Manager.** The contractor for the Huey P. Long Widening in Jefferson Parish, LA brought on USI about half-way into construction to improve the flow of traffic during required closures. Ms. Michel prepared traffic control devices plans (TCDP) for multiple phases of construction. The TCDPs also included the design of a traffic signal plan for the installation of temporary signal heads to control lane shifts.
05/09 - 05/10	**LA 1088/I-12 Interchange** **Lead Traffic Engineer/Traffic Engineering Manager.** Ms. Michel updated the permanent signage plans for the interchange on I-12 at LA 1088 in St. Tammany Parish, LA to reflect the new alignment. TCDP were designed based on the sequence of construction drawings and two phases of construction. Specifications for required S-items and a construction cost estimate were provided.
02/10 - 07/10	**US Army Corps of Engineers LPV 16.2 Bonnabel Boulevard Floodgate** **Lead Traffic Engineer/Traffic Engineering Manager.** Ms. Michel designed the traffic control devices plans for construction of the LPV 16.2 Bonnabel Blvd. Floodgate in Jefferson Parish, LA. Plans included: haul routes, bypass for the ramp tie in to Bonnabel; diverting Bonnabel SB traffic to the temporary bypass ramp; and diverting NB traffic to Bonnabel SB travel lanes. Plan changes due to unforeseen conditions included details for floodwall construction diverting Bonnabel NB and SB traffic to the temporary roadway and closing Bonnabel Boulevard. The plans met USACE, Jefferson Parish and MUTCD standards. Inspections were conducted after any changes to the traffic control plan and/or at 30-day intervals.
01/14 - 08/19	**US 90 (I-49 South) Albertson's Parkway to Ambassador Caffery Design-Build, Lafayette Parish, LA (LADOTD)** **Lead Traffic Engineer/Traffic Engineering Manager.** Ms. Michel was a key member for this design-build project which converted US 90 to a controlled access facility by converting at-grade intersections to an interchange. The bridge structure had to span the intersection and railroad. She supervised the design and analysis and performed QA/QC for temporary and permanent signal plans, permanent signage plans, temporary traffic control plans and the Transportation Management Plan. Prepared Signal Plans using DOTDs latest TSI format. Analysis included developing design hour volumes for the design year and modeling signals in Synchro. Phasing and timing were developed for both permanent and temporary signal operation.

12/18 - 05/19	**Manhattan Signal Controller Upgrades** **Lead Traffic Engineer/Traffic Engineering Manager.** Traffic signal modification plans for 11 intersections along the Manhattan Boulevard corridor in Jefferson Parish, Louisiana were prepared in accordance with Jefferson Parish and Manual on Uniform Traffic Control Devices (MUTCD) standards. The modifications included controller component upgrades, video detection and pedestrian accommodations at select intersections. During the project Ms. Michel offered her technical expertise from over 17 years of designing traffic signals and preparing technical specifications for Jefferson Parish.
02/20 - Present	**LA 23: Belle Chasse Bridge & Tunnel (LADOTD)** **Lead Traffic Engineer/Traffic Engineering Manager.** Ms. Michel is managing USI's tasks for Owner Verification services focused on reviewing design plans for traffic related submittals from the design-builder. These submittals included capacity analysis, plans for traffic signals, signage and striping. Ms. Michel conducted QA/QC reviews to confirm adherence with LADOTD standards and the MUTCD. During construction, Ms. Michel will provide support by reviewing Traffic Control Devices Plans for proposed lane closures, detours and advanced warning signage.

Firm employed by **Urban Systems, Inc.**			
Name	**Nicole Stewart, PE, PTOE**	Years of relevant experience with this employer	20
Title	**Vice President / Transportation Engineer**	Years of relevant experience with other employer(s)	1.5

Degree(s) / Years / Specialization			BS / 2004 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 34750 / Louisiana / 09/30/2027 **Professional Traffic Operations Engineering:** 2923 / Louisiana / 08/14/2027
Year registered	2009	Discipline	Civil Engineer
Active registration number / state / expiration date			2923 / Louisiana / 08/14/2027- Professional Traffic Operations Engineering
Contract role(s) / brief description of responsibilities			**Traffic Engineer / Design Analysis and TMPs**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
02/15 - 06/16	**Bridge Preventative Maintenance District 61 (LADOTD)** Ms. Stewart was the **Principal In Charge** for Traffic Management Plans (TMP) for bridge replacement and repairs for various locations in Louisiana. This included developing various levels of TMP's based on LADOTD EDSM guidelines. Tasks included conducting capacity analysis, safety analysis, detour analysis and developing proposed mitigations where applicable. For the reconstruction of the LA 1 bridge over the Intracoastal Waterway, a detailed Level 3 TMP was prepared. For this TMP, detailed work zone impact management strategies were developed to help minimize the project's impact on mobility.
04/10 - 09/11	**I-10 Crossing - Irish Bayou Bridge** Ms. Stewart was the **Project Manager** for this project which involved designing traffic control devices plans for the I-10 Highway Crossing Levee Enlargement project at Irish Bayou Road in New Orleans East. The plans included multiple and phased road closures of a six (6) lane section of Interstate 10 including nighttime closures. In addition to managing the project, she was responsible for QA-QC.
07/23 - 10/23	**LA 67 (Plank Road) over US 61 (Airline Highway)** Ms. Stewart served as **Lead Traffic Engineer.** A Level 3 Transportation Management Plan was prepared for the repairs to the Plank Road Bridge over Airline Highway. This effort was managed by Ms. Stewart. She led data collection and identified the traffic management challenges that would be faced during construction. She identified alternate routes that could be used while the necessary repairs were made and evaluated the expected traffic operations along the detour roadways. Ms. Stewart also played a key role in identifying traffic control phasing that would minimize the impact to motorists.
05/18 - 04/19	**TMP for I-10: West of 108 to I-210 Interchange: Rubblize and Overlay (LADOTD)** As the **Lead Engineer** for this Traffic Management Plan, Ms. Stewart was responsible for the preparation of the safety analysis. She conducted the analysis per the guidelines set forth by LADOTD in *Guidelines for Crash Data Analysis* for this TMP in Lake Charles, LA. She conducted queue analysis to identify when lane closures would be permitted, identified the construction impact area and reviewed crash data for more than 350 collisions. Ms. Stewart identified trends and calculated crash rates and determined that the section of I-10 that was going to be rubblized had a crash rate that was higher than the statewide average and required mitigation.

09/11 - 02/12	**Williams Boulevard Floodgate** Ms. Stewart served as **Project Traffic Engineer.** The design of Traffic Control devices Plans including haul routes were prepared for the two phased closure of Williams Boulevard at the Lake Pontchartrain Levee Floodgate by Ms. Stewart. The plans were prepared in accordance with Jefferson Parish and MUTCD Standards. Once the plan was implemented Ms. Stewart conducted inspections.
06/24-02/25	**LA 1: Port Allen Bridge Replacement** Ms. Stewart was the **Principal In Charge** of the safety review for the design exception required for the construction of the LA 1 northbound bridge of the Intracoastal Waterway. She performed the final quality assurance check of the safety evaluation including reviewing the existing crash summaries and crash modification factor determination.
06/11 - 03/12	**Southeast Louisiana Urban Flood Control Project Improvements To Two-Mile Canal (Patriot Street Canal), Phase I, Barataria Blvd To First Avenue Canal** Ms. Stewart served as **Project Traffic Engineer.** Ms. Stewart designed the Traffic Control Devices Plans for the improvements to the Two Mile Canal. These plans included traffic closure details, signage, flagmen, and haul routes. Ms. Stewart conducted inspections throughout construction to confirm compliance with the plans that had been approved by Jefferson Parish.
03/12 - 11/13	**MacArthur Interchange Signal Modification/ Signage & Striping / Traffic Control Devices Plans (LADOTD)** Ms. Stewart served as **Project Traffic Engineer.** The traffic study to evaluate the existing and projected operating conditions of the lower Westbank Expressway was prepared by Ms. Stewart. In the second phase, Ms. Stewart designed the new traffic signals for the interchange and adjacent signalized intersections. She prepared the striping and signage plans to accommodate the ramp changes and prepared Traffic Control Devices Plans for the various stages of construction
03/10 - 07/10	**USACE Traffic Control Devices Plans** Ms. Stewart served as **Project Traffic Engineer.** Ms. Stewart has designed numerous Traffic Control Devices Plans to meet US Army Corps of Engineers, LADOTD and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, drums, roadway markings, etc.) to facilitate traffic safely and efficiently through the traffic control zone. Haul routes were designated when necessary. Many of the plans were for Corps of Engineers' projects.

Firm employed by **Urban Systems, Inc.**			
Name	**Christine M. Darrah, PE**	Years of relevant experience with this employer	10
Title	**Transportation Engineer**	Years of relevant experience with other employer(s)	20

Degree(s) / Years / Specialization			BS / 1997 / Civil Engineering
Active registration number / state / expiration date			**Professional Engineer:** 28528 / LA / 09/30/2027
Year registered	1999	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities			**Traffic Engineer**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/21-04/21	**Entergy Louisiana, I-610 Transmission Line Crossing at Frenchman** Ms. Darrah was the **Project Engineer** for the interstate closure project to assure public safety during overhead transmission lines repairs, this included a full closure of both directions of I-610 and westbound on ramp Elysian Fields Ave, in New Orleans. Ms. Darrah coordinated the six hour interstate closure and associated detours with LADOTD and City of New Orleans, LA . She designed Traffic Control Devices Plans applying MUTCD, LADOTD and City of New Orleans standards for proper placement of traffic control devices including portable changeable message boards. Ms. Darrah utilized AutoCAD to assist in final preparation of plans.
04/18-01/22	**N. Peters Sidewalk Expansion** The **Project Manager** for the N. Peters sidewalk expansion project was Ms. Darrah. She prepared construction drawings and specifications for the reconstruction of the sidewalk adjacent to Canal Place Shopping Center in the Downtown Development District (DDD). The plans included the geometric layout, grading, drainage, street lighting, striping and traffic control. The plans followed all DDD, MUTCD, ADA, New Orleans DPW and S&WB requirements. Ms. Darrah also provided Construction Management Services. This included field inspections, responding to inquiries and reviewing contractors invoices.
09/14-12/14	**SELA 26 Widening of Florida Ave. Canal Phase II and III (LADOTD)** As **Traffic Engineer,** Ms. Darrah designed Traffic Control Devices Plans to meet US Army Corps of Engineers, LADOTD and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, drums, roadway markings, etc.) to facilitate traffic safely and efficiently through the traffic control zone. Haul routes were designated when necessary.
01/14-07/17	**North Terminal Louis Armstrong New Orleans International Airport** As **Traffic Engineer,** Ms. Darrah led the design of the Maintenance of Traffic plans for the landside access roadways. The plans were designed in accordance with the Manual of Uniform Traffic Control Devices and LADOTD standards. Ms. Darrah also prepared specifications for the maintenance of traffic items.

06/22-10/22	**KCS Acadian Thruway** This project included lane closures and full closure of Acadian Thruway at the KCS bridge near the I-10 interchange in East Baton Rouge Parish. As **Traffic Engineer,** Ms. Darrah prepared the Traffic Control Devices Plans applying MUTCD and LADOTD standards for proper placement of traffic control devices. Additional project efforts included designing lane closures on an I-10 onramp for laydown access and police-controlled haul routes.
03/17-03/18	**Port of New Orleans, Milan St Terminal** As the project's **Lead Engineer** Ms. Darrah designed Construction Sequencing and Permanent Striping Layouts and Signage plans. Construction sequencing included keeping port tenants fully operational through each phase of construction. All plans were prepared in accordance with LADOTD and MUTCD guidelines.
07/22-08/22	**Mossville Traffic Control Devices Plan** As the **Project Manager** Ms. Darrah designed Traffic Control Devices Plans for two rolling closures of I-10 and associated ramps in Lake Charles, LA for transmission line repairs. Efforts included designing plans for interstate closures and detours. Ms. Darrah coordinated with LADOTD and Calcasieu Parish in identifying optimal locations for Dynamic Message Signage.
01/14-07/17	**North Terminal Louis Armstrong New Orleans International Airport** As **Traffic Engineer,** Ms. Darrah led the design of the Maintenance of Traffic plans for the landside access roadways. The plans were designed in accordance with the Manual of Uniform Traffic Control Devices and LADOTD standards. Ms. Darrah also prepared specifications for the maintenance of traffic items.
11/20-02/23	**US 190 at Northshore and Camp Villere Roundabouts** As **Project Engineer,** Ms. Darrah oversaw the design of permanent striping & signage plans per LADOTD standards and specifications. She also managed the design of temporary traffic signals that will be required during the multiple phases of roundabout construction. A level 2 Traffic Management Plan (TMP) was also prepared. Ms. Darrah coordinated with the prime-consultant, St Tammany Parish, and LADOTD as needed.

17. Firm Experience:

Firm name	**Hardesty & Hanover, LLC**	Past Performance Evaluation Discipline(s)*	**Bridge**
Project name	**Bridge Rehabilitation for Five Movable Bridges**	Firm responsibility (prime or sub?)	Prime
Project number	4400021516	Owner's name	Louisiana Department of Transportation
Project location	LADOTD Districts 02 and 61 – Lafourche, Terrebonne, and Pointe Coupee Parishes, LA	Owner's Project Manager	Fallon M. Farber, PE – Assistant Bridge Design Administrator (Mechanical and Electrical Units); TJ Dunlevy, PE – Mechanical Design Manager
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802-4438 | 225-379-1986 | fallon.farber@la.gov		
Services commenced by this firm (mm/yy)	03/25	Total consultant contract cost ($1,000's)	$5,096
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$5,000

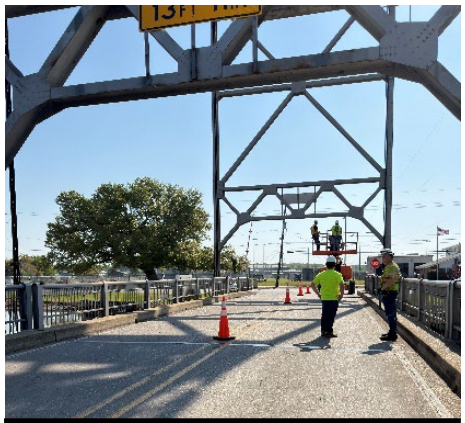
Under LADOTD Contract No. 4400021516, H&H serves as the prime consultant and Engineer of Record for the inspection, scoping, design, and construction-related engineering services (CRES) for five (5) vertical lift movable bridges in the LADOTD Movable Bridge Rehabilitation Program. The scope of work encompasses full structural, mechanical including HVAC and plumbing, electrical, and architectural rehabilitation of each bridge to extend service life 30–40 years with routine maintenance, remove existing load postings where practical, and bring all maintenance access, life-safety, NEC, and ADA-applicable systems into current code compliance.

Four of the five bridges (Golden Meadow, Lockport, Kraemer, and Montegut) carry historic designations under the LADOTD Programmatic Agreement Regarding Management of Historic Bridges in Louisiana, with Golden Meadow classified as a Preservation Priority structure (originally constructed 1970 along Bayou Lafourche). All H&H Engineers of Record assigned to the projects have completed the Department's required Maintenance and Rehabilitation of Historic Bridges training, and all repairs are being designed in accordance with the programmatic agreement, the Secretary of the Interior's Standards for the Treatment of Historic Properties, and the Individual Management Plan for Golden Meadow.

H&H is performing the following services across all five bridges: Project management, document review, initial site inspections, NBIS In-Depth Bridge Inspections, evaluation of the protective coating, non-destructive testing, strain gage testing, LRFR Load Ratings using AASHTOWare BrR, development of the Scope of Work Proposal, Scope of Work Report, environmental services, Traffic Management Plan (TMP), geotechnical services, final construction plan production, technical special provision development, design calculations, permit sketches and coordination with the Coast Guard, construction cost estimates, pre-construction meeting attendance, on-call design support, shop drawing/O&M manual/product data, request for Information (RFI) review, PS&E development, and mechanical/electrical shop inspections and testing, span setup and balancing, and full functional testing of the rehabilitated mechanical and electrical systems.

Scope of Work Relevant to the Contract

- **Structure Preservation Projects**
- **Condition Assessments and Identification of Deficiencies**
- **Rehabilitation Recommendation and Prioritization of Improvements**
- **Planning Level Cost Estimate, Design and Post-Design Services**



Montegut Vertifical Lift Bridge

Key Members: *Babak Naghavi, PE, PhD; Tim Noles, PE; James Phillips, PE; Corey Bourgeois, PE; Erik Diaz, PE; Andrew Barthle, PE; Fred Wetekamm, PE; Jason Biddle, PE; Dalton Hunt, PE; John Rayer, PE; Ken Pecquet, PE; Linh Kim, PE; and Travis Kimmins, PE*

Firm name	**Hardesty & Hanover, LLC**	Past Performance Evaluation Discipline(s)*	**Bridge**
Project name	**IDIQ Contract for Movable Bridge Preservation**	Firm responsibility (prime or sub?)	Prime
Project number	4400023909	Owner's name	Louisiana Department of Transportation and Development
Project location	Statewide, LA	Owner's Project Manager	T.J. Dunlevy, PE
Owner's address, phone, email	1201 Capitol Access Rd. Baton Rouge, LA 70802 | 225.379.1093 | tjdunlevy@la.gov		
Services commenced by this firm (mm/yy)	01/23	Total consultant contract cost ($1,000's)	$7,000
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$6,000

Boudreaux Canal Bridge H&H is providing mechanical design for the new bridge, as well as providing structural design services for the operator house foundation, generator platform, and fender system. H&H attends project meetings and coordinates with the structural, mechanical, and electrical engineers at DOTD to ensure proper coordination of design activities. H&H is also preparing documentation for the Bridge Operation Manual, pre-bid questions, and bid review analysis. H&H is producing plans and specifications to provide notes and technical provisions. H&H will design a hydraulic system, center wedge assemblies, center wedge ramp, and end roller assemblies, including the roller ramps. The hydraulic system will incorporate redundant variable-displacement vane pumps, be designed to accommodate 4,500 openings per year, and be relocated to a novel placement for swing bridges of this configuration, prioritizing access for maintenance personnel.

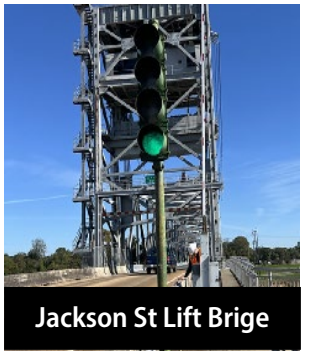
Jackson Street PED Gates H&H is designing ADA-compliant pedestrian gates for the US 165 Red River MB (Jackson St) lift bridge, including full plans, specifications, cost estimates, and construction support in accordance with LADOTD standards. The team handles meetings, site visits, Level 2 TMP development, and bid-phase support. H&H is currently performing post-design services for the project.

Structural: Plans include gate integration, traffic control, and aerial cable supports. Lead: Erik Diaz, PE (18+ years in structural design).
Electrical: Specifications and plans include the design and integration of power/control gates into the existing control system, aerial cable, and CCTV system. Lead: Ken Pecquet, PE (17+ years in electrical design)

Scope of Work Relevant to the Contract

- **Structural, Geotechnical & Electrical Preservation Projects**
- **Condition Assessments and Identification of Deficiencies**
- **Rehabilitation Design and Post-Design Services**
- **Traffic Management Plan**


Bayou Teche Swing Bridge


Jackson St Lift Brige

Bayou Teche Bridge (Oaklawn) H&H provided the electrical design for the swing bridge in accordance with AASHTO, LADOTD's design requirements, NEC, IES standards, and standard design details. This bridge replacement project included a new control house, standby generator, traffic signals, warning/barrier gates, channel navigation aids, lightning protection, parking, and pedestrian walkway lighting. H&H worked closely with other design disciplines to ensure project success. All design deliverables were made in accordance with the project schedule. H&H also provided post-design services, including shop drawing review, periodic inspection, and functional checkout testing.

Electrical: H&H designed a complete bridge power and relay logic control system, including power distribution, lighting, including photometric analysis per IES standards, as well as luminaire selection and detailed change order plans. A field survey and bridge plan review supported an arc flash hazard analysis, recommending protective device settings using industry-standard software.

Structural and Geotechnical: Design of the foundation and structural support details required to resist wind loads in accordance with AASHTO LRFD.

Key Members: *Babak Naghavi, PE, PhD; Jim Phillips, PE; Andrew Barthle, PE; Chris Svara, PE; Corey Bourgeois, PE; Erik Diaz, PE; Fred Wetekamm, PE; Dalton Hunt, PE; Ken Pecquet, PE; Linh Kim, PE; and Travis Kimmins, PE*

Firm name	**Hardesty & Hanover, LLC**	Past Performance Evaluation Discipline(s)*	**Bridge**
Project name	**IDIQ Contract for Complex Bridge Inspections**	Firm responsibility (prime or sub?)	Prime
Project number	**4400023511**	Owner's name	Louisiana Department of Transportation and Development
Project location	Statewide, LA	Owner's Project Manager	Stephanie Doolittle, PE
Owner's address, phone, email	1201 Capitol Access Rd. Baton Rouge, LA 70802 | 225.379.1329 | stephanie.doolittle@la.gov		
Services commenced by this firm (mm/yy)	06/23	Total consultant contract cost ($1,000's)	$7,000
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$6,900

As part of this IDIQ contract, H&H performed NBIS inspections of several complex bridges. These bridges included **Red River Miller's Bluff, Jimmie Davis Bridge, Calcasieu River (West Fork) Vertical Lift Bridge, LA 433 Bridge over Bayou Bonfouca**, **US 190 Bridges at Krotz Springs**, and **LA 657 Bridge over Bayou Lafourch**. After the completion of each inspection, an inspection report was submitted to LADOTD according to the schedule of deliverables. H&H updated and uploaded the element inspection data to LADOTD's software program (InspectX). Inspections also identified the deficiencies with a list prioritized improvements with planning level cost estimates.

The structural inspections consisted of hands-on observation of all members of the superstructures by means of under bridge inspection vehicle (UBI) or man lift. The UBI vehicle was used for the inspection of the floor system members, bearings, the underside of all decks and concrete piers below the deck.

Mechanical system included inspecting accessible components of the machinery for the span drive, span support, span guides, span locks, and traffic barriers and gates. The electrical system inspection included inspecting accessible components of the main bridge power distribution, bridge grounding system, motor controls, control systems (panel and consoles), electrical systems for the traffic control lighting system, traffic gate assemblies, traffic resistance barriers, span lock motors, span drive braking system, span drive motors, limit switches and related conduit and wiring.

Another task included development of the LADOTD Movable Bridge Inspection Manual (including details, photos, illustrations, specific examples) and building a lesson plan and materials for the classroom and field training for LADOTD inspection staff.

Scope of Work Relevant to the Contract

- **Condition Assessments and Identification of Deficiencies for Structural/Mechanical/Electrical Components**
- **Rehabilitation Recommendation and Prioritization of Improvements**
- **Planning Level Cost Estimate for recommended improvements**


Red River Miller's Bluff


Red River Jimmie Davis


Calcasieu River West

Key Members: *Babak Naghavi, PE, PhD; Tim Noles, PE; James Phillips, PE; Corey Bourgeois, PE; Erik Diaz, PE; Andrew Barthle, PE; Fred Wetekamm, PE; Dalton Hunt, PE; Jason Biddle, PE; John Rayer, PE; Ken Pecquet, PE; Linh Kim, PE; Travis Kimmins, PE; and Cesar Navarro, PE*

Firm name	**Hardesty & Hanover, LLC**	Past Performance Evaluation Discipline(s)*	**Bridge**
Project name	**Almonaster Avenue Bridge over the Industrial Canal Rehabilitation**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Port of New Orleans
Project location	New Orleans, LA	Owner's Project Manager	Michael Sulser, PE
Owner's address, phone, email	Port of New Orleans | 504.528.3297 | michael.sulser@portnola.com		
Services commenced by this firm (mm/yy)	06/18	Total consultant contract cost ($1,000's)	$2,800
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$2,562

H&H provided the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the rehabilitation and partial replacement of the Almonaster Ave Bridge for the Port of New Orleans.

The Almonaster Bridge spans the Industrial Canal, offering two vehicular lanes and a single railroad track crossing down the center of the span. Hurricane Katrina destroyed roadways leading up to the bridge in 2005 and for the following 13 years, the bridge had exclusively served rail traffic. H&H's 2019 assessment of the circa-1920 bascule bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructure could remain, modifications were deemed necessary to accommodate the rehabilitated superstructure.

H&H is developing the necessary bridge remedial design plans and specifications and is providing inspection services during construction. The bridge's span drive and span lock machinery, operating strut, guide assembly, live load bearings, and counterweight trunnion pin and bushing will be replaced. The main trunnion bearings will be rehabilitated and repositioned.

The road design and traffic services included a new alignment for the connecting road including all drainage structures.

Additional remedial efforts along Almonaster Avenue Bridge also included the improvement or replacement of the original fixed roadway approach spans. The sharp curve that existed on westbound Almonaster Ave was demolished and a new road was constructed on an improved alignment. H&H developed a hydraulic study and a site plan that included several retention ponds for drainage improvements. Other services included environmental, geotechnical, and pavement design.

Scope of Work Relevant to the Contract

- **Condition Assessments and Identification of Deficiencies**
- **Historic Bridge Rehabilitation Recommendation and Prioritization of Improvements**
- **Structural Steel & Concrete Repairs/Replacement**
- **Mechanical & Electrical Systems Upgrades**
- **Geotechnical, Environmental, & Surveying**
- **Load Rating**
- **Inter-Agency Coordination with LADOTD, USCG, City of NOLA, & CSX**

Almonaster Avenue Bridge

Key Members: *Babak Naghavi, PE, PhD; Tim Noles, PE; Andrew Barthle, PE; John Witthohn, PE, CFM; Erik Diaz, PE; J. Lee Adams, PE; John Rayer, PE; Robert Hideck, PE; Dalton Hunt, PE; Linh Kim, PE; Travis Kimmins, PE; Marco Lara, PE; Don Marinelli, PE; Steve Mikucki, PE; Alec Noble, PE; Ken Pecquet, PE; Fred Wetekamm, PE; and James Phillips, PE*

Firm name	**Hardesty & Hanover, LLC**	Past Performance Evaluation Discipline(s)*	**Bridge**
Project name	**2018-2024 IDIQ Master Bridge Contract (Bridge Inspection & Rehabilitation)**	Firm responsibility (prime or sub?)	Prime
Project number	n/a	Owner's name	Mississippi DOT
Project location	Statewide	Owner's Project Manager	Scott Westerfield, PE
Owner's address, phone, email	401 North West Street, Jackson, MS 39215 | 601.359.7000 | swesterfield@mdot.ms.gov		
Services commenced by this firm (mm/yy)	03/18	Total consultant contract cost ($1,000's)	$5,100
Services completed by this firm (mm/yy)	10/24	Cost of consultant services provided by this firm ($1,000's)	$4,800

H&H conducted bridge inspections and developed the bridge rehabilitation design plans and specifications for the rehabilitation of the SR 609 and SR 605 bridges under our Mississppi DOT IDIQ Master Bridge Contract. Rehabilitation plans included structural, mechanical, and electrical bridge components, roadway approaches, improvements to the operator house, including HVAC; development of maintenance and repair plans; and preparation of traffic control plans. Other scope items included construction support services during construction, project submittals review, and managing RFIs.

Major structural work included removal of the existing paint system (lead abatement) and repainting all structural steel, replacing the existing grid deck, structural strengthening of the bascule leaves, replacing all high strength connection bolts exhibiting corrosion with mechanically-galvanized high strength bolts (A325), repairing cracks in structural steel, and repairing deck joints.

Major mechanical work included removing and replacing machinery with AASHTO compliant machinery, polishing and re-machining trunnion journals, realigning trunnion bearing, and replacing span locks.

Major electrical work included replacing the emergency generator, motor control center, motor drives, span motors, and brakes. Also, replacing all conduits and wiring, submarine cable and cabinets, and bascule pier navigation lighting.

Additionally, H&H conducted NBIS and element level inspection (abutment to abutment) of girders, and hands-on, in-depth inspection of interior and exterior dapped ends of Box Girder Bridge in Meridian, MS. Load rating services were performed on the two bridges based on inspection findings and plan details for Bridge No. 147.9A at I-59 and Bridge No. 131.5B at I-20 located near Meridian in Lauderdale County. The inspection required night work to avoid lane closures on I-20 and I-59, as well as traffic control for lane closures and use of a confined space rescue team for inspection of inside the boxes.

The analyses included developing a finite element model of each bridge and for load ratings to follow LFR considering MDOT's permitted vehicle legal loads. Repair recommendations were made based on the inspection results and the load rating.

Scope of Work Relevant to the Contract

- **Condition Assessments and Identification of Deficiencies**
- **Rehabilitation Recommendation and Prioritization of Improvements**
- **Rehabilitation Design of Structural/Mechanical/Electrical and Post-Design Services**
- **Structural Steel & Concrete Repairs and/or Replacement**
- **Repairs and/or Replacement of Deck Joints & Seals, Bearings, and Approach Slab**
- **Maintenance of Traffic**
- **Operator House & HVAC Improvements**
- **Load Rating**

Key Members: *Babak Naghavi, PE, PhD; Tim Noles, PE; James Phillips, PE; Andrew Barthle, PE; Marco Lara, PE; Erik Diaz, PE; Linh Kim, PE; Dalton Hunt, PE; Travis Kimmins, PE; Dennis Gowins, PE; Donald Marinelli, PE; Tim Noles, PE; Kenneth Pecquet, PE; Cesar Granados, PE; Chris Svara, PE; Rob Vicedo, PE; Anwer Kaimakchi, PhD, PE and Fred Wetekamm, PE*

Firm name	**A P S Engineering and Testing, LLC**		Discipline(s)*	**Geotech**	
Project name	**College Drive Flyover**			Firm responsibility (prime or sub?)	Sub
Project number	H.013897	Owner's name	Louisiana Department of Transportation and Development		
Project location	Baton Rouge, LA		Owner's Project Manager	Catherine Mastin, PE	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804 | 225.379.1652 | Catherine.mastin@la.gov				
Services commenced by this firm (mm/yy)	11/21		Total consultant contract cost ($1,000's)	$2,500	
Services completed by this firm (mm/yy)	12/25		Cost of consultant services provided by this firm ($1,000's)	$650	

A P S Engineering and Testing, LLC provided comprehensive Construction Materials Testing (CMT) and inspection services throughout the construction phase to support quality assurance and compliance with DOTD specifications and project requirements. A P S engineers and technicians worked closely with the contractor, design-build team, and DOTD representatives to verify that materials and construction activities met performance standards while maintaining the aggressive construction schedule typical of design-build transportation projects.

A robust laboratory testing program was performed in A P S's AASHTO-accredited geotechnical and materials testing laboratory, allowing timely verification of material properties and rapid reporting to support construction decision-making.

Construction engineering and materials testing services included:

- Field inspection and construction oversight for roadway and structural elements
- Construction Materials Testing (CMT) for soils, concrete, and aggregates
- Quality assurance and verification testing to support embankments, foundations, and structural components

Representative laboratory and field-testing services included, but were not limited to:

- Compressive strength testing of drilled concrete cores and cast concrete cylinders
- Electrical resistivity testing for evaluation of concrete durability and corrosion potential
- Aggregate and soil gradation testing (DOTD TR-113)
- Standard and Modified Proctor compaction testing of soils (DOTD TR-415, TR-418)
- Modified Proctor testing of aggregates used in roadway and structural fill applications

Through responsive field support and rigorous laboratory testing, A P S helped ensure that materials and construction activities met DOTD performance standards, contributing to the successful completion of this critical transportation improvement project serving the Baton Rouge region.

Scope of Work Relevant to the Contract

- **Geotechnical Explorations (GE)**
- **Geotechnical Design (GD)**
- **Geotechnical Construction (GC)**
- **Constructability**

Key Members: *Sergio Aviles, P.E.; Sairam Eddanapudi, M.E., P.E; Surendra Pathak, P.E.*

Firm name	**A P S Engineering and Testing, LLC**		Discipline(s)*	**Geotech**	
Project name	**Comite River Diversion Bridge at LA-67**			Firm responsibility (prime or sub?)	Sub
Project number	H.001352; H.002273	Owner's name	Huval & Associates, Inc.		
Project location	East Baton Rouge, Louisiana		Owner's Project Manager	Thomas M. Gattles III, P.E.	
Owner's address, phone, email	922 West Don't des Mouton Rd, Lafayette, LA 70507 / 337-264-3798/ tgattle@huvalassoc.com				
Services commenced by this firm (mm/yy)	11/19		Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm (mm/yy)	06/22		Cost of consultant services provided by this firm ($1,000's)	150K	

A P S Engineering and Testing, LLC provided comprehensive geotechnical and construction engineering support for multiple critical structures along the LA-67 Bridge supported on prestressed concrete piles.

A P S played a key role during construction by delivering field engineering oversight, materials testing, and laboratory analysis to ensure the structural and geotechnical elements were constructed in accordance with project specifications and DOTD standards. Our team maintained continuous coordination with contractors, inspectors, and design engineers to address field conditions and maintain construction progress while ensuring quality control and compliance.

A comprehensive laboratory testing program was performed in A P S's AASHTO-accredited geotechnical and materials laboratory, supporting real-time construction decisions and verification of material properties. A P S technicians and engineers provided field inspection and testing services throughout the construction phase, ensuring that embankment materials, structural components, and foundation elements met the required engineering criteria.

Construction engineering and testing services included:

- Field inspection and construction oversight for bridge and embankment activities
- Construction Materials Testing (CMT) for soils, concrete, and aggregate

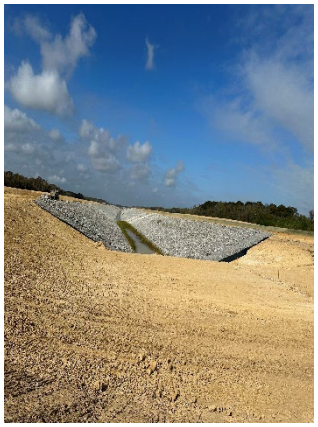
Representative laboratory and field-testing services included, but were not limited to:

- Compressive strength testing of drilled concrete cores and cast concrete cylinders
- Electrical resistivity testing for concrete durability evaluation
- Aggregate and soil gradation testing (DOTD TR-113)
- Standard and Modified Proctor compaction testing of soils (DOTD TR-415, TR-418)
- Modified Proctor testing of aggregates for embankment and structural fill materials

Through proactive construction support and responsive laboratory services, APS helped ensure the successful construction of critical bridge and embankment infrastructure along the LA-67 corridor, maintaining quality, schedule, and compliance with project specifications.

Scope of Work Relevant to the Contract

- **Geotechnical Explorations (GE)**
- **Geotechnical Design (GD)**
- **Geotechnical Construction (GC)**
- **Contract Management (CM)**



Key Members: *Sergio Aviles, PE.; Sairam Eddanapudi, PE.; Surendra Pathak, PE*

Firm name	**Bridge Diagnostics, Inc. (BDI)**		Discipline(s)*	**Bridge**	
Project name	**Bridge Weigh in Motion (BWIM)**			Firm responsibility (prime or sub?)	Sub
Project number	H.009730	Owner's name	Louisiana Department of Transportation and Development (LADOTD)		
Project location	Norco, Louisiana			Owner's Project Manager	Nick Fagerburg
Owner's address, phone, email	Office of Engineering | PO Box 94245 | Baton Rouge, LA 70804-9245 | 225-379-1200 | Bradley.Mistich@la.gov				
Services commenced by this firm (mm/yy)	06/25		Total consultant contract cost ($1,000's)		$7,500
Services completed by this firm (mm/yy)	Ongoing		Cost of consultant services provided by this firm ($1,000's)		$5,200

BDI was awarded the Bridge Weigh in Motion (BWIM) project to assist LADOTD in determining overweight loads travelling across structures in Louisiana. BDI developed the BWIM system to use a structure as a load cell. This project serves as a proof of concept and was broken out into three phases in order to ensure LADOTD is receiving accurate data while maintaining long-term structure health by limiting overweight non-permitted loads. The US-61 Bonnet Carre westbound structure (Recall 002819) was chosen as the bridge where these phases would be tested before statewide implementation.

Phase 1 Live Load Testing (Completed): BDI performed a live load test on recall 002819 to determine a baseline for the BWIM system. BDI installed strain gauges and tiltmeters on three spans of the superstructure to determine capacity and overall behavior of the AASHTO prestressed girders. BDI then drove a fully loaded dump truck over the structure to measure total strain in each girder. This data was used to develop the sensor plans for the BWIM gauge system along with typical responses that should be seen in the system if an overweight load was to drive over the structure.

Phase 2, BWIM System Plans and Install (Ongoing): Once the baseline from the Live Load Test was determined, BDI developed a full structural plan set to install on the structure. These plans included "trigger gauges" that are always active and will trigger and turn the rest of the system on if an overweight load crosses the gauge threshold, strain gauges that once turned on, will measure total strain in the structure, and high-resolution cameras that will take photos of the vehicle passing over the span. BDI has installed all gauges and camera systems on the structure and is waiting for AC power lines to be brought to the system. Once power has been established, the system will be ready for data collection.

Phase 3, Data Collection: Once the BWIM system has been installed, the initial data collection phase will begin. Over the next 6 months, BDI will constantly be monitoring and collecting data to ensure the BWIM system is operating properly and identifying overweight loads. Once an overweight load has been identified with the BWIM system, a police cruiser will weigh the vehicle with load cells and confirm the overweight, non-permitted load. Once enough data has been collected after the first 6 months and the BWIM system has been established as working properly, LADOTD will determine more structures where the BWIM system can be implemented and installed to help ensure the long term health of the bridge by limiting overweight loads.

Key Members: *Steven Fall, Jr., PE serves as a project manager responsible for local crew coordination, scheduling, and completion of field work. Michael Sullivan supports project management responsibilities. Jesse Sipple,PhD, PE, Brice Carpenter, PE, and Charles Young, PE serve as subject matter experts.*

Firm name	**Bridge Diagnostics, Inc. (BDI)**		Discipline(s)*	**Bridge**	
Project name	**Louisiana Statewide Non-Destructive Testing and Evaluation IDIQ**		Firm responsibility (prime or sub?)	Prime	
Project number	Contract No. 4400025002	Owner's name	Louisiana Department of Transportation and Development (LADOTD)		
Project location	Statewide, Louisiana		Owner's Project Manager	Bradley Mistich	
Owner's address, phone, email	Office of Engineering | PO Box 94245 | Baton Rouge, LA 70804-9245 | 225-379-1200 | Bradley.Mistich@la.gov				
Services commenced by this firm (mm/yy)	02/23	Total consultant contract cost ($1,000's)		$7,500	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$5,200	

BDI was awarded the Non-Destructive Testing and Evaluation IDIQ across the state of Louisiana.

Task Order II Twin Span and 6-mile Deck Evaluation: BDI performed deck assessments involving various NDT-E methods including SounDAR, Ground Penetrating Radar (GPR), High Resolution Imaging (HRI), Infrared Thermography (IR), and concrete material sampling on bridge recall numbers 204140, 204150, 020467, and 020468 for the purpose of assessment of reinforcement concrete condition, cover, location, and diameter; detections of voids and delaminations in concrete, and concrete material sampling.

Task Orders III and VI Interstate 20 Deck Evaluation and Pin and Hanger Testing: To assist with bridge preservation efforts, BDI is performing deck assessments for 273 structures on the Interstate 20 corridor in Louisiana involving various NDT-E methods including SounDAR, GPR, HRI, and IR for the purpose of assessment of reinforcement concrete condition, cover, location, and diameter and detection of voids and delaminations in concrete. BDI is also performing steel member condition assessment via ultrasonic testing (UT) on 39 structures statewide.

Task Order IV US-11 over Lake Pontchartrain Deck Evaluation and NBIS Inspection: BDI performed deck assessments involving various NDT-E methods including SounDAR, GPR, HRI, and IR for the purpose of assessment of reinforcement concrete condition, cover, location, and diameter and detection of voids and delaminations in concrete on bridge recall numbers 001525, 001545, 001552, and 200830. BDI also performed the NBIS Routine inspections on these structures which included detailed in-depth field inspections.

Task Order V Bayou Ramos: BDI is performing instrumentation and testing of bridge recall numbers 030115 and 030185 over Bayou Ramos including design of instrumentation plans, instrumentation of sensors, maintenance of sensors, and analysis and evaluation of the accumulated data.

Key Members: *Steven Fall, Jr., PE, serves as project manager responsible for the non-destructive testing plan development and application, field testing logistics, field crew management, reporting and QA/QC of various project tasks; Brice Carpenter, PE, serves as project engineer responsible for load rating, instrumentation plan development and application, analysis team management; Charles Young, PE, serve as subject matter experts; and Jesse Sipple, PhD, PE serves as the services division manager and subject matter expert.*

Firm name	**Bridge Diagnostics, Inc. (BDI)**		Discipline(s)*	**Bridge**	
Project name	**UT Anchor Bolt Inspection of Bayou Dularge Houma Navigation Bridge**		Firm responsibility (prime or sub?)	Prime	
Project number	Task Order 7, Task 4	Owner's name	Louisiana Department of Transportation and Development (LADOTD)		
Project location	Houma, LA		Owner's Project Manager	Bradley Mistich	
Owner's address, phone, email	Office of Engineering | PO Box 94245 | Baton Rouge, LA 70804-9245 | 225-379-1200 | Bradley.Mistich@la.gov				
Services commenced by this firm (mm/yy)	08/25	Total consultant contract cost ($1,000's)		$501	
Services completed by this firm (mm/yy)	09/25	Cost of consultant services provided by this firm ($1,000's)		$172	

The Louisiana Department of Transportation and Development observed a ruptured anchor bolt on the Houma Navigation Bridge carrying Barrow St. over Bayou Dularge on August 12, 2025, and immediately requested BDI's services to determine the extent of damage on the bridge and perform NDE on the steel structure to assess condition.

BDI performed ultrasonic testing using the Olympus Epoch 650 UT system to assess the condition of the anchor bolts. Additionally, BDI performed hammer sounding on each bolt. Three (3) of the sixteen (16) anchor bolts failed hammer sounding, but did not exhibit defects when the UT data were analyzed. With the exception of the ruptured bolt, the remaining fifteen (15) bolts did not indicate flaws being present from ultrasonic evaluation.

The following testing activities were performed:

- BDI accessed all anchor bolts via internal structure stairways to minimize the need for fall protection or ropes access.
- BDI staff applied UT couplant to each bolt prior to testing to ensure full UT probe contact. Each bolt face was fully scanned and screenshots of each scan location were saved for reference.
- Following UT testing, each bolt was thoroughly cleaned and sprayed with cold-galvanizing compond to mitigate corrosion.
- Prior to application of cold-galvanizing spray, each bolt was hammer-sounded to determine if the bolts were fully intact or had faults.

BDI recommended that a monitoring system consisting of strain gauges on the northwestern tower, east leg anchor bolts to collect their responses as the bridge leaves were raised and lowered. Additionally, BDI recommended a similar monitoring system be installed on the northeastern tower to collect data that would be used as control data. By analyzing the data over time, the behavior and characteristics of the structure could be observed.

Key Members: *Steven Fall, Jr., PE, served as a project manager responsible for local crew coordination, scheduling, and completion of field work. Michael Sullivan supports project management responsibilities. Jesse Sipple, PhD, PE, Brice Carpenter, PE, and Charles Young, PE served as subject matter experts.*

Firm Name	**SJB Group, LLC**	Past Performance Evaluation Discipline(S)	Survey
Project Name	**Office of Louisiana Highway Construction Bridge Bundle 6**	Firm Responsibility (Prime/Sub)	Sub
Project Number	O.B.2025.03.047 and O.B.2025.03.048	Owner's Name	Office of Louisiana Highway Construction
Project Location	Vermillion Parish, LA	Owner's Project Manager	Archie Chaisson
Owner's Address | Phone No. | Email	1201 N. Third Street, Baton Rouge, La 70802 | (225) 342-7178 | archie.chaisson@la.gov		
Services Commenced By This Firm	9/2025	Total Consultant Contract Cost ($1,000's)$	$212
Services Completed By This Firm	1/2026	Cost Of Consultant Services Provided By This Firm ($1,000's)	$212

Scope of Work Relevant to the Contract

- **Topographic Survey**
- **Property Survey**
- **Hydrographic Survey**

SJB Group completed a comprehensive topographic, hydrographic/bathometric, and property survey for seven bridge sites in support of roadway and bridge design, hydraulic analysis, and right-of-way planning. Survey services were performed using methodologies and deliverable conventions consistent with state highway and bridge design workflows, ensuring compatibility with plan development, hydraulic evaluations, and right-of-way decision-making associated with major transportation infrastructure projects.

SJB Group managed all phases of survey execution, including coordination of multiple field crews, scheduling around traffic control and site access constraints, and establishment and verification of horizontal and vertical control. Control networks were processed and adjusted to provide accurate, consistent survey control suitable for bridge layout, approach roadway design, and future construction activities. Topographic and hydrographic/bathemetric surveying documented roadway geometry, existing bridge features, drainage infrastructure, utilities, channel alignment, streambed elevations, submerged features, and potential scour-critical conditions supporting hydraulic modeling and foundation evaluation.

SJB Group conducted detailed property research and boundary analysis, including calculation of property limits and identification of existing and proposed right-of-way corridors. Final deliverables included survey control diagrams, topographic and hydrographic base mapping, and complete property and right-of-way survey packages formatted for incorporation into bridge and roadway plan sets. Internal QA/QC reviews and coordination with Louisiana-licensed professionals ensured all submissions were accurate, consistent, and review-ready for agency-style evaluation.

Key Members: *C. Tim Brewer, PLS and Ralph Burgess, PLS;*

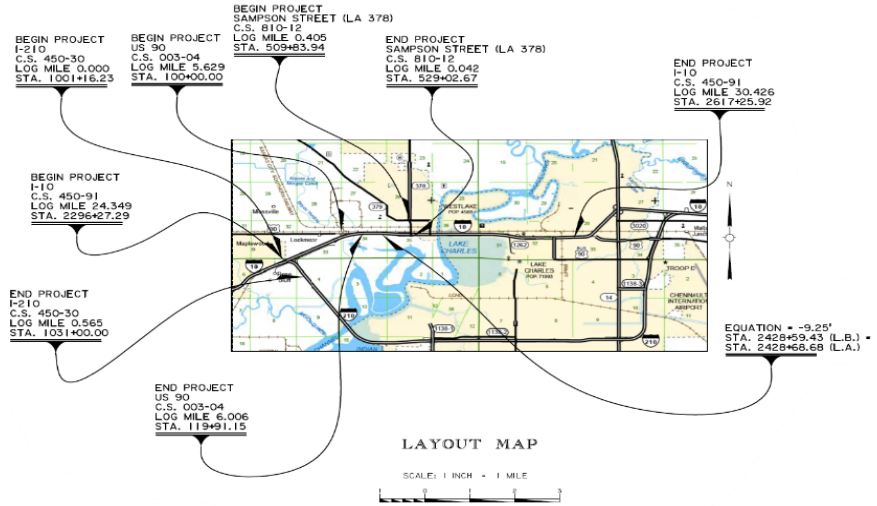
Firm Name	**SJB Group, LLC**		Discipline(S)	Survey	
Project Name	**I-10 Calcasieu River Bridge Public-Private Partnership Project**			Firm Responsibility (Prime/Sub)	Sub
Project Number	H.003931	Owner's Name	Louisiana Department of Transportation and Development		
Project Location	Calcasieu Parish		Owner's Project Manager	Paul Vaught, PE	
Owner's Address | Phone No. | Email	1201 Capitol Access Road, Baton Rouge, LA 70802 | 225-379-1816 | paul.vaughtiii@la.gov				
Services Commenced By This Firm	8/24		Total Consultant Contract Cost ($1,000's)	$130,000	
Services Completed By This Firm	8/31		Cost Of Consultant Services Provided By This Firm ($1,000's)	$3,000	

SJB Group is undertaking critical tasks for the I-10 Calcasieu River Bridge project, including Property Surveying, limited Topographic Surveying (to verify and supplement existing topographic surveys), and Utility Coordination throughout the project limits. This initiative is the largest in the history of the Louisiana Department of Transportation and Development (LADOTD) and one of North America's most substantial infrastructure projects commissioned in 2023. The existing bridge demolition and replacement will have a significant impact on existing properties and utility facilities within the limits of the project which is a heavily congested residential, commercial and industrial corridor.

Scope of Work Relevant to the Contract

- **Topographic Survey**
- **Property Survey**
- **Right-of-Way Mapping**

The Property Surveying work covers a 5.5-mile stretch of Interstate 10 within the design-build boundaries. This extensive task involves thorough title research to gather existing surveys and deeds, field surveying, and mapping for all parcels along the corridor. The range of properties includes small residential lots to large commercial and industrial tracts. Right of way acquisition will be necessary for segments of the project. All property surveys and Right-of-Way Mapping will adhere to the Standards of Practice for route surveys set forth by the Louisiana Professional Engineering and Land Surveying Board, as well as LADOTD's Location and Survey Manual requirements. The technical provisions of the project require the developer to verify and confirm the location, accuracy and datum of the survey control network provided by DOTD in the bid phase of the project. This was completed using a control network from the provided network to establish fixed horizontal coordinate results for each location of the provided control. There will also be additional topographic surveys necessary to supplement the topographic survey provided by DOTD.



The bridge relocation and the reconfiguration of interchanges will extensively impact utilities within the project limits. These utilities include both local, municipally owned infrastructure to large industrial pipelines. The coordination of these utilities' relocation is a complex, iterative process requiring collaboration with LADOTD, developers, property owners, and utility stakeholders to ensure the project adheres to budget and schedule constraints.

Key Members: *C. Tim Brewer, PLS and Ralph Burgess, PLS;*

Firm Name	**SJB Group, LLC**		Discipline(s)*	Survey	
Project Name	**LA 1 to LA 415 Connector to Interstate 10**		Firm Responsibility (Prime Or Sub)	Prime	
Project Number	H.005121	Owner's name	Louisiana Department of Transportation and Development		
Project Location	Port Allen, West Baton Rouge Parish, LA		Owner's Project Manager	Jonathan Herrod	
Owner's Address | Phone No. | Email	1202 Capital Access Road, Baton Rouge, LA | 225-379-1105 | Jonathan.Herrod@la.gov				
Services Commenced by This Firm (Mm/Yy)	10/23		Total Consultant Contract Cost ($1,000's)	$1,117	
Services Completed by This Firm (Mm/Yy)	Ongoing		Cost Of Consultant Services Provided By This Firm ($1,000's)	$242.9	

The project provides field data for the final design of a roadway to connect LA 1 to LA 415. The project is a supplement to previously performed surveying for the realignment of them due to recent development and construction. The project limits included a 2.9-mile corridor beginning approximately 0.2 miles north of the intersection of I-10 and LA 415 and continuing in a southeasterly direction along the extension of LA 415 across the intercoastal canal, industrial areas, and agriculture field to the intersection of LA. The project limits also include an approximate 1.8-mile corridor along LA 1 that extends from the roadway into residential, commercial, and retail areas.

The project includes the collection of current conditions of the areas included in the project limits and merging the current data with the previous survey and updating any observed condition changes. The project included the recovery and supplement of the existing control network. The collection of field data is completed through the utilization of conventional survey methods with survey total stations and global positioning systems (GPS). **Mobile LiDAR survey** methods utilized for the collection of data along the high traffic segments of LA 1, Interstate 10 ramps, and LA 415.

The data was processed through Trimble Business Center, with data extraction performed through TopoDot. The survey is being conducted according to the Louisiana Department of Transportation and Development Location and Survey Manual. The deliverables were provided in accordance with the LADOTD guidelines for electronic deliverables.

Scope of Work Relevant to the Contract

- **Topographic Survey**

Key Members: *C. Tim Brewer, PLS and Ralph Burgess, PLS;*

Firm name	**Providence Engineering and Environmental Group LLC**		Discipline(s)*	**Environmental**	
Project name	**Replacement of Eight (8) Bridges: H.011963 - LA 648: Drain Canal Bridge**		Firm responsibility (prime or sub?)	SUB	
Project number	State Project No. H.011963 F.A.P. No. H011963	Owner's name	Aucoin & Associates, Inc.		
Project location	Lafourche, Louisiana		Owner's Project Manager	David Hildago	
Owner's address, phone, email	710 W. Prien Lake Road, Lake Charles, LA 70601, (337) 457-7366, d.hidalgo@aucoinandassoc.com				
Services commenced by this firm (mm/yy)	07/23		Total consultant contract cost ($1,000's)	N/A	
Services completed by this firm (mm/yy)	09/23		Cost of consultant services provided by this firm ($1,000's)	$13	

The Louisiana Department of Transportation and Development requested a Wetland Findings Report for two existing bridges in Lafourche Parish as part of a larger off-system bridge replacement project. As a subconsultant to Aucoin & Associates, **Providence conducted a wetland delineation and provided a Wetland Findings Report** for the bridge replacement project.

Scope of Work Relevant to the Contract

- **Environmental Permitting**

Providence biologists documented existence of potential jurisdictional wetlands and non-wetland waters at the sites in accordance with the **1987 Corps of Engineers Wetland Manual** and guidance from the **Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region** (USACE, Wetland Regulatory Assistance Program 2010). After the wetland delineations, Providence prepared a Wetland Findings Report which included discussions of existing wetlands, vegetation communities, and soils based on published soil surveys and soil sampling.

The report indicated that evidence of all three diagnostic characteristics for jurisdictional wetlands was not found at any sample location, and the presence of two diagnostic characteristics was not sufficient to confirm the presence of potential jurisdictional wetlands. Data sheets, photographs, and wetland mapping were also included in the Wetland Findings Reports.

Providence also prepared and submitted a USACE/Louisiana Department of Energy and Natural Resources (LDENR) Joint Permit Application, as well as coordinated necessary Solicitation of Views (SOV) and clearance documentation for this project.

Providence staff completed a similar scope of work on other bridge replacements including bridges in Calcasieu (SPN 700-10-0164), St. Mary (SPN 700-51-0111), St. Helena (SPN P46-30419-90470-1), and Tangipahoa (H.014262, H.014263) Parishes.

As reflected in both the On- and Off-System Bridge Projects included, Providence possesses a strong understanding of desired deliverables, timelines, and tasks for projects of this structure, size, and desired outcomes.

Key Members: *Chad Turner, Christopher Coyne*

Firm name	**Providence Engineering and Environmental Group LLC**	Discipline(s)*	**Environmental**
Project name	**MRB South GBR: LA 1 to LA 30 Connector Route: New Route**	Firm responsibility (prime or sub?)	SUB
Project number	Supplemental Agreement #6, H.013284; F.A.P. No. H013284	Owner's name	Atlas Technical Consultants, LLC
Project location	Iberville Parish, LA	Owner's Project Manager	Kara Moree
Owner's address, phone, email	8440 Jefferson Highway, Suite 400, Baton Rouge, LA 70809, (225) 369-6587, adam.davis@oneatlas.com		
Services commenced by this firm (mm/yy)	01/23	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	06/25	Cost of consultant services provided by this firm ($1,000's)	$25

A supplemental agreement was issued by DOTD to Atlas to obtain environmental approvals based on the findings of the complete Enhanced Planning investigation for the proposed new Mississippi River bridge construction. Atlas contracted Providence to assist with this overall project management, environmental documentation support, and related environmental services.

Scope of Work Relevant to the Contract

- **Environmental Permitting**

Providence's specific scope of work including ensuring overall NEPA compliance, conducting wetland delineations, and conducting a Phase I Environmental Site Assessment. Providence will also continue to provide agency, stakeholder, and public outreach support during all pre-NEPA phases of the project. Providence anticipates providing more environmental services as the project progresses and potentially during construction.

The wetland delineation encompassed approximately 1,716 acres of forests, agricultural fields/pastures, residential properties, pipeline/utility rights-of-way, highway/railroad rights-of-way, industrial facilities, and Mississippi River levee and batture.

Multiple teams of Providence biologists conducted surveys from July to August 2024, collecting field data, habitat descriptions, and other pertinent information in accordance with the 1987 Corps of Engineers Wetland Manual and guidance from the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (USACE, Wetland Regulatory Assistance Program 2010).

The resulting Wetland Findings Report documented 364 acres of Section 404 wetlands and 26.78 acres of Section 10/404 wetlands, including bottomland hardwoods, baldcypress/water tupelo swamps, and baldcypress swamps.

Additionally, Providence conducted habitat evaluations according to the USACE Louisiana Rapid Assessment Method (LRAM) Habitat Condition factor. Each wetland was classified on the three condition levels by habitat (low, medium, and high) and documented in the Wetland Findings Report.

Key Members: *Chad Turner, Christopher Coyne, Kerry Oriol*

Firm name	**Urban Systems, Inc**	Past Performance Evaluation Discipline(s)*	**Traffic**
Project name	**Huey P. Long Bridge Widening (Westbank and East bank Approaches and Main Bridge Deck Widening)**	Firm responsibility (prime or sub?)	Sub
Project number	SP 005-10-0037/006-01- 0021/006/02/0064/006-25 0001/006-30-0041	Owner's name	LADOTD
Project location	Route US 90 Jefferson Parish, LA	Owner's Project Manager	Lee Horstmann
Owner's address, phone, email	1201 Capitol Access Road Baton Rouge, LA 70802, (504)302.2200, lee.horstmann@kiewit.com		
Services commenced by this firm (mm/yy)	02/11	Total consultant contract cost ($1,000's)	Unknown
Services completed by this firm (mm/yy)	04/13	Cost of consultant services provided by this firm ($1,000's)	$49.3K

Urban Systems, Inc. provided Traffic Engineering Services for the Huey P Long Project for the contractor starting about half-way into the construction project. This was a multi-phase project as construction conditions and required closures changed.

A few of the phases that were addressed were:

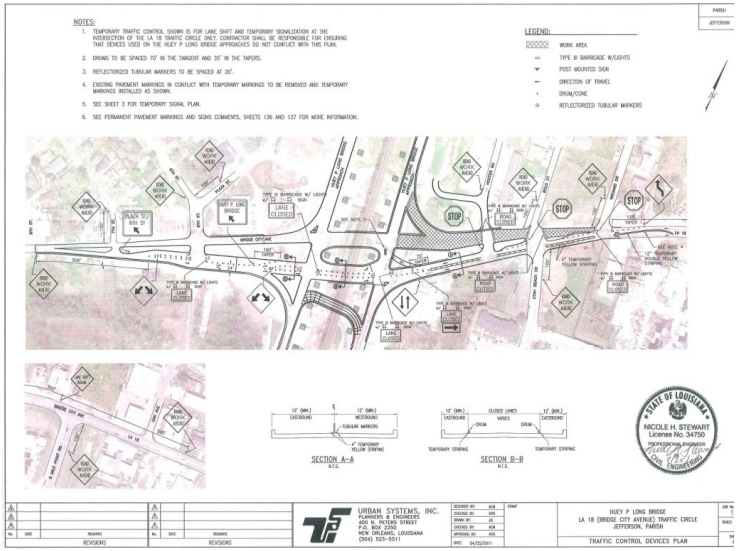
- **Jefferson Highway Detours**
- **Huey P. Long Bridge Southbound Approach Closure**
- **Huey P. Long Bridge – Rerouting Huey P. Long Northbound Approach**

Plans for these phases included the following:

Traffic Control Devices Plans for the redirection and protection of traffic in the active area of construction.

Traffic Signal Plans for the installation of temporary traffic signal heads. The temporary signals were utilized in conjunction with the permanent signal plan. The plans included the temporary striping and signage that were required in addition to the permanent installation.

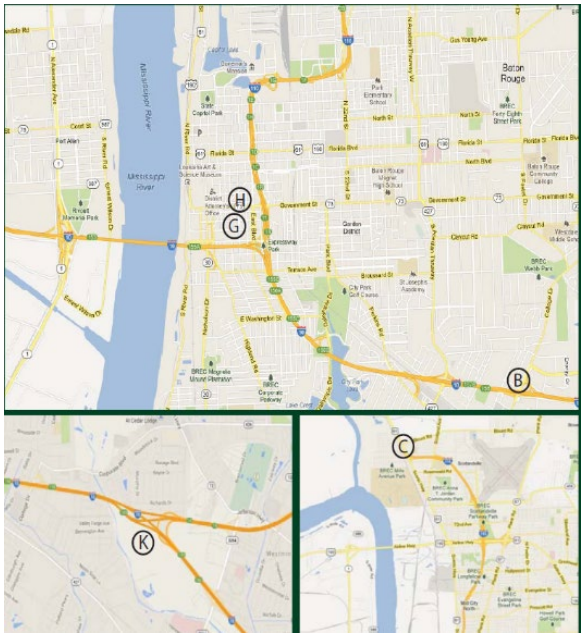
Permanent Pavement Markings and Signs Plans which were used to identify which signs should be covered and which striping should not be installed during each phase of construction.



Key Members: *Alison Catarella-Michel, PE, PTOE, PTP, RSP and N. Stewart, PE, PTOE*

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

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



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

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

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

A stakeholders meeting was held during the TMP process to obtain input and share information with:

- **LADOTD Headquarters**
- **LADOTD District 61**
- **LADOTD TMC**
- **East Baton Rouge Sheriff's Office**
- **Louisiana State Police**
- **Baton Rouge Police Department**
- **Prime and sub consultants**

Key Members: *Alison Michel, PE, PTOE, PTP, RSP; Nicole Stewart, PE, PTOE; and Matthew Morgan, PE, PTOE*

Firm name	**KTA-Tator, Inc.**		Discipline(s)*	**Bridge**	
Project name	**Krotz Springs Bridge**			Firm responsibility (prime or sub?)	Sub
Project number	4400025311 task order	Owner's name	LADOTD (Hardesty & Hanover, LLP – prime consultant)		
Project location	St. Landry Parish, LA		Owner's Project Manager	Babak "Bobby" Naghavi, PE, PH, PhD (H&H)	
Owner's address, phone, email	3850 N. Causeway Blvd., Suite 1625, Metairie, LA 70002, 504-605-7940, bnaghavi@hardestyhanover.com				
Services commenced by this firm (mm/yy)	09/23		Total consultant contract cost ($1,000's)	$5,000	
Services completed by this firm (mm/yy)	02/24		Cost of consultant services provided by this firm ($1,000's)	$12	

The Krotz Springs Bridge is owned and operated by LADOTD. The bridge was constructed in 1973 and consists of eastbound and westbound structures. Each bridge carries two lanes of vehicle traffic over the Atchafalaya River in Krotz Springs, Louisiana. The bridges consist of a 3-span truss main span that measures 780 ft.

The coating history indicates that the westbound bridge was last coated in December of 2017 and the eastbound bridge was last coated in May of 2016, both with a coating system consisting of a zinc epoxy primer, epoxy intermediate, and urethane finish.

In September 2023, as a subconsultant to Hardesty & Hanover, LLC, KTA performed a coating condition assessment on both structures. The purpose of this assessment was to determine the coating of the existing coatings on the structure in order to develop a maintenance painting strategy for the bridge.

A visual assessment of the coated surfaces was conducted to determine the type, extent, and location of coating breakdown and corrosion on the structure. Coating thickness, number of coats, and adhesion were determined using appropriate instrumentation.

Samples were removed for further laboratory examination to determine if toxic metal concentrations were present in the existing coatings and to generically identify the coating type. Photographs of typical coating conditions were taken.

The results of the field and laboratory testing, a discussion of those results, and photographs were included in a report prepared and submitted to H&H.

Scope of Work Relevant to the Contract

- **Coating Condition Assessment**

Photo Courtesy of KTA

Key Member: *Robert Lanterman*

Firm name	**KTA-Tator, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**Fabrication Inspection Services (Statewide Contract)**		Firm responsibility (prime or sub?)	Prime	
Project number	N/A	Owner's name	Connecticut DOT		
Project location	Connecticut		Owner's Project Manager	Jonathan Boardman, CTDOT Supervising Engineer	
Owner's address, phone, email	2800 Berlin Turnpike | Newington, CT 06111 T: 860-258-0327 | E: jonathan.boardman@ct.gov				
Services commenced by this firm (mm/yy)	04/23		Total consultant contract cost ($1,000's)	$5,000	
Services completed by this firm (mm/yy)	Ongoing		Cost of consultant services provided by this firm ($1,000's)	$5,000	

KTA was selected by Connecticut Department of Transportation (CTDOT) to provide qualified inspection and testing personnel to perform inspections, sampling, and testing of materials for structural steel fabrication, coatings processes and precast, prestressed, and post-tensioned concrete at approved fabrication shops throughout the United States. We have been selected by CTDOT for multiple consecutive Fabrication Inspection agreements.

Scope of Work Relevant to the Contract

- **CWI and NDT Inspection Services**

Our goal is to ensure conformance of the material to project specifications. Our inspectors verify that the fabricator is exercising adequate quality control during the entire fabrication/production process. As such, our inspectors visually inspect, witness, sample, and test material during all phases of manufacture/fabrication/production. This includes witnessing all nondestructive testing of welds and signing all reports of such testing. Ultrasonic inspection is witnessed, and the interpretation of the results verified by our personnel who are qualified Non-Destructive Testing (NDT) Level II in accordance with requirements of the American Society for Nondestructive Testing's Recommended Practice Number SNT-TC-1A and Supplement C, Ultrasonic Testing Method. These services are performed in accordance with applicable standards including, but not limited to, those described by the American Welding Society (AWS), Association for Materials Protection and Performance (AMPP), American Association of State Highway Transportation Officials (AASHTO), and the American Society of Testing Materials (ASTM). As directed by the Engineer, our inspectors document and report test results on forms provided by CTDOT.

Key Member: *Robert Lanterman*

Firm name	**KTA-Tator, Inc.**		Past Performance Evaluation Discipline(s)*	**Bridge**	
Project name	**Bayou Dulac Bridge MB Assessment**		Firm responsibility (prime or sub?)	Sub	
Project number	N/A	Owner's name	LADOTD (TRC Engineers – Prime Consultant)		
Project location	Dulac, LA		Owner's Project Manager	Michael Schrepfer, TRC Engineers	
Owner's address, phone, email	4545 Sherwood Common Blvd., Building 3A, Baton Rouge, LA 70816 (225) 236-8342				
Services commenced by this firm (mm/yy)	04/25		Total consultant contract cost ($1,000's)	Unknown	
Services completed by this firm (mm/yy)	11/25		Cost of consultant services provided by this firm ($1,000's)	$13	

The Dulac Bayou Bridge in Dulac, Louisiana carries LA0057 and two lanes of traffic plus two sidewalks for pedestrians over the Dulac Bayou. The total bridge length is 460 feet with a swing span length of 135 feet, including an open grid deck design. The bridge was constructed in 1971, and most of the structure reportedly still has the original coating system.

As a subconsultant to TRC Engineers, as part of the preliminary design services, KTA provided a coating condition assessment (visual, coating thickness, adhesion) sampling, laboratory testing (infrared spectroscopy and lead, cadmium, and chromium testing), chloride testing/remediation, provided maintenance painting recommendations for this project, and provided an opinion of probable construction costs.

Scope of Work Relevant to the Contract

- **Bridge Coating Condition Assessment**

Key Member: *Jayson Helsel, PE*

18. Approach and Methodology:

Firm Introduction: With over 139 years of experience, Hardesty & Hanover, LLC (H&H) is a trusted, full-service infrastructure engineering firm with proven ability to manage the entire project life cycle—from assessment through design and construction— as a reliable partner for the Louisiana Department of Transportation and Development (DOTD). Leveraging our extensive expertise from nationwide Indefinite Delivery/Indefinite Quantity (IDIQ) contracts, we have developed a strategic approach for DOTD's Bridge Maintenance Preservation IDIQ that aligns with the Bridge Maintenance Section's vision and priorities, focusing on:

Efficiently utilizing funds to preserve and extend the life of infrastructure assets.

Enhancing safety for the traveling public and DOTD maintenance personnel.

Identifying priority maintenance and preservation improvements for existing infrastructure.

Acting as an extension of the DOTD Bridge Maintenance Section to deliver responsive, high-quality solutions.

Employing advanced technology to position Louisiana as a national leader in bridge preservation and safety

Our approach builds on our proven experience with DOTD and other state DOT IDIQ contracts. Our flexible, integrated team of over 600 skilled professionals across 32 offices nationwide will ensure adherence to the DOTD Project Delivery, Maintenance, and Construction policies while maintaining strict internal QA/QC protocols. Our extensive network of local, regional, and national offices offers unmatched bridge preservation expertise, providing practical and cost-effective solutions.

Project Team: H&H will serve as the prime consultant on this IDIQ contract, providing overall project and financial management, QA/QC supervision, as well as highly qualified and well-resourced engineering teams capable of efficiently staffing and completing assigned Task Orders of any scale. As demonstrated in our organizational chart, we have the ability to manage multiple Task Orders concurrently.

The H&H team includes multiple subconsultant firms with diverse specialties. Each firm is brought on for their specific expertise and capacity to perform any number of concurrent tasks assigned under this contract expertly and on time, which includes **Bridge Diagnostics, Inc.** (NDT and bridge instrumentation), **SJB Group, L.L.C.** (land and hydrographic surveys), **Providence Engineering and Environmental Group LLC** (environmental engineering and permitting), **KTA-Tator, Inc.** (protective coating assessments), **Urban Systems, Inc**. (traffic investigation, analysis, and design), and **APS Engineering & Testing, LLC** (geotechnical investigations and testing).

Our established collaborative relationships with these team members, developed through previous successful DOTD and local agency projects, ensure smooth coordination and exceptional project outcomes.

Contract and Task Order Management: H&H recognizes that effective task order management is essential to the successful delivery of the Bridge Maintenance IDIQ contract and is committed to aligning its approach with DOTD's goals and objectives. The H&H Project Manager (PM) serves as the primary point of contact and will be responsible for overall contract administration and management of all Task Orders, including monthly progress reporting on budget and schedule. Drawing on extensive bridge project leadership experience and a proactive management approach, the PM will maintain regular communication with the DOTD PM to support seamless coordination and collaboration.

H&H Bridge Maintenance and Preservation Capabilities

- Inspections, Load Ratings, & Evaluations
- Steel Coating Assessments
- Forensic Analysis
- NDT/Proof Testing
- Infrared Deck Scans/Chloride Ion Testing
- Bridge Deck Hydro-Demolition
- Deck Resurfacing
- Steel Repairs
- Bearing Repair/Replacements
- Strain Gaging
- Fatigue Analysis/Evaluations
- Movable Bridge Repair & Rehabilitation
- Truss Repairs
- Heat Straightening
- Foundation Repair/Scour Mitigation & Analysis
- Timber Bridge Repairs
- Concrete FRP Repairs
- Epoxy Injection Repair
- Post-Tension Strengthening
- Historic Bridge Preservation

This contract involves providing bridge engineering services for various bridge maintenance needs. Bridge project types may include, but are not limited to, new bridges, bridge replacements, bridge rehabilitation, bridge repairs, and bridge preventive maintenance. H&H's bridge engineering services include, but are not limited to, structural, mechanical, electrical, and architectural feasibility, design, and plan development, including the following:

- Inspection and evaluation of existing fixed and movable bridges, or auxiliary structures (sign trusses, fender systems, etc.) and preparation of the report.
- Identification of deficiencies, prioritization of improvements, and preparation of planning-level cost estimates.
- Recommend preservation, rehabilitation, or replacement actions.
- Perform as-designed, as-built, and in-service bridge load ratings.
- Peer review of developed plans or conceptual designs to verify concept, constructability, and accuracy of designs, along with associated reports, conclusions, calculations, and recommendations as needed.
- Construction engineering support, including construction means and methods review, shop drawing review, request for information support, contractor proposals

- Sampling, instrumentation, and non-destructive testing.
- Geotechnical investigations, testing, and design.
- Road design and traffic analysis.
- Hydrographic and Land and Surveys including title work research.
- Environmental and permitting.

Once a Task Order has been initiated, our PM will prepare a Project Management Plan (PMP), including project schedule and Quality Management Plan addressing work through delivery for each task. The PMP will be based on the DOTD template and will be updated following a scope of work meeting with the DOTD and subconsultants prior to initiating the design phase.

H&H will implement a proven approach to address the multidisciplinary aspects and challenges of various bridge projects. Our PM will be supported by a highly qualified staff of engineers experienced in fixed and movable bridge inspection, rehabilitation, and design. Each Task Order (TO) will be assigned a Task Order Manager and a team of Discipline Leads that possess the relevant experience to fulfill the unique needs of the respective Task Order. Each team will be supported by Technical Advisors and a team of QA/QC Leads. This senior group will work with the PM to assign production and QC staff experienced with the specific bridge type and anticipated scope of work. Assigning dedicated project staff with the relevant expertise and experience to each bridge project is essential to ensuring each bridge receives the focus needed to achieve project success. Our staff experience is derived from delivering more than 30 new bridge projects and more than 100 rehabilitative bridge projects in the past 10 years. H&H also has the largest movable bridge staff in the U.S., including a full staff of structural, mechanical, and electrical engineers located in our New Orleans Office.

Structure Asset Management Plan Development: H&H will work with DOTD to collect all available information on the bridges. The information will be reviewed and summarized for inclusion in the assessments. Desktop surveys and/or coordination with agencies such as the USCG, USACE, utility owners, emergency services, and other identified stakeholders, will be performed to determine the site or operational constraints that may affect scope or cost. The Task Order Manager and Discipline Leads will prepare an NBIS in-depth inspection plan, if necessary, with a focus on safety and identification of conditions that may impact the scope of work. We will meet with DOTD staff to determine resiliency goals such as criteria for design events, flood elevations, and design vessels. This approach will enable effective and efficient evaluation while in the field. For movable bridges, we will coordinate with DOTD to obtain the operation and maintenance manuals from each bridge. This information will be used to assess current movable bridge equipment and to identify areas warranting focused inspection and verification in the field.

Condition Assessments: H&H qualified inspectors with FHWA training will perform the detailed in-depth inspections per NBIS, AASHTO, and BDEM requirements, as needed. Our team's experience and certifications in bridge inspections will be utilized to identify the root cause of deficiencies, which will supplement the development of an appropriate plan of action for the Asset Management Plan. Existing conditions often vary from as-built plans; detailed field reviews are a standard protocol for H&H. A review of the as-built plans will be performed with special attention to identifying fatigue-sensitive details and NSTMs. As needed, we will utilize 3D laser scanning to determine conditions and confirm fit-up of proposed modifications. The team will consist of certified Team Leader (TL) and Inspectors. The inspection team may be supplemented with additional TLs and/or Inspectors due to time constraints for inspection access or to expedite the inspection. Scheduling multiple teams within a lane closure will minimize the number of closures required for inspection and reduce the inconvenience to the traveling public. The QC Engineer will be on-site periodically to provide additional support to the team and answer questions about inspection procedures, documentation, and other coordination issues that may arise. H&H will review previous inspection reports to determine the appropriate inspection procedures, required equipment, areas of concern, and areas that may require special cleaning.

H&H performed NBIS inspections of Red River Bridge at Miller's Bluff

The H&H team will be available to meet on-site with District Bridge Maintenance personnel at the start and at the end of fieldwork. Our engineers will conduct interviews with maintenance personnel to gather operational history and identify recent bridge maintenance issues. These meetings will supplement the "snapshot" of conditions evident in an inspection and provide awareness of ongoing or intermittent bridge issues. Our engineers will inspect the bridge systems, paying extra attention to issues noted during the interviews and to typical failures that fall outside the applicable AASHTO, DOTD, and FHWA inspection and evaluation manuals. Follow-up meetings will be held to review critical issues, discuss root causes, and explore potential solutions to notable conditions. Inspections and documentation will comply with DOTD requirements. Inspection methods will include traditional hands-on inspections and/or drone inspections of structures. When applicable, SPRAT-certified inspectors will perform inspections with limited access. Key systems and bridge elements will be reviewed for vulnerabilities to hurricane/flood damage and vessel impact. Inspections will follow fall protection, confined space access, and other applicable safety precautions.

Machinery Systems Inspections (Movable Bridges): In addition to standard machinery inspection processes outlined in the AASHTO Manual, our movable bridge engineers will inspect the systems, bringing the knowledge of items that fall outside the standard manual. Our inspections will include assessing the vulnerability of movable bridges to flood damage with machinery located close to the flood elevation. Our inspectors are also designers allowing focus on improvements that can be made within existing spatial confines to improve durability, performance, and maintainability.

H&H performed NBIS inspections of Calcaseiu River Bridge at West Fork

Electrical Systems Inspections (Movable Bridges): The electrical inspections will consist of a visual, aural, and operational testing of the bridge electrical equipment outlined in the DOTD Bridge Inspection and AASHTO Manuals. Particular attention will be given to the condition of existing selsyn transmitters and receiver systems used for span position on the control desk, electrical equipment survivability in the event of hurricanes or flooding, motor loading and insulation condition, and control system interlocks.

Sampling, Instrumentation, and Non-Destructive Testing: Our subconsultant, **BDI**, will provide structural evaluation expertise to support DOTD's bridge preservation and rehabilitation objectives. **BDI** will apply advanced investigative methods, specialized instrumentation, rapid-response nondestructive testing equipment, and proprietary tools such as SounDAR for automated bridge deck sounding to efficiently identify defects and deliver reliable, data-driven information for project decision-making. Our subconsultant, **KTA-Tator, Inc.** will provide assessment and evaluation of protective coating material samples for the determination of compatibility with proposed coatings, analysis for heavy metals, proper procedures for treatment and handling, and disposal of waste.

Bridge Evaluation Report: Upon approval of items identified during the condition assessment, a bridge evaluation report will be prepared. The bridge evaluation report will summarize the results for the structure and submitted to DOTD for a final decision on the scope. The report will include the following information:

- A summary of all identified deficiencies, including all supporting documents, such as as-built plans, field inspection notes and photos
- A summary of bridge rating and design analysis results, if applicable
- Recommendations for either rehabilitation/repair or replacement with justifications
- Prioritization of improvements
- Detailed cost estimates for each possible alternative provided

Based on the above results, a baseline data set documenting current and potential future problems with the bridge will be developed. Assessment will include options to improve various aspects of the bridge, including structural capacity, preservation and maintenance items, roadway alignment, environmental, roadside safety, and vessel or vehicular impact vulnerability. When applicable, repairs will consider the cost of the repair/improvement or replacement, and value-added to include better access; improved reliability; easier maintenance; better survivability of systems during storm events; the safety of vehicular traffic, marine traffic, pedestrians and Department employees; permanence of repair; and marine/vehicular closure time during construction. From this exercise, we will develop a preliminary corrective action matrix for both short-term (10-15 years) and long-term (e.g., 30-40 years) repairs, including cost estimates and probable impacts on navigation and/or vehicular traffic. Proposed repair items will be categorized as high, medium or low priority. Repair and rehabilitation considerations include:

- Forensic analysis to identify root causes and address the source of failure rather than patching the defect.
- Multi-disciplined approach for the interface of structural, mechanical, electrical, and architectural work
- Owner preferences for systems and equipment
- Develop and implement strategies to strengthen bridges that require load posting

Upon completion of these tasks we will meet with DOTD to finalize the items required to be included in the scope of work for each deficiency, when rehabilitation or repair is recommended,

Structure Preservation Project Development: H&H will collaborate closely with the DOTD PM to establish the project timeline and incorporate the latest DOTD requirements for milestone submissions, encompassing Technical Specifications, Preliminary Plans, and Final Plans. This will include adherence to the latest approved Greenbook, DOTD Engineering Directives and Standards Manuals, Minimum Design Guidelines, Complete Streets Initiative, DOTD and AASHTO Bridge Design Specifications, BDTMs, Hydraulics Manual, and DOTD CAD standard submissions. Design and construction contract documents will adequately address constructability and phasing of the work. Design peer review of developed plans or conceptual designs will be conducted to verify concept, constructability, and accuracy of designs, along with associated reports, conclusions, calculations, and recommendations as needed.

The development of the project schedule and milestones will be tailored to each Task Order, necessitating a collaborative effort among the DOTD, the H&H PM, and the Task Disciplinary Leads.

Surveying Services: Our subconsultant **SJB Group, L.L.C.** will provide all surveying and title work services necessary to perform hydrographic, topographic, and boundary surveying, and provide other existing site data. SJB's specialty equipment can capture the structural and surrounding features necessary to support bridge inspection and maintenance planning. LiDAR data collection will be planned to document bridge

decks, girders, piers, abutments, bent caps, guardrails, bridge rails, expansion joints, bearing areas, drainage elements, approach pavement, and visible signs of deformation or distress where detectable by remote measurement methods. For hydrographic surveys, SJB utilizes advanced technologies including single-beam and multibeam echo sounders, side scan sonar, sub-bottom profilers, and integrated RTK GNSS/INS positioning systems to ensure high-accuracy data collection in dynamic environments.

Environmental & Permitting Services: Our subconsultant, **Providence Engineering and Environmental Group LLC,** will provide coordination with local, state, and federal agencies and prepare the permit packages required for project delivery. Their team has experience with USACE Section 10/404 permits, Louisiana Coastal Use Permits and Consistency Statements, LDWF Scenic Rivers and land-use authorizations, and related local approvals. As required, Providence will prepare Joint Permit Applications, Pre-Construction Notifications, and supporting documentation for Individual Permits, Water Quality Certification, and Section 408 review. Throughout the process, they will provide agency liaison support, respond to information requests, and work with DOTD to advance approvals efficiently.

Historic Bridge/Preservation: For bridges that are historic (Preservation Priority, Preservation Candidate, or Preservation Non-Priority) work will be performed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards), the Management Plan for Historic Bridges Statewide (Statewide Historic Bridge Plan), and the Programmatic Agreement among the Federal Highway Administration, DOTD, the Advisory Council on Historic Preservation, and the Louisiana State Historic Preservation Officer Regarding Management of Historic Bridges in Louisiana. H&H staff have completed the DOTD Maintenance and Rehabilitation of Historic Bridges training and hold current certification.

Geotechnical Engineering Services: Our subconsultant **APS Engineering & Testing, LLC** will provide all field exploration services necessary to perform geotechnical investigations, analysis, and design. H&H's in-house Geotechnical Design Group will provide supplemental geotechnical design support. Geotechnical services may include but are not limited to:

- Field investigations including both shallow and deep soil borings
- Laboratory testing and analysis
- Preparation of soil boring logs
- Geotechnical analysis/design based on data obtained
- Construction related engineering services

Geotechnical exploration and design will adhere to the DOTD Geotechnical Design Manual. At the beginning of any project requiring geotechnical design, we will submit a Geotechnical Design Criteria table stating the anticipated geotechnical design elements, proposed design methodology, and proposed design criteria. All subsurface investigations will be documented with a Geotechnical Data Report.

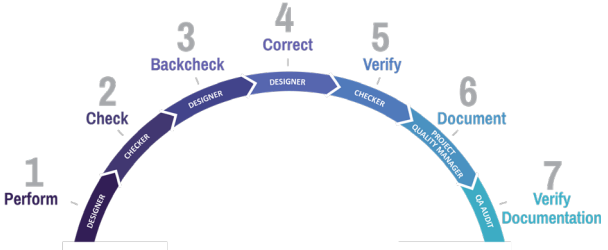
Road Design and Traffic Services: Our roadway design team will provide all services necessary to perform hydraulic and road design services with the assistance of our subconsultant **Urban Systems, Inc** for traffic management, analysis, and design. These services may include but are not limited to:

- Preliminary and final roadway design and plan development
- Hydraulic analysis and design
- Traffic engineering, traffic control design, and data collection
- Maintenance of traffic and staging
- Development of a Transportation Management Plan (TMP)

Construction Engineering Support Services: Our team will provide comprehensive construction engineering support throughout construction to help DOTD and the contractor efficiently address field conditions, maintain schedule, and deliver high-quality work. These services will include construction drawing and shop drawing review, responses to requests for information, evaluation of contractor means and methods proposals as they relate to structural integrity and constructability, review of working drawings and material submittals, support for staged construction and temporary works, and technical input on proposed field changes. As needed, we will coordinate closely with DOTD, the contractor, and relevant subconsultants to resolve issues quickly, clarify design intent, and support timely decision-making during construction. Our team will also provide engineering support for unforeseen conditions, assist with the review of substitutions or value engineering concepts, and help confirm that construction activities remain consistent with the design documents, applicable standards, and project objectives.

Quality Management: H&H is committed to delivering quality through a project-specific Quality Management Plan (QMP) for providing guidance to the project team. The objective of the QMP is to provide tools to the project team so that our professional services are performed and delivered in accordance with applicable industry standards of care and to the satisfaction of project scope requirements while remaining within the allocated schedule and budget. The QMP includes the H&H standard QA/QC Plans. Together these plans form our Quality Management System (QMS) which defines procedures to minimize errors, discrepancies, and omissions in our work products.

Our QMS is a living document that will be continually assessed and revised to reflect best practices and lessons learned. This process includes clarification of design information to support construction or production, correction and prevention of errors and omissions, and response to client feedback.



19. Workload:

Firm(s) **ALL FIRMS** MUST BE REPRESENTED IN THIS TABLE	Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
Hardesty & Hanover, LLC	Other (Tunnel Inspection)	4400028222; H.011006.5 Task 1	IDIQ Contract for Tunnel Inspection Services	$478,492
	Bridge	4400023511; H.009730.5 Task 1	Bridge Inspection of Complex Structures	$196,001
	Bridge	4400023511; H.009730.5 Task 2	Bridge Inspection of Complex Structures LADOTD Movable Bridge Inspection Manual	$461,104
	Bridge	4400023511; H.009730.5 Task 3	Bridge Inspection of Complex Structures US 190 bridge Inspection; Krotz Springs	$149,467
	Bridge	4400023511; H.009730.5 Task 5	Bridge Inspection of Complex Structures SNBI Data Collection	$1,930,810
	CE&I/OV	4400017430; H.001498.6	LA 24 and LA 316: Company Canal Bridge, Terrebonne Parish	$130,541
	Bridge	4400023909; H.002244.5 Task 2	IDIQ Contract for Movable Bridge Preservation Boudreaux Canal (Mechanical)	$72,482
	Bridge	4400023909; H.015963.5 Task 4	IDIQ Contract for Movable Bridge Preservation Boudreaux Canal (Structural)	$5,841
	Bridge	4400023909; H.015963.6 Task 5	IDIQ Contract for Movable Bridge Preservation Red River MB Ped Gates (Jackson St)	$63,274
	Bridge	4400023909; H.002798.6 Task 6	IDIQ Contract for Movable Bridge Preservation Bayou Teche Bridge (Oaklawn) Arc-Flash	$21,392
	CE&I/OV	4400024021; H.015028.6	LA 302: Bayou Barataria MB Replacement Route: LA 302	$3,779,796
	CE&I/OV	4400024022; H.002264.6	LA 302: Bayou Barataria MB Replacement Route: LA 302, LA 47, and LA 3257	$850,656
	Bridge	4400021516; H.011962; H.012063; H.013818; H.011986; H.012734	Contract 4 for Movable Bridges (5) – Original contract plus Supplemental Agreement (SA) No 1	$1,641,290
	Bridge	4400021516; H.013818	Contract 4 for Movable Bridges (5) – SA No. 2	$1,883,740
	Bridge	4400026585; H.006226.5	Point-a-la-Hatche Ferry Landing Replacement	$2,062,045
	CE&I/OV	4400031700; H.016464	LA 23 Russell Dr to Hwy 11	$815,655
APS Engineering & Testing, LLC	Geotech	4400024653/ H.004005.5	I-10 LA415 to Essen Lane on I-10 and I-12	$5,500
	CE&I/OV	4400014913/ H.010155.6	US 90 RR Overpass SE of LA 85	$233,076
	CE&I/OV	4400032793/ H.014239.6	LA-589 Alligator Bayou Bridge	$36,710
	CE&I/OV	4400024653/ H.014560.6	LA-94 Vermillion River Bridge	$14,987

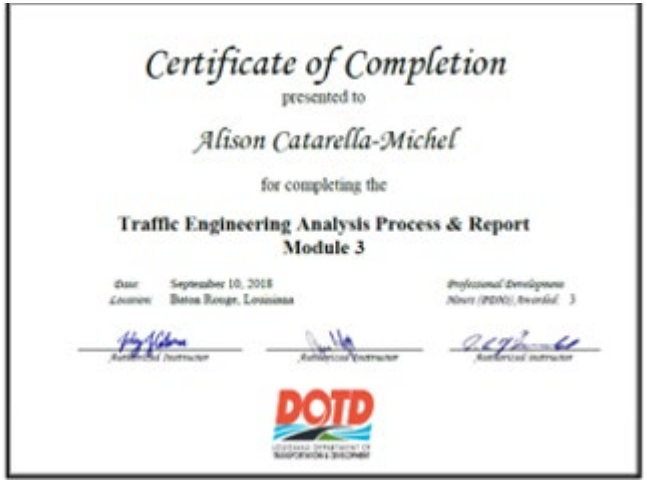
Bridge Diagnostics, Inc.	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO5	$294,799
	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO7	$5,035
	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO9	$115,918
	Bridge	4400025002 H.009730.5	IDIQ Contract for Non-Destructive Testing/Evaluation of Structures Statewide TO10	$408,471
	Bridge	44-24187 H.004647.6	I-20 Miss. R. Bridge Geotechnical & Stru IDIQ Contract for Bridge Preservation Statewide TO 15	$145,113
	Bridge	4400023812	Mast Plan Development for the Weigh Station Assessment, Rehabilitation, and Plan Development Statewide TO3	$27,081
SJB Group, LLC	Survey	Contract No. 4400017033 / S.P. No. H.005121.5 / F.A.P. No. H005121	LA 415 Connector - I10 to La 1	$15,186
	Other (SUE)	Contract No. 4400017033 / S.P. No. H.005121.5 / F.A.P. No. H005121	SUE - LA 415 Connector - I10 to La 1	$540,551
	Other (SUE)	Contract No. 4400027349 S.P. No. H.003931.6	I-10 Calcasieu Project P3	$7,144,086
	Other (DBE Supportive Services)	Contract N.: 44-26952 S.P. No. N/A	LADOTD DBE Support Services	$40,432
	Survey	Contract No. 44-28371 S.P. No. H.004100.5	I-10: LA 415 TO ESSEN	$3,392
	CPM	Contract No. 44-30226 S.P. H.014258.6	RCL - LA 1: Port Allen Canal Bridge Replacement (Phase 2) (HBI)(CE&I)	$82,832
	CPM	Contract No. 44-31862 S.P. Multiple	Contract For Consulting Services Critical Path Method (CPM) Analysis	$316,272
	Survey	Contract No. 44-23943 S.P. H.014886.5	US 90: LAFITTE AVE TO FRANCE RD	$114,481
	Survey	S.P. H015932	LA 182: City of Franklin	$106,736

Providence Engineering and Environmental Group LLC	CE&I/OV	Contract No. 4400015191; H.004634	IDIQ Contract for Construction Engineering TASK 1 Management and Staff Augmentation Services for District 62, St. Helena, Livingston, St. John, St. Tammany, Tangipahoa and Washington Parishes	$588,823
	Environmental	Contract No. 4400017438; H.013284	Supplemental Agreement No. 6 MRB South GBR: LA 1 to LA 30 Connector Route: New Route Ascension, East Baton Rouge, Iberville, and West Baton Rouge Parishes	$133,779
	Environmental	Contract No. N/A; H. 004791	Belle Chasse Bridge and Tunnel Replacement Public-Private Partnership Project	$172,747
	CE&I/OV	Contract No. 4400031953 SPN H.012587.6 F.A.P. NO. H012587	I-10: W End of BR 290 - W End of LA 415 (CE&I) Route: I-10	$1,203,506
	Environmental	Contract No. 4400032049 SPN H.003931.6	Calcasieu River Bridge (HBI)	$16,464
	CE&I/OV	Entity Contract No. 4400030129 SPN H.015126.6 F.A.P. NO. H015126	Baker Boulevard Improvements (LA 19 to McHugh Road) – Construction Engineering and Inspection (CE&I)	$19,730
Urban Systems, Inc	Traffic	No. H011221.5, H.011222.5; No.4400022581	I-10: N.O. CBD3 (Poydras- Louisa) & I-10:N.O CBD4 (Louisa – I-510)	$30,724
	Traffic	No.4400024185, No.H.016046.5	US 190: Atchafalaya River @ Krotz Springs Repairs	$7,616
	Traffic	No.4400026585, No. H.006226.5	Pointe-a-La-Hache Ferry Landing Replacement	$5,000
KTA-Tator, Inc.	Bridge	Contract No. 4400021514, State Project Nos. H.012003, H.011995, H.010007, H.012568, and H.012000	Contract 2 for Moveable Bridges (5) (5 field work completed)	$27,747
	Bridge	Contract 4400021516	Contract for 5 (revised to 4) moveable bridges (two completed)	$58,170
	Bridge	Contract 4400021515	Contract for 5 moveable bridges (5 field work completed)	$42,236
	Bridge	Contract 4400029683	Contract for St Francisville Bridge (field work completed)	$9,481

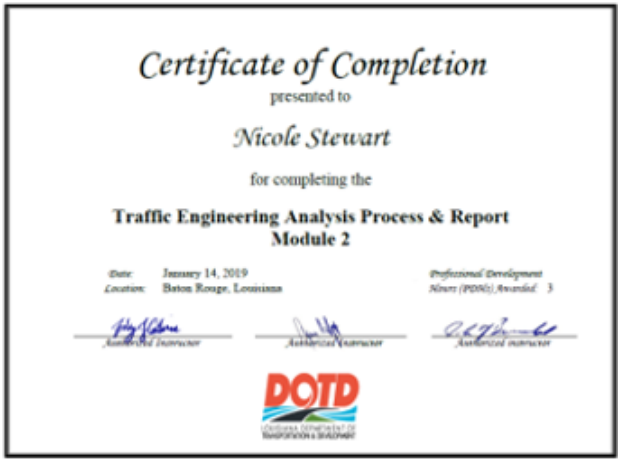
20. Certifications/Licenses:


Certificate of Completion
presented to
Alison Catarella-Michel
for completing the
Traffic Engineering Analysis Process & Report
Module 1
Date: June 4, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 4
Authorized Instructor
Authorized Instructor
Authorized Instructor
DOTD

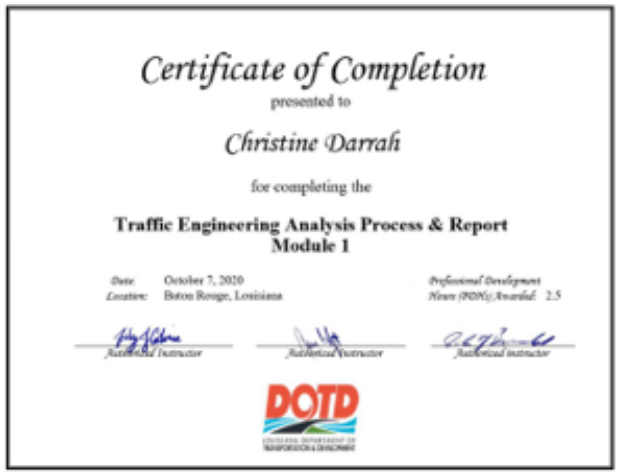

Certificate of Completion
presented to
Alison Catarella-Michel
for completing the
Traffic Engineering Analysis Process & Report
Module 2
Date: June 11, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 4
Authorized Instructor
Authorized Instructor
Authorized Instructor
DOTD


Certificate of Completion
presented to
Alison Catarella-Michel
for completing the
Traffic Engineering Analysis Process & Report
Module 3
Date: September 10, 2018
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 3
Authorized Instructor
Authorized Instructor
Authorized Instructor
DOTD


Certificate of Completion
presented to
Nicole Stewart
for completing the
Traffic Engineering Analysis Process & Report
Module 1
Date: January 14, 2019
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 2
Authorized Instructor
Authorized Instructor
Authorized Instructor
DOTD


Certificate of Completion
presented to
Nicole Stewart
for completing the
Traffic Engineering Analysis Process & Report
Module 2
Date: January 14, 2019
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 3
Authorized Instructor
Authorized Instructor
Authorized Instructor
DOTD


Certificate of Completion
presented to
Nicole Stewart
for completing the
Traffic Engineering Analysis Process & Report
Module 3
Date: January 15, 2019
Location: Baton Rouge, Louisiana
Professional Development Hours (PDH) Awarded: 3
Authorized Instructor
Authorized Instructor
Authorized Instructor
DOTD



Certificate of Completion

presented to

Christine Darrah

for completing the

Traffic Engineering Analysis Process & Report
Module 1

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

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

Certificate of Completion

presented to

Christine Darrah

for completing the

Traffic Engineering Analysis Process & Report
Module 2

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

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

Certificate of Completion

presented to

Christine Darrah

for completing the

Traffic Engineering Analysis Process & Report
Module 3

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

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD

ATSSA
Safer Roads Save Lives

Nicole Stewart

has attended
Louisiana Traffic Control Supervisor

Completed: 26-FEB-2025

CEU (If Applicable): 1.5

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

Christine Darrah

has attended
National Flagger Certification Training Course

Completed: 01-JUL-2024

CEU (If Applicable): 0

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

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

This is to affirm that
Christine Darrah
has satisfied the requirements
to be designated as a
Traffic Control Supervisor

Cert. #: 873755
Issue Date: 2/11/2025
Expiration Date: 2/10/2029

Certification Board

Secretary of State

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
HARDESTY & HANOVER, LLC	Limited Liability Company (Non-Louisiana)	WILMINGTON	Active

Previous Names

Business: HARDESTY & HANOVER, LLC
Charter Number: 40880812Q
Registration Date: 7/6/2012
Domicile Address
2711 CENTERVILLE ROAD, SUITE 400
WILMINGTON, DE 19808
Mailing Address
1501 BROADWAY, 6TH FLOOR
NEW YORK, NY 10036
Principal Business Office
1501 BROADWAY, 6TH FLOOR
NEW YORK, NY 10036
Registered Office in Louisiana
3850 N. CAUSEWAY BOULEVARD, SUITE 1625
METAIRIE, LA 70002
Principal Business Establishment in Louisiana
3850 N. CAUSEWAY BOULEVARD, SUITE 1625
METAIRIE, LA 70002

Status

Status: Active
Annual Report Status: In Good Standing
Qualified: 7/6/2012
Last Report Filed: 6/10/2025
Type: Limited Liability Company (Non-Louisiana)

Registered Agent(s)

Agent: BABAK NAGHAVI
Address 1: 3850 N. CAUSEWAY BOULEVARD, SUITE 1625
City, State, Zip: METAIRIE, LA 70002
Appointment Date: 6/1/2017

Officer(s)

Additional Officers: No

Officer: SEAN BLUNI
Title: Member
Address 1: 1501 BROADWAY, 6TH FLOOR
Address 2: HARDESTY & HANOVER, LLC
City, State, Zip: NEW YORK, NY 10036

Officer: PAUL SKELTON
Title: Member
Address 1: 1501 BROADWAY, 6TH FLOOR
Address 2: HARDESTY & HANOVER, LLC
City, State, Zip: NEW YORK, NY 10036

Officer: KEITH GRIESING
Title: Member
Address 1: 1501 BROADWAY, 6TH FLOOR
Address 2: HARDESTY & HANOVER, LLC
City, State, Zip: NEW YORK, NY 10036

Officer: GLEN SCHETELICH
Title: Member
Address 1: 5 MARINE VIEW PLAZA, SUITE 503
Address 2: HARDESTY & HANOVER, LLC
City, State, Zip: HOBOKEN, NJ 07030

Officer: DAVID TUCKMAN
Title: Member
Address 1: 1501 BROADWAY, 6TH FLOOR
Address 2: HARDESTY & HANOVER
City, State, Zip: NEW YORK, NY 10036

Officer: ROBERT DREW
Title: Member
Address 1: 1501 BROADWAY, 6TH FLOOR
Address 2: HARDESTY & HANOVER, LLC
City, State, Zip: NEW YORK, NY 10036

Officer: SCOTT REYNOLDS
Title: Member
Address 1: 180 ADMIRAL COCHRANE DRIVE, SUITE 555
Address 2: HARDESTY & HANOVER, LLC
City, State, Zip: ANNAPOLIS, MD 21401

Amendments on File (1)

Description	Date
Foreign LLC Statement of Change	6/1/2017

Print

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
APS ENGINEERING AND TESTING, LLC	Limited Liability Company	BATON ROUGE	Active

Previous Names

Business: APS ENGINEERING AND TESTING, LLC
Charter Number: 40911984K
Registration Date: 8/9/2012
Domicile Address
1645 NICHOLSON DR
BATON ROUGE, LA 70802
Mailing Address
5261 HIGHLAND RD. #320
BATON ROUGE, LA 70808

Status

Status: Active
Annual Report Status: In Good Standing
File Date: 8/9/2012
Last Report Filed: 7/15/2025
Type: Limited Liability Company

Registered Agent(s)

Agent: SERGIO AVILES
Address 1: 5261 HIGHLAND RD. #320
City, State, Zip: BATON ROUGE, LA 70808
Appointment Date: 6/25/2018

Officer(s)

Additional Officers: No

Officer: SERGIO AVILES
Title: Member
Address 1: 5261 HIGHLAND RD. #320
City, State, Zip: BATON ROUGE, LA 70808

Mergers (1)

Filed Date	Effective Date:	Type	Charter#	Chater Name	Role
3/25/2022	**3/25/2022**	**MERGE**	**40911984K**	**APS ENGINEERING AND TESTING, LLC**	**SURVIVOR**
			37100062K	APS DESIGN AND TESTING, L.L.C.	NON-SURVIVOR

Amendments on File (3)

Description	Date
Domestic LLC Agent/Domicile Change	11/15/2017
Domestic LLC Agent/Domicile Change	6/25/2018
Merger	3/25/2022

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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
BRIDGE DIAGNOSTICS, INC.	Business Corporation (Non-Louisiana)	LOUISVILLE	Active

Previous Names

Business: BRIDGE DIAGNOSTICS, INC.
Charter Number: 40760203F
Registration Date: 2/27/2012
Domicile Address
740 S PIERCE AVE
UNIT 15
LOUISVILLE, CO 80027
Mailing Address
4300 S I-10 SERVICE RD W
SUITE 210
METAIRIE, LA 70001
Principal Business Office
740 S PIERCE AVE
UNIT 15
LOUISVILLE, CO 80027
Registered Office in Louisiana
8550 UNITED PLAZA BUILDING II, STE. 305
BATON ROUGE, LA 70809
Principal Business Establishment in Louisiana
4300 S I-10 SERVICE RD W
SUITE 210
METAIRIE, LA 70001

Status

Status: Active
Annual Report Status: In Good Standing
Qualified: 2/27/2012
Last Report Filed: 2/16/2026
Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

Agent: CAPITOL CORPORATE SERVICES, INC.
Address 1: 8550 UNITED PLAZA BUILDING II, STE. 305
City, State, Zip: BATON ROUGE, LA 70809
Appointment Date: 7/18/2016

Officer(s)

Additional Officers: No

Officer: DARWIN NELSON
Title: President
Address 1: 740 PIERCE STREET
City, State, Zip: LOUISVILLE, CO 80026

Amendments on File (2)

Description	Date
Stmt of Chg or Chg Prin Bus Off	12/28/2015
Stmt of Chg or Chg Prin Bus Off	7/18/2016

Print

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
SJB GROUP, L.L.C.	Limited Liability Company	BATON ROUGE	Active

Previous Names

Business: SJB GROUP, L.L.C.
Charter Number: 36063779K
Registration Date: 12/2/2005
Domicile Address
5344 BRITTANY DRIVE
BATON ROUGE, LA 70808
Mailing Address
C/O MATTHEW ESTOPINAL
5344 BRITTANY DRIVE
BATON ROUGE, LA 70808

Status

Status: Active
Annual Report Status: In Good Standing
File Date: 12/2/2005
Last Report Filed: 11/3/2025
Type: Limited Liability Company

Registered Agent(s)

Agent: MATTHEW ESTOPINAL
Address 1: 5344 BRITTANY DRIVE
City, State, Zip: BATON ROUGE, LA 70808
Appointment Date: 4/17/2023

Officer(s)

Additional Officers: No

Officer: MATTHEW ESTOPINAL
Title: Manager, Member
Address 1: 5344 BRITTANY DRIVE
City, State, Zip: BATON ROUGE, LA 70808

Mergers (1)

Filed Date	Effective Date:	Type	Charter#	Chater Name	Role
12/2/2005	**12/2/2005**	**MERGE**	**36063779K**	**SJB GROUP, L.L.C.**	**SURVIVOR**
			22203280D	SJB GROUP, INCORPORATED	NON-SURVIVOR

Amendments on File (9)

Description	Date
Merger	12/2/2005
Disclosure of Ownership	10/6/2006
Appointing, Change, or Resign of Officer	4/5/2011
Appointing, Change, or Resign of Officer	10/11/2016
Domestic LLC Agent/Domicile Change	5/5/2017
Appointing, Change, or Resign of Officer	3/8/2023
Domestic LLC Agent/Domicile Change	4/17/2023
Appointing, Change, or Resign of Officer	4/17/2023
Domestic LLC Agent/Domicile Change	8/15/2024

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State of Louisiana
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COMMERCIAL DIVISION
225.925.4704

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

Name	Type	City	Status
PROVIDENCE ENGINEERING AND ENVIRONMENTAL GROUP LLC	Limited Liability Company	BATON ROUGE	Active

Previous Names

Business: PROVIDENCE ENGINEERING AND ENVIRONMENTAL GROUP LLC
Charter Number: 34914727K
Registration Date: 3/23/2000
Domicile Address
1201 MAIN STREET
BATON ROUGE, LA 70802
Mailing Address
1201 MAIN STREET
BATON ROUGE, LA 70802

Status

Status: Active
Annual Report Status: In Good Standing
File Date: 3/23/2000
Last Report Filed: 2/23/2026
Type: Limited Liability Company

Registered Agent(s)

Agent: GEORGENE MUNOZ
Address 1: 1201 MAIN STREET
City, State, Zip: BATON ROUGE, LA 70802
Appointment Date: 3/20/2023

Officer(s)

Additional Officers: No

Officer: AIMEE KILLEEN
Title: Manager
Address 1: 1201 MAIN STREET
City, State, Zip: BATON ROUGE, LA 70802

Officer: WAYNE SMITH
Title: Manager
Address 1: 1201 MAIN ST.
City, State, Zip: BATON ROUGE, LA 70802

Officer: GEORGENE MUNOZ
Title: Manager
Address 1: 1201 MAIN STREET
City, State, Zip: BATON ROUGE, LA 70802

Mergers (2)

Filed Date	Effective Date:	Type	Charter#	Chater Name	Role
12/29/2014	**12/31/2014**	**MERGE**	**34914727K**	**PROVIDENCE ENGINEERING AND ENVIRONMENTAL GROUP LLC**	**SURVIVOR**
			41295216K	PROVIDENCE/ORIS, LLC	NON-SURVIVOR
9/30/2020	**9/30/2020**	**MERGE**	**34914727K**	**PROVIDENCE ENGINEERING AND ENVIRONMENTAL GROUP LLC**	**SURVIVOR**
			36933072K	PROVIDENCE HOLDING GROUP, LLC	NON-SURVIVOR
			37124715K	PROVIDENCE ENGINEERING AND DESIGN, LLC	NON-SURVIVOR

Amendments on File (14)

Description	Date
Appointing, Change, or Resign of Officer	7/9/2008
Appointing, Change, or Resign of Officer	11/16/2009
Domestic LLC Agent/Domicile Change	1/11/2013
Appointing, Change, or Resign of Officer	4/14/2014
Merger	12/29/2014
Appointing, Change, or Resign of Officer	12/29/2014
Appointing, Change, or Resign of Officer	3/7/2016
Appointing, Change, or Resign of Officer	10/31/2018
Appointing, Change, or Resign of Officer	8/7/2019
Domestic LLC Agent/Domicile Change	10/23/2019
Domestic LLC Agent/Domicile Change	11/19/2019
Merger	9/30/2020
Appointing, Change, or Resign of Officer	4/29/2021
Appointing, Change, or Resign of Officer	5/20/2025

Print

Nancy Landry
Secretary of State

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)

Trade Name Details

Type(s) Registered: TRADE NAME
Registered Name: URBAN SYSTEMS, INC
Applicant: URBAN SYSTEMS ASSOCIATES, INC.
2000 TULANE AVENUE, SUITE 200
NEW ORLEANS, LA 70112
Type Of Business: ENGINEERING FIRM
Book #: 65-5513
Current Status: ACTIVE

Dates

Registration Date: 11/13/2014
Expiration Date: 11/13/2034
Date First Used: 11/13/2014
Date First Used (in La.): 11/13/2014

Current Classes

No Current Classes

Expired Classes

No Expired Classes

Amendments On File

Group	Type	Date
TSRNW		9/9/2024

Print

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
KTA-TATOR, INC.	Business Corporation (Non-Louisiana)	PITTSBURGH	Active

Previous Names

Business: KTA-TATOR, INC.
Charter Number: 34632147F
Registration Date: 4/29/1998
Domicile Address
145 ENTERPRISE DRIVE
PITTSBURGH, PA 152751214
Mailing Address
145 ENTERPRISE DRIVE
PITTSBURGH, PA 152751214
Principal Business Office
145 ENTERPRISE DRIVE
PITTSBURGH, PA 152751214
Registered Office in Louisiana
450 LAUREL STREET, 8TH FLOOR
BATON ROUGE, LA 70801
Principal Business Establishment in Louisiana
450 LAUREL STREET, 8TH FLOOR
BATON ROUGE, LA 70801

Status

Status: Active
Annual Report Status: In Good Standing
Qualified: 4/29/1998
Last Report Filed: 4/13/2026
Type: Business Corporation (Non-Louisiana)

Registered Agent(s)

Agent: CORPORATION SERVICE COMPANY
Address 1: 450 LAUREL STREET, 8TH FLOOR
City, State, Zip: BATON ROUGE, LA 70801
Appointment Date: 9/9/2014

Officer(s)

Additional Officers: No

Officer: KENNETH B. TATOR
Title: Director
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: KENNETH A. TRIMBER
Title: Director
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: LEW KACHULIS
Title: Director
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: WENDY DAMERON
Title: Officer
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: JOSEPH DUCKETT
Title: Director
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: MATTHEW SANFILIPPO
Title: Director
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: ROBERT POWELL
Title: Director
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: J. PETER AULT, PE
Title: President, Secretary
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Officer: DAVID MCRAYDEN, CEO
Title: Treasurer
Address 1: 145 ENTERPRISE DRIVE
City, State, Zip: PITTSBURGH, PA 152751214

Amendments on File (7)

Description	Date
Disclosure of Ownership	5/4/1998
Stmt of Chg or Chg Prin Bus Off	12/5/2007
Stmt of Chg or Chg Prin Bus Off	1/25/2008
Stmt of Chg or Chg Prin Bus Off	9/9/2014
Stmt of Chg or Chg Prin Bus Off	12/28/2015
Stmt of Chg or Chg Prin Bus Off	2/9/2021
Stmt of Chg or Chg Prin Bus Off	9/1/2023

Print

21. QA/QC Plan:

Our QA/QC Plan will be submitted within 10 days of contract award.

22. Sub-consultant information:

Firm Name (Name must match exactly as registered with Louisiana's Secretary of State (SOS): including punctuation, include screenshot(s) from SOS at the end of Section 20)	Address	Point of Contact and email address	Phone Number
APS Engineering and Testing, LLC	1645 Nicholson Drive Baton Rouge, LA 70802	Sergio Aviles, P.E. sergio@aps-testing.com	225-281-1917
Bridge Diagnostics, Inc.	4300 S I-10 Service Rd W, Suite 210 Metairie, LA 70001	Steven Fall, PE stevenf@bditest.com	504-874-1042
SJB Group, L.L.C.	5344 Brittany Dr Baton Rouge, LA 70808	Matthew Estopinal Matt.Estopinal@sjbgroup.com	225-769-3400
Providence Engineering and Environmental Group LLC	1201 Main Street Baton Rouge, LA 70802	Chad Turner chadturner@providenceeng.com	225-766-7400
Urban Systems, Inc	2000 Tulane Ave. Suite 200 New Orleans, LA 70112	Alison Catarella-Michel acmichel@urbansystems.com	504-569-3958
KTA-Tator, Inc.	145 Enterprise Drive Pittsburgh, PA 15275	Robert S. Lanterman rlanterman@kta.com	412-303-9407

23. Location:

Not Applicable

3850 N. Causeway Blvd, Suite 1625
Metairie, LA 70002
T: 504.962.9212
la@hardestyhanover.com