Hardesty & Hanover

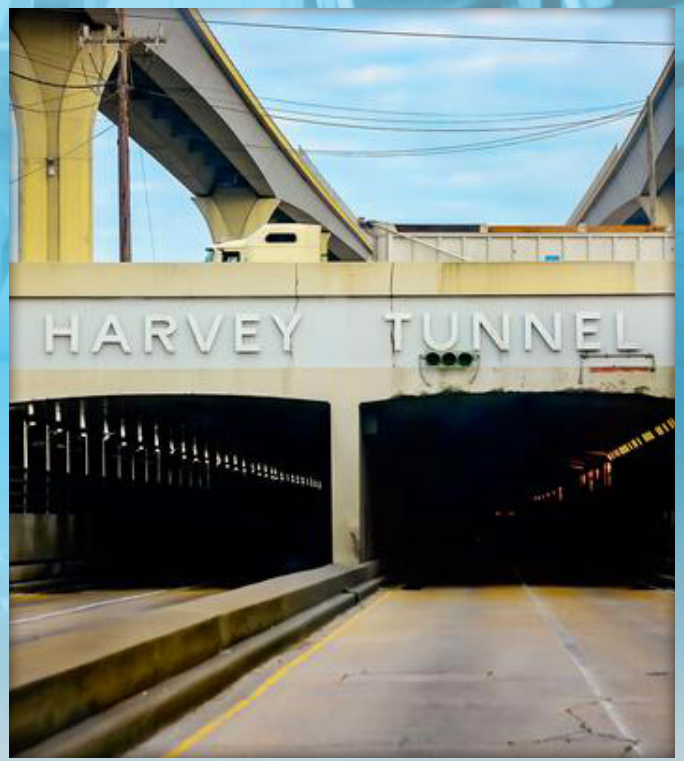
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Engineering and Related Services

Contract for US 90Z: Harvey Canal Tunnel Rehabilitation (CE&I)

Contract No. 4400024438 | State Project No. H.010673 | F.A.P. No. H010673

Jefferson Parish, Louisiana



SUBMITTED BY:

Hardesty & Hanover, LLC

OCTOBER 25th, 2022

Hardesty & Hanover

3850 N. Causeway Blvd, Suite 1850 Metairie, LA 70002
T: 504.962.9212
www.hardestyhanover.com

Louisiana Department of Transportation and Development
Consultant Contracts Services
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802

October 25, 2022

RE: Contract No. 4400024438 US 90Z: HARVEY CANAL TUNNEL REHABILITATION (CE&I)

Dear Selection Committee Members:

Hardesty & Hanover (H&H) is pleased to submit our qualifications to DOTD to provide CE&I services for the Rehabilitation of Harvey Canal Tunnel US 90Z. 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, and our continued partnership on a variety of challenging projects. As leader in bridge engineering, our firm brings a legacy of providing engineering excellence for over 135 years. Ranked as one of ENR's Top 10 Bridge Firms in the country, H&H has the full capability, available capacity, and extensive bridge engineering experience to perform all contract services required. We have identified a large pool of qualified bridge engineers and construction inspectors with relevant experience that will help meet your schedule and achieve your goals. Our extensive experience will aid in maintaining safe, reliable, and sustainable infrastructure for our fellow Louisiana residents and stakeholders.

H&H's Project Manager, Babak Naghavi, PE, Ph.D., brings extensive experience successfully managing cross-discipline, multi-year construction engineering and inspection contracts. Mr. Naghavi's knowledge of tunnel design and construction, combined with his dedication, project management capabilities, and reputation with the DOTD, make him an ideal candidate for this position. H&H's Project Engineer, Fred Wetekamm, PE with extensive experience with such CE&I projects for DOTD will be a great asset to this project and will work directly with the DOTD assigned construction coordinator during this project. Fred will be dedicated to this project and will be supported by our specialized CE&I staff of qualified engineers and inspectors (structural, mechanical, and electrical) and experienced DOTD certified inspectors.

Hardesty & Hanover has strong working relationships with our subconsultants Meyer Engineers, Ltd., GOTECH, Inc. and APS Engineering and Testing, LLC from working on similar previous projects. Together, we bring proven bridge construction engineering and inspection services; successful delivery of similar projects on time and on budget; resources that meet and exceed your Minimum Personnel Requirements; and a roster of qualified professionals in all required disciplines with availability to begin work immediately. We appreciate your consideration and look forward to providing DOTD with a program of construction engineering and inspection for the Harvey Canal Tunnel Rehabilitation CE&I project. Do not hesitate to contact us if you need clarification on our qualifications.

Sincerely,
Hardesty & Hanover

Paul Skelton, PE
Principal-in-Charge

Babak Naghavi, PE, PhD, PH
Project Manager and Point of Contact

DOTD FORM: 24-102

(Revised March 1, 2022)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

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

1. Contract title as shown in the advertisement	US 90Z: Harvey Canal Tunnel Rehabilitation (CE&I)
2. Contract number(s) as shown in the advertisement	4400024438
3. State Project Number(s), if shown in the advertisement	H.010673
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	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)	E.F.0005124
6. Prime consultant mailing address	3850 N. Causeway Boulevard, Ste 1850 Metairie, LA 70002
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	3850 N. Causeway Boulevard, Ste 1850 Metairie, LA 70002
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Babak (Bobby) Naghavi, PhD, PE, PH, 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	Paul Skelton, PE, Principal 504.962.9212 | pskelton@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.	Signature (shall be the same person as #9):  10/22/2022 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)' %: GOTECH, Inc. — 4.0% A P S Engineering & Testing, LLC — 1.0%

12. Past Performance Evaluation Discipline Table:

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

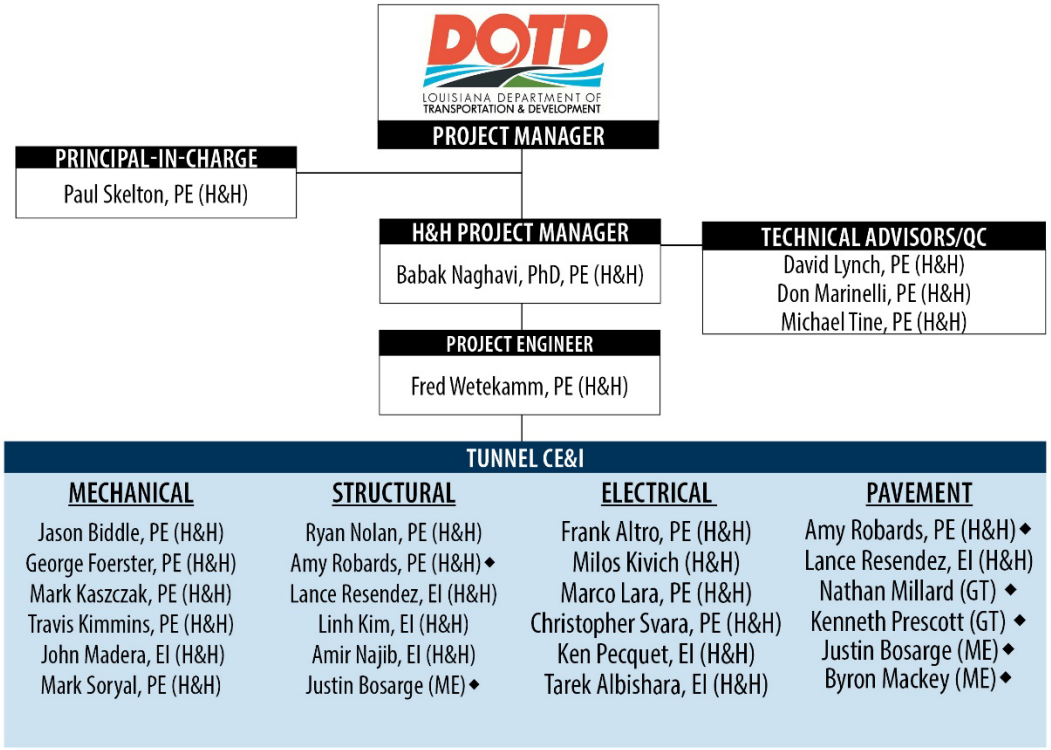
The only past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. The crosswalk from the old categories to the new categories can be found at the link below:
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/General%20Information/CPPR%20Crosswalk%20to%20New%20Evaluation%20Disciplines.pdf. (same link as in the advertisement)

Evaluation Discipline(s)	% of Overall Contract	Prime: Hardesty & Hanover	Meyers Engineers, Ltd.	A P S Engineering and Testing, LLC	GOTECH, Inc.
CE&I/OV	100%	85%	10%	1%	4%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.					
Percent of Contract	100%	85%	10%	1%	4%

13. Firm Size:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Hardesty & Hanover, LLC	Principal	1	12
	Supervisor – Eng	2	20
	Engineer	4	44
	Engineer - Other	8	244
	Inspector - Bridge	1	38
	Inspector - Certified	1	0
	Supervisor - Other	2	8
	Senior Technician	4	54
	Engineer Intern	4	66
	Administrative	1	28
Meyer Engineers, Ltd.	Accountant	1	3
	Administrative	0	1
	Clerical	1	3
	Engineer	0	9
	Engineer Intern	0	2
	Inspector	0	4
	Inspector – Certified	2	4
	Inspector – Lead	1	1
	Planner	0	1
	Principal	0	1
	Supervisor – Engineer	0	2
GOTECH, Inc.	Supervisor - Other	1	2
	Inspector - Certified	2	20
A P S Engineering & Testing, LLC	Engineer	2	1
	Driller	4	6
	Technician	6	6

14. Organizational Chart:



Prime consultant name: **Hardesty & Hanover**

Hardesty &Hanover

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 / certification & Number	State of license	License / certification expiration date
1	Paul Skelton, PE	Hardesty & Hanover, LLC	PE (27039)	LA	3/31/2023
2	Babak Naghavi, PE	Hardesty & Hanover, LLC	PE (20745)	LA	9/30/2024
3	Babak Naghavi, PE	Hardesty & Hanover, LLC	PE (20745)	LA	9/30/2024
3	Fred Wetekamm, PE	Hardesty & Hanover, LLC	PE (25369)	LA	3/31/2023
4	Sergio Aviles, PE	APS Testing & Engineering, LLC	PE (33571)	LA	3/31/2022
4	Sairam Eddanapudi, PE	APS Testing & Engineering, LLC	PE (35129)	LA	3/31/2022
5	George Foerster	Hardesty & Hanover, LLC	PE (075770)	NY	2/28/2025
5	Mark Kaszczak. Jr., EI	Hardesty & Hanover, LLC	EI (12873-60443)	NY	N/A
5	Travis Kimmins, PE	Hardesty & Hanover, LLC	PE (43676)	LA	3/31/2024
5	Mark Soryal	Hardesty & Hanover, LLC	PE (101694)	NY	9/30/2024
6	Frank Altro	Hardesty & Hanover, LLC	PE (93857)	NY	9/30/2023
6	Milos Kivich	Hardesty & Hanover, LLC			
6	Marco Lara	Hardesty & Hanover, LLC	LA (44115)	LA	3/31/2024
6	Tarek Albishara	Hardesty & Hanover, LLC	FE (089612)	NY	N/A

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**Babak Naghavi, PhD, PE, PH**		Years of relevant experience with this employer	4	
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 / 9/30/2024 ATSSA Traffic Control Supervisor Refresher - ATSSA Flagger			
Year registered	1983	Discipline	Civil and Environmental Engineering		
Contract role(s) / brief description of responsibilities		**Project Manager – Meets MPR 2, 3**			

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/11 – 12/12	**S.P. No. 700-38-0110: Belle Chasse Tunnel – Electrical, Mechanical and Structural Rehabilitation Design | Plaquemines Parish, LA | LADOTD** **Project Manager** (subconsultant) providing design support and construction engineering & inspection services for the repair/rehabilitation of the Belle Chasse Tunnel. Scope of work included leak sealing by injection of grout/resin materials with associated sealing of joints; repair of existing gratings and supporting concrete; replacement of the existing lighting system; installation of tunnel height detection system at tunnel entrances; repair or refurbishment of all discharge piping; installation of the generator and automatic transfer switch; replacement of louvers for ventilation rooms; replacement of ventilation fan motors; and the repair/replacement of pumps and motors.
06/22 - Ongoing	**Mechanical and Electrical Inspection Services for Clyde Warren Tunnel | Dallas, TX | Texas DOT** **Project Manager** (subconsultant) for performing tunnel inspection services which involves inspection of mechanical and electrical elements of the Clyde Warren Tunnel located in Dallas Texas for TxDOT. This Task is being performed under a statewide IDIQ contract. Inspections will be performed in accordance with the FHWA Tunnel Operations Maintenance Inspection and Evaluation (TOMIE) Manual. Mechanical inspections include: tunnel ventilation, air conditioning, heating control units, plumbing, tunnel drainage and pumping systems, emergency generators, fire protection, and flood gates. Electrical inspections include: power distribution, emergency power, lighting, emergency lighting, fire detection, air-quality monitoring, cameras and safety systems, Communications, etc. An inspection report will pe prepared detailing inspections results, deficiencies, and recommended repairs.
01/14 – 12/15	**Contract No. 4400004383: Statewide Tunnel Inspection Services | Statewide, LA | LADOTD** **Project Manager** (subconsultant) for the tunnel inspection services which involved structural inspection of various elements of the tunnel and the approach roadway, evaluation, and preparation of the report. In-service inspection of tunnels in District 02 included the

	Harvey Tunnel, Belle Chasse Tunnel, and Houma Tunnel. Reports and detailed drawings were generated for each inspection that included the results of the inspection as well as other pertinent data and recommendations.
08/20 - Present	**L H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge | Bourge, LA | Louisiana DOTD** **Project Manager** 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.
08/18 – 06/21	**Lake Pontchartrain Causeway Safety Bay Improvement Project (CE&I) | New Orleans, LA | Greater New Orleans Expressway** **Project Manager** responsible for construction engineering and inspection services for this fast-paced $60 million bridge improvement project being designed to LADOTD Standards and Specifications. The project is utilizing the Construction Manager at Risk (CMAR) delivery method. Improvements will increase emergency stopping areas and widen both causeway bridges to provide new shoulders in at least six locations in each direction.
06/11 – 06/16	**S.P. No. 064-05-0085 (CE&I), Bayou Lafourche Bridge at Larose | Lafourche Parish, LA | LADOTD** **Project Manager** responsible for construction engineering and inspection services for an on-system **vertical lift bridge**. This new bridge replaces the former LA 310 pontoon bridge at LA 657 extension to LA 308. This is the largest span lift bridge in the State of Louisiana. Scope of work included concrete piers, installation of structural steel members, welding, bolted connections, anchor bolts, field painting, and concrete approaches. Work involved the structural steel paint inspection of all bolted connections. This $30 million project is the 3rd largest ARAA funded transportation project in the state. Responsibilities included overall supervision; coordination with LADOTD, Parish, and Coast Guard; and QA/QC of project documentation.
06/14 – 01/17	**S.P. No. H.006318.6 (CE&I): Off-System Highway Bridge Replacement St. Ann Bridge over Bayou Terrebonne | LA DOTD** **Project Manager** responsible for this CE&I project that involved removal of a single-lane truss swing span bridge structure, existing fender system, timber bulkhead, operator house, and existing timber piling. New construction involved a single swing span bridge, concrete slab bridge approaches, concrete approach slabs, timber fender system, navigational lighting, grading, aggregate surfacing, and asphaltic concrete roadway paving.
01/11 – 12/13	**S.P. No. H.003202.6, (CE&I): I-10 Calcasieu River Bridge Repairs | Calcasieu Parish, LA | Louisiana DOTD** **Project Manager** responsible for construction engineering and inspection for structural repairs to 1-10 Calcasieu River Bridge. The project consisted of repairs to main deck truss and steel cantilever truss members, approach trestle pin plate connections, approach trestle anchor bolt repair, approach trestle bent repairs, deck joints repair, bridge railing repair, and approach roadway pavement expansion joints. The project also included cleaning and removal of lead- based paint and painting of truss connections and the replaced railing.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Frederick Wetekamm, PE**		Years of relevant experience with this employer	3
Title	Senior Structural Engineer / Team Leader		Years of relevant experience with other employer(s)	30

Degree(s) / Years / Specialization			ME / 2018 / Construction Engineering Management / University of Alabama - Birmingham BS / 1984 / Civil Engineering / Louisiana State University
Active registration number / state / expiration date			Professional Engineer: 25369 / LA / 3/31/2023 Maintenance & Rehabilitation of Historic Bridges (LADOTD) FHWA NHI Course #139005, Driven Pile Foundations – Construction Monitoring ATSSA Traffic Control Supervisor and Flagger
Year registered	1993	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Project Engineer – Meets MPR 3**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
1996 - 2007	**LADOTD Bridge Maintenance Engineer | LADOTD DISTRICT 2, LA | Louisiana DOTD** **Bridge Maintenance Engineer** responsible for managing the program for Bridge and Tunnel Inspection, Operations and Maintenance Program, bridge operators, bridge and tunnel 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 DOTD personnel and coordinating the repairs, materials, equipment, labor for bridge, tunnel , locks, and pump station repairs and media information, and/or traffic control. Wrote major repair requests (sole source and biddable projects) and generated project plans and specifications for repair projects and accident damages to the bridges for marine, vehicular and environmental damages. Wrote major repair requests (biddable projects) and generated project plans and specifications for repair projects for bridges, tunnels, locks, and pump station projects. 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.

8/20 - Present	**H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge | Bourge, LA | Louisiana DOTD** **Construction Engineer/Inspector** responsible for 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 and close-out.
07/16 – 09/18	**Bayou La Loutre Vertical Lift Bridge Rehabilitation (SP 002562) | St. Bernard Parish, LA | Louisiana DOTD** **Senior Project Engineer and CEI Inspector** in responsible charge. Contributed to the rehabilitation design to aid designers in understanding the bridge operation and maintenance preferences for the LADOTD and provided construction engineering and inspection services during construction. The Bayou La Loutre Bridge Rehabilitation Project scope consisted of bridge structural repairs, cleaning and painting of the bridge structure, installation of a new fender system, and replacement of the bridge operator house utilizing the current LADOTD BDEM and LSSRB. Built in 1957, this project was the first major rehabilitation to the bridge.
11/15 – 03/18	**Danziger Vertical Lift Bridge Rehabilitation (SP 000303.6) | Orleans Parish, LA | Louisiana DOTD** **Project Area Engineer** in responsible charge of contract administration and supervising the Project Engineer and LADOTD Certified Inspectors for construction inspection. This project scope involved the replacement of the asphaltic concrete roadway on the lift span (310-lf x 72-lf) with a latex modified concrete, replace the lifting ropes, replace most of the mechanical operating components, and rehabilitation of the operator house.
04/08 – 08/09	**US 11 over Lake Pontchartrain Bascule Draw Bridge | LA DOTD.** **Engineer/Inspector** responsible for contract administration, supervision of the Project Engineer and LADOTD Certified Inspectors for construction inspection. This project scope involved removing / re-machining of the trunnions, replacing locking bars, and rehabilitating electrical operating components in the control cabinets, limit switches, and replacing the generator.
7/07 - 11/10	**LADOTD Construction Project | Orleans Parish, LA** **LA DOTD Construction Project Engineer** in responsible charge providing construction engineering and inspection services for the **South Louisiana Submerged Roads Program** which provided repairs and resurfacing of 56 roads in Orleans, Jefferson, and St Bernard Parishes that were damaged from Hurricane Katrina. The project was funded by FHWA's Emergency Relief Program. The project cost was approximately $100M.
7/12 - 5/16	**LADOTD Construction Project | Orleans Parish, LA** **LA DOTD Construction Project Engineer** in responsible charge providing construction engineering and inspection services for the Paths to Progress (P2P) Program which provided repairs and resurfacing of 60 roads in Orleans and Jefferson Parishes that were damaged from Hurricane Katrina. The project was funded by FHWA's Emergency Relief Program. This project required a coordinated effort between FHWA, LADOTD, Regional Planning Commission, and local entities. The project cost was approximately $90M.
7/07 – 8/18	**LADOTD Construction Project | Orleans Parish, LA** LA DOTD Construction Project Engineer in responsible charge providing construction engineering inspection services for the Fleur De Lis Roadway Rehabilitation Projects Phases 1, 2, and 3 Program which were complete reconstruction of the roadway and drainage.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**Paul Skelton, PE**		Years of relevant experience with this employer	35	
Title	Principal-in-Charge		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization		B.E. / 1985 / Mechanical Engineering			
Active registration number / state / expiration date		Professional Engineer: 27039 / LA / 3/31/2023			
Year registered	1994	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities		**Principal-in-Charge – Meets MPR 1**			

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
03/18 – Present	**IDIQ Movable Bridge Contract, Statewide, MS – Mississippi DOT** **Principal-in-Charge** responsible for the routine/fracture critical inspection of I-110 Bridge over Biloxi Back Bay, and the full rehabilitation of SR 609 and SR 605 bascule bridges 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.
05/14-05/17	**NBIS Inspection of the Robert F. Kennedy Suspension Bridge, New York, NY – MTA Bridges and Tunnels** **Principal in Charge** responsible for performing hands-on inspection of various concrete, steel, and aluminium elements throughout the RFK Bridge – Group A bridges, consisting of 142 main-line spans, as well as an exit ramp, two pedestrian ramps, and two out-of-service vehicular ramps. The main-line bridge included a 2,724-foot suspension bridge and seven spans of thru-trusses, both with orthotropic decks, as well as steel framed approach spans with a cast-in-place concrete deck. For Group B: Performed 100% hands-on inspection of fracture critical girders, pier caps, primary members, structural deck, and secondary members.
05/17-Present	**NBIS Inspection of the Throgs Neck Bridge, Bronx, NY – MTA Bridges and Tunnels** **Principal-in-Charge** for the biennial inspection of bridge, approaches, and associated ramp structures. Project includes National Bridge Element (NBE) Inspection of all structural elements (including fracture critical elements such as truss chords and gusset plates), load rating calculations and updates, inventory updates and report submittals.
06/17 – Present	**H.002798.6; Bayou Teche Movable Bridge at Oaklawn Rehabilitation, St. Mary Parish, LA – Louisiana DOTD** Principal for the bridge rehabilitation involving the electrical 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. Built in 1941, the original historically significant bridge was replaced with a new hydraulically-operated swing bridge. The new through girder swing-span rotates with hydraulically actuated slewing (push-pull) cylinders. The project is currently in the post-design phase.

01/20 – Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans** **Principal** for 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, 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. 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.
01/19 - Present	**Lapalco Boulevard Movable Bridge over Harvey Canal, Westwego, LA – Jefferson Parish DPW** **Principal** for the pre-design inspection, the rehabilitation and widening of the existing four-lane Lapalco Boulevard to provide a facility carrying three lanes of traffic in each direction, and the design of a new three-lane double bascule movable bridge crossing of Harvey Canal. project includes rehabilitation to the existing four-lane bridge with three lanes of traffic and a new pedestrian/bike lane. The scope of services also includes the design of a new bridge 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 for eastbound and westbound traffic as well as the development of a Traffic Control Plan is also included in scope.
10/15 – 06/19	**Marine Parkway/Gil Hodges Memorial Vertical Lift Bridge Rehabilitation, Brooklyn/Queens, NY – MTA Bridges & Tunnels** **Principal-in-Charge** for bridge rehabilitation services which included a deck replacement study and design. Deck widening was accomplished by relocating the sidewalk with new brackets. Our emphasis on constructability during design and extensive prefabrication strategies facilitated fast-track construction. Work also entailed major electrical upgrades, repainting of the structure, and complete lead abatement. The completed bridge includes a widened modular precast lightweight concrete deck on the deck truss spans, a widened open grating deck on the through trusses and lift span, and a lightweight sidewalk located on the new cantilever brackets extending out from the existing floor beams. The cellular abutments were also repaired and re-decked. Ancillary work included extensive electrical facility design as well as lighting and draining upgrades.
08/08 – 08/13	**Judge Seeber (Clairborne Ave) Vertical Lift Bridge over Industrial Canal Rehabilitation, New Orleans, LA – Louisiana DOTD** **Principal-in-Charge** for bridge rehabilitation services for this Preservation Priority Bridge. Services included vertical list bridge assessment and rehabilitation design for miscellaneous structural repairs, replacement of the entire electrical system and replacement of the counterweight ropes. The electrical system was replaced in-kind using secondary resistance control operated with a drum switch as preferred by the owner. The vertical lift ropes were replaced using an innovative design connecting the rope socket to the lifting girder. The new socket allows the ropes to be shimmed using a vertically elongated pin hole that allows for rope length adjustment to help ensure equal load distribution to each lifting rope.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**David Lynch, PE**		Years of relevant experience with this employer	3	
Title	NBIS Program Manager		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: 44457 / MD / 10/10/2023 **Certifications: NTIS Certified Tunnel Inspection Program Manager; FHWA-NHI 130110 Tunnel Safety Inspections**, 2014; **FHWA-NHI 130125 Tunnel Inspection Refresher Training (Completed on 5/7/2020)**, 2025; NBIS Certified Team Leader and Program Manager; FHWA-NHI 130055 Safety Inspection of In-Service Bridges, 2014; FHWA-NHI 130053 Bridge Inspection Refresher Training, 2018; FHWA- NHI 130078 Fracture Critical Inspection Techniques for Steel Bridges, 2016.			
Year registered	2013	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities		**Technical Advisor/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 time specified in the applicable MPR(s).				
01/17 – Ongoing	**NTIS Revision of the Maryland Transportation Authority's Tunnel Inspection Manual | Baltimore, MD | MTA** **Project Manager/Lead Author** of the comprehensive revision of Chapter 10, Tunnel Inspections, for the Maryland Transportation Authority's Facility Inspection Manual. Applied the practical experiences of leading the inspection of the client's two signature tunnels to comprehensively rewrite their Tunnel Inspection Manual including the following: Revising previous NBIS-style inspection practices to meet the requirements of the National Tunnel Inspection Standards; established the baseline Inventory Data; detailed efficient practices for completing NTIS field inspections and report writing; coordinated the incorporation of functional systems including client mandated Agency Defined Elements; provided step-by-step instructions for reporting using the client's proprietary asset management software; and assisting the client during FHWA audits of their tunnel inspection program.				
07/19 – Ongoing	**Consultant Structural Facility Engineer, Fort McHenry and Baltimore Harbor Tunnels | Baltimore, MD | MTA** **Lead Structural Engineer** for the evaluation and coordination of capital improvement and maintenance activities for the preservation of the Fort McHenry and Baltimore Harbor Tunnels. Includes review of available historical documents including as-built plans, shop drawings, repair and rehabilitation projects, maintenance contracts, and task order and emergency repairs; organizing and prioritizing repairs for inclusion in major rehabilitation projects or incorporation into ongoing maintenance and operations works; and development of systemic programs to enhance the state of good repair for both of the tunnel facilities with an emphasis on the efficient use of existing funding sources to meet current and future needs in a timely manner. Reviewed and commented on the 2019 inspections of the Fort McHenry and Baltimore Harbor Tunnels.				

07/19 – Ongoing	**2020 Inspection of Fort McHenry Tunnel North Facility | Baltimore, MD | Maryland Transportation Authority** **Project Manager** of the $891,000 task for the inspection of structural assets along the I-95 corridor, north of the Fort McHenry Tunnel. Overseeing and coordinating the efforts of multiple consultants and in-house personnel on behalf of the client to meet NBIS and client mandated inspection and asset management requirements including the client's maintenance and operations personnel, engineering consultants, maintenance of traffic, railroads, and equipment vendors. Prepared scope and fee proposals, tracking, and billing for the inspection of 36 multi-span NBIS bridges, 98 high-mast lights, 56 sign structures, traffic safety features, the toll plaza, and related small structures. Quality control and quality assurance are an integral part of the role in the delivery process.
07/2019 – Ongoing	**2020 Inspection of The Francis Scott Key Memorial Facility | Baltimore, MD | Maryland Transportation Authority** **Project Manager** of the $867,000 task for the inspection of structural and electrical and mechanical assets along the I-695 corridor on the southeast portion of the Baltimore Beltway, concurrent with the Fort McHenry Tunnel North Facility described above. Overseeing in- house personnel and subconsultants and vendors to provide inspection and reporting services in accordance with NBIS and client mandated inspection and asset management requirements. Prepared scope and fee proposals, tracking, and billing for the inspection of 31 multi-span NBIS bridges, 10 high-mast lights, 33 sign structures, traffic safety features, the toll plaza, and related small structures. The Curtis Creek Bridge, a four-bascule span, is at the heart of the facility. The United States Coast Guard's Curtis Creek maintenance and operations facility relies on the timely operation of the moveable spans.
06/16 – 06/18	**2017 Inaugural NTIS Inspection of the Fort McHenry Tunnel | Baltimore, MD | Maryland Transportation Authority** **Project Manager/Lead Inspector** of the Inaugural NTIS Inspection of the Fort McHenry Tunnel Facility. Led the NTIS inspection of the complex tunnel facility including coordination with the client's engineering, operations, and maintenance personnel and structural, mechanical, and electrical engineers. The 1985 tunnel facility is a four-bore submerged tube style facility over a mile long with cut-and-cover portions at both ends and integrated vent buildings. Functional systems included redundant electrical system; transverse forced air ventilation; fire protection and security operations; drainage and pumping system; and lighting. Defined, quantified, and rated the National Tunnel Elements and developed Agency Defined Elements.
07/14 – 12/18	**Annual Facilities Inspection Services, Contract AE 2761 | Baltimore, MD | Maryland Transportation Authority** **Project Manager** for a $2.95 million multiyear contract to provide for the inspection of a wide variety of structures in the MDTA's inventory. Coordination frequently included multiple public agencies (Federal, State, and local), subconsultants, access equipment vendors, maintenance of traffic, and maritime operations. Prepared scope and fee proposals, booked, tracked, and billed for a total of 22 Tasks included three of the authority's five signature structures, dozens of NBIS bridges of a wide array of design.
06/16 – 07/18	**2017 Inaugural NTIS Inspection of the Baltimore Harbor Tunnel | Baltimore, MD | Maryland Transportation Authority** **Project Manager/Lead Inspector** of the Inaugural NTIS Inspection of the Baltimore Harbor Tunnel Facility. Led the NTIS inspection of the complex tunnel facility, including coordination with the client's engineering, operations, and maintenance personnel and structural, mechanical, and electrical engineers. The 1958 tunnel facility is a two-bore submerged tube style facility over a mile long with cut-and-cover portions at both ends. The vent building at the south end is integrated into the tunnel, while the north end vent building is offset. Functional systems include redundant electrical system; transverse forced air ventilation; fire protection and security operations; drainage and pumping system; and lighting.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**Don Marinelli, PE**		Years of relevant experience with this employer	17	
Title	Senior Mechanical Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization		M.E., Mechanical Engineering, 2010, Johns Hopkins University B.S., Mechanical Engineering, 2005, York College of Pennsylvania			
Active registration number / state / expiration date		Professional Engineer: 43538 / LA / 9/30/2023; **Certifications**: **2014/ NHI 130110 (Tunnel Inspection); 2018 / NHI 130125 (Tunnel Refresher)**; 2010 / NHI 130055 (Bridge Inspection); 2014 / NHI 130055 (Refresher); 2012 / OSHA Confined Space; 2016 / NFPA 25 (Inspection of Fire Suppression Systems); 2016 / NFPA 20 (Fire Protection); 2018 / NHI 130078 (Fracture Critical).			
Year registered	2019	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities		**Technical Advisor/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 time specified in the applicable MPR(s).
3/18 – 11/18	**2018 Alaska Way Tunnel (99/540) In-Depth Electrical and Mechanical Inspection | Seattle, WA | Washington State DOT Lead Mechanical Engineer/Team Leader** responsible for the tunnel mechanical systems. Hardesty & Hannover was selected to perform an In-Depth Electrical and Mechanical Inspection in conformance with Federal Requirements for the (NTIS) for an Initial Inspection and In-Depth Inspection of the Electrical and Mechanical Systems. The tunnel is a 2.5-mile long single bore tunnel with two southbound lanes in the upper roadway, two northbound lanes in the lower roadway, and a lower section utilidor for the pumping equipment. There is a north and a south operations building each with four 500HP extraction ventilation fans and two maintenance air fans. Each roadway is equipped with multiple 75HP jet fans and roadway dampers evenly spaced through the tunnels for the extraction fans. The tunnel has a fire pipe deluge system and pumping system to remover the water. The tunnel has a communication system-based control system with PLC controllers, hundreds of cameras with DVR controllers, a fire detection system, an air monitoring system, and a complete security system. Each piece of equipment is remotely accessible and operable from the control system, with centers in each operations building. The majority of the electrical and mechanical equipment was visually inspected and operationally tested.
11/18 – 03/19	**In-Depth Mechanical and Electrical Inspection of the Mercer Island Tunnel | Mercer Island, WA | Washington State DOT Mechanical Engineer** for the NTIS inspection of the Mercer Island Tunnel mechanical systems. Inspection included visual inspection and operational testing of centrifugal fans, pressurization fans, dampers, water supply piping and valves, fire suppression system, roadway standpipes, emergency egress, drainage system, generators, and facility maintenance fans.
10/17 – Ongoing	**2017 MDTA Annual Facilities Inspection (2017-2021) | Statewide, MD | Maryland Transportation Authority**

	Project Manager/Lead Mechanical Engineer for the interim inspection of the Fort McHenry Tunnel and Baltimore Harbor Tunnel ventilation building tunnel mechanical systems. Mechanical systems inspected included centrifugal fans, drainage pump systems, and tunnel fire suppression systems. Project Manager for the project to provide engineering services for the Baltimore Harbor Tunnel and Fort McHenry Tunnel ventilation fans and pump systems. Mr. Marinelli's responsibilities include evaluating mechanical systems to identify repairs, designing repair details and cost estimates to complete repairs, solicit bids from MDTA's On-Call Contractors, review contractor shop drawings, and perform construction engineering services to inspect the repairs.
06/15 – 12/16	**2014 Comprehensive Engineering Design Services (AE2798) | Statewide, MD | Maryland Transportation Authority** **Lead Mechanical Engineer** responsible for tunnel engineering services including: 1) Tunnel Ventilation and Mechanical Systems: Performed peer/constructability review of 60%, 90% and PS&E bid documents to rehabilitate all 48 FMT ventilation fans and tunnel modifications to achieve an increased capacity for 100MW fire. 2) Tunnel Ventilation and Mechanical Systems: Performed peer/constructability review of PS&E bid documents to replace all 32 BHT ventilation fans to achieve an increased capacity for 100MW fire. 3) Tunnel Mechanical: Developed a preventative maintenance program for the tunnel fire suppression pump systems and drainage pump systems at FMT and BHT. The fire suppression system was based on NFPA 25 code requirements. Work included documenting existing systems, developing lubrication and piping system schematics, maintenance checklists, and maintenance intervals.
03/13 – 10/17	**2013 Facilities Inspection Services (AE2761) | Statewide, MD | Maryland Transportation Authority** **Project Manager/Lead Mechanical Engineer** for inspection and miscellaneous engineering services for Fort McHenry (FMT) and Baltimore Harbor (BHT) Tunnels and Ventilation Buildings. Mr. Marinelli's responsibilities included evaluating mechanical systems to identify repairs, designing repair details and cost estimates to complete repairs, solicit bids from MDTA's On-Call Contractors, review contractor shop drawings, and perform construction engineering services to inspect the repairs. Project work on this contract included: 1) Tunnel Inspection: Project manager and lead mechanical engineer for the NTIS inspection of the Fort McHenry Tunnel and Baltimore Harbor Tunnel ventilation building fans, fire suppression systems and tunnel drainage systems. 2) Tunnel Mechanical: Emergency response discovered water leaking from the fire suppression system pipe into the FMT bore 3 lower plenum. Provided on-site engineering to evaluate the low point pumps, low point pump discharge pipe, fire suppression system pipe, and west ventilation building holding tank pumps. 3) Tunnel Mechanical: In-depth investigation of the failure of FMT supply fan shaft bearings revealed damage to the fan shaft. An analysis of the fan shaft/roller bearing assembly determined the as-built fatigue life had been exceeded resulting in failures.
12/10 – 05/14	**2010 Annual Facilities Inspection Services (AE2483) | Statewide, MD | Maryland Transportation Authority** **Lead Mechanical Engineer** for inspection and engineering services for the FMT and BHT Tunnels. 1) Tunnel Inspection: Biennial and interim safety inspection of the entire Baltimore Harbor Tunnel. The BHT inspection included the fresh air and exhaust ducts, roadway, ventilation buildings, ventilation fans, and portal pumps and fire suppression systems. 2) Tunnel Inspection: Biennial and interim safety inspection of the Fort McHenry Tunnel ventilation buildings including the tunnel centrifugal fans, portal pumps and piping, fire suppression pump systems, and miscellaneous building mechanical systems. Mechanical Engineer responsible for 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.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Michael Tine, PE**		Years of relevant experience with this employer	19
Title	Electrical Engineer		Years of relevant experience with other employer(s)	1

Degree(s) / Years / Specialization			BS / 2000 / Electrical Engineering
Active registration number / state / expiration date			Professional Engineer: 6201068461 / MI / 2/22/2024 Certifications: • FHWA-NHI-130110 Tunnel Safety Inspections • FHWA-NHI-13010, Introduction to Safety Inspection of In-Service Bridges
Year registered	2009	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			**Technical Advisor/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 time specified in the applicable MPR(s).
07/14 – Ongoing	**Comprehensive Engineering Design Services (AE2798; AE3037) | Statewide, MD | MDTA** **Lead Electrical Engineer** for multiple tasks of these comprehensives engineering on-call contracts. Tasks included developing contract documents for a three-year maintenance contract for the Curtis Creek bridges, and on-call engineering support for the Curtis Creek bridges, Baltimore Harbor Tunnel and Fort McHenry Tunnel. The Curtis Creek maintenance contract included developing the Invitation for Bid that included project special provisions, maintenance schematics, maintenance checklists, and developing the engineer's estimate. As part of this contract H&H also performed constructability review of the proposed design to replace the existing fans in the BHT and FMT tunnels.
12/17 – Ongoing	**2017-2021 Annual Facilities Inspection | Statewide, MD | Maryland Transportation Authority** **Lead Electrical Engineer** for the project to provide engineering services for the Baltimore Harbor Tunnel and Fort McHenry Tunnel ventilation fans and pump systems. Responsibilities include evaluating electrical systems to identify repairs and provide troubleshooting services as required to retain fan and pump operability.
06/15 – 05/16	**Baltimore Harbor Tunnel Fan Replacement PS&E | Baltimore, MD | Maryland Transportation Authority** **Electrical Engineer** for the project to provide engineering services for the Baltimore Harbor Tunnel and Fort McHenry Tunnel ventilation fans and pump systems. Responsibilities include evaluating electrical systems to identify repairs and provide troubleshooting services as required to retain fan and pump operability.

12/10 – 12/13	**2010 Annual Facilities Inspection | Statewide, MD | Maryland Transportation Authority** **Lead Electrical Engineer** for the project involving the biennial and interim safety inspections of the I-95 Fort McHenry Tunnel ventilation buildings and I-895 Baltimore Harbor Tunnel. Responsibilities included performing electrical system inspections and report preparation. The Fort McHenry Tunnel and Baltimore Harbour Tunnel inspection included the portal pumps, fan motors, damper motors, limit switches, switchgear, conduit, and lighting.
12/07 – 12/10	**2007 Annual Facilities Inspection | Statewide, MD | Maryland Transportation Authority** **Electrical Engineer** for the task order contract for inspection and evaluation of Fort McHenry Tunnel for MDTA. Responsibilities included visual inspection of all electrical components including, fan motors, pumps conduit, lighting, switchgear, dampers, limit switches, etc. Operational testing, including motor current, vibration measurements, voltage measurements, and insulation resistance measurements. As part of the inspection, the ventilation building, tunnel bores, and the main control station (AOC) were inspected.
06/15 – 06/16	**Baltimore Harbor Tunnel Fan Replacement PS&E | Baltimore, MD | maryland transportation Authority** **Electrical Engineer** for the project to provide engineering services for the Baltimore Harbor Tunnel and Fort McHenry Tunnel ventilation fans and pump systems. Responsibilities include evaluating electrical systems to identify repairs and provide troubleshooting services as required to retain fan and pump operability.
12/13 – 12/16	**2013 Annual Facilities Inspection | Statewide, MD | Maryland Transportation Authority** **Lead Electrical Engineer** for the project to provide engineering services for the Baltimore Harbor Tunnel and Fort McHenry Tunnel ventilation fans and pump systems. Responsibilities include evaluating electrical systems to identify repairs and provide troubleshooting services as required to retain fan and pump operability.
12/10 – 12/13	**2010 Annual Facilities Inspection | Statewide, MD | maryland Transportation Authority** **Lead Electrical Engineer** for the project involving the biennial and interim safety inspections of the I-95 Fort McHenry Tunnel ventilation buildings and I-895 Baltimore Harbor Tunnel. Responsibilities included performing electrical system inspections and report preparation. The Fort McHenry Tunnel and Baltimore Harbour Tunnel inspection included the portal pumps, fan motors, damper motors, limit switches, switchgear, conduit, and lighting.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**Jason Biddle, PE**		Years of relevant experience with this employer	11	
Title	Mechanical Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization		B.S. / 2010 / Mechanical Engineering, University of Delaware			
Active registration number / state / expiration date		Professional Engineer: 43538 / LA / 9/30/2023			
Year registered	2019	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities		**Mechanical Engineering Tunnel 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).
08/17 - Ongoing	**2017 Annual Facilities Inspection Services | Statewide, MD | Maryland Transportation Authority** **Mechanical Engineer** for multiple bridges and tunnels projects as part of the on-call contract. Responsibilities for the Fort McHenry Tunnel (FMT) and Baltimore Harbor Tunnel (BHT) on-call tasks include providing on-site engineering support and inspection for tunnel ventilation fan systems and pump system issues and developing task order repair documents for various fan and pump system components (including fan damper system repairs, fan motor repairs, MCC repairs, and fan shaft replacement). Emergency engineering support was also provided for BHT fire line repair work within the tunnel. Additional responsibilities for the on-call contract included performing quality control review of the Interim inspection reports completed for the Baltimore Harbor Tunnel and Fort McHenry Tunnel fan and pump systems. During the completion of the various tunnel task order repairs, Jason provided various construction support services (including shop drawing and on-site engineering support and inspection) and coordination between the contractors, tunnel operations personnel, and other construction support personnel.
11/13 - 10/17	**2013 Annual Facilities Inspection | Statewide, MD | Maryland Transportation Authority** **Mechanical Engineer and Team Leader** for the project involving the mechanical and electrical inspection for the Baltimore Harbor Tunnel and Fort McHenry Tunnel ventilation buildings per NTIS and MDTA requirements. Responsibilities included inspection of the ventilation fan systems (80 total fan assemblies) and various fire pump and drainage pump systems and report preparation. As part of the Fort McHenry Tunnel and Baltimore Harbor Tunnel on-call tasks, on-site engineering support and emergency response was provided for several tunnel pump system issues (including flooding within the low point pump room and lower plenum in the Fort McHenry Tunnel and investing water leaking from an electrical enclosure within the wall of the Baltimore Harbor Tunnel). Additional responsibilities for the on-call contract included investigating operational issues with the tunnel ventilation fan and pump systems, providing on-site engineering support during tunnel repairs, and developing task order repair documents (drawings, specifications, cost estimate, etc.) for numerous tasks including emergency portal pump repair and replacement work, fan motor repairs, fire system pump rehabilitations, fan motor and bearing pedestal repairs, MCC and control system repairs, and repair work to eliminate impeller contact and secure fan housing shrouds with severe deterioration.

09/15 – 05/16	**Preventative Maintenance Documents for Fort McHenry Tunnel and Baltimore Harbor Tunnel Pump Systems | Baltimore, MD | Maryland Transportation Authority** **Mechanical Engineer** for the preparation of maintenance documents for the mechanical and electrical components of the Fort McHenry Tunnel and Baltimore Harbor Tunnel drainage pump systems and fire protection pump systems. Developed maintenance documents for the drainage pump and fire pump systems, including component identification reports to describe how the various pump system components are interconnected and function, maintenance procedures and checklists, and lubrication schematics. Fire protection pump system maintenance plans were developed per NFPA 25 requirements. A cost estimate for the total annual maintenance of the drainage pump and booster pump systems were also developed to allow the Owner to budget for future maintenance costs properly.
08/11 – 12/13	**2010 Facilities Inspection Services | Baltimore, MD | Maryland Transportation Authority** **Mechanical Engineer** for the project involving the biennial and interim safety inspections of multiple assets, including the I-95 Fort McHenry Tunnel ventilation and pump systems and the I-895 Baltimore Harbor Tunnel ventilation systems. Responsibilities included inspection of various mechanical system (including the tunnel ventilation fans and pump room components) and preparation of reports. Additionally, provided engineering support for various repairs to the Fort McHenry Tunnel and Baltimore Harbor Tunnel ventilation fans, including fan shaft modification and repair, motor repairs, fan control system repairs, and ventilation fan damper system repairs.
08/11 – 03/15	**Bridge Safety Inspection Services (1415) | Statewide, DE | DELAWARE DOT** **Mechanical Engineer** for the project involving an on-call contract to provide condition inspections and evaluations of eight movable bridges. H&H was responsible for AASHTO routine inspections for eight of Delaware's movable bridges, creation of operations and maintenance manuals for all bridges, documentation of the mechanical and electrical as-built conditions, and emergency response of operational failures. Responsibilities included performing AASHTO routine inspections of the mechanical systems for Cedar Creek (bobtail swing), Rehoboth Boulevard (single-leaf Scherzer rolling lift bascule), and Front Street (single-leaf bascule) bridges, creation of the mechanical system operations and maintenance manuals, development of bridge specific inspection manuals for the interaction of structural and mechanical components, and emergency response for operational failures and Hurricane Sandy damage assessment.
01/12 – 06/13	**Pennington Avenue Drawbridge Rehabilitation | Baltimore, MD | City of Baltimore** **Mechanical Engineer** responsible for 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.
08/11 – 03/17	**Movable Bridge Engineering Services | Statewide, MD | Maryland State Highway Administration** **Mechanical Engineer** for the project involving the on-call contract to perform structural, mechanical and electrical condition inspection, evaluation and design for emergency bridge repair and rehabilitation services of movable bridges, statewide, for the State Highway Administration's Bridge Inspection and Remedial Engineering Division. Responsibilities included performing the inspection of the mechanical systems at each bridge, inspection report preparation, rehabilitation design, and on-call field assignments as a result of operational issues.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**George A. Foerster, PE**		Years of relevant experience with this employer	28
Title	Senior Mechanical Engineer		Years of relevant experience with other employer(s)	28

Degree(s) / Years / Specialization			BE, Mechanical Engineering, 1991, State University of New York at Stony Brook
Active registration number / state / expiration date			Professional Engineer: 075770-1 / NY 2/28/2025
Year registered	1998	Discipline	Mechanical Engineer
Contract role(s) / brief description of responsibilities			**Mechanical Engineering Tunnel Inspector – Meets MPR 5**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/93	**Chapel Street Swing Bridge (Joseph T. Carr Bridge) | New Haven, CT | City of New Haven** **Mechanical Construction Engineer Inspector** responsible for field inspection of end wedge repairs as part of a $14 million project that included construction engineering & inspection and construction support for an on-line replacement of a highway swing span built in 1899. Initial emergency repair expanded to a study of alternatives and culminated in a 220-foot-long, through box girder swing design. Involved demolition of existing bridge, replacement of substructure, superstructure, control house, mechanical drives, and electrical system.
12/18 – 4/22	**Construction Engineering & Inspection Services for the Rehabiltiation of the Broadway Bridge (Vertical Lift) | New York, NY | New York City DOT** Mechanical Construction Engineering Inspector for the rehabiliation 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 photograghy to aid in inspection/reporting effort.
08/19 – 01/21	**CE&I Services for Madison Avenue Bridge (swing bridge) Over Harlem River | New York, NY | New York City DOT** Mechanical Construction Engineering Inspector for NYCDOT contract #HBX644S for the replacement of span drive machinery, primary and secondary reducers and bearings; replacement of rack and pinions, center pin rehabilitation; replacement of end lifts at rest piers; replacement of centering locks, machinery, and receiving sockets at rest piers; new hydraulic auxiliary drive diesel powered by HPU and generator, removal of non-operational machinery; new electrically operated brakes; rehabilitation of machinery supports; new shafts and couplings; and cleaning, lubrication and adjustment of drum girder roller assembly. Mr. Foerster performs shop and field construction inspections per contract requirements. Field work includes observation of field surveys (general surveying and span

	tracking during operation with FARO laser tracking system), electrical demolition and installation of temporary electrical items, and general demolition of existing structural and mechanical components slated for replacement under contract. Inspection reports are created to track shop work progress and MURK 1 DWRs are produced for field work tracking. Work also includes reviewing and provide comments to change orders and coordinating with client, contractor, and designer to address field conditions to aid in streamlining work.
04/17-Present	**2017-2018 Biennial and Interim Bridge Inspections | Long Island, NY | New York State DOT** **Lead Mechanical Engineer Inspector** for biennial inspections of movable bridges in both Nassau and Suffolk counties. The structures vary in size and type, and include the Robert Moses Causeway NB and SB bridges over Great South Bay and Wantagh Parkway bridges over Goose Creek and Sloop Channel near Jones Beach. Responsible for the condition inspection of machinery. In addition to these primary structural elements, Hardesty & Hanover inspected the structures appurtenances, signs and their supporting structures, light standards, and electrical equipment on the bridges. Project also included load rating calculations and updates.
04/13-present	**Rio Hondo Lift Bridge | Cameron County, TX | Texas DOT** **Lead Mechanical Engineer Inspector** for the rehabilitation of a 145-foot lift span thru-plate girder bridge over the Arroyo Colorado. Project entails the complete inspection and evaluation of all electrical, mechanical, and structural components, as well as design of rehabilitation to those systems. Construction support services was also provided as part of this Project.
01/02-12/10	**Route 175 Chincoteague Chanel and Black Narrows Channel Bridge Replacements | Chincoteague, VA | Virginia DOT** **Mechanical Engineer and Construction Inspector** responsible for design of bridge machinery for a new single-leaf, simple trunnion bascule. $69 million bridge replacement design project includes studies, preliminary and final design services, and construction support services. Involves a new low-profile, 4,035-foot concrete prestressed girder fixed bridge (Black Narrows) with a new 123'-6" single-leaf bascule bridge (Chincoteague). Included public hearings, navigational study, and environmental issues.
04/07-06/09	**Replacement of Brooklyn Bridge Travelers Construction Inspection | Brooklyn, NY | New York State DOT** Lead Mechanical Engineer Inspector for shop and construction inspection of machinery. Provided electrical and mechanical construction inspection services for the replacement of four maintenance bridge traveler platforms on the Brooklyn Bridge. Services included thorough shop testing of the traveler mechanical and electrical systems which entailed actual operation of each assembled traveler on a bridge mock-up at the fabricators facility, full time on site construction inspection of the installation of the power distribution equipment (conductor rail, transformers, distribution panels) and erection of the travelers, and final field acceptance testing.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Mark Kaszczak, Jr., EIT**		Years of relevant experience with this employer	7
Title	Mechanical Designer and Construction & Shop Inspector		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.S., Mechanical Engineering, 2011, Manhattan College M.S., Mechanical Engineering, 2013, Manhattan College		
Active registration number / state / expiration date		Engineer-In-Training: NY / 12873-60443		
Year registered	2014	Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities		**Mechanical Engineering Tunnel Inspector – Meets MPR 5**		

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).
06/15 – 03/18	**CE&I Services for the Mechanical & Elelctical (M&E) Major Rehabilitation of the Battery Park Underpass | Manhattan, NY | New York City DOT** **Mechanical & Electrical Inspector** for replacement of all M&E components damaged by flooding of the tunnel during Superstorm Sandy. Contractor performed the work based on Record Dwgs (no new design), and therefore required extensive coordination with the contractor. Work included replacement of all mechanical and electrical systems including pumps, ventilation, lighting, and warning systems and all associated conduit, wiring, roadway lighting, traffic signals, that is, all tunnel operating systems. Provided intensive construction inspection and testing services, field measuring and calculating completed quantities of work for payment, documenting inspection observations and pay items on Daily Work Reports per the Manual of Uniform Record Keeping (MURK), assisted with producing the As-Built plans, provided and related services.
12/19 – 03/20	**CE&I Services for Reconstruction of Upper and Lower Toll Plazas and Southbound Approach at Henry Hudson Bridge | New York, NY | Triborough Bridge and Tunnel Authority** **Mechanical Inspector** for the HH-88B portion of Reconstruction of Upper and Lower Level Toll Plazas and Southbound Approach at the Henry Hudson Bridge. Project required demolition and reconstruction of existing structural members in stages to provide better flow through section of roadway and facility upgrades. Provided onsite inspection services for REI covering excavation, concrete placement (drilling of rock anchors, installing rebar, building of formwork, and ultimately pouring concrete for footings and abutments), and development of estimates for portion of contract deletion. Produced daily MURK 1 DWRs to track contractor progress within field and respective associated pay items. *[2021 ACEC-NY EEA Platinum Award winning project, Category C: Structural Systems.]*

01/19 – 4/22	**Construction Engineering Inspection (CE&I) Services for Madison Avenue Bridge (swing bridge) Over Harlem River | New York, NY | New York City DOT** **Mechanical Construction Engineering Inspector** for NYCDOT contract #HBX644S. Perform shop and field construction inspections per contract requirements. Field work includes observation of field surveys (general surveying and span tracking during operation with FARO laser tracking system), electrical demolition and installation of temporary electrical items, and general demolition of existing structural and mechanical components slated for replacement under contract. Inspection reports are created to track shop work progress and MURK 1 DWRs are produced for field work tracking. Work also includes reviewing and provide comments to change orders and coordinating with client, contractor and designer to address field conditions to aid in streamlining work.
10/20-Present	**CE&I Inspection Services for the Rehabilitation of the Broadway Bridge (Vertical Lift) | New York, NY | New York City DOT** **Mechanical Construction Engineering Inspector** 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.
09/17-04/18	**Construction Engineering & Inspection For The Rehabilitation of the Atlantic Beach Bascule Bridge | Atlantic Beach, NY | Nassau County Bridge Authority** **Mechanical & Electrical Construction Inspector** Performed field hands-on inspections of new and existing mechanical and electrical components to ensure proper fitment. Flagged issues for component interferences and brought to the attention of Resident Engineer and Contractor. Hands-on inspections per approved submittals required measurement of precision measurements with digital calipers, micrometers, and radii gauges and general visual inspection of machined surfaces. Non-destructive testing (Dye Penetrant Inspection) was performed on interior of existing castings to determine condition of existing castings to be re-used. Secondary role was to provide support for deck replacement inspection. Visually inspected all accessible new decking connection which included welds and bolted connections for final inspection. Performed visual inspection of accessible structural rivets and marked ones for replacement that met contract criteria. Visually inspected all accessible newly installed components for proper paint coverage.
12/19-03/20	**CE&I Services For Reconstruction of Upper and Lower Toll Plazas and Southbound Approach at Henry Hudson Bridge | New York, NY | Triborough Bridge and Tunnel Authority** **Mechanical Construction Engineering Inspector** for the HH-88B portion of Reconstruction of Upper and Lower-Level Toll Plazas and Southbound Approach at the Henry Hudson Bridge. Project required demolition and reconstruction of existing structural members in stages to provide better flow through section of roadway and facility upgrades. Provided onsite inspection services for REI covering excavation, concrete placement (drilling of rock anchors, installing rebar, building of formwork, and ultimately pouring concrete for footings and abutments), and development of estimates for portion of contract deletion. Produced daily MURK 1 DWRs to track contractor progress within field and respective associated pay items. *[2021 ACEC-NY EEA Platinum Award winning project, Category C: Structural Systems.]*

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**Travis Kimmins, PE**		Years of relevant experience with this employer	3	
Title	Senior Mechanical Engineer		Years of relevant experience with other employer(s)	15	
Degree(s) / Years / Specialization		M.S., 2003 / Mechanical Engineering, 2003, University of Tennessee, Knoxville B.S., Mechanical Engineering, 2001, University of Tennessee, Knoxville			
Active registration number / state / expiration date		Professional Engineer: 43676 / LA / 3/31/2024			
Year registered	2019	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities		**Mechanical Engineering Tunnel Inspector – Meets MPR 5**			

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 – 02/19	**Construction Engineering Inspection (CE&I) Services for Madison Avenue Bridge (swing bridge) Over Harlem River | New York, NY | New York City DOT** **Mechanical Construction Engineering Inspector** for NYCDOT contract #HBX644S for the replacement of span drive machinery, primary and secondary reducers and bearings; replacement of rack and pinions, center pin rehabilitation; replacement of end lifts at rest piers; replacement of centering locks, machinery, and receiving sockets at rest piers; new hydraulic auxiliary drive diesel powered by HPU and generator, removal of non-operational machinery; new electrically operated brakes; rehabilitation of machinery supports; new shafts and couplings; and cleaning, lubrication and adjustment of drum girder roller assembly. Mr. Kimmins performs shop and field construction inspections per contract requirements. Field work includes observation of field surveys (general surveying and span tracking during operation with FARO laser tracking system), electrical demolition and installation of temporary electrical items, and general demolition of existing structural and mechanical components slated for replacement under contract. Inspection reports are created to track shop work progress and MURK 1 DWRs are produced for field work tracking. Work also includes reviewing and provide comments to change orders and coordinating with client, contractor, and designer to address field conditions to aid in streamlining work.
10/20 – 01/21	**Broadway Bridge over the Harlem River Rehabilitation | Bronx & Manhattan, NY | New York City DOT** **Mechanical Construction Engineering Inspector** 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.

01/18 – Ongoing	**Bridge Inspection and Design On-Call | Chesapeake, VA | City of Chesapeake** **Senior Movable Bridge Mechanical Engineer/Inspector** for this on-call contract. Provided emergency response after a barge collided with Centerville Turnpike swing bridge. Developed repair plans for the damaged mechanical systems, including the end wedges, centering latch, pivot bearing, the rack and track, and realigning the operating machinery. Currently, providing construction inspection services while the machinery repairs were being performed. Mr. Kimmins has been heavily involved during gear alignment, balance wheel adjustments, span balance adjustments, end wedge adjustments, and the centering latch adjustments. For Great Bridge Bascule Bridge, provided inspection services and field support during the replacement of large droop hydraulic hoses. Mr. Kimmins was onsite during construction to ensure the contract requirements were met and work was performed safely.
10/18 – 07/21	**East Michigan Street Lift Bridge over Milwaukee River | Milwaukee, WI | City of Milwaukee** **Senior Mechanical Engineer/Construction Inspector** for the replacement of the East Michigan Street Bridge, a 178-foot-long vertical lift bridge. Mechanical work also included providing construction support services. The control system was designed to enable the bridge to operate locally or from a remote location. He was also responsible for the design of the hydraulic system. Provided construction inspection support services, including shop drawing reviews, responses to RFIs, field support to address construction issues, and functional testing support. Also, troubleshoot issues with the hydraulic system / control system to address skew issues.
01/20 – Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation | New Orleans, LA | Port of New Orleans** **Mechanical Engineer** for 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 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.
09/19 – Present	**Jupiter Federal Bridge Replacement | Jupiter, FL | FDOT District 4** **Senior Movable Bridge Mechanical Engineer/Construction Inspector** responsible for mechanical systems design for this bascule bridge replacement project. H&H serves as Engineer of Record for the project, which addresses structural and functional deficiencies of the existing US 1/SR-5 Jupiter Federal Bridge from CR-A1A to Beach Road. Scope includes the development of vertical and horizontal alignment for bridge replacement alternatives and study of the resulting impacts. The design incorporates improvements for the intersection and traffic functions at both ends of the approximately 2,960-foot-long project corridor into the bridge replacement design. Providing construction inspection support services and quality reviews on all shop drawing reviews and RFI responses.
08/12 – 04/18	**Jamestown Scotland Ferry Hydraulic System Rehabilitation | Jamestown, VA | Virginia DOT** **Senior Movable Bridge Mechanical Engineer** responsible for the design of the hydraulic system to replace the existing hydraulic system. Provided construction services, including shop drawing reviews, responses to RFIs, witness shop testing, and field support during construction events. During construction, there was a change in consultants for CEI services. Mr. Kimmins ensured the project was completed in accordance with contract requirements and on schedule. The ferry remained operational throughout construction.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**John Madera, EI**		Years of relevant experience with this employer	3
Title	Senior Construction Engineer		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		BS, Mechanical Engineering, 2010, Manhattan College		
Active registration number / state / expiration date		Engineering Intern: NY / 12814-61219		
Year registered		Discipline	Mechanical Engineering	
Contract role(s) / brief description of responsibilities		**Mechanical Engineering Tunnel Construction Inspector – Meets MPR 5**		

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).
02/13 – 01/15	**Resident Engineering Services For The Rehabilitation Of The Battery Park Underpass | New York, NY | New York City DOT** **Senior Inspector** for the repairs to a Manhattan tunnel damaged due to Hurricane Sandy. The tunnel was completely flooded during the storm and the project repaired/replaced all affected mechanical and electrical equipment. Hardesty & Hanover was a major subconsultant providing on-call construction management and inspection for various involved bridges, tunnels, roadways, ferry terminals, and other transportation facilities projects throughout the five boroughs of New York City.
01/16 – 03/22	**Design-Build Quality Oversight for VN-89/30, Rehabilitation of Elevators, Tower Pedestals and Construction of New Mooring Platforms at the Verrazzano-Narrows Bridge | Brooklyn, NY | Triborough Bridge And Tunnel Authority** **Construction Inspector** for this $36 million multi-discipline design-build contract for the rehabilitation/replacement of four tower elevators, rehabilitation of the tower pedestals including granite restoration, new security system components and electrical upgrades, new mooring platforms and standpipe modifications for FDNY boats. Responsibilities included management and tracking of all design and construction submittals for H&H and TBTA review.
04/15 - Ongoing	**Construction Inspection Services for Three Bridges on the Long Island Expressway and Grand Central Parkway (D031268) | Queens County, NY | New York State DOT** **Construction Inspector** for the $56 million reconstruction of the Long Island Expressway/Grand Central Parkway (LIE/GCP) Interchange, including reconstruction of three existing LIE bridges, construction of two new LIE bridges in the 20-foot wide gaps between the existing bridges; repairing and resurface the LIE Bridge over College Point Blvd, and reconstruction of approximately one mile of the LIE roadway. Work includes demolition of bridge decks and superstructures; repair concrete substructures; new pile foundations; and new steel superstructures, seismic resistant bearings, concrete deck, concrete barrier, roadway lighting; and ITS. This project requires extensive inter-agency coordination; utility protection; Urban WZTC; night and weekend work, asbestos and lead paint abatement, and SiteManager reporting.

10/14 – 12/14	**Paving the NYS Thruway I-87 from MP 18 to 24 | Rockland County, NY | New York State Thruway Authority** **Senior Construction Inspector** for $16 million NYSTA Contract TANY 14-27 for the milling and HMA paving of the I-87 mainline from MP 18 to 24 in Rockland County NY. Scope of work also included full and partial-depth pavement repairs, joint replacement, guiderail installation and drainage improvements.
02/16 – 02/17	**Resident Engineering And Inspection Services For The Rehabilitation Of Houston Street Overpass At FDR Drive | New York, NY | New York City DOT** **Senior Construction Inspector** for this $35 million project. This project involved the demolition and complete superstructure replacement of the Houston Street Bridge. Other work included substructure rehabilitation, traffic improvements, and miscellaneous painting. Critical elements included high traffic volumes; night work; coordination with NYC OCMC; third party review of demolition; and CPM Schedule review.
01/14 – 12/15	**As-Needed Construction Administration, Inspection, And Support Services For The Preservation Of The RFK Bridge (RKM-351, Task 6) | New York, NY | Triborough Bridge And Tunnel Authority** **Senior Inspector** performing construction inspection on Task 6 for this As-Needed Construction Management contract with TBTA, which included a variety of rehabilitation assignments at various TBTA facilities. Task 6: Project RKM-351, Bridge Preservation at the Robert F. Kennedy Bridge. This $3 million construction contract involved the cleaning and washing of splash zone areas on the entire bridge structure, cleaning of drainage structures, spot painting, and cleaning and painting of heavily corroded areas in accordance with SSPC SP3 and SP11 with application of a high performance coating system. The contract also involved miscellaneous structural steel repairs/replacement as ordered by the Engineer. H&H also provided safety oversight of the Contractor's operations.
10/12 – 10/13	**Construction Management and Inspection Services for the Replacement of the Upper Level Curb Stringer, Adjacent Concrete Deck, and Safety Barrier at the Henry Hudson Bridge (HH-10; PSC-10-2864) | New York, NY | Triborough Bridge And Tunnel Authority** **Senior Construction Inspector** for this $36 million rehabilitation contract for the removal and replacement of the deteriorated upper level curb stringers, adjacent concrete deck, and roadway lighting at the Henry Hudson Bridge. The scope of work included: steel and concrete demolition; structural steel repairs/replacement; construction of concrete-filled grid deck and concrete parapets; lead paint removal and steel painting; new electrical distribution service; and maintenance and protection of traffic. This project also involved staged construction, 24-hour multi-shift operations, and work on overactive railroad lines and waterway.
04/11 – 12/12	**Rehabilitation of the I-95 Bridge Over The Byram River (New England Thruway) and Reconstruction of the Adjacent Roadway | Port Chester, NY | New York State Thruway Authority** **Construction Inspector** for this $20 million rehabilitation of the Byram River Bridge and improvements to the adjacent portions of I-95 (New England Thruway). The bridge rehabilitation work included full and partial depth concrete deck repairs, steel cleaning & painting with high performance coatings and Class 1A containment, steel repairs, joint replacement, and waterway fender improvements. Highway work included shoulder reconstruction, new guiderails, and repaving I-95 from MP 13.3 to MP 15.2 and repaving the I-287 interchange ramps.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC				
Name	**Mark Soryal, PE**		Years of relevant experience with this employer	9	
Title	Mechanical Engineer/Construction Inspector		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization		BS, Mechanical Engineering, 2011, The College of New Jersey			
Active registration number / state / expiration date		Professional Engineer: 101694 / NY / 7/31/2022			
Year registered	2019	Discipline	Mechanical Engineering		
Contract role(s) / brief description of responsibilities		**Mechanical Engineering Tunnel Construction 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).
12/18 – 4/22	**Construction Engineering & Inspection Services for the Rehabiltiation of the Broadway Bridge (Vertical Lift) | New York, NY | New York City DOT** **Mechanical Construction Engineering Inspector** 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.
02/19 – 04/22	**CE&I Services for Madison Avenue Bridge (swing bridge) Over Harlem River | New York, NY | New York City DOT** **Mechanical Construction Engineering Inspector** for NYCDOT contract #HBX644S for the replacement of span drive machinery, primary and secondary reducers and bearings; replacement of rack and pinions, center pin rehabilitation; replacement of end lifts at rest piers; replacement of centering locks, machinery, and receiving sockets at rest piers; new hydraulic auxiliary drive diesel powered by HPU and generator, removal of non-operational machinery; new electrically operated brakes; rehabilitation of machinery supports; new shafts and couplings; and cleaning, lubrication and adjustment of drum girder roller assembly. Mr. Soryal performs shop and field construction inspections per contract requirements. Field work includes observation of field surveys (general surveying and span tracking during operation with FARO laser tracking system), electrical demolition and installation of temporary electrical items, and general demolition of existing structural and mechanical components slated for replacement under contract. Inspection reports are created to track shop work progress and MURK 1 DWRs are produced for field work tracking. Work also includes reviewing and providing comments to change orders and coordinating with client, contractor, and designer to address field conditions to aid in streamlining work.

07/16-present	**Marine Parkway, Gil Hodges Memorial Bridge | Brooklyn, NY | Triborough Bridge and Tunnel Authority** **Senior Mechanical Construction Engineer Inspector** for $129 million construction contract (original contract plus amendments). Responsible for field and shop construction inspection for work associated with Friction Mitigation, Machinery Rehabilitation, Painting, Architectural and Maintenance and Protection of Traffic. Friction mitigation work includes refinishing trunnion journals and performing Magnetic Particle Testing, replacing span guide rollers, replacing counterweight guide shoes, balancing the lift span, re-tensioning the counterweight ropes and performing strain gage testing. Machinery Rehabilitation work includes auxiliary counterweights, new wire rope lubrication system, replacing all span operating machinery and supports and air buffers. Architectural work includes ceiling supports, concrete boards, gypsum finish, wall insulation, rollup doors and hollow metal doors. On-site to provide technical advisement regarding construction and design related issues, client and project team advice on field coordination issues, means and methods reviews, existing condition evaluations and constructability reviews. Performed hands-on inspection of the machinery alignment to confirm installation values were within designer/manufacturer's required tolerances. Monitored painting operations of the new machinery supports as well as new machinery components. Attended weekly progress meetings as well as mechanical/electrical coordination meetings. Assisted contractor with Coast Guard presentation for request of a navigational closure extension. Performed shop visits for all machinery fabrication. Performed "over the shoulder" review of all shop drawings. Maintained good relationship with fabricator and erector throughout the project to eliminate delays.
03/16-02/19	**Rehabilitation of the Rio Hondo Lift Bridge | Rio Hondo, TX | Texas DOT** **Mechanical Engineer and Construction Inspector** responsible for the construction support services, review of shop drawings, project submittals and installation procedures, and responding to RFI's submitted by the contractor for the replacement and rehabilitation of the existing operating machinery. In the second phase of the project H&H provided the final design package which included numerous structural repairs to the movable bridge structure and bridge towers, a new electrical power and control system, and machinery rehabilitation. H&H developed a proposed construction schedule that avoided impact to USCG navigation while minimizing roadway closure durations. H&H also assisted in the development of and participated in an extensive public outreach program to inform the local community of the project impacts and respond to questions from the stakeholders and community members. For the final phases, H&H will be providing construction support services and development of a maintenance manual.
10/13-07/16	**Replacement of the Bruckner Expressway Over Westchester Creek (Unionport Bridge) | New York, NY | New York City DOT** **Mechanical Engineer Construction Inspector** responsible for the design, calculations, development of contract plans, cost estimate for new operating machinery, trunnion bearings, span lock machinery and hydraulic machinery of a new federally funded bridge replacement project for NYCDOT. The Unionport bridge is a double leaf bascule with two side by side single leaf bascule spans over the Westchester Creek and was previously studied for rehabilitation but due to its poor condition and the traffic implications of in-place repair, a full replacement has been deemed necessary. The existing double leaf bascule span will be replaced with twin single leaf bascule spans. The new wider roadway, which eliminates the problematic open grating deck, will allow for maintenance of traffic during both current and future bridge work. The new bridge will address geometric deficiencies by providing three lanes in each direction along with shoulders, and both a sidewalk and a combined bicycle/pedestrian facility. The existing deteriorated approach structures will be replaced with a retained fill to minimize future maintenance needs. Two lanes of traffic in each direction will be maintained throughout construction on the mainline, with at least one lane at each of the ramps. Navigation will be maintained during construction.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Linh-Thien Kim, EI**		Years of relevant experience with this employer	2
Title	Civil Engineer		Years of relevant experience with other employer(s)	4

Degree(s) / Years / Specialization			B.S., Civil Engineering, 2017, University of New Orleans
Active registration number / state / expiration date			Engineer Intern: 33538 / LA / 3/31/2022 ATSSA Traffic Control Technician
Year registered	2017	Discipline	Construction Engineer Inspector
Contract role(s) / brief description of responsibilities			**Structural Engineering Tunnel 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).
08/18 – 06/21	**Lake Pontchartrain Causeway Safety Bay Improvement Project (CE&I) | New Orleans, LA | Greater New Orleans Expressway** **Structural Construction Engineer Inspector** performing construction engineering and inspection services for this fast-paced $60 million bridge improvement project being designed to LADOTD Standards and Specifications. The project is utilizing the Construction Manager at Risk (CMAR) delivery method. Improvements will increase emergency stopping areas and widen both causeway bridges to provide new shoulders in at least six locations in each direction.
07/20 – Present	**H.013897: I-10 & I-12 College Drive Flyover Ramp Design-Build | East Baton Rouge Parish, LA | LADOTD** **Structural Construction Inspector** for construction quality control for this flyover ramp design-build project 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.
9/20 – Present	**H.014530: Almonaster Avenue Railroad Bridge over the Industrial Canal | New Orleans, LA | Port of New Orleans** **Civil Engineer** assisting with a variety of repairs on this steel Strauss Trunnion Bascule Bridge. Major work included replacement of components of the railroad floor system stringers and floor beams that rated lower than E-60 and replacement of deteriorated lateral connection plates. The cracked concrete on the rest pier in the area of the bearings was removed and replaced with higher strength concrete. The replacement and tightening of loose or missing fasteners throughout the entire structure was also included in the repair scope. Scope included bridge design and repair plans, contract specifications, construction inspection, construction support services.
01/19 - 04/19	**H.009498.5: LA 121: Calcasieu River Bridge | 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-foot- long using four 60-foot-long deck spans with a bridge

	width of 42.5-foot-wide. 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.
03/19 - 04/19	**H.010916.6: Prien Lake Re-Deck & Safety Improvements | LADOTD** Civil Engineer Intern. Completed shop drawings for end dams. Added #7 bars staggering at continuous deck joints to support spans at continuous deck joints. Created a change order for sheets showing bridge plan views.
04/19 - 04/19	**H.011159.6: Caroll Street bridge/ Bayou Black Bridge | LADOTD** Civil Engineer Intern. Completed shop drawing checks for steel bridge railing designed for this project.
05/19 – 07/19	**H.003184.5: I-10: Texas State Line - East of Coone Gully | LADOTD** Civil Engineer Intern. Designed and detailed an LG-36 (I-beam) Concrete Prestressed Girder Bridge using continuous deck spans with a 2.5% slope. The continuous deck spans were 240 and 300 feet long using four 60-long and five 60-long deck spans respectively. The bridge width was 72.5-foot-wide. 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.
08/19 – 09/19	**H.001707.5: LA 507: Saline Bayou Relief Bridge | LADOTD** Civil Engineer Intern. Completed General Plan revisions, such as checking guard rail design, geotextile fabric, and riprap design. Calculated bridge estimate quantities and revised the general notes/index.
09/19 – 11/19	**H.009482.5: LA 113: Jim Burney Branch Bridge | LADOTD** **Civil Engineer Intern.** Prepared 60% final plans review and submittal. Completed revisions for initial design due to comments from the district and Project Engineer reviewer. Completed a bridge rating using AASHTOWare Bridge Rating software and STAAD Analysis.
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. Prepared 60% Preliminary Plans Set to be sent out Hydraulics, Property Survey, and Subgrade Soil Survey sections.
10/19 – 11/19	**H.0030382.5: US 71: Bridges Near St. Maurice, LADOTD** **Civil Engineer Intern.** Computed parametric cost estimates for this project.
11/19 – 12/19	**H.009498.5: LA 121: Calcasieu River Bridge | LADOTD** **Civil Engineer Intern.** Completed revisions for my initial design for this project via Project Engineer's review. Prepared a deep soil boring request.
12/19 – 04/20	**H.003184.5: I-10: Texas State Line - East of Coone Gully | LADOTD** **Civil Engineer Intern.** Checked bent detail and quantities for 3 of 5 bridge sites (6 bridges total). Completed a bridge rating using AASHTOWare Bridge Rating software and STAAD Analysis for all bridge sites (10 bridges total). Checked Pile data quantities to ensure Geotechnical and Bridge Plans have the same values. Designed a custom elastomeric bearing pad for prestressed girder bridges.
12/19 – 01/20	**H.012030.5: US 371: KCS RR Overpass HBI | LADOTD** Civil Engineer Intern. Designed and detailed an alignment study for two bridge sites with a railroad overpass.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Amir Najib**		Years of relevant experience with this employer	4
Title	Structural Designer		Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			MS, Civil and Environmental Engineering (Structural Focus), 2022, University of Maryland | BS, Civil Engineering, 2018, Old Dominion University
Active registration number / state / expiration date			Engineer Intern: 33538 / LA / 3/31/2022; Certifications: FHWA-NHI 130055 Safety Inspection of In-Service Bridges
Year registered	N/A	Discipline	Structural Designer
Contract role(s) / brief description of responsibilities			**Structural Engineering Tunnel 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).
01/21 – 03/21	2021 Tunnel Inspection & Loading Rating of 4 Tunnels | New York, NY | New York City DOT **Structural Bridge Inspector** responsible for NTIS inspection of the 1st Avenue Tunnel, Park Avenue Tunnel, West Street Underpass and Battery Park Underpass. The inspection included ventilation systems, axial fans, centrifugal fans, carbon monoxide sensors, drainage system, drainage pumps, fire suppression systems, fire suppression standpipe and piping, emergency egress and egress signage.
02/20 – Ongoing	**Load Ratings for Fort McHenry (FMT) & Baltimore Harbor (BHT) Tunnels Cut & Cover | Baltimore, MD | Maryland Transportation Authority** **Structural Bridge Designer** for the load rating calculations of the FMT and BHT Tunnels. Responsible for analysis of the Cut & Cover Sections and work done in AutoCAD.
06/22 – 09/22	**Chesapeake Bay Bridge North Ferry Pier Replacement | Baltimore, MD | Maryland Transportation Authority** **Structural Designer** responsible for evaluating various replacement options for a pier located to the southwest of the Bay Bridge to provide recommendations. This study included investigating permit requirements, environmental impacts, various purposes of the pier, preliminary designs, cost estimates, and cost analyses.
08/18 – Ongoing	**Facilities Inspections, Inspection, Francis Scott Key Bridge | Baltimore, MD | Maryland Transportation Authority** **Structural Bridge Inspector** responsible for developing inspection cost proposal, coordination with subcontractors, owner, and equipment vendors, as well as performing the inspections and developing reports for physical on-site condition inspections and developing reports for the Francis Scott Key Bridge.

08/18 – Ongoing	**Facilities Inspections, Inspection of William Preston Lane (WPL) Memorial Bridge | Baltimore, MD | Maryland Transportation Authority** **Structural Bridge Inspector** responsible for developing inspection cost proposal, coordination with subcontractors and equipment vendors, as well as performing physical on-site condition inspections and developing reports for the WPL Bridge (Chesapeake Bay Bridge).
06/21 – 11/21	**Load Ratings of Six VDOT Bridges | Statewide, VA | Virginia Department of Transportation (VDOT)** **Structural Bridge Designer** responsible for performing six Level 1 LRFR load ratings in accordance with AASHTO Manual for Bridge Evaluation and incorporating the conditions of the bridges. This was done using AASHTOWare Bridge Rating (BrR) software. The six bridges included three multi-span prestressed concrete bridges, one composite steel girder bridge, one steel girder bridge with a non-composite timber deck, and one post tensioned solid slab bridge.
08/18 - Ongoing	**Bridge Inspection, Evaluation, and Rating Services | Statewide, MD | Maryland State Highway Administration** **Structural Bridge Inspector** responsible for developing inspection cost proposal, coordination with subcontractor and equipment vendors, obtaining railroad permits and access as well as performing the inspections and developing reports for state-owned bridges in Baltimore County and Carroll County and city-owned bridges in Baltimore City.
06/20 – 08/20	**Five NYCDEP Bridges (CR0-530A&B) | New York, NY | New York City DEP** **Structural Designer** for the reconstruction of one NYCDEP watershed bridges and the demolition of three NYCDEP watershed bridges. The Cross River Inlet Bridge, requires repairs to the deteriorated existing concrete components. The Baptist Church Road Bridge includes complete replacement of the bridge due to its poor existing conditions with a new roadway alignment to eliminate geometrical substandard features. The Dean's Bridge, Lakeside Road (Katonah) Bridge and Plum Brook Bridge, are out of service and has been unused since early 1990s. These bridges will be demolished and removed due to the poor condition of the existing superstructure, low load ratings, substandard features and its lack of necessity to the community. Responsible for AutoCAD work and design assistance.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Ryan Nolan, PE**		Years of relevant experience with this employer	10
Title	Civil Engineer		Years of relevant experience with other employer(s)	16

Degree(s) / Years / Specialization			B.S., Civil Engineering, 2017, University of New Orleans
Active registration number / state / expiration date			**Professional Engineer:** LA / 44583 / 2020; **Certifications:** FHWA-NHI 130110 Tunnel Safety Inspections, 2014; **FHWA-NHI 130125 Tunnel Inspection Refresher Training, 2018; FHWA-NHI 130053 Bridge Inspection Refresher Training,** 2010, 2014, 2018; FHWA-NHI 130078 Fracture Critical Inspection Techniques, 2010, 2014, 2018; OSHA Confined Space Entry, 2012; FHWA-NHI 130087 Inspection & Maintenance Ancillary Hwy Struct., 2011; FHWA-NHI 130055 Safety Inspection of In-Service Bridges, 1999; SPRAT I, 2015; Temporary Traffic Control Manager.
Year registered	2020	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Structural Engineering Tunnel 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).
09/17 – Ongoing	**Annual Facilities Inspection Services (AE3015) | Statewide, MD | Maryland Transportation Authority** **Deputy Project Manager/Task Manager/Inspection Team Leader** for the routine, in-depth and emergency inspection of MDTA- owned bridges and **tunnels**. Project work includes: 1) Tunnel Inspection: Task Manager for the inspection of two tubes of the Baltimore Harbor Tunnel, BHT Fairfield and Canton ventilation buildings and the four bores of the Fort McHenry Tunnel facilities plus the East and West ventilation and west annex buildings including delineating deteriorated concrete in FMT lower plenums. 2) Tunnel Inspection: Team Leader for the annual inspection of Fort McHenry Tunnel ventilation building, including performing special confined space inspection of east portal pump wet well for infiltration investigation. 3) Tunnel Inspection: Team Leader for emergency inspection in response to waterline leak in BHT east tube. Coordinated with CFMO to inspect roadway and fresh air duct; participated in evaluation and development of repairs. 4) Tunnel Inspection: Team Leader for emergency inspection in response to FMT lower plenum waterline break in Bore 3; participated in evaluation and repair development. 5) Tunnel Inspection: Team Leader for emergency inspection, evaluation and assessment of over-height vehicle in the Baltimore Harbor Tunnel. Interior ceiling panels and pavement were inspected and assessed.
11/13 – 11/18	**Annual Facilities Inspection Services (AE2761) | Statewide, MD | Maryland Transportation Authority** **Deputy Project Manager/Task Manager/Inspection Team Leader** for the routine, in-depth and emergency inspection of MDTA- owned bridges and **tunnels.** Project work includes: 1) Tunnel Inspection Task: On-site Project Manager as the Acting Inspection Program Manager responsible for coordinating efforts for annually inspecting the Baltimore Harbor Tunnel and the Fairfield and Canton ventilation

	buildings, the Fort McHenry Tunnel, East and West ventilation buildings, and West annex building; triaged Letters of Concern for immediate repairs in the tunnels and vent buildings; reviewed annual reports and repair recommendations; reviewed and processed task proposals and invoices for work in tunnels; coordinated with facility operations personnel for repairs and inspections; oversaw the inventorying of tunnel assets and the development and implementation of asset recording system. 2) Tunnel Inspection: Team Leader for the emergency inspection of Fort McHenry Tunnel due to vehicle fire in the Bore 1; involved inspection of the roadway, walls, ceiling panels and ceiling panel hanger rods in the upper plenum. 3) Tunnel Inspection: Team Leader responsible for coordinating and performing response inspections to seismic and hurricane events for Fort McHenry and Baltimore Harbor Tunnels. 4) Tunnel Inspection: Team Leader responsible for responding to and coordinated inspections to address concerns of galvanic reaction deterioration in tunnel light fixtures.
10/10 – 10/14	**Annual Facilities Inspection Services (AE2483) | Statewide, MD | Maryland Transportation Authority** **Task Manager/Inspection Team Leader** responsible for the implementation and oversight of the annual inspection and documentation of 1,500+ assets, notably, the Chesapeake Bay Bridges, U.S. 301 Potomac River Crossing and the Baltimore Harbor and Fort McHenry Tunnels. Assets include ancillary structures, retaining walls, noise walls, underground stormwater management structures and small structures. Assets cross Amtrak, MTA, CSX Transportation, Norfolk Southern and Canton Railroad rights-of-ways. Team Leader for Bay Bridge Eastbound: deck truss spans, suspension spans; Westbound through truss spans; Francis Scott Key Bridge truss spans; audits of the Bridge deck truss spans. Includes varying degrees of hands-on, interim, and visual annual inspections requiring phased MOT and non-destructive testing for pins, anchor tie-downs, and pole base thickness readings. Served as Acting Bridge Inspection Project Manager responsible for working on-site representing MDTA for over two and half years. Oversaw 27 consultants performing annual inspections of the Authority's 1,500+ assets. Coordinated the development and implementation of the Office of Engineering and Construction Inspection Manual including tunnel sections and the OEC's inspection database management system Authority Structures Inspections and Repairs (ASIR). Mr. Nolan also participated in peer reviews with members from FHWA and other state agencies pertaining to the system-wide inspection program. 1) Responded to multiple emergencies in FMT and BHT tunnels due to vehicle impacts and fires. 2) Oversaw the condition inspection of the BHT Ventilation Building. Ryan was responsible for transitioning these duties to the subsequent permanent Inspection Managers.
05/10 – 10/10	**Metro Tunnel Structural Monitoring | Baltimore, MD | Maryland Transit Authority** **Tunnel Inspection Team Leader** responsible for the inspection of portions of the Maryland Transit Administration Metro Tunnel entering Johns Hopkins Station. In response to building construction activities adjacent to the Metro tunnel location, Team Leader responsible for defining and implementing monitoring plan that involved a preconstruction assessment, establishment of monitoring points, regular inspections during construction, survey comparison and final documentation.
09/02 – 09/06	**Citywide Bridge Inspection Program | Washington, DC | District of Columbia DOT** **Project Engineer/Inspection Team Leader** responsible for comprehensive inspection of approximately 250 structures over highways, streams, railroads (CSX&T, Amtrak and WMATA); Inspections included I-395 tunnels, confined space, soundings, underwater and daily security coordination. Included were reports, SI&A/PONTIS, and recommendations. Mr. Nolan was also the project engineer responsible for managing the Level II Underwater Inspections of 21 bridges for DDOT.

16. Staff Experience:

Firm Employed by	Hardesty & Hanover				
Name	**Lance Resendez, EI**			Years of relevant experience with this employer	1
Title	Civil Designer			Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization			B.S. / 2021 / Civil Engineering / Louisiana State University		
Active registration number / state / expiration date			Engineer-in-training: 34896/ Louisiana / 9/30/2023		
Year registered	2021	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities			**Structural Engineering Tunnel 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).
07/22 - Present	**Company Canal Vertical Lift Bridge Replacement CE&I – LA DOTD** **Engineer Intern** providing contract administration and construction 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 L A 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. Resendez is providing construction contract administration and construction engineering inspection services typically performed by the DOTO Project Engineer and their staff.
04/22 - 07/22	**Lakeview North Group C (RR085) – Sewerage and Water Board New Orleans** **Engineer Intern** contributed to the project as a construction inspector. The project consisted of street paving, sidewalks, accessible ramps, driveways, drainage structures, drainage point repairs, and water line replacement within a 38-block range (Robert E Lee to Filmore and West End to Orleans).
01/22 - 04/22	**Octavia Street Project – Department of Public Works, New Orleans** **Engineer Intern** contributed as a construction inspector for the project consisting of the reconstruction of all utilities, the roadway, driveways, and sidewalks for the blocks of Octavia St. from 2300 block to 2900 block. The project is a total footage of about 2400 feet. The project had many characteristics to it from air spading for trees to Type C Adjustments for the catch basins. Mr. Resendez oversaw multiple crews daily.
10/21 - 01/22	**Lafitte Greenway Project – Sewerage and Water Board of New Orleans** **Engineer Intern** contributed construction inspection for the destruction and rebuild of a pedestrian bridge on the Lafitte Greenway walking path. The project consisted of complete destruction and replacement of bridge and reconstruction of roadway on south side of Conti Street as well as the addition of adding replacement drains in the area.

16. Staff Experience:

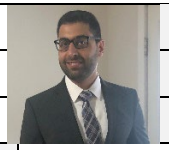
Firm employed by	Hardesty & Hanover, LLC			
Name	**Amy Robards, PE**		Years of relevant experience with this employer	4
Title	Structural Engineer/Inspection Team Leader		Years of relevant experience with other employer(s)	7

Degree(s) / Years / Specialization			B.S., Civil Engineering, 2012, University of New Orleans
Active registration number / state / expiration date			Professional Engineer: 41718 / LA / 9/30/2023 ATSSA Traffic Control Supervisor Refresher – ATSSA Flagger DOTD Certified Structural Concrete Inspector / LADOTD / 12/13/2023
Year registered	2017	Discipline	Civil and Environmental Engineering
Contract role(s) / brief description of responsibilities			**Structural Engineering Tunnel 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).
10/19 – 01/20	**Annual Inspection of Almonaster Railroad Bascule Bridge over the Industrial Canal | New Orleans, LA | Port of New Orleans** **Structural Engineer/Inspector** for an annual inspection of the Almonaster Avenue Railroad Bascule, an eligible for the National Register of Historic Places bridge, 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.
08/20 – Present	**L H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge | Bourge, LA | LADOTD** **Structural Engineer/Inspector** 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 closeout, etc.
03/16 – 10/17	**US 190 Mississippi River Bridge CE&I | Baton Rouge, LA | Louisiana DOTD** **Structural Inspector** responsible for providing **construction engineering and inspection** services required during the repairs to the US 190 Mississippi River Bridge approaches in Baton Rouge, Louisiana. Included in the project were assorted repairs as well as the replacement of anchor bolts at concrete footings and other steel approach spans elements.
11/18 – 06/21	**Lake Pontchartrain Causeway Safety Bay Improvements CE&I, Metairie, LA - Greater New Orleans Expressway Commission** **Structural Inspector** responsible for providing **construction engineering and inspection** services required during the safety bay improvement project for the fabrication of pre-stressed piles and girders, caps, and decks as well as all other construction activities including field monitoring, documentation, preparation of daily reports, participation in construction progress meetings, and construction closeout.

03/19 – 10/19	**Seabrook Railroad Bridge Annual / In-Depth Bridge Inspection, Port of New Orleans, LA – Port of New Orleans** **Structural Inspector** responsible for conducting annual inspection of the Seabrook Trunnion Bascule Bridge crossing the IHNC in New Orleans, LA. This inspection included a structural inspection of the fracture critical steel, primary and secondary steel members, an electrical inspection of the electrical systems and controls, and an inspection of the mechanical systems and machinery.
12/19 – 05/19	**Francis Scott Key Bay Bridge Inspection, Baltimore, MD – Maryland Transportation Authority** **Structural Inspector** aided in the biannual inspection of the Francis Scott Key Bridge which included performing a hands-on inspection of fracture critical members and all parts of the deck, superstructure, and substructure. This 37-span structure carries four lanes of the Baltimore Beltway (I-695) over the Potapsco River. The main span is crossed by way of a three-span truss with a cable suspended deck. The structure was accessed using bucket trucks, under-bridge inspection vehicles, manlifts, and rigging. Findings and recommendations were input into the owner's asset management system.
08/18 – 05/19	**William P. Lane Bridge Inspection, Chesapeake Bay, MD – Maryland Transportation Authority** **Structural Inspector** aided in the biannual inspection of William P. Lane Bridge. This 4.2-mile twin bridge facility carries US 50 / 301 across the Chesapeake Bay. Scope included the hands-on inspection of the three-span suspension span and nine spans of suspended deck truss on the eastbound bridge. Additionally, performed audit inspection of the three-span through truss. Inspected all parts of the deck, substructure, and superstructure including suspension cables, suspender ropes, rocker links and anchorages. Findings and recommendations were input into the owner's asset management system.
12/18 – 05/19	**Thomas J. Hatem Memorial Bridge, Harford County, MD – Maryland Transportation Authority** **Structural Inspector** aided in the biannual inspection of the Thomas J. Hatem Memorial Bridge. Performed a quality control inspection consisting of the hands-on inspection of 10% of this 10,362-foot-long bridge. Structure is comprised of multiple deck and through-truss configurations, as well as beam/girder spans and floor beam/stringer systems. Coordinated with multiple inspection teams and access vendors simultaneously operating on the bridge. The structure was accessed using bucket trucks, under-bridge inspection vehicles, manlifts and rigging.
12/15 – 05/18	**Huey P. Long Bridge over the Mississippi River Annual Inspections, Bridge City, LA – New Orleans Public Belt Railroad (NOPBRR) and Louisiana DOTD** **Structural Engineer/Inspector** provided annual inspection services for the main bridge and railroad approaches of the Huey P. Long Bridge, a 2,400-foot-long cantilevered steel through truss bridge that carries a two-track railroad line and three lanes of US 90, as well as the turntable span and maintenance facilities. Inspected the primary members on the deck truss, main spans, piers, towers, and girders using standard climbing techniques and used technical access (rappelling) to inspect the piers. Contributed to the pre-inspection planning, coordination, and writing the final inspection reports.
08/20 – Present	**I-10 & I-12 College Drive Flyover Ramp Design-Build, East Baton Rouge Parish, LADOTD** **Structural Inspector** for construction of this flyover ramp 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 contract specifications.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Tarek Albishara, EIT**		Years of relevant experience with this employer	4
Title	Electrical Engineer/Inspector		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		MS, Computer Science, 2016, NYIT BS, Electrical Engineering, 2010 Polytechnic University (NYU)		
Active registration number / state / expiration date		FE NCEES ID: 089612		
Year registered		Discipline	Electrical engineering	
Contract role(s) / brief description of responsibilities		**Electrical Engineering Tunnel Construction Inspector – Meets MPR 6**		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/16 - Ongoing	**Construction Engineering & Inspection Services for the Rehabiliation of the Battery Park Underpass | New York, NY | New York City DOT** **Electrical Engineer** for construction engineering and inspection contract for repair of the Battery Underpass tunnel due to damage sustained in Hurricane Sandy. The tunnel was completely flooded during the storm and the project will repair/replace all affected mechanical and electrical equipment including carbon monoxide detection, fire protection and SCADA interface with NYCDOT supervisory networks.
09/20 – 04/22	**CE&I Services for Madison Avenue Bridge (swing bridge) Over Harlem River | New York, NY | New York City DOT** **Electrical Construction Engineering Inspector** for NYCDOT contract #HBX644S for the construction inspection of the major mechanical and electrical rehabilitation of a $50M rehabilitation of a 307-foot, four-lane swing bridge over the Harlem River between Manhattan and the Bronx which includes replacement of bridge control system devices, limit switches, field sensors, encoder, and resolvers; replacement of motor control centers (MCCs), replacement of PLC (programmable logic controller); replacement of operator's control desk and gate operator's control stations; new span drives; new electrical motors; hydraulic auxiliary span drive; new electrical navigation warning lights; new cables and conduits; new power distribution system monitoring sensors; new protection devices; new transformers; rehabilitation of submarine cable terminal boxes; and slip ring at center pier. Performed electrical inspection during rehabilitation, ensuring compliance with NYCDOT Construction Specification and National Electrical Code requirements. Reviewed switchgear and motor control shop drawings, coordinated electrical construction with project construction, modified contract designs to suit field conditions, interfaced between the designer and the contractor, and performed additional inspection duties as required.

01/19- Ongoing	**Rehabilitation of Madison Avenue Bridge Over the Harlem River | New York, NY | New York City dot** **Electrical Construction Engineering Inspector** responsible for providing construction management and inspection for complete electrical/mechanical rehabilitation of a major swing bridge. Scope includes new machinery, motors, controls and improvements to operator's house and gatehouses.
5/21 – 11/21	**Broadway Bridge over the Harlem River Rehabilitation | Bronx & Manhattan, NY | New York City DOT** **Electrical Construction Engineering Inspector** providing construction engineering & inspection services for the Broadway Bridge, a two-tiered vertical lift bridge project, which includes complete rehabilitation of the civil, structural, electrical, and mechanical components of the bridge. Mr. Albishara's electrical construction inspection work involves the replacement of the entire bridge's electrical systems; replacement of submarine cables, installation of one AC Flux Vector main drive cabinet with one AC squirrel cage Vector Duty main drive motor per tower; one two-speed squirrel cage auxiliary drive motor will be installed per tower; installation of two diesel fueled generators; installation of new gates and signals; installation of CCTV and security system; and the installation of new roadway and navigational lighting.
05/21	**Design-Build of Redundant Electrical Systems at Robert F. Kennedy Bridge Contract (RK\k-66) - New York, NY | Triborough Bridge and Tunnel Authority** **Construction Oversight Engineer** responsible for providing construction management and Design-Build Oversight for electrical resiliency upgrades including back-up EZ Pass system, switch gear and controls for tolling systems at the RFK Bridge.
01/16 - 10/17	**Construction Engineering & Inspection Services for PLC Upgrades and Drive Replacement for the RFK Bridge (Task 30) | New York, NY | Triborough Bridge And Tunnel Authority** **Electrical Inspector** for the replacement of obsolete PLC with new state of the art PLC control system. New flux vector drives and motors, torque monitoring, main and emergency control consoles, PLC skew controls and synchro-tie skew controls. Also included a training control console to train TBTA personnel on how to operate the bridge with simulated functions. New PLC and flux vector drives were integrated into existing system.
01/10 - 12/15	**Firecom Inc | New York, NY** **Quality Control Engineer** who planned and directed activities concerned with development, application, and also maintenance of quality standards for industrial processes, materials, and also products; developed plus initiates standards methods for inspection, testing plus evaluation, utilizing knowledge in engineering fields like chemical, electrical, or mechanical; devises sampling procedures and designs as well as developed forms plus instructions for recording, evaluating and additionally reporting quality reliability data. Established program to evaluate precision as well as accuracy of production equipment plus testing, measurement, and also analytical equipment facilities; developed as well as implemented methods plus procedures for disposition of discrepant material and devises methods to assess cost responsibility; directed workers engaged in measuring as well as testing product plus tabulating data concerning materials, product, or process quality reliability; compiled as well as wrote training material; conducted training sessions on quality control activities; maintained scrupulous monitoring of the manufacturing process, ensured rigid adherence to performance specs.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Frank Altro, PE**		Years of relevant experience with this employer	20
Title	Electrical Engineer		Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			B.S., Electrical Engineering, 1999, Northeastern University
Active registration number / state / expiration date			Professional Engineer: 93857 / NY / 9/30/2023
Year registered	2014	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			**Electrical Engineering Tunnel Construction Inspector – Meets MPR 6**

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).
03/15 - Present	**Battery Park Underpass Rehabilitation, New York, NY - New York City Department of Transportation** **Chief electrical inspector** as part of resident engineering and inspection contract for repair of the battery underpass tunnel due to damage sustained in hurricane sandy. The tunnel was completely flooded during the storm and the project will repair/replace all affected mechanical and electrical equipment including carbon monoxide detection, fire protection and SCADA interface with NYC DOT supervisory networks.
02/16 – 03/18	**Task 30: Construction Inspection Services Project No. Rim-1403: Harlem River Lift Span, New York, NY - Triborough Bridge and Tunnel Authority (TBTA)** Construction Engineering & Inspection Engineer for RIM-1403, which is a task under an on-call contract for TBTA. It involves as-needed construction inspection of various bridge and facility projects. This project involves replacing a Programmable Logic Controller (PLC) and several major mechanical and electrical components were rehabilitated and/or replaced. Other services included removal of existing wound rotor emergency motors, brake wheels and associated equipment, existing PLC Processor Cabinet, PLC equipment in main control console, PLC Remote I/O drops and cabinet back panels. Installation of new inverter duty emergency motor, emergency flux vector drives and stainless-steel brake wheels. Work also included installation of new main and emergency control console desktops, instrumentation tables in each machinery room, skewer controller system and instrumentation equipment to monitor shaft direction.
02/14 – 04/15	**Construction Engineering & Inspection Services for the Harlem River Lift Bridge Cable Replacement, New York, NY – Metro-North Railroad** **Chief Electrical Inspector** for installation of new electrical power and control systems as part of a major mechanical/electrical rehabilitation of this vertical lift bridge. Electrical scope includes new dc drives and motors, switchgear and power distribution for bridge operation. In addition to bridge related electrical work, all new railroad traction power cables and conduit including new power

	distribution and switchgear for third rail operations. The project includes extensive night work and coordination with MTA rail operations. Scope also includes shop inspection and testing of major equipment components.
03/14 – 07/14	**West 3rd Street Bridge Review, Cleveland,OH, Ohio Department of Transportation** **Electrical Engineer/Inspector** tasked with forensic review of this vertical lift bridge contract and construction documents for District 12. Subsequent to a major rehabilitation, the lift bridge was plagued with mechanical and electrical issues. The issues were traced back to the original contract drawings and shop drawings with recommendations on provided on remediation.
02/18 – 10/18	**2017-2018 Biennial and Interim Inspection of Bridges for NYSDOT – Region 10, Long Island, NY, New York State DOT** **Electrical Engineer/Inspector** for general, interim, and special inspections of 400 Long Island bridges in Nassau and Suffolk Counties. The structures varied in size and type and include the Robert Moses Causeway NB and SB bridges over the Great South Bay, as well as the Fire Island Inlet Bridge, Loop Parkway over Swift Creek, Bayville Bridge, Meadowbrook and Wantagh Parkway bridges over Goose Creek, and Sloop Channel near Jones Beach. The inspection included the 100% hands-on inspection of fracture-critical arch truss and floor system members for the Robert Moses Causeway Bridges, fracture-critical girder and floor beam elements on several bascule bridges and post-tensioned concrete segmental girders. Work also included structural analysis, load rating calculations, VIRTIS model checks, and updates, and biennial inspection reports (through BIPPI). The project included the inspection of the segmental concrete post-tensioned Roslyn Viaduct, the first such structure ever built in New York State. H&H also provided inspection of 70 bridges over Long Island Railroad. Field inspection followed the requirements of the NYSDOT Bridge Inspection Manual and included a significant amount of non-destructive testing.
10/14 – 08/17	**Willis Avenue Bridge Over The Harlem River (Construction), New York, NY - New York City DOT** **Construction Engineering & Inspection Engineer** during construction, responsible for day-to-day management of internal staff and team of subconsultants. Provided technical support during the review of shop drawings, RFIs and technical submittals. He also provided support for the coordination for the structural, mechanical, electrical, and architectural details for swing span fabrication and construction. The project is an off-line replacement of a major 345-foot-long swing span and 3,000 feet of approach span structures. H&H served as prime consultant for this complex project during design including the complete structural, geotechnical, highway, mechanical, and electrical design. During construction, H&H provided support. The substructure is founded on drilled shafts, bored-in-piles and spread footings. The superstructure includes plate girders, box girders and truss for the swing span. Estimated construction cost $618 million.
10/17 - Present	**RFK Bridge Task 7 Quality oversight for RK-07 DB, New York, NY, TBTA** **Construction Quality Oversight Engineer** for the rehabilitation of the RFK Harlem River Lift Bridge. Scope of work included- New Lift Span droop cables, Replacement of existing Hubbell SCR motor drives with new flux vector drives and motors, new 1000 Kw diesel engine generator, new ACSO automatic transfer switch, new load bank, medium voltage switchgear for Lift Span power, new roadway lighting, rehabilitation of main pinion gears, cleaning and rehabilitation of all enclosed gear reducers, painting of various bridge related components. Testing and commissioning of the Lift Span control system was performed according to the approved test procedure. New Operation and Maintenance manuals were developed to reflect all new equipment installed.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC		
Name	**Milos Kivich**	Years of relevant experience with this employer	22
Title	Electrical Engineer	Years of relevant experience with other employer(s)	0

Degree(s) / Years / Specialization			BE, Electrical Engineering, 2000, Stevens Institute of Technology
Active registration number / state / expiration date			
Year registered		Discipline	Electrical Engineer
Contract role(s) / brief description of responsibilities			**Electrical Engineering Tunnel Construction Inspector – Meets MPR 6**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
2015 - Present	**Rehabilitation of the Battery Park Underpass | New York, NY | New York City DOT** **Electrical Engineering Inspector** part of construction engineering and inspection contract for repair of the Battery Underpass tunnel due to damage sustained in Hurricane Sandy. The tunnel was completely flooded during the storm and the project will repair/replace all affected mechanical and electrical equipment including carbon monoxide detection, fire protection and SCADA interface with NYCDOT supervisory networks.
11/19 – 4/22	**Broadway Bridge over the Harlem River Rehabilitation | Bronx & Manhattan, NY | New York City DOT** **Electrical Construction Engineering Inspector** providing construction engineering & inspection services for the Broadway Bridge, a two-tiered vertical lift bridge project, which includes complete rehabilitation of the civil, structural, electrical, and mechanical components of the bridge. Mr. Kivich's's electrical construction inspection work involves the replacement of the entire bridge's electrical systems; replacement of submarine cables, installation of one AC Flux Vector main drive cabinet with one AC squirrel cage Vector Duty main drive motor per tower; one two-speed squirrel cage auxiliary drive motor will be installed per tower; installation of two diesel fueled generators; installation of new gates and signals; installation of CCTV and security system; and the installation of new roadway and navigational lighting.
02/21 – 01/22	**CE&I Services for Madison Avenue Bridge (Swing Bridge) Over Harlem River | New York, NY | New York City DOT** **Electrical Construction Engineering Inspector** for NYCDOT contract #HBX644S which includes replacement of bridge control system devices, limit switches, field sensors, encoder, and resolvers; replacement of motor control centers (MCCs), replacement of PLC (programmable logic controlller); replacement of operator's control desk and gate operator's control stations; new span drives; new electrical motors; hydraulic auxilliary span drive; new electrical navigation warning lights; new cables and conduits; new power distribution system monitoring sensors; new protection devices; new transformers; rehabilitation of submarine cable terminal boxes; and slip ring at center pier.

2015 - Present	**Marine Parkway Vertical Lift Bridge Over the Rockaway Inlet – Special Tasks (MP-03) | Queens, NY | Triborough Bridge and Tunnel Authority** **Electrical Engineer Construction Inspector** for on-site technical advisement regarding construction and design related issues. The bridge rehabilitation project includes replacement of all gear boxes and major machinery, friction mitigation, tower to tower alignment issues, new flux vector drives and motors, bridge skew control equipment, droop cables, PLC control system, CCTV, fire alarm and security systems. Provide client and project team advice on field coordination issues, requests for information, means and methods reviews, existing condition evaluations and constructability reviews.
08/14 - 07/15	**Condition Survey of PATH Passaic River Bridge and On-Call Basis For Engineering Services | Newark, NJ | Port Authority of New York and New Jersey** **Electrical Engineer Inspector** for in-depth field inspection survey of vertical lift span B and all associated components. The Passaic River Bridge spans the Passaic River at mile marker 5.0 between the cities of Newark and Harrison, New Jersey. The bridge, a vertical span driven lift steel through-truss which was constructed circa 1938 and is currently owned by the National Passenger Rail Corporation (AMTRAK). The Port Authority of New York and New Jersey operates PATH passenger rail service over the bridge. Inspection required a detailed report of current conditions, which included calculating remaining lives and capacities, and to provide recommendations.
09/07 - 12/10	**Construction Inspection for the Replacement of the Brooklyn Bridge Travelers | Brooklyn, NY | Greenman-Pedersen, Inc** **Electrical Construction Engineer Inspector** responsible for construction inspection services and shop testing for electrical portion of traveler replacement including installation of conductor rail, power distribution equipment, and traveler control systems for the replacement of four maintenance bridge traveler platforms on the Brooklyn Bridge. Services included thorough shop testing of the traveler mechanical and electrical systems, which entailed actual operation of each assembled traveler on a bridge mock-up at the fabricator's facility, full time on-site construction inspection of the installation of the power distribution equipment and erection of the travelers, and final field acceptance testing. Each traveler control system is composed of a PLC and four flux vector drives which control eight 5hp, 480v, 3ph motors with linear transducers providing skew monitoring. The power distribution system is a 480 volt, 3-phase, conductor rail system that runs the length of the bridge.
09/04 - 09/07	**Construction Support Services for the Route 1&9T/Passaic River | Newark and Kearny, NJ | New Jersey DOT** **Electrical Construction Inspection Engineer** responsible for construction support services for the mechanical and electrical rehabilitation of this vertical-lift bridge. Responsible for review of shop drawing submittals and field testing of the electrical system for the bascule span's deteriorated structural components and provided an inspection report which included recommendations for repairs and replacement, design of repairs and/or replacement of structural members. All the inspection and design work was completed with high praise from NJDOT and the highest consultant evaluation rating. Construction was completed in the Spring of 2009. Work was completed under budget and ahead of schedule and was completed following FHWA & NJDOT procedures and the NJDOT Project Delivery Process. The bridge's bascule span and decks over the counterweight are 150-foot-long and carry four lanes of highway, median, shoulders, and two, six-foot sidewalks.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Marco Lara, PE**		Years of relevant experience with this employer	4
Title	Senior Electrical Engineer		Years of relevant experience with other employer(s)	13

Degree(s) / Years / Specialization			B,S, / 2004 Electrical Engineering
Active registration number / state / expiration date			Professional Engineer: 0044115 / LA / 3/31/2024 NACE Certified CP1 Cathodic Protection Tester (28390) NACE Certified CP2 Cathodic Protection Technician (28390) NACE Certified Corrosion Technician (28390)
Year registered	2019	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			**Electrical Engineering Tunnel Construction Inspector – Meets MPR 6**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
07/19-Present	**Boca Grande Causeway Swing Bridge Replacement | Placida, FL | Gasparilla Island Bridge Authority** **Electrical Construction Engineering Inspector** responsible for reviewing shop drawings, reviewing schedules, preparing the final as-builts, monitoring field activities. This project required the replacement of a structurally deficient swing span bridge located on the Boca Grande Causeway. Serves in an on call capacity under the current contact to assist in troubleshooting issues that may arise and serve as the PM for any projects required.
03/12-11/13	**CR 78 Matlacha Bascule Bridge Replacement | Matlacha, FL | Lee County Government** **Electrical Designer and Construction Engineering Inspector** responsible for electrical power distribution layout, calculations, development of technical special provisions, and plan sheets for a replacement single-leaf bascule bridge. Other responsibilities included lighting and roadway lighting schemes, standby-generator set sizing, navigation and development of closed-circuit television (CCTV), and grounding systems. Performed lighting analysis and design of electrical equipment room, control house, and piers project features a variable speed drive (VSD) controlling a hydraulic cylinder span drive configuration. Duties included shop drawing review, shop inspections, witness testing, field inspection, and estimate of completion. Inspected installation of all electrical components and performed functionality testing of complete electrical system.
06/14 – 07/15	**Main Street Vertical Lift Bridge | Jacksonville, FL | FDOT District 2** **Electrical Construction Inspector** responsible for the construction engineering and inspection of the electrical rehabilitation of a vertical lift bridge. Responsibilities included documenting work performed and equipment installed. Submitted daily reports to Project Engineer of construction progress. Witnessed installation, insulation resistance testing of droop cables and final functionality check of electrical control system.

11/11 – 10/14	**West Columbus Drive Bridge | Tampa, FL | Hillsborough County Government** **Electrical Construction Inspector** responsible for construction engineering inspection of the electrical rehabilitation made to this bob-tail swing bridge. A partial electrical system replacement was performed and new solid-state drives, motor controls, control panels, electric service, generator, submarine cables and termination cabinets, traffic gates, barrier gates, and locks. CE&I work included documenting work performed by contractor and verifying compliance of materials and installation. Attended construction progress meetings and updated client on a weekly basis of the progress of work. Witnessed and documented testing of submarine cables, electrical service conductors and motor feeders.
07/2018 – Ongoing	**Engineering Services for Movable Span Bridges | Volusia County, FL | Volusia County** **Project Engineer and Construction Engineering Inspector** responsible for the construction inspection of the electrical rehabilitation for the Knox and Main Street bridges. Responsibilities included witnessing shop inspection and testing of new bridge control system and witness changeout of the existing control system with the new control system. Witnessed and oversaw functional checkout and safety interlock testing. Performed electrical CE&I inspection and participated in shop drawing review and construction status meetings and witnessed final acceptance.
01/22 – Present	**Cedar Lake Bridge Inspection | Biloxi, MS | Mississippi Department of Transportation (OSARC)** **Electrical Engineer Inspector** responsible for in-depth electrical inspection for the swing bridge. Peformed detailed inspection of the existing span drive, warning gates, limit switches, motor control center, termination cabinets, and control console for three movable bridges. Observed bridge operations and visually evaluated cables. Performed 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. Tasks included submitting a detailed report to the client that documented deficiencies, and recommendations.
07/07 – 06/15	**State Government Bridge Inspections | Districtwide, FL | FDOT District 5** **Electrical Inspector** responsible for routine inspections of a state and locally owned movable bridges. Tasks involved inspection and evaluation of the electrical elements and reporting in FDOT PONTIS system. Tasks included inspection and evaluation of corrosive effects and damage to electrical system and recommendations to mitigate or impede the deterioration of metallic components.
07/09 – 06/11	**State Government Bridge Inspections | Districtwide, FL | FDOT District 7** **Electrical Inspector and Designer** responsible for routine inspections of a state and locally owned movable bridges. Tasks involved inspection and evaluation of the electrical elements and reporting in FDOT PONTIS system. Tasks included inspection and evaluation of corrosive effects and damage to electrical system and recommendations to mitigate or impede the deterioration of metallic components.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Kenneth Pecquet, EI**		Years of relevant experience with this employer	2
Title	Electrical Engineer Intern		Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			BS / 2012 / Electrical Engineering / University of New Orleans
Active registration number / state / expiration date			Engineer Intern: 31342 / LA / 9/30/2023
Year registered	2013	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			**Electrical Engineering Tunnel Construction 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).
07/20 – 07/20	**CE&I Services for Madison Avenue Bridge (swing bridge) Over Harlem River | New York, NY | New York City DOT** **Electrical Construction Engineering Inspector** for NYCDOT contract #HBX644S for the construction inspection of the major mechanical and electrical rehabilitation of a $50M rehabilitation of a 307-foot, four-lane swing bridge over the Harlem River between Manhattan and the Bronx which includes replacement of bridge control system devices, limit switches, field sensors, encoder, and resolvers; replacement of motor control centers (MCCs), replacement of PLC (programmable logic controller); replacement of operator's control desk and gate operator's control stations; new span drives; new electrical motors; hydraulic auxiliary span drive; new electrical navigation warning lights; new cables and conduits; new power distribution system monitoring sensors; new protection devices; new transformers; rehabilitation of submarine cable terminal boxes; and slip ring at center pier. Performed electrical inspection during rehabilitation, ensuring compliance with NYCDOT Construction Specification and National Electrical Code requirements. Reviewed shop drawings, modified contract designs to suit field conditions, and performed additional inspection duties as required.
11/18 – 06/21	**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 for the fabrication of pre-stressed piles and girders, caps, and decks as well as all other construction activities including field monitoring, documentation, preparation of daily reports, participation in construction progress meetings, and construction close-out.
10/19 – 12/20	**SR 609 Movable Bascule Bridge over Old Fort Bayou Rehabilitation, Ocean Springs, MS - Mississippi DOT** **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.

04/19 – Present	**Jupiter Federal Bascule Bridge Replacement, Jupiter, FL – Florida DOT** **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**.**
01/20 – Present	**Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans** **Movable Bridge Electrical Engineer Intern** 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.
03/19 – 01/20	**SR 605 Movable Bascule Bridge Rehabilitation, Harrison County, MS - Mississippi DOT** **Movable Bridge Electrical Engineer Intern** contributing to the electrical design for the full rehabilitation of SR-605 bascule bridge as a task-order to the IDIQ Master Bridge Contract which includes engineering assessment, mechanical, electrical, and structural design in addition to the Traffic Control Plans. All designs were completed in accordance with AASHTO, FHWA, and MDOT guidelines and specifications.
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 assure success. All design deliverables adhered to the schedule. Due to permitting issues, design was were placed on hold for several years extending the schedule.
07/18 – Present	**Districtwide State In-depth Bridge Inspections Contract, District 2 (Jacksonville Area, FL) – Florida DOT** **Movable Bridge Electrical Engineer Intern** for the on-call inspection of movable bridge structures located throughout District 2 under the Master Work Order Agreement. Services included the mechanical and electrical system routine and interim inspections of nine assigned movable bridges in accordance with federal and state regulations. Inspection reports outlining detailed inspection findings and prioritized repair recommendations were provided to the prime consultant.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Christopher Svara, PE**		Years of relevant experience with this employer	27
Title	Electrical Engineer		Years of relevant experience with other employer(s)	2

Degree(s) / Years / Specialization			B.S., Applied Physics, 1993, Jacksonville University | B.S. Electrical Engineering, 1993, Columbia University
Active registration number / state / expiration date			**Professional Engineer:** 44080 / LA / 3/31/2024 **Certificates:** NHI #130110 Tunnel Inspection
Year registered	2019	Discipline	Electrical Engineering
Contract role(s) / brief description of responsibilities			**Electrical Engineering Tunnel Construction 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).
3/18 – 11/18	**2018 Alaska Way Tunnel (99/540) In-Depth Electrical and Mechanical Inspection | Seattle, WA | Washington State DOT Lead** Lead Electrical Engineer and Team Leader responsible for the tunnel's electrical systems. Performed an in-depth inspection in conformance with Federal Requirements for the Nation Tunnel Inspection Standards (NTIS). The tunnel is a 2.5-mile long single bore tunnel with two southbound lanes in the upper roadway, two northbound lanes in the lower roadway, and a lower section utilidor for the pumping equipment. There is a north and a south operations building each with four 500HP extraction ventilation fans and two maintenance air fans. Each roadway is equipped with multiple 75HP jet fans and roadway dampers evenly spaced through the tunnels for the extraction fans. The tunnel has a fire pipe deluge system and pumping system to remover the water. The tunnel has a communication system-based control system with PLC controllers, hundreds of cameras with DVR controllers, a fire detection system, an air monitoring system, and a complete security system. Each piece of equipment is remotely accessible and operable from the control system, with centers in each operations building. The majority of the electrical and mechanical equipment was visually inspected and operationally tested.
06/20 – Ongoing	**First Avenue Tunnel Ventilation and Electrical Systems Rehabilitation | New York, NY | New York City DOT** **Electrical Engineer** responsible for designing new electrical and control systems consisting of a PLC-based SCADA system to control and monitor power distribution, tunnel ventilation, lighting, and traffic control equipment. Included complete remote control and monitoring of systems from Department headquarters. First Avenue Tunnel is a four-lane, 1,377-foot-long, uni-directional tunnel with three separate ventilation chambers. The 21 fans were replaced with new 10HP, two-speed reversible fans directly controlled by networked controllers via a PLC. The design included the electrical distribution, control, tunnel roadway lighting and alarm systems for life safety issues. Fire detection is provided through a new heat-sensing system routed throughout the tunnel roadway and by local smoke detectors in the control room. This system, also designed for remote control and monitoring by the NYCDOT Operations Office,

	controls the ventilation rate according to the detected CO level in the tunnel. The PLC interfaces with two new Variable Message System (VMS) boards and traffic control equipment located throughout the tunnel to alert motorists as required.
08/217 - Ongoing	**East Link Extension Sound Transit Expansion | Seattle, WA | Washington State DOT** **Lead Electrical Engineer** responsible for providing construction support and design review to fully integrate the Sound Transit Light Rail expansion on the I90 floating bridges and associated access tunnels. Work includes coordinating work with Seattle City Light, medium voltage power distribution, low voltage power distribution, cathodic and stray current mitigation, and remote control and monitoring of the bridges. Floating bridges include a highly-specialized electrical system and the addition of light rail onto a floating bridge had never been performed before this project. Work includes attending design and construction meetings, on-site construction inspection, show drawing and testing review, and Request for Information submittals.
06/00 – 07/00	**Fort McHenry Tunnel Mechanical/Electrical Inspection** | Baltimore, MD | MDTA **Electrical Engineer** for work that included inspecting the electrical systems of the tunnel to prepare a list of recommendations for repairers, deficiencies, and preventive maintenance.
11/95 – 03/01	**Reconstruction of the Ventilation and Electrical Systems for Three Vehicular Tunnels | New york, NY | New York City DOT** **Electrical Engineer** responsible for designing new electrical and control systems consisting of a PLC-based SCADA system to control and monitor power distribution, tunnel ventilation, lighting, and traffic control equipment. Included complete remote control and monitoring of systems from Department headquarters. Also provided construction support services.
12/99 – 01/04	**Battery Park Tunnel Ventilation and Electrical Systems Rehabilitation | New York, NY | New York City DOT** **Electrical Engineer** responsible for designing new electrical and control systems consisting of a PLC-based SCADA system to control and monitor power distribution, tunnel ventilation, lighting, and traffic control equipment. Included complete remote control and monitoring of systems from Department headquarters. Battery Park Underpass is a four-lane, bi-directional, 2263.5-ft tunnel with four supply ventilation chambers and one central exhaust ventilation chamber. Work included replacement of all existing fans with 40HP, two-speed fan units with solid-state smart controllers networked to a PLC. The ventilation rate is calculated and adjusted by the PLC according to the CO level detected in the tunnel by the new CO monitoring system. The PLC system has remote control and monitoring capabilities and reports to the NYCDOT Operations Office. Fire detection is provided through a new heat-sensing system routed throughout the tunnel roadway and by local smoke detectors in the ventilation chambers. The PLC interfaces with two new VMS boards and traffic control equipment located throughout the tunnel.
06/18 – 10/18	**SR 529 /20E and 20W Steamboat Slough Bridge In-Depth Inspections | Everett, WA | Washington State DOT** **Lead Electrical Engineer** for the in-depth electrical system inspection on this through truss swing bridge over Steamboat Slough. The inspection was conducted conformance with the AASHTO Movable Bridge Inspection, Evaluation and Maintenance Manual. Electrical condition reports were developed that included maintenance, short term and long-term rehabilitation recommendations.

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Mor Diao, CCM, PMP**		Years of relevant experience with this employer	3
Title	Senior CPM Scheduler		Years of relevant experience with other employer(s)	17

Degree(s) / Years / Specialization			M.S., Construction Management, 2011, NYU Polytechnic B.A., Information Systems, 2007, Pace University
Active registration number / state / expiration date			
Year registered		Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**CPM Scheduler**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/20 – Ongoing	**H.001498.6 (CE&I): LA 24 and LA 26 Company Canal Bridge | Bourg, LA | LADOTD** **Project Scheduler** for this construction contract administration and construction engineering inspection services for construction of a new vertical lift bridge over the Company Canal on LA 24 and new operator's house in Bourg, LA in Terrebonne Parish. The new vertical lift bridge will be built on existing alignment. Contract scope included maintaining all field and contractual operation records; preparing monthly pay estimates and progress reports; performing required field testing; inspecting Contractor's operations; preparing final estimate packages; coordinating with DOTD personnel, contractor, and other parties during meetings; preparing as-built plans. His responsibilities include review of the contractor's baseline and updated CPM schedules and preparation of Schedule Analysis Report (SAR).
01/18 – 04/22	**CE&I Services for Madison Avenue Bridge (Swing Bridge) Over Harlem River | New York, NY | New York City DOT** **Senior Project Scheduler** for NYCDOT contract #HBX644S. Duties included reviewing and recommending approval/revision/rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report. Responsible for running monthly CPM meeting to discuss the critical path, potential delays, any variances, and the one month look-ahead.
02/19 – Ongoing	**Route 112 Reconstruction Between I-496 (LIE) to Granny Road (D263744), Region 10 | Medford, Suffolk County, NY | NYDOT** **Project Scheduler** for this $28 million reconstruction and widening of NY Route 112 with complete reconstruction and improvement of the drainage system and safety improvements. The project is progressing under Phased and Staged construction to replace the two-lane roadway with a three-lane roadway to include a shared center turn lane). Combined shoulders / bike lanes, curbs and sidewalks are to be added. The existing catch basin/dry well drainage system will be replaced with a new closed system piped to a new drainage basin. The project also requires extensive relocation of sub-surface and aerial utilities and services (electric, gas, water, cable, phone,

	fiber optic, sanitary sewer, etc.). The roadway reconstruction/widening includes new sub-base and base pavement, and asphalt wearing surface. The existing catch basin / seepage chambers drainage system is being replaced with a new closed system or catch basins piped to a new drainage basin. Signalized intersections are also being widened to add turning lanes for improved traffic flow and safety. In addition, new retaining walls are being constructed. The project requires extensive WZTC, day-night-weekend work, landscaping, sign structures & signs, roadway lighting, guiderail, and other appurtenances.
1/17 – Present	**Westchester Avenue over Hutchinson River Parkway Bridge | Pelham Bay, NY | New York City DOT** **Senior CPM Scheduler** for this Construction Engineering and Inspection services project which is divided into two main portions: a) Lowering of the Hutchinson River Parkway in the vicinity of the Westchester Avenue Bridge b) Rehabilitation of the Westchester Avenue Bridge over the Hutchinson River Parkway. The existing bridge deck, north and south bridge facias, various secondary members including diaphragms, and the existing utility vault on the structure will be reconstructed. All work to be performed while maintaining pedestrian/vehicle access along Westchester Avenue and without impacting the MTA elevated subway above.
09/14 – 02/17	**St. George Interlocking Flood Repairs | Staten Island, NY | New York City Transit** **Project Controls Manager** for the complete modernization and replacement of the St. George Interlocking. Work included the replacement of all ballast, track, ties, contact rail, bumper blocks, lubricators, and switches within the limits of the project as well as the replacement of the slip switches layout with a diamond crossover. Duties included reviewing and recommending approval/revision/rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report. Responsible for running monthly CPM meeting to discuss the critical path, potential delays, any variances, and the one month look-ahead.
04/12 – 06/15	**Brooklyn Battery Tunnel | Brooklyn, NY | MTA Bridges & Tunnels** **Project Scheduler** responsible for reviewing and recommending approvals, revision, rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report. Scope replaced electrical equipment in four different buildings and replaced electrical cable inside the tunnel. The buildings are the Brooklyn Ventilation Building, the Manhattan Blower Building, the Governor's Island Ventilation Building and the Manhattan Underground Exhaust Building. Construction: $47 million
12/14 – 07/17	**Hugh L. Carey Tunnel and Restoration of the Brooklyn Plaza, Sandy Restoration & Mitigation | Brooklyn & Manhattan, NY | TBTA** **Project Controls Manager** responsible for reviewing and recommending approval/revision/rejection of the contractor's baseline schedule and monthly schedule updates for compliance with the construction contract in accordance with the Critical Path Method schedule to assure on-time project completion and present schedule analysis report to the MTA - NYCT. Responsible for monthly CPM meeting to discuss the critical path, potential delays, any variances, and the one month look-ahead. Construction Cost: $290 million

16. Staff Experience:

Firm employed by	Hardesty & Hanover, LLC			
Name	**Kevin Meehan**		Years of relevant experience with this employer	1
Title	Principal Estimator		Years of relevant experience with other employer(s)	30

Degree(s) / Years / Specialization			BSCE, 1989, Rutgers University
Active registration number / state / expiration date			
Year registered		Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Senior Construction 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).
04/21 – 03/22	**Broadway Bridge over the Harlem River Rehabilitation | Bronx & Manhattan, NY | New York City DOT** **Principal Construction Estimator** for the Broadway Bridge, a two-tiered vertical lift bridge project, which includes complete rehabilitation of the civil, structural, electrical, architectural and mechanical components for the replacement of the entire bridge. Mr. Meehan's responsibilities include preparing engineer's cost estimates from conceptual design through bid phase, develop cost modeling, alternative analysis, Lifecycle Cost Analysis, and Value Engineering. Develop and coordinate independent cost analyses for change orders. Develop fee proposals
02/20 – Ongoing	**Replacement of Four Bridges On The Bronx River Parkway Over NYCT, Metro-North, Amtrak, and CSX | Bronx, NY | New York State DOT** **Principal Construction 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.
06/20 – Ongoing	**Replacement of Three Culverts and the Bronx River Parkway Bridge | Westchester County, NY | Westchester County DPW** **Principal Construction 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 incuding 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.

10/11 – 09/20	**Transportation Infrastructure In The Public Sector | Mercerville, NJ | JCMS, Inc.** **Lead Construction Estimator** for a team of cost estimators coordinating multiple concurrent projects with an emphasis on infrastructure, transportation and the public sector. Develop and coordinate engineer's cost estimates for public projects, from conceptual design through bid phase. Projects range from $3 to $300 million. Over $1 billion brought to contract. Develop cost modeling, alternative analysis, Lifecycle Cost Analysis, and Value Engineering. Develop and coordinate independent cost analyses for change orders. Develop fee proposals, attend sales presentations and coordinate with marketing 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.
02/09 – 10/11	**National September 11th Memorial And Museum | New York, NY | URS** **Senior Construction Estimator** for the National September 11th Memorial and Museum. Project estimator developing bid package estimates, change order estimates, allocating costs. Provide detailed takeoff and pricing for sitework, sitework utilities, foundations, superstructure and architectural building elements. Analyze and track cost impact of revisions, changes, and addenda. Negotiate contract pricing and change orders with subcontractors and general contractors.
01/08 – 01/09	**Gilbane Building Company | Lawrenceville, NJ | Gilbane Building Company** **Senior Construction Estimator** for multiple construction projects ranging from $50,000 to $500 million. Responsible for coordination of individual estimates into single document. Ensure that estimate documents include all qualifications, assumptions, exclusions, and subsequent revisions.
04/00 – 12/07	**Bovis Lend Lease, Inc | Princeton, NJ | Bovis Lend Lease, Inc** **Senior Construction Estimator**. Produce civil, structural, and architectural estimates for a range of project sizes. Coordinate publication of estimate reports.

16. Staff Experience:

Firm employed by	Meyer Engineers, Ltd.				
Name	**Justin Bosarge**		Years of relevant experience with this employer	5	
Title	Construction Inspector		Years of relevant experience with other employer(s)	9	
Degree(s) / Years / Specialization					
Active registration number / state / expiration date					
Year registered		Discipline	LADOTD Certified in Embankment and Base Course, Portland Cement Concrete (PCC) Paving, Asphalt Concrete Paving, Structural Concrete, Traffic Control Supervisor, and Flagger		
Contract role(s) / brief description of responsibilities			**Structural and Pavement Construction 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).
03/21 – Ongoing	**State Project No. H.001498: Company Canal Bridge Replacement | Terrebonne Parish, LA | LADOTD** **Inspector.** Currently performing inspection duties that include or will include concrete testing, compressive strength tests, materials sampling, steel and form inspections, pre-pour and post-pour inspection, embankment inspection, pile-driving inspection, electrical inspection, structural steel inspection. Inspection of temporary and permanent pavement marking installations. Inspection and quantity tracking of approach roadway excavation, embankment, and Class II base course installation, compaction, and density testing.
01/19 – 08/19	**Inspection for Safety Bay Improvements Causeway Bridge | Jefferson & St. Tammany Parishes, LA | GNOEC** **Inspector.** Completed inspection for the Safety Bay Improvement Project which significantly increased emergency stopping area to enhance overall safety of Causeway users. The project widened the Causeway Bridges to provide a shoulder in at least six locations southbound and six locations northbound. He maintained all construction field records; made daily entries in the project diary to indicate the Contractor's personnel present on the job site, the Contractor's personnel and equipment being utilized on the project, the work being accepted, the acceptability of traffic control, and the charging of contract time. Construction Cost: $60M
11/15 – 12/18	**State Project No. H.007351: Country Drive Widening Phase A (Jeff Drive to Presque Isle Drive) | Terrebonne Parish, FL | LADOTD** **Inspector.** Completed inspection for the CE&I services for Country Drive Widening Phase A (Jeff Drive to Presque Isle Drive). Mr. Bosarge performed weekly progress meetings, negotiated, and processed change orders, and updated site manager. The work included the complete reconstruction and widening of 7,300 LF of Country Drive in Houma. Additional work included clearing and grubbing, drainage structures, cold planning asphaltic concrete, pavement patching, class II base course, superpave asphaltic concrete pavement, and traffic pavement markings. Construction Cost: $3.9M

03/19 – 11/19	**State Project No. H.012783.6: WB Veterans: Severn Avenue – Clearview Parkway | Jefferson Parish, LA | LADOTD** **Lead Inspector** for the CE&I services which included pavement patching, superpave asphaltic concrete, and combination curb and gutter. The work also included cold planning asphalt pavement, concrete walks, handicap curb ramps, striping, loop detectors, guard rail, and new drainage structures. Construction Cost: $2.8M
05/17 – 09/19	**State Project No. 007175: Lapalco (Victory – Westwood) | Jefferson Parish, LA | LADOTD** **Inspector** for the CE&I services for widening the four-lane section of Lapalco Boulevard from Victory Drive to Westwood Drive by adding a median. The work also consists of clearing and grubbing, grading, drainage structures, milling, asphalt pavement, patching, class II base course, and related work. Duties include gathering and organizing samples and documentation for the DOTD approved sampling plan and 2059, inspecting construction activities in the field, documenting field operations in field books and Site Manager system, measuring, and verifying quantities with contractor, coordinating field testing as required, and maintaining record drawings. Construction Cost: $6.9M
10/16 – 05/18	***State Project No. H.001413.6 (CE&I): LA 18 (4th Street Extension – Burmaster), Jefferson Parish: Inspector*** for the ***Construction Engineering and Inspection Services*** for LA 18 (4th Street Extension – Burmaster). The project includes ***new construction*** including grading, concrete pavement, curbs, base course, and subsurface drainage. Additional work includes clearing and grubbing, ***drainage structures***, sidewalks, landscaping, light poles, and traffic pavement markings. Duties include utilizing DOTD's Site Manager Program and coordinating with DOTD. Also reviews and manages shop drawings and request for information. Will submit the final submittal package to the DOTD Construction Audit Section including Form 2059 and as-built drawings. Construction Cost: $7.2M (EST)
2007 – 2012	Performed CE&I for the following projects: • ***State Project No. 450-17-0025: I-10 Twin Spans, St. Tammany Parish*** Scope of work included concrete testing, compressive strength tests, materials, sampling, steel and form inspections, pre-pour and post-pour inspection, embankment inspection, pile-driving inspection. Inspection of temporary and permanent pavement marking installations. Inspection and quantity tracking of approach roadway excavation, non-plastic embankment, and Class II base course installation, compaction, and density testing. Daytime and nighttime MOT inspections. Delegated responsibility to other inspectors by scheduling the daily tasks and assigning them to inspectors. Also trained most inspectors/senior inspectors hired after April 2007. • ***State Project No. 450-15-0025: I-10 Widening – Veterans to Clearview, Jefferson Parish*** Responsible for overseeing all daytime operations on the project including pile-driving, trial mixes, demolition of existing structures, clearing, and grubbing, utility location/relocation, materials sampling, maintenance of traffic, temporary traffic control, verifying layout and elevations, material deliveries, and documentation/pay for all work performed on this project. Have been onsite since the assembly period began, and actively involved in training inspectors arriving on the project.

16. Staff Experience:

Firm employed by	Meyer Engineers, Ltd.				
Name	**Bryon Mackey**		Years of relevant experience with this employer	6	
Title	Lead Construction Inspector		Years of relevant experience with other employer(s)	6	
Degree(s) / Years / Specialization					
Active registration number / state / expiration date					
Year registered		Discipline	LADOTD Certified in Embankment and Base Course, Portland Cement Concrete (PCC) Paving, Asphalt Concrete Paving, Structural Concrete, Traffic Control Supervisor, and Flagger		
Contract role(s) / brief description of responsibilities			**Pavement Construction 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).
10/19 – 07/18	**State Project No. H.001413.6: LA 18th (4th Street Extesion – Burmaster) | Jefferson Parrish, LA | LADOTD** **Lead Inspector** for the CE&I of the new construction on LA 18 which includes grading, concrete pavement, curbs, base course, and subsurface drainage. Additional work includes clearing and grubbing, **drainage structures**, sidewalks, landscaping, light poles, and traffic pavement markings. Construction Cost: $7.2M
08/15 – 05/18	**State Project No. H.007331: Pakenham Drive (LA 46 – LA 39) | St. Bernard Parish, LA | LADOTD** **Construction Inspector** for the CE&I services for the road reconstruction on Pakenham Drive, Jackson Boulevard, Courthouse Square, and Tyler Street. The work includes constructing a new asphaltic concrete roadway with curb and gutter, sidewalks, subsurface drainage, removing the existing roadway, constructing traffic signals, sewer lines, and water lines. He performs weekly progress meetings, negotiates and processes change orders, updates DOTD's Site Manager Program, and reviews all Requests for Information (RFI). Construction Cost: $5.3M
03/19 – 1/19	**State Project No. H.012783.6: WB Veterans: Severn Avenue – Clearview Parkway | Jefferson Parish, LA | LADOTD** **Construction Inspector** for the CE&I services which included pavement patching, superpave asphaltic concrete, and combination curb and gutter. The work also included cold planning asphalt pavement, concrete walks, handicap curb ramps, striping, loop detectors, guard rail, and new drainage structures. Construction Cost: $2.8M

05/22 – Present	**State Project No. H.013525: St. Bernard Parish 40 Arpent Trail, Phase 1 | St. Bernard Parish, LA | LADOTD** **Construction Inspector** for the CE&I services for the trail. The project consists of clearing and grubbing, grading, drainage structures, class II base course, asphalt concrete pavement, precast concrete piles, drilled shaft foundations, landscaping, traffic signalization, pedestrian bridges, and related work.
11/15 – 2/18	**State Project No. H.007351: Country Drive Widening Phase A (Jeff Drive to Presque Isle Drive) | Terrebonne Parish, FL | LADOTD** **Construction Inspector** for the CE&I services for the complete reconstruction and widening of 7,300 LF of Country Drive in Houma. Additional work included clearing and grubbing, drainage structures, cold planing asphaltic concrete, pavement patching, class II base course, superpave asphaltic concrete pavement, and traffic pavement markings. He performed weekly progress meetings, negotiated, and processed change orders, and updated site manager. Construction Cost: $3.9M
01/19 – 08/20	**Inspection for Safety Bay Improvements | Jefferson & St. Tammany Parishes, LA | GNOEC** **Construction Inspector** for the Safety Bay Improvement Project which will significantly increase emergency stopping area to enhance overall safety of Causeway users. The project will widen the Causeway Bridges to provide a shoulder in at least six locations southbound and six locations northbound. His duties included monitor pile template installation, inspect pile driving operations, perform pre-pour steel/post-pour concrete inspections at the precast yard, maintain all construction field records; make daily entries in the project diary to indicate the Contractor's personnel present on the job site, the Contractor's personnel and equipment being utilized on the project, the work being accepted, the acceptability of traffic control, and the charging of contract time.
07/12 – 06/16	Mr. Mackey performed inspection on the following paths to progress program projects: • **State Project Nos. H. 009459 & H.009695 (P2P French Quarter); H.009713 (P2P New Orleans – Super Group B, Mid City); H.009987 (P2P New Orleans East – Congress Drive); H.011090 (P2P New Orleans – N. Galvez and Downman Road); H.010736 (P2P New Orleans – Newton and General DeGaulle):** **Construction Inspector** for these projects which included inspection and documentation of pre-construction conditions and all construction operations (milling, patching, installation of ADA-compliant handicap ramps, paving, and striping) throughout the projects. He successfully completed the fulfilled the Sampling Plan for all materials and construction operations and completed project close-out and 2059 in a timely manner.
2009-2012	While employed with DOTD, Mr. Mackey performed Construction Engineering and Inspection. Duties included the following: • Lead Inspector of Quality Assurance on General DeGaulle Drainage Improvements/Box Culvert crossovers, $23M • Take concrete cylinders and slump test for structural concrete pours. • Maintain field book and Site Manager of all daily quantities on project. • Inspect all rebar in box culvert prior to each pour for correctness. • Inspect Tension and Compression Piles driven. • Work directly with contractor to ensure project completed according to LADOTD plans and Specifications. • Lead Inspector of Quality Assurance on LA 23/Belle Chasse HWY Asphalt overlay, $4M • Inspected the entire process of removing and laying new asphalt and concrete curb work. • Inspector of Quality Assurance on River Road to Bridge City Asphalt overlay, $3M

Firm employed by	GOTECH, Inc.		
Name	**Nathan Millard**	Years of relevant experience with this employer	10
Title	Certified Inspector	Years of relevant experience with other employer(s)	16

Degree(s) / Years / Specialization	Associate Degree in Drafting & Design / 2001 Traffic Control Supervisor–ATSSA Expires 02/2023 • Registered Flagger–ATSSA Expires 08/09/2025 LA DOTD Portland Cement Concrete Paving Technician Expires 02/11/2024 LA DOTD Structural Concrete Inspector/Technician Expires 08/06/2026 LA DOTD Authorized Nuclear Density Operator LA DOTD Profilograph Evaluator LA DOTD Authorized Density Tester
Active registration number / state / expiration date	
Year registered / Discipline	
Contract role(s) / brief description of responsibilities	**Pavement Construction 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).
05/20 – 09/21	**4400013851; H.013532: LA DOTD – IDIQ Denham Springs Rd Signing & Striping (CE&I): Livingston Parish, Louisiana** Mr. Millard served as a **Certified CE&I Inspector** for the Signing and Striping project. The local road safety upgrade project was located in Tangipahoa Parish. GOTECH provided services as a subconsultant to C.H. Fenstermaker & Associates, LLC on the DOTD project that included site inspections, equipment verification and submittal of material samples in the district testing laboratory. GOTECH also provided as-built plans for the completed work.
05/18 – 03/20	**4400004915; H.009250.6: LA DOTD - Design Build Construction Support Services I-10: Highland Road to LA 73 Route I-10: East Baton Rouge Parish and Ascension Parishes, Louisiana – CE&I** For the I-10 Highway construction project, Mr. Millard provided inspection services as a **Certified Structural Inspector** and as a certified concrete paving inspector. Working as a subconsultant to Volkert, Inc., GOTECH provided the inspection services for the entire project limits of over 6 miles in length. Mr. Millard also obtained density readings for the soil cement road base course using a nuclear density testing device.
03/11 – 06/19	**City of Baton Rouge / East Baton Rouge Parish Program Management Services for Transportation & Street Improvement Program "Green Light Plan"** GOTECH participated in the Green Light Plan as a member of the Project Management Team. Under the leadership of CSRS, Inc. GOTECH supplied engineering project managers, a Director of Engineering, CAD drafting services, scheduling, cost estimating, construction inspectors, and a Senior Program Advisor for the team. Mr. Millard was the **On-Site CE&I Inspector** for the Foster Road

	Green Light project. He conducted construction site inspections during the contractor's activities. He reviewed schedules, manpower, daily reports, quality control issues and overall job progress.
09/17 – 06/18	**H.011248: LA DOTD – Julia Street Overlay and Widening Project - Denham Springs: Livingston Parish, Louisiana – CE&I** Mr. Millard served as the **Project Field CE&I Inspector** for GOTECH on the Julia Street Overlay and Widening Project. The project included the milling of the existing asphalt pavement in the initial phase of construction. Subsequent activities involved in-place cement stabilization of the base course and the asphalt surface treatment interlayer placement. The asphalt wearing course was constructed to complete the project. Mr. Millard provided daily project observations at the site to ensure compliance with the project plans and specifications working as a subconsultant to C.H. Fenstermaker & Associates, LLC. GOTECH provided daily reports, inspection of traffic controls and coordination of site testing.
03/11 – 08/12	**454-01-0047 & 454-02-0025: LA DOTD I-12 Widening Design/Build O'Neal Lane to Walker: East Baton Rouge Parish and Livingston Parish, Louisiana** For the I-12 Widening Project, GOTECH provided inspections services during the construction phase of the project. Mr. Millard was the **Certified CE&I Structural Inspector** for the project that was 9 miles in length, extending from O'Neal Lane (East Baton Rouge Parish) to Walker (Livingston Parish). Mr. Millard coordinated the utility relocation work, surveying services and construction inspection for the interstate highway project.
07/04 – 03/11	Previous experience included 7 years of construction inspection for the LA DOTD. Mr. Millard's duties included inspection of roadway and bridge construction according to state standards and specifications.

16. Staff Experience:

Firm employed by	GOTECH, Inc.		
Name	**Ken Prescott**	Years of relevant experience with this employer	12
Title	Certified Inspector	Years of relevant experience with other employer(s)	35

Degree(s) / Years / Specialization			Associate Degree in Civil Engineering & Technology / 1972
Active registration number / state / expiration date			Traffic Control Supervisor–ATSSA Expires 05/24/2023 Registered Flagger–ATSSA Expires 07/25/2022 LA DOTD Certified Asphalt Concrete Paving Inspector/Technician Expires 08/04/2022 LA DOTD Certified Portland Cement Concrete Pavement Expires 08/24/2022 LA DOTD Certified Structural Concrete Inspector/Technician Expires 12/11/2023 LA DOTD Embankment & Base Course Inspector Expires 02/23/2022
Year registered		Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Pavement Construction 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).
03/21 – Present	**AIP 3-22-0006-1110-2018/ SP H.013690 Runway13-31Safety Area and RPZ Improvements – PH I** Ken Prescott is the certified inspector for the re-routing of Plank Rd at EBR Airport to make room for the new safety area and RPZ improvements. This new route is being built to DOTD specification with FFA funds and will be returned to the State when completed.
02/19 – 08/20	**4400004729; H.003014: LA 347 to Atchafalaya Floodway Bridge I-10 Widening and Reconstruction, St. Martin Parish** Mr. Prescott was on-site for the above project as structural concrete inspector. The project included full-depth replacement of the pavement within the existing lanes, widening the westbound pavement surface, and installing concrete median protection. Mr. Prescott witness and documented the Epoxy Urethane Overlay as per specification which was used during the widening of I-10.
08/17 – 05/18	**LA Hwy 1 Corridor Pathway Proposal 'JOLIET' Pathway – Stage 0 – Brusly, West Baton Rouge Parish; CMAQ Proposal WBR-3 [SPN: H.010768 Federal Aid Project No. H.010768 MULTI-USE TRAILS, PHASE 1-B (WBR)]** Mr. Ken Prescott was the inspector on the above project which included quality assurance, construction inspection, material sampling, inspection of the erosion control measure as well as ensuring compliance with the Contractor's Storm Water Pollution Prevention Plan (SWPPP). Mr. Prescott maintained daily records and assessing construction time charges by filling out daily reports to record the activities of the Contractor for each day. Mr. Prescott also had to verify the river stage every day to ensure that the river level was below a certain footage downstream. Mr. Prescott is a LADOTD Certified Inspector in Asphaltic Concrete Paving and Embankment and Base Course.

10/09 – present	**Sales Tax Rehabilitation Road Program – City of Baton Rouge** Mr. Prescott serves as an asphalt paving inspector for the long-standing Road Improvement Program in Baton Rouge. His duties include independent record keeping, preparations of reports for inspection and testing, interpretations of plans and specifications and observation of construction activities to check for adherence to safety practices and requirements.
02/09 – 08/12	**454-01-0047 & 454-02-0025: I-12 Widening from O'Neal to Denham Springs** Mr. Prescott served as an inspector on the $100 million-dollar State Project of I-12 widening from O'Neal Lane to Denham Springs. His duties were concrete paving inspection of Interstate 12 for six miles east bound. Mr. Prescott preformed these duties entirely at night. He prepared daily reports and witness testing of cylinder strength for early breaks to allow traffic to roll as soon as they obtained minimum strength.

16. Staff Experience:

Firm employed by	A P S Engineering and Testing, LLC		
Name	**Sergio Aviles, PE**	Years of relevant experience with this employer	10
Title	President / QAQC / Testing and Acceptance	Years of relevant experience with other employer(s)	10

Degree(s) / Years / Specialization			BS Civil Engineering/2001/Geotechnical
Active registration number / state / expiration date			0033571/ LA / 03/31/2024 Work Zone, Traffic Control Supervisor, Technician, and Flagger Certifications
Year registered	2007	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Laboratory Testing and Acceptance of Construction Materials – Meets MPR 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/19 - Ongoing	**Project No. H.004791, Existing Belle Chasse Bridge and Tunnel Demolition and Decommissioning:** Mr. Aviles will review plan to defines Safety Assurance Review (SAR) for the implementation of documents developed for the Existing Belle Chasse Bridge and Tunnel Demolition and Decommissioning for the Geotechnical drawings.
05/2017 - 12/2020	**Project No.H.009250: I-10: Highland to LA 73: LADOTD** **Project Manager Responsible for The Field Testing and Acceptance** of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
04/19 - 04/22	**Project No. H.011795: Westwood Drive (WB Expressway to Lapalco): LADOTD** **Project Manager Responsible for The Field Testing and Acceptance** of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
01/2018 - Present	**Project No.2012-FEMA-1B-1: Westend Group** **Project Manager Responsible for the Field Testing and Acceptance** of construction materials according to LADOTD approved procedures. The purpose was to conducted testing on the subsurface, base and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
02/22 - Present	**Project No. H.013897.6: College Drive Flyover: LADOTD** **Project Manager Responsible for the Field Testing and Acceptance** of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.

05/19 - 06/21	**Phase II: Project No. H.011798: Airline Park Blvd (Camphor-West Napoleon): LADOTD** **Project Manager Responsible for The Field Testing and Acceptance** of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
04/17 - 11/18	**Phase I: Project No. H.011798: Airline Park Blvd: LADOTD** **Project Manager Responsible for The Field Testing and Acceptance** of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
5/12 - 12/16	**City of New Orleans Road to Recovery: LADOTD** **Project Manager Responsible for The Field Testing and Acceptance** of construction materials as well as construction management, engineering support, field testing technical assistance, and resources needed to meet all established federal and state for the city roadways reconstruction. Mr. Aviles is the project manager to the Touro subdivision roadways reconstruction a $900k construction fee project.

16. Staff Experience:

Firm employed by	A P S Engineering and Testing, LLC		
Name	**Sairam Eddanapudi, M.E., P.E.**	Years of relevant experience with this employer	10
Title	Chief Engineer	Years of relevant experience with other employer(s)	8

Degree(s) / Years / Specialization			ME, Civil Engineering, Lamar University, Dec. 2002 BE, Civil Engineering, Sri Venkateswara University, India Aug. 1999 ATSSA Traffic Control Technician LA state-specific
Active registration number / state / expiration date			0035129/ LA / 03/31/2024
Year registered	2008	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities			**Laboratory Testing and Acceptance of Construction Materials – Meets MPR 4**

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
12/2017 – 12/2020	**Project No.H.009250: I-10: Highland to LA 73: LADOTD** Laboratory Manager responsible for the field testing and acceptance of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
04/19 – 04/22	**Project No. H.011795: Westwood Drive (WB Expressway to Lapalco): LADOTD** Laboratory Manager responsible for the field testing and acceptance of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
01/2018- Present	**Project No.2012-FEMA-1B-1** Laboratory Manager responsible for the field testing and acceptance of construction materials according to LADOTD standards. The purpose was to conducted testing on the subsurface, base and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.
02/22 – Present	**Project No. H.013897.6: College Drive Flyover: LADOTD** Laboratory Manager responsible for the field testing and acceptance of construction materials. College Drive Flyover: The purpose was to conduct testing on the subsurface, base and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures.

05/19 – 06/21	**Phase II Project No. H.011798: Airline Park Blvd (Camphor-West Napoleon): LADOTD** Laboratory Manager responsible for the field testing and acceptance of construction materials. The purpose was to conduct testing on the subsurface, base, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures**.**
04/17 – 11/18	**Phase I Project No. H.011798: Airline Park Blvd** The purpose was to conduct testing on the subsurface, base and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures**.**
4/05-7/05	**England Airpark Project, USACE, Alexandria, LA** This project consisted of construction of runway for United States Army Corp of Engineers in Alexandria. Sairam performed approximately 72 trial batches of various concrete mix designs with different concentrations of admixtures in the laboratory. Sairam also conducted Los Angeles Abrasion tests, Sieve Analysis tests, and specific gravity tests.
8/04-10-04	**Highway 171 project, Deridder to Lake Charles, LA and Interstate 10, Sulphur, LA to Beaumont TX: LADOTD** Performed Quality Control Inspection and field laboratory tests on the soil cement samples.
11/03-4/04	**Pinnacle Casino, Restaurant and Access Road, Lake Charles, LA** This project consisted of driving precast pre-stressed concrete end bearing piles. Sairam worked as project manager and performed Quality Control Inspection of pile driving, laboratory testing of soil samples.

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC			Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**I-95 Ft. McHenry Tunnel**			Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Maryland Transportation Authority (MDTA)		
Project location	Baltimore, MD			Owner's Project Manager	William Pines, PE
Owner's address, phone, email	300 Authority Drive 2nd Floor, Baltimore, FL 21222 | 410.537.1098 | wpines@mdta.state.md.us				
Services commenced by this firm (mm/yy)	01/19	Total consultant contract cost ($1,000's)			$3,000
Services completed by this firm (mm/yy)	03/23	Cost of consultant services provided by this firm ($1,000's)			$422

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

The Fort McHenry Tunnel (FMT) carries I-95 under the Baltimore Harbor and is comprised of four 1.5-mile-long bores. H&H provides inspection, design, peer reviews, construction oversight, and emergency response services for the structural, mechanical, and electrical systems for this tunnel.

H&H provided a peer review of the 60%, 90%, and PS&E contract documents for the FMT rehabilitation design ventilation system. This task included providing a peer review to replace the ventilation fan and replace the supply fan dampers. The ventilation fans and drainage systems included electric motors, centrifugal fans, fan dampers, centrifugal pumps, check valves, gate valves and piping. The fire suppression system included fire pumps, electric motors, circulating pumps, heat exchangers, and fire valves in accordance with NFPA 25. H&H also developed a manual for the ventilation fans, drainage, and fire suppression systems to identify all locations and components within the tunnel facility for reference by MDTA. H&H developed a maintenance program to perform repairs the ventilation fans, drainage systems, and fire suppression systems, including developing maintenance checklists, maintenance manuals, and testing frequencies to properly maintain and test the various mechanical systems throughout the tunnel. At MDTA's request, H&H provided on-site engineering support for evaluating operational issues and documenting repairs. Engineering for task order development has included sealing tunnel leaks, repairing concrete spalls, emergency egress door repairs, ventilation fan repairs and portal pump replacement. For the ventilation system repairs, H&H coordinated the task order repairs directly with the contractor to increase and maintain fan operability between 95-100%.

H&H has performed multiple cycles of inspection for the FMT's structural, mechanical, and electrical systems. Since 2015, H&H has performed inspections in accordance with the National Tunnel Inspection Standards. The FMT Tunnel load ratings consisted of evaluating the East and West Cut and Cover sections of the tunnel, which are the approach structures. To analyze the tunnel structures for live load capacity, various sections were considered due to the gradual slope of the tunnel and the increasing fill. The dead load forces included: structure self-weight, vertical and lateral earth pressure, and hydrostatic pressure. A survey of the parking lot and traffic lanes was completed to calculate the backfill present above each of the sections analyzed. The HL-93 Design vehicle was used to load rate these sections and was factored to consider the 1-foot equivalent strip of tunnel section being analyzed.

Key Members: *David Lynch, PE; Amir Najib, EI; Ryan Nolan, PE; Paul Skelton, PE*

17. Firm Experience:

Firm name	Hardesty & Hanover			Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Alaskan Way Tunnel No 99/540 In-Depth Mechanical and Electrical Inspection**			Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	Washington State Department of Transportation		
Project location	Seattle, WA			Owner's Project Manager	Duane Stone
Owner's address, phone, email	WSDOT Bridge Preservation / PO Box 47340, Olympia, WA 98504 / 360.570.2576 / stonedu@wsdot.wa.gov				
Services commenced by this firm (mm/yy)	10/18	Total consultant contract cost ($1,000's)	407		
Services completed by this firm (mm/yy)	03/19	Cost of consultant services provided by this firm ($1,000's)	406		

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

Mechanical: H&H performed a visual inspection, measurement inspection, and operational testing of the tunnel mechanical systems. The mechanical systems were inspected per the Tunnel Operations, Maintenance, Inspection, and Evaluation (TOMIE) manual. Alignment and clearance measurements were taken and recorded at the tunnel centrifugal fans and jet fans. A subcontractor specializing in machinery vibration measured, recorded, and analyzed vibration of all centrifugal fans, jet fans and maintenance air fans. The incoming water to the facility and the fire suppression system was visually inspected and operationally tested. Emergency egress throughout the tunnel roadway and walkways were verified to be clear of obstructions. The pump drainage systems was inspected and tested to confirm pump operation.

Electrical: H&H performed a visual inspection, measurement inspection, and operational testing of the tunnel electrical and life safety systems. The electrical system and equipment was analyzed for conformance with the 2017 National Electric Code (NEC), the 2015 TOMIE Manual, the 2015 Specifications for the National Tunnel Inventory, and the NFPA 502: Standard for Road Tunnels, Bridges, and Other Limited Access Highways. The life safety fire detection systems, CO Monitoring systems, and traffic control equipment were inspected and tested. The electrical insulation resistance of select conductors and motors were measured and recorded. Current measurements were taken of the electrical motors and nameplate information was recorded. Subcontractors specializing in NETA testing inspected and tested the medium voltage and low voltage switchgear circuit breakers. Subcontractors specializing in lighting measured the luminance and illuminance of the tunnel roadway egress pathways.

The 2.5-mile-long single-bore tunnel includes two SB lanes in the upper roadway, two northbound lanes in the lower roadway, and a lower section utilidor for the pumping equipment. Both north/south operations buildings have four 500HP extraction ventilation fans and two maintenance air fans. Each roadway is equipped with multiple 75HP jet fans and roadway dampers the extraction fans. The tunnel has a fire pipe deluge system and pumping a communication system-based control system with PLC controllers, hundreds of cameras with DVR controllers, a fire detection system, an air monitoring system, and a complete security system.

Key Members: *Jason Biddle, PE; Donald Marinelli, PE; Paul Skelton, PE; Chris Svara, PE; Michael Tine, PE*

17. Firm Experience:

Firm name	Hardesty & Hanover			Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Battery Park Underpass Rehabilitation Engineering and Inspection**			Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	New York City DOT		
Project location	New York, NY			Owner's Project Manager	Beatriz Duran
Owner's address, phone, email	55 Water Street, New York, NY 10041 | 212-839-4825 | bduran@dot.nyc.gov				
Services commenced by this firm (mm/yy)	02/13	Total consultant contract cost ($1,000's)	110,000		
Services completed by this firm (mm/yy)	10/21	Cost of consultant services provided by this firm ($1,000's)	2,600		

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

H&H was a major subconsultant providing on-call construction management and inspection for the repair of the Battery Park Underpass tunnel due to damage sustained in Hurricane Sandy. The tunnel was completely flooded during the storm and the project repaired/replaced all affected mechanical and electrical equipment. The work on this project involved a major electrical and mechanical rehabilitation of all tunnel systems, including tunnel lighting and power distribution.

The BPU contract removed water damaged equipment, repaired and/or replaced all tunnel electrical power distribution, lighting, ventilation, and control systems. The system was designed to provide a long and reliable service life for these critical systems. Existing equipment was replaced including: new supply and exhaust fans, inverter duty fan motors, Motor Control Centers with Flux Vector Drives for the new fans, which are all controlled by the facility SCADA system. Sequencing and control of all fan equipment was integrated within the SCADA system and was constructed to meet the operational requirements of the NFPA and NYCDOT. The entire ventilation system went through a thorough testing, adjusting, and balancing to ensure proper intake and exhaust operations.

In addition, all NYCDOT Division of Street Lighting (DSL) tunnel lighting fixtures, power feeders, conduits, pull boxes controls and control cabinets were replaced. All lighting was installed and tested to meet the current IESNA and NYCDOT Street Lighting standards for tunnel and tunnel approach lighting.

Key Members: *Tarek Albishara, EI; Frank Altro, PE; Mark Kaszczak, PE; Milos Kivich, PE; John Madera,PE; Mark Soryal,PE; Paul Skelton, PE*

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC		Past Performance Evaluation Discipline(s)*	CE&I/OV	
Project name	**Company Canal Vertical Lift Bridge Replacement CE&I**		Firm responsibility (prime or sub?)	Prime	
Project number	H.001498	Owner's name	Louisiana Department of Transportation & Development		
Project location	Lockport, LA		Owner's Project Manager	Peggy Jo Paine	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804 | 225.379.1065 | chris.guidry@la.gov				
Services commenced by this firm (mm/yy)	07/20	Total consultant contract cost ($1,000's)		$4,000	
Services completed by this firm (mm/yy)	On-Going	Cost of consultant services provided by this firm ($1,000's)		$3,200	

The original Company Canal Vertical Lift Bridge on LA 24 was constructed in 1951 with a 65-foot-long lift span. Although operating more than a dozen times per month, the bridge's condition had declined over time. Due to the bridge's poor load rating, deterioration of the steel protective coating and superstructure steel, and the many operational issues that caused the bridge to malfunction, disrupting traffic and requiring detours from LA 24 to local roads, LADOTD determined that the original bridge required replacement.

The newly designed vertical lift bridge, which is being built on the existing alignment, will have a 100-foot-long lift span with an approximately 48-foot wide deck consisting of two 12-foot-wide travel lanes, two 8-foot shoulders, and a 5-foot pedestrian walkway. The 40-foot approach slabs will be installed at each end of the bridge. The new operator's house will be constructed just southwest of the bridge to replace the existing operator's house which was located on the northeast side of the bridge. The scope of the bridge replacement project included improving the safety and vehicular movements within the project corridor by realigning approximately 405 feet of L A 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, H&H is providing construction contract administration and construction engineering inspection services typically performed by the DOTO Project Engineer and their staff. H&H's scope includes:

- Coordinate and attend pre-construction meeting
- Keep records of the contractual operations; maintain construction field records; make daily entries in project diary
- Coordinate with DOTD and utility representatives for relocations/ adjustments of utility facilities.
- Perform required field-testing and submit sampled materials.
- Inspect contractor's construction operations (daily) to ensure work is performed in accordance with the plans and specifications.
- Prepare monthly pay estimates, monthly progress reports, tracking and payment for stackpile materials, and prepare change orders.
- Submit "As-Built" plans with the final estimate.
  Prepare final estimate packages, including Form 2059

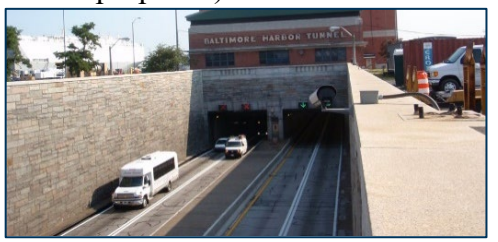
***Key Members**: Babak Naghavi; PE; Fred Wetekamm; PE; Amy Robards; PE; Ken Pecquet; EI; Lance Resendez, EI; Paul Skelton, PE; and Mor Diao, CCM, PMP*

17. Firm Experience:

Firm name	Hardesty & Hanover, LLC			Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Baltimore Harbor Tunnel – Engineering Services**			Firm responsibility (prime or sub?)	Sub
Project number	N/A	Owner's name	Maryland Transportation Authority (MDTA)		
Project location	Baltimore, MD			Owner's Project Manager	Abey Tamrat
Owner's address, phone, email	300 Authority Drive 2nd Floor, Baltimore, FL 21222 | 410.537.7822 | atamrat@mdta.state.md.us				
Services commenced by this firm (mm/yy)	11/13	Total consultant contract cost ($1,000's)	15,000		
Services completed by this firm (mm/yy)	12/16	Cost of consultant services provided by this firm ($1,000's)	3,000		

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

As part of the On-Call Facilities Inspection Contract, Hardesty & Hanover provided engineering services to support the mechanical and electrical systems of the Baltimore Harbor Tunnel.



H&H was tasked with evaluating ventilation fans and tunnel drainage pumps to determine the necessary repairs to return each component to operation, develop repair details and cost estimates to complete the repair, solicit bids from the On-Call Contractors contracted with MDTA to complete the repairs, review contractors shop drawings, and perform construction engineering services to inspect the contractor while completing the repairs.

H&H provided repair status updates during monthly progress meetings with MDTA to discuss repair schedules, fan and pump operations status, and any new repairs needed for the Baltimore Harbor Tunnel. Tunnel ventilation fan repairs included repairing fan shafts, replacing fan shaft bearings, rehabilitating fan motors (includes rewinding, motor bearings, motor shafts), realigning the motors and fans, replacing coupling components, repairing drive chain housings, replacing fan high speed contactors, and repairing main circuit breakers for fan equipment. Tunnel pump system repairs have included replacement portal pumps and concrete foundations (4 pumps) with control system modifications, replacing one shaft pump and concrete pedestal, and emergency repair of a leaking fire suppression system pipe within the wall of the tunnel.

Engineering services also included developing preventative maintenance procedures, lubrication schematics, maintenance forms, and a component identification report for the tunnel ventilation fans for MDTA Operations personnel use. H&H was tasked to perform a Plan and Specification review of the PS&E documents for the upcoming Baltimore Harbor Tunnel fan replacement contract to replace all 32 fans. The estimate construction value is $60 million. The review included the architectural, structural, mechanical, and electrical drawings as well as the related Special Provisions.

Key Staff: *Jason Biddle, PE; Don Marinelli, PE; Michael Tine, PE; Ryan Nolan, PE; Paul Skelton, PE*

17. Firm Experience:

Firm name	Meyer Engineers, Ltd.	Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**LA 18 (4th Street Extension – Burmaster)**	Firm responsibility (prime or sub?)	Prime
Project number	State Project No. H.007272	Owner's name	Louisiana Department of Transportation and Development
Project location	Jefferson Parish	Owner's Project Manager	Corbitt Hollier
Owner's address, phone, email	200 Mardi Gras Boulevard, New Orleans, LA 70114 | 504.376.2610 | Corbitt.Hollier@LA.GOV		
Services commenced by this firm (mm/yy)	10/16	Total consultant contract cost ($1,000's)	$837
Services completed by this firm (mm/yy)	03/18	Cost of consultant services provided by this firm ($1,000's)	$837

Meyer Engineers, Ltd. (Meyer) completed the Construction Engineering and Inspection Services for LA 18 (4th Street Extension – Burmaster) in Jefferson Parish. The project included new construction including grading, concrete pavement, curbs, base course, and subsurface drainage. Additional work included clearing and grubbing, drainage structures, sidewalks, landscaping, light poles, and traffic pavement markings.

The drainage work included over 9,600 LF of concrete drainpipe (up to 96-inch diameter), trench excavation, safety protection (greater than 5 feet depth), catch basins, bedding material, concrete headwalls, and riprap.

Meyer used DOTD's Site Manager Program and coordinating with DOTD District 02 and Jefferson Parish. Meyer also reviewed and managed shop drawings and Requests for Information (RFI).

Meyer submitted the final submittal package to the DOTD Construction Audit Section including Form 2059 and as-built drawings. Construction Cost: $7.2M.

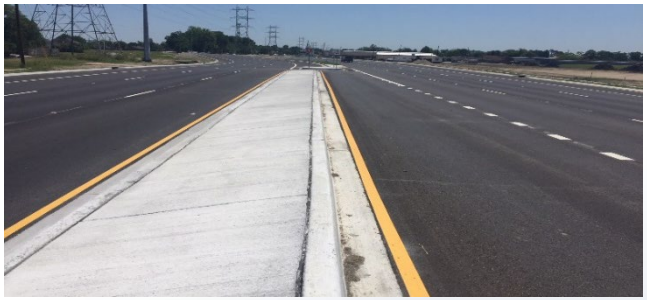
Key Members: *Byron Mackey; Justin Bosarge*

17. Firm Experience:

Firm name	Meyer Engineers, Ltd.	Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Lapalco Boulevard (Victory – Westwood)**	Firm responsibility (prime or sub?)	Prime
Project number	State Project No. H.007175	Owner's name	Louisiana Department of Transportation and Development
Project location	Jefferson Parish	Owner's Project Manager	Corbitt Hollier
Owner's address, phone, email	200 Mardi Gras Boulevard, New Orleans, LA 70114 | 504.376.2610 | Corbitt.Hollier@LA.GOV		
Services commenced by this firm (mm/yy)	05/17	Total consultant contract cost ($1,000's)	$531
Services completed by this firm (mm/yy)	06/20	Cost of consultant services provided by this firm ($1,000's)	$498

Meyer Engineers, Ltd. (Meyer) completed construction engineering and inspection services for the Lapalco (Victory – Westwood) project. The project scope of work included widening the four-lane section of Lapalco Boulevard from Victory Drive to Westwood Drive by adding a median. The work also included clearing and grubbing, grading, drainage structures, milling, asphalt pavement, patching, class II base course, and related work. The project includes many unforeseen utility structures, the locations of which were determined by extensive excavation during the Assembly Period. Meyer was responsible for recording the discoveries on record drawings as well as recording the quantity of excavation for payment purposes. Due to the project location being encompassed by Jefferson Parish Public Schools on each end of the project limit, constant traffic control monitoring was provided to minimize traffic disruption. Meyer was responsible for review of Traffic Control Logs provided by the Contractor. Duties also included reviewing said reposts on a weekly basis with Contractor and ensuring Contractor provides monthly report for review. Meyer served as Project Engineer on behalf of DOTD coordinators and was responsible for documenting minutes of progress meetings, implementing change orders, processing pay requests, monitoring monthly fuel adjustments as well as maintaining record drawings and material testing results for close out of project. Meyer had inspectors responsible for daily recording of field activities, quantifying and documenting pay items, managing sampling plan and coordination of field tests and traffic control. Construction Cost: $6.9M

Key Members: *Byron Mackey*



17. Firm Experience:

Firm name	Meyer Engineers, Ltd.	Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Comite River Diversion Canal and Utility Relocation**	Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's name	USACE New Orleans District
Project location	East Baton Rouge Parish	Owner's Project Manager	Hannah Rubiano
Owner's address, phone, email	7400 Leake Avenue, New Orleans, LA 70118 | 504.250.3561		
Services commenced by this firm (mm/yy)	05/21	Total consultant contract cost ($1,000's)	$25, 000
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$18,000

Meyer is currently providing Construction Engineering and Inspection services for the Comite River Diversion Canal and Utility Relocation. The area between Highway 67 and Highway 19 is approximately three miles long. In that area there are currently three ongoing projects: Channel Segment Reach 4 Parts 1 and 2; White Bayou Rock Chute Construction; and McHugh Bridge and Channel Excavation. Meyer and Beta are providing QA/QC on the project. The scope of work consists of channel excavation, witnessing the contractor's excavation quantities, building levees, witnessing in place density test, installing geotextile throughout the channel invert and slopes, QA/QC for quantities for contractor payment, the installation of bedding/riprap, assuring that the contractor adheres to their submitted work plans, such as equipment and method of installation. McHugh Bridge consists of a 340-foot-long bridge that ties in the City of Baker and the City of Zachary. The bridge is a drill shaft and pile supported, with cast-in-place 54-inch columns tying into the cast-in-place bridge caps, setting of the pre-cast bridge girders, then cast-in-place five spans of 9-inch bridge decking along with DOTD standard cast-in-place bridge rail. Full depth asphalt approach slabs are paved on the north/south sides of the bridge. There are various 48-inch RCP drain lines with cast-in-place spill basin that drains McHugh Road into the Comite River Diversion. The project will include two railroad bridges.

Key Members: *Justin Bosarge, Byron Mackey*

17. Firm Experience:

Firm name	GOTECH, Inc.	Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Retainer Contract for Construction Engineering Management and Staff Augmentation Services for District 03**	Firm responsibility (prime or sub?)	Sub
Project number	4400004729 (CE&I)	Owner's name	LADOTD
Project location	Acadia, Lafayette, Evangeline, Iberia, St. Landry, St. Martin, St. Mary & Vermilion Parishes, LA	Owner's Project Manager	Mark Chenevert / Alan Dale, PE
Owner's address, phone, email	1201 Capitol Access Road, Room 405-E, Baton Rouge, LA 70802 | 225.379.1591 | mark.chenevert@la.gov		
Services commenced by this firm (mm/yy)	10/14	Total consultant contract cost ($1,000's)	$2,077
Services completed by this firm (mm/yy)	12/19	Cost of consultant services provided by this firm ($1,000's)	$1,265

GOTECH provided construction inspectors, document control person, and an office manager on the LADOTD Retainer Contract for the Construction Engineering Management projects in St. Mary, Lafayette, and St. Martin Parishes, Louisiana. The GOTECH Inspectors provides project dairy entries that track the contractor's equipment and personnel on the jobsite. He maintains field records and notes the acceptability of the work completed. The GOTECH Inspectors also keep track of materials used on the project. The GOTECH Document Control Specialist are responsible for managing documents while also ensuring their accuracy, quality, and integrity. These specialists help firms adhere to record retention policies, safeguard information and retrieve data more effectively. A large part of the job is to control the retrieval of documents. Document control specialists receive and process Requests for Information, or RFIs, from employees or clients and maintain the requests via tracking logs. The GOTECH Office Manager is responsible for the smooth flow of work processes at the office. This individual must be a multitasker, with the ability to work on several requests simultaneously without losing focus. Office Manager must be proficient with several software such as Word, Excel, Database and PowerPoint presentation.

Key Members: *Kenneth Prescott*

17. Firm Experience:

Firm name	GOTECH, Inc.			Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**Natchitoches Street Rehabilitation (CE&I)**			Firm responsibility (prime or sub?)	Prime
Project number	4400010081 SPN: H.011729 (CE&I)	Owner's name	LADOTD		
Project location	Ouachita Parish, LA			Owner's Project Manager	Mark Chenevert
Owner's address, phone, email	1201 Capitol Access Road, Room 405-E, Baton Rouge, LA 70802 | 225.379.1591 | mark.chenevert@la.gov				
Services commenced by this firm (mm/yy)	05/17	Total consultant contract cost ($1,000's)	$75		
Services completed by this firm (mm/yy)	05/18	Cost of consultant services provided by this firm ($1,000's)	$64		

GOTECH Inc. Performed construction engineering and inspection services for the Natchitoches Street Rehabilitation Project in West Monroe Louisiana. This Project included pavement patching, superpave asphaltic concrete. This work also included cold planning, asphaltic paving, cleaning and resealing existing joints, striping.

This one mile stretch of road is in the middle of West Monroe Industrial corridor and was given a maximum of 60 calendar days to complete. GOTECH and its staff was proactive in working with the Contractor and the Mayor's office in completing this project ahead of schedule and within the budget restraints.

Key Members: *Nathan Millard; Kenneth Prescott*

17. Firm Experience:

Firm name	GOTECH, Inc.	Past Performance Evaluation Discipline(s)*	CE&I/OV
Project name	**I-12 Widening Design / Build**	Firm responsibility (prime or sub?)	Sub
Project number	454-01-0047 & 454-02-0025	Owner's name	LADOTD
Project location	East Baton Rouge & Livingston Parishes, LA	Owner's Project Manager	Mark Chenevert / Jeff Burst
Owner's address, phone, email	1201 Capitol Access Road, Room 405-E, Baton Rouge, LA 70802 | 225.379.1591 | mark.chenevert@la.gov		
Services commenced by this firm (mm/yy)	02/09	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	08/12	Cost of consultant services provided by this firm ($1,000's)	$2,950

GOTECH provided surveying, utility coordination, and construction inspection. For the I-12 Widening Project, GOTECH provided inspections services during the construction phase of the project. GOTECH provided a certified structural inspector, concrete paving inspection, coordinated the utility relocation work, prepared daily reports, witnessed testing of cylinder strength for early breaks to allow traffic to roll as soon as they obtained minimum strength, monitoring the construction of the roadway bridges and overpasses.

Survey work included the establishment of primary vertical and horizontal control within the project limits that will facilitate construction layout, and any surveying that is required to complete the design phase of the project.

The I-12 widening project consisted of expanding the interstate roadway to three travel lanes in each direction for a distance of approximately nine miles. The project extended from the O'Neal Lane intersection in East Baton Rouge Parish to the Walker exit in Livingston Parish. GOTECH was as a Sub-Consultant to James Construction Group.

Key Members: *Nathan Millard, Kenneth Prescott*

17. Firm Experience:

Firm name	A P S Engineering & Testing, LLC	Past Performance Evaluation Discipline(s)*	CE & I/OV
Project name	**I-10: Highland to LA 73**	Firm responsibility (prime or sub?)	Sub
Project number	H.009250	Owner's name	LADOTD
Project location	St. Tammy Parish	Owner's Project Manager	Peggy Paine, PE
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, LA 70802-4438/ 225-379-1001 / Peggy.Paine@la.gov		
Services commenced by this firm (mm/yy)	12/17	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	01/20	Cost of consultant services provided by this firm ($1,000's)	$400

A P S was tasked with the QA for all material testing services. As the QA testing lab, A P S performed testing and acceptance of all the soil material and performed compaction and concrete testing.

Key Team Members: Sergio Aviles, PE; Sairam Eddanapudi, ME, PE.

18. Approach and Methodology:

PROJECT UNDERSTANDING

The project includes providing construction contract administration and Construction Engineering and Inspection (CE&I) services for the Harvey Canal Tunnel Rehabilitation. The rehabilitation includes new tile lining, drainage pumps, pavement and ventilation system for the tunnel and its approaches along US 90Z in Jefferson Parish. Construction Engineering and Inspection (CE&I) services are provided to ensure that all construction activities are in accordance with DOTD Standards and Procedures. Specifically, the CE&I will be responsible for maintaining all field construction records, inspecting the contractor's daily construction operations, and keeping detailed and clear records of the contractual obligations. H&H has performed CE&I services for other DOTD projects and at tunnels throughout the country.

PROJECT TEAM AND KEY STAFF

The H&H CE&I Team includes Meyer Engineers and GOTECH and was formed as a direct result of our **successful history** of collaboration on many previous CE&I projects, such as the Company Canal bridge replacement project and the specific skills and experience of the field staff. We have also included APS as an independent Testing Laboratory, per 23 CFR 637.209, in the event the DOTD Testing Laboratory is not available. To achieve the desired results, our team will ensure a well-coordinated, cooperative, collaborative effort focused on using the available tools and techniques of our well-proven and time-tested approach to providing CE&I services.

Babak Naghavi, PE, will be the Project Manager providing project/contract management for the contract. Fred Wetekamm, PE will serve as our Project Engineer for this project and will be available at all times. Fred has a great deal of experience with similar DOTD CE&I projects, and extensive tunnel maintenance and operations experience as the past Bridge Maintenance Engineer for District 02. He will work directly with the DOTD District 02 Project Engineer serving as the Construction Coordinator during project construction. Fred will be supported by our specialized tunnel CE&I staff of qualified engineers and inspectors (structural, mechanical, and electrical) and experienced DOTD Certified Inspectors.

SPECIFIC SOFTWARE AND /OR EQUIPMENT DESIRED

Our staff has used and are experienced and agile with electronic devices such as with ability to synchronize with SiteManager, SiteManager Material, and LAPAVE software required by DOTD. Our field staff are equipped with tablets having mobile data and Head Light software (Fieldbook and Material) installed and have wireless remote access to the internet.

PROJECT OPERATION AND MANAGEMENT

1 – Safety
2 – Maintenance & Protection of Traffic
3 – Schedule, Staging and Long-Lead Items
4 – Coordination with LADOTD
5 – Public Information Outreach

Our team places a high priority on construction safety, and we are proud of our record – one of the best in the industry. In fact, we have never had a fatality or serious incident on any of our CE&I projects. The team is committed to public safety, the safety and health of our staff, and the construction staff. We have extensive and specialized tunnel experience and understanding of the relevant health and safety issues of tunnel construction work. The approach to our work activities will include training for working with mechanical and electrical equipment, pavement/structural, and other aspects of the project. H&H CE&I Team meets DOTD's work zone requirements. All field personnel assigned to the project have successfully completed the Traffic Control Supervisor/and or Traffic Control Technician and Flagger

training. Depending on the staffing requirements, H&H will ensure that additional staff will receive the required training if needed and at least one member of the dispatched field crew shall have completed the Traffic Control Supervisor, Traffic Control Technician, and/or Flagger training as required by DOTD.
The H&H CE&I Team will provide review of the contractor's CPM schedule for LADOTD. It will be particularly important for early submittal and approval of a baseline schedule. Our Project Engineer will recommend that we make this a priority during the pre-construction period. Our team will aggressively monitor the schedule during construction and include two week "look ahead" to identify potential conflicts and obstacles. We will work proactively with the contractor to develop solutions and keep critical activities on schedule.

Some of the responsibilities and various tasks to be performed by H&H CE&I Team are described more specifically as:

- Act as Project Engineer for the project and coordinate with the DOTD District personnel, Contractor, and other parties to schedule and conduct the pre-construction meeting.
- Provide necessary personnel, equipment, and materials needed to inspect Contractor's construction operations (daily) to ensure that work performed is in accordance with the specified plans and specifications.
- Maintain construction field records including daily entries in the project diary to indicate the personnel present on the job site, Contractor's personnel and equipment being utilized on the project, work being accepted, acceptability of traffic control, and charging of contract time through utilizing DOTD software (LAPAVE, SiteManager, HeadLight).
- Inspect the Contractor's construction operations (daily) to ensure that work is performed in accordance with the specified plans and specifications and using approved materials.
- Coordinate and conduct weekly project progress meetings with DOTD and the Contractor and produce meeting minutes and distribute to each of the attendees within 5 days of the progress meeting.
- Keep clear and concise records of the contractual operations, prepare monthly pay estimates, and make weekly progress reports consisting of percent complete and time elapsed, approved change order amounts, and number of change orders to the DOTD Area Engineer.
- Coordinate with DOTD, U.S. Coast Guard, Parish Engineers/Representatives, and relevant utility agency representatives.
- Provide necessary personnel and equipment, and coordinate the activities of the selected testing laboratory, to perform the required field-testing for quality assurance in accordance with the latest DOTD Sampling and Testing Manual.
- Collect and submit sampled materials to be tested by DOTD District Testing Laboratories, in accordance with the stipulated Materials Sampling Manual. Ensure samples, field test, lab test submitted, and tests results are properly documented in DOTD software systems (LAPAVE, SiteManager materials, HeadLight, and other systems).
- Keep clear and concise records of the contractual operations, prepare monthly pay estimates, and make weekly progress reports consisting of percent complete and time elapsed, approved change order amounts, and number of change orders to the DOTD Area Engineer.
- Review and coordinate with the DOTD District Laboratory the entire final estimate package, including document submittals from Contractor, in conformance with DOTD requirements.
- Prepare final estimate packages, including Form 2059 – "Summary of Test Results" in conformance with DOTD requirements.
- Review form work drawings and submit to DOTD for further handling, review, and distribution. Submit for approval to the DOTD Project Engineer as stated in the DOTD Standard Specifications.

- All construction activities shall be coordinated between the Consultant, the Owner, the FHWA and an assigned representative of DOTD. All work standards, methods of reporting, and documentation of pay quantities will be in accordance with the policies and procedures of DOTD. All partial and final construction estimates, and other information must be submitted on forms approved by DOTD.
- Be available for conferences, visits to jobsites, and/or inspections by DOTD authorized representatives.
- Develop and submit "As-Built" plans with the final estimate. "As-Built" plans will reflect all changes made from the original plans. Changes to the plans are to be made in red. "As-Built" plans shall be full sized. In addition to submitting a copy of the "As-Built" plans with the final estimate, an additional copy shall be provided to the district.
- Develop Change Orders throughout the life of the project as necessary and upload any change order attachments through DOTD's software system.
- Monitor and document construction claims and provide recommendations on disposition of claims.
- Manage the RFI (Request for Information) process as defined on the DOTD internet site.
- Perform other duties normally required by DOTD Project Engineer's Office as directed by the DOTD Area Engineer.
- Coordinate press releases with the Contractors Public Information Manager (PIM) who will distribute releases to the local media outlets pertaining to project status and any anticipated traffic pattern changes on a timely basis with approval of DOTD Public Information Officer.
- Generate and maintain separate logs for change orders, RFIs, and submittals which details the status of each.

TECHNICAL APPROACH

MECHANICAL CONSIDERATIONS

The mechanical system scope of work includes rehabilitation to the ventilation system and drainage pumps. The existing ventilation system is a semi-transverse ventilation with flues located along the curb of the roadways. The drainage and pumping system include drains at the entrance and exit of each roadway with pumps to remove water prior to entering the tunnel. The low point drainage pumps located within the tunnel remove water that has entered the tunnel.

The mechanical construction engineering and inspection will ensure the contractor maintains the necessary ventilation system and drainage pumping system in operation during construction as specified in the plans and specifications. Upon commissioning on the ventilation system and drainage pumps, the mechanical inspector will document the machinery alignment, bolt tensioning, and performance testing of each system. Performance testing will likely include vibration testing of the fan assemblies, airflow documentation within the tunnel, and drainage pump operating pressures. Adjustment of the flue balance plates will be documented to ensure the airflow meets the contract requirements and then recorded on the as-built drawings for LADOTD records.

ELECTRICAL CONSIDERATIONS

The electrical system scope of work includes rehabilitation to the electrical portions of the ventilation system and drainage pumps which may include new switchgear, cables, power distribution system, local controls, PLC system, sensors, and other elements. As part of these tasks, H&H would be responsible for the electrical construction engineering and on-site inspection for the rehabilitated electrical systems. The electrical engineering and inspection will ensure the new equipment installed meets all necessary standards and contract documents. Special attention will be made to accurately record field conditions for all upgrades to the pump and ventilation systems such that the projects' record as-built drawings will be accurate. The as-installed condition of all equipment will be verified and measurements such as motor currents and cable insulation resistance values will be documented. When recorded values or parameters do not meet relevant standards or the contract documents DOTD will be immediately notified and agreed upon corrected action will be verified in the field.

Considering electrical work is typically the last stage in commissioning new ventilation and tunnel drainage systems it sometimes becomes a critical path to completion. Therefore, when field work and schedule require additional inspectors, as agreed upon by DOTD, H&H will mobilize other equally qualified personnel that can assist with construction inspection services.

Structural Considerations

Liners are the structural components of tunnels. Precast concrete liners and cast-in-place concrete liner make up the bulk of all permanent final lining systems installed in highway tunnels. Troughs may be installed on the inside of the liner to catch leaking water and convey it into the drainage system using interconnected pipes. If the construction joints are leaking, then chemical grout can be injected to seal the joint. Defects such as delamination and spalls near the joint should be removed and rebuilt with sound materials having properties similar to the concrete substrate. For concrete liners, the repair process is similar to concrete spall repairs.

For CE&I work, ensuring the liner is sound is important before installing the tile. Tiles are used to protect the liner. The grout and tile used should be able to resist fire (should be specified in the contract). Ceramic tiles, porcelain enamel, and epoxy coatings are common tunnel finishes. The interior finish of a tunnel is very important to the overall function of the tunnel. To improve safety and facilitate the ease of maintenance, tunnel finishes should: be designed to enhance tunnel lighting and visibility; be fire resistant; not generate toxic fumes during a fire; be able to attenuate noise; and be easy to clean.

Pavement and Drainage Considerations

Rehabilitation of the pavement will be according to DOTD standard procedures for pavement construction. Pavement markings and signs will be replaced, as necessary, for luminosity. When traveling through the tunnel at the allowable speeds, the motorists should be able to clearly identify the pavement markings and signs.

The tunnel drainage system is designed to remove water from the roadway and is made up of grates, scuppers, piping, drainage troughs, and pumps. The roadway drainage system should ensure that water drains freely and is collected and disposed of correctly.

Electronic Deliverables

All project deliverables will be produced in electronic format that conforms to DOTD Software and Deliverable Standards for Electronic Plans. H&H is familiar with and experienced in submitting deliverables that comply with these standards and in uploading/checking in milestone deliverables directly into the DOTD ProjectWise repository. H&H will comply with the requirements for applying patches to CAD Standard Resources and installing incremental updates as needed.

Independent Testing Laboratory

H&H's subconsultant partner APS Testing & Engineering, LLC, is a qualified independent testing laboratory that can provide services in the event that the DOTD laboratory is not available.

Project Schedule

Contract schedule will coincide with the construction schedule. The overall time for the completion of the scope of services is estimated to be 805 days.

Quality Assurance/Quality Control

A Quality Assurance/Quality Control (QA/QC) Plan will be developed for the project to provide a mechanism by which all deliverables will be subject to a systematic and consistent review including review of all sub-consultant work and deliverables. This Plan will adhere to established DOTD policies, procedures, standards and guidelines in the preparation and review of all deliverables be submitted to the DOTD PM within 10 business days of the award notification.

19. Workload:

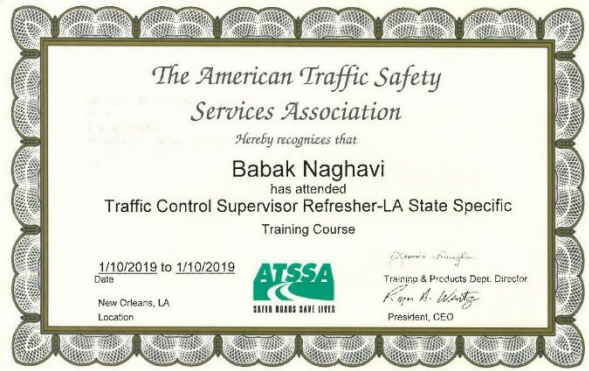
Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
Hardesty & Hanover, LLC	Bridge	H.002798.6	Bayou Teche Bridge at Oaklawn	$42,962
Hardesty & Hanover, LLC	Road	H.014363.5	Sidewalk Improvements to Conform to ADA – Task Order 1 St. Tammany Parish	$4,110
Hardesty & Hanover, LLC	CE&I/OV	H.001498.6	LA 24 and LA 316: Company Canal Bridge (CE&I), Terrebonne Parish	$2,259,094
Meyer Engineers, Ltd.	CE&I/OV	H.001498	LA 27 & LA 316 Company Canal Bridge	$269,471
Meyer Engineers, Ltd.	CE&I/OV	H.007331.6	Pakenham Drive (LA 46 – LA 39)	$4,783
Meyer Engineers, Ltd.	Road	H.004727	Howard Avenue Extension (Loyola Avenue – LaSalle Street)	$5,693
Meyer Engineers, Ltd.	CE&I/OV	H.013520	Barringer Drive Sidewalks	$58,695
Meyer Engineers, Ltd.	CE&I/OV	H.014048	S. Tangipahoa Roads Pavement Rehab.	$650,183
Meyer Engineers, Ltd.	Road	H.013522.5	S. Lewis Street Widening	$112,306
GOTECH, Inc. (Subconsultant to Volkert, Inc.)	CE&I/OV	Contract No. 4400004631; Task Order No. H.003107.6 *Task Order No. 1 *Task Order No. 2	Retainer Contract for Construction Engineering Management and Staff Augmentation Services for District 62 (St. Helena, Livingston, St. John, Tangipahoa, Washington & St. Tammany Parishes)	$0 $171,520
GOTECH, Inc. (Subconsultant to GEC, Inc.)	CE&I/OV	Contract No. 4400017006; Task Order No. H.011670	I-10 / Loyola Interchange Improvements (Jefferson Parish)	$420,045

GOTECH, Inc. (Subconsultant to Hardesty & Hanover, LLC)	CE&I/OV	Contract No. 4400017430; Task Order No. H.001498.6	LA 24 & 316: Company Canal Bridge CE&I (Terrebonne Parish)	$304,467
GOTECH, Inc. (Subconsultant to WSP)	Planning	Contract No. 4400017327	IDIQ Innovative Procurement & Alternative Delivery Support Services, Statewide	$74,052
GOTECH, Inc. (Subconsultant to GEC, Inc.)	CE&I/OV	Contract No. 4400019950 Task Order No. H.003003 Task Order No. H.002151	IDIQ Contracts for Construction Engineering & Inspection Services, Statewide w/Majority of Work in District 03 (Acadia, Lafayette, Evangeline, Iberia, St. Landry, St. Martin, St. Mary & Vermilion Parishes)	$0 $68,000
GOTECH, Inc. (Subconsultant to R.C. Lambert Consultants, LLC)	CE&I/OV	Contract No. 4400019550 SPN: H.001234	LA 1: Port Allen Canal Bridge Replacement Phase 1 (HBI) (CE&I) Route LA 1 (West Baton Rouge Parish)	$622,097
GOTECH, Inc. (Subconsultant to GEC, Inc.)	CE&I/OV	Contract No. 4400023074 Task Order No. H.010725 Task Order No. H.012465	IDIQ Contract for Construction, Engineering & Inspection & Staff Augmentation - Pecan Island Rd - District 61 (Hammond)	$49,916 $71,460
A P S Engineering & Testing, LLC	GEOTECH	H.013127	Retainer Contract for Geotechnical Services	$53,996.00
A P S Engineering & Testing, LLC	GEOTECH	H.013144	Retainer Contract for Geotechnical Services	$45,457.00

20. Certifications/Licenses:

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

Hardesty & Hanover, LLC


The American Traffic Safety Services Association

Hereby recognizes that

Babak Naghavi

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

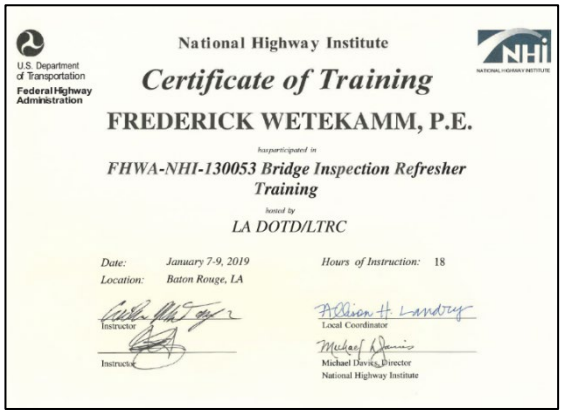
1/10/2019 to 1/10/2019 — Date

New Orleans, LA — Location

ATSSA — Save Roads Save Lives

Training & Products Dept. Director

President, CEO


National Highway Institute

Certificate of Training

FREDERICK WETEKAMM, P.E.

has participated in

FHWA-NHI-130053 Bridge Inspection Refresher Training

hosted by

LA DOTD/LTRC

Date: January 7-9, 2019 — Hours of Instruction: 18

Location: Baton Rouge, LA

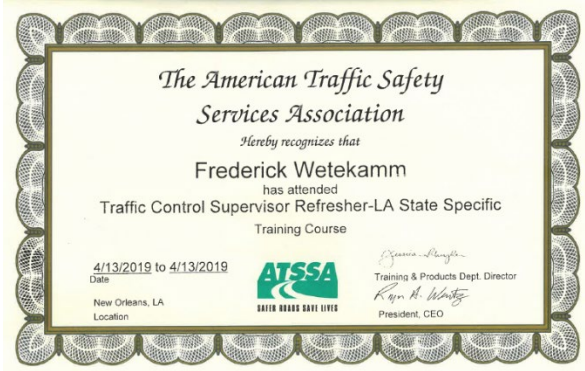
Instructor

Instructor

Local Coordinator

Michael Davis, Director

National Highway Institute


The American Traffic Safety Services Association

Hereby recognizes that

Frederick Wetekamm

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

4/13/2019 to 4/13/2019 — Date

New Orleans, LA — Location

ATSSA — Save Roads Save Lives

Training & Products Dept. Director

President, CEO


National Highway Institute

Certificate of Training

Donald Marinelli

has participated in

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

hosted by

AECOM Technical Services, Inc.

Date: August 20, 2010 — Hours of Instruction: 80 — CEU's: 60

Location: Baltimore, MD

Instructor

Instructor

Local Coordinator

Richard Barnaby, Director

National Highway Institute


National Highway Institute

Certificate of Training

Don Marinelli

has participated in

FHWA-NHI-130125 Tunnel Safety Inspection Refresher

hosted by

STANTEC

Date: September 17-19, 2018 — Hours of Instruction: 18

Location: Laurel, MD

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director

National Highway Institute


National Highway Institute

Certificate of Training

Donald Marinelli

has participated in

FHWA-NHI-130110 Tunnel Safety Inspection

hosted by

Maryland Transportation Authority

Date: July 28- August 01, 2014 — Hours of Instruction: 31

Location: Baltimore, MD

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director

National Highway Institute

National Highway Institute

Certificate of Training

Donald Marinelli

has participated in

FHWA-NHI-130053 Bridge Inspection Refresher Training

hosted by

Whitman, Requardt & Associates, LLP

Date: October 6-8, 2020 *Hours of Instruction:* 18

Location: Virtual Delivery, MD

Instructor: Finn K. Hubbard

Local Coordinator: Debra E. Rizzieri

Thomas Harman, Director
National Highway Institute

CLICKSAFETY®

CERTIFICATE OF COMPLETION

This acknowledges that

DONALD MARINELLI

Has successfully completed

OSHA 10 Hour Construction

The course was developed by ClickSafety.
Official OSHA completion card to follow within 6 weeks

Serial Number: 4759547 **Completed:** 10/2/2011

National Highway Institute

Certificate of Training

DONALD MARINELLI

has participated in

FHWA-NHI-130053 BRIDGE INSPECTION REFRESHER TRAINING

hosted by

Rummel, Klepper & Kahl, LLP

Date: September 16 - 18, 2014 *Hours of Instruction:* 18 Hours

Location: Baltimore, MD

Instructor

Local Coordinator

Instructor

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Donald Marinelli

has participated in

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

hosted by

Whitman, Requardt & Associates, LLP

Date: August 14-17, 2018 *Hours of Instruction:* 25

Location: Baltimore, MD

Instructor

Local Coordinator

Instructor

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Mike Tine

has participated in

FHWA-NHI-130125 Tunnel Safety Inspection Refresher

hosted by

STANTEC

Date: September 17-19, 2018 *Hours of Instruction:* 18

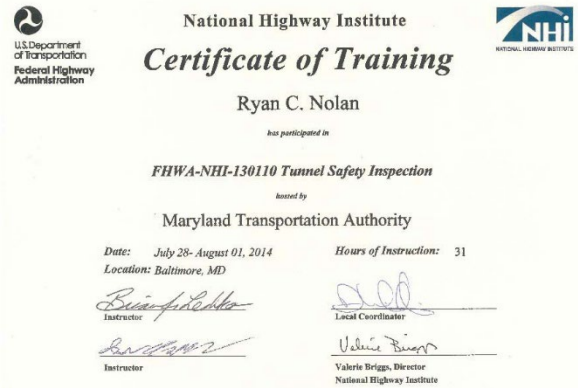
Location: Laurel, MD

Instructor

Local Coordinator

Instructor

Valerie Briggs, Director
National Highway Institute



National Highway Institute

Certificate of Training

Ryan C. Nolan

has participated in

FHWA-NHI-130110 Tunnel Safety Inspection

hosted by

Maryland Transportation Authority

Date: July 28- August 01, 2014 *Hours of Instruction:* 31

Location: Baltimore, MD

Instructor

Local Coordinator

Instructor

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Michael Tine

has participated in

NHI Course No. FHWA-NHI-130101

Introduction to Safety Inspection of In-Service Bridges - WEB-BASED

hosted by

National Highway Institute

Location: Web-Based Course *Hours of Instruction:* 14 hours

Date: 6/23/2014

Richard J. Barnaby, Director
National Highway Institute

National Highway Institute

Certificate of Training

Michael J. Tine

has participated in

FHWA-NHI-130110 Tunnel Safety Inspection

hosted by

Maryland Transportation Authority

Date: July 28- August 01, 2014 *Hours of Instruction:* 31

Location: Baltimore, MD

Instructor

Local Coordinator

Instructor

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Ryan Nolan

has participated in

FHWA-NHI-130125 Tunnel Safety Inspection Refresher

hosted by

STANTEC

Date: September 17-19, 2018 *Hours of Instruction:* 18

Location: Laurel, MD

Instructor

Local Coordinator

Instructor

Valerie Briggs, Director
National Highway Institute

Prime consultant name: **Hardesty & Hanover**

National Highway Institute

Certificate of Training

David S. Lynch

has participated in

FHWA-NHI-130110 Tunnel Safety Inspection

hosted by

Maryland Transportation Authority

Date: July 28- August 01, 2014 *Hours of Instruction:* 31

Location: Baltimore, MD

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Jason Biddle

has participated in

FHWA-NHI-130110 Tunnel Safety Inspection

hosted by

Whitman, Requardt and Associates, LLP

Date: September 19-23, 2016 *Hours of Instruction:* 32

Location: Baltimore, Maryland

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Christopher Svara

has participated in

FHWA-NHI-130110
Tunnel Safety Inspection

hosted by

Boston Society of Civil Engineers Section/ASCE

Date: May 7-11, 2018 *Hours of Instruction:* 32

Location: Worcester, MA

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Amy Robards

has participated in

FHWA-NHI-130055
Safety Inspection of In Service Bridges

hosted by

Nebraska LTAP

Date: April 16-27 2018 *Hours of Instruction:* 67

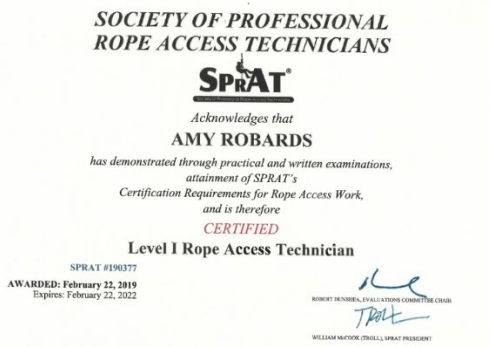
Location: Lincoln, Nebraska

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute



SOCIETY OF PROFESSIONAL ROPE ACCESS TECHNICIANS

SPRAT

Acknowledges that

AMY ROBARDS

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

CERTIFIED

Level I Rope Access Technician

SPRAT #190377

AWARDED: February 22, 2019
Expires: February 22, 2022

ROBERT DUNSIRA, EVALUATIONS COMMITTEE CHAIR

WILLIAM McCOOK (TROLL), SPRAT PRESIDENT

State of Louisiana
Department of Transportation and Development

Amy Robards

has met the requirements for certification as a/an

Structural Concrete Inspector

02ND Expiration Date: 12/13/2023

The American Traffic Safety Services Association

Hereby recognizes that

Amy Robards
has attended
Traffic Control Supervisor-LA State Specific
Training Course

02/08/2017
Date

Baton Rouge, LA
Location

ATSSA
SAVES ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

National Highway Institute

Certificate of Training

Robert Plocica

has participated in

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

hosted by

American Council of Engineering Companies of Metropolitan Washington
ACEC/MW

Date: February 18-29, 2008 *Hours of Instruction:* 60

Location: McLean, Virginia

Instructor

Instructor

Local Coordinator

Joseph S. Toole, Associate Administrator
Office of Professional and Corporate Development

To verify the validity of this card, contact

Technology Transfer and Training Section - LTRC

4101 Gourrier Avenue
Baton Rouge, LA 70808
(225)767-9125
www.ltrc.lsu.edu/certification.html

Updates may be necessary to maintain certification

NACE INTERNATIONAL

Certificate of Recognition

This certifies that

Marco Lara

has satisfied the requirements of the Association
for recognition as a

Corrosion Technician

August 2010
Certification Number 28390

Interim Executive Director

SEAL

This certificate is the property of NACE International and must be surrendered when recognition ceases. This certificate remains in force only as long as the above named person complies with the requirements of this program. Confirm current status by contacting NACE International, 1440 South Creek Drive, Houston, TX 77084

NACE INTERNATIONAL

Certificate of Recognition

This certifies that

Marco Lara

has satisfied the requirements of the Association
for recognition as a

Cathodic Protection Tester

July 2010
Certification Number 28390

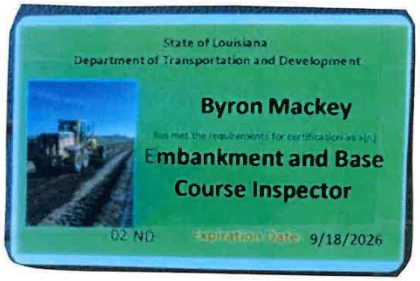
Robert H. Chalker- Executive Director

SEAL

This certificate is the property of NACE International and must be surrendered when recognition ceases. This certificate remains in force only as long as the above named person complies with the requirements of this program. Confirm current status by contacting NACE International, 1440 South Creek Drive, Houston, TX 77084

Page 1 of 1

Meyers Engineers certifications/licenses



 Prime consultant name: **Hardesty & Hanover**

GOTECH, Inc.


Research, Technology Transfer, Education & Training
Nathan C. Millard
(006691717 / Non-Department)
has successfully completed
2016 Emb & Base Course Specialty Area Exam
on
August 20, 2021
SCORE = 100.0


ATSSA
AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION
This is to affirm that
Nathan C Millard
has satisfied the requirements to be designated as a
CERTIFIED FLAGGER
Expiration Date 8/9/2025
State Issued In LA
Verification available by calling 1-877-642-4637 or at http://www.flagger.com


State of Louisiana
Department of Transportation and Development
Nathan C. Millard
has met the requirements for certification as an:
PCC Paving Inspector
61 ND Expiration Date: 2/11/2024


State of Louisiana
Department of Transportation and Development
Nathan C. Millard
has met the requirements for certification as an:
Structural Concrete Inspector
61 ND
Expiration Date: 8/6/2026

The American Traffic Safety Services Association

Hereby recognizes that

Nathan C Millard

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

2/8/2019 to 2/8/2019
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

State of Louisiana
Department of Transportation and Development

Kenneth Prescott

has met the requirements for certification as an

Structural Concrete Inspector

61 ND Expiration Date: 12/11/2023

RTA

DOTD

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

This is to certify that under Title 49, Part 26 of the Code of Federal Regulations & under the State of Louisiana United Certification Program (LAUCP)

Gotech, Inc.

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

NC541330, NC541340, NC541370, NC541618

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

Certificate Eligibility: June 2022 to June 2023

This certificate is valid through the above date provided. This firm meets the on-going programmatic standard and fulfills the annual update requirement to remain in good standing as a DBE. This certification is subject to annual verification and suspension or revocation based upon reasonable cause to believe that the firm is ineligible.

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

A P S Engineering and Testing, LLC

The American Traffic Safety Services Association

Hereby recognizes that

Sairam Eddanapudi

has attended

Traffic Control Technician-LA State Specific

Training Course

2/5/2019 to 2/5/2019
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

RTA

DOTD

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

This is to certify that under Title 49, Part 26 of the Code of Federal Regulations & under the State of Louisiana United Certification Program (LAUCP)

APS Engineering & Testing, LLC.

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

NC221310, NC221320, NC541330, NC541370, NC541380, NC541620, NC541690

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

Certificate Eligibility: October 2021 to October 2022

This certificate is valid through the above date provided. This firm meets the on-going programmatic standard and fulfills the annual update requirement to remain in good standing as a DBE. This certification is subject to annual verification and suspension or revocation based upon reasonable cause to believe that the firm is ineligible.

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

Prime consultant name: **Hardesty & Hanover**

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

January 7, 2019

To Whom It May Concern,

This is to verify that the below listed employee of APS Engineering & Testing has completed LADOTD required ATSSA traffic control training. We are currently awaiting the results of his exam.

LA Specific Traffic Control Supervisor Refresher – December 7, 2018 – Sergio Aviles

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

Best Regards,

Michael Demouy – LAGC Manager

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

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

22. Sub-consultant information:

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

Firm Name (as registered with Louisiana's Secretary of State)	**Address**	**Point of Contact and email address**	**Phone Number**
Meyer Engineers, Ltd.	4937 Hearst Street, Suite 1B Metairie, LA 70001	David Dupre ddupre@meyer-e-l.com	504-885-9892
GoTech, Inc.	8383 Bluebonnet Boulevard Baton Rouge, LA 70810	Rhaoul A. Guillaume, Sr., P.E., F.ASCE rhaoul@gotech-inc.com	225-766-5358
A P S Engineering and Testing, LLC	1645 Nicholson Drive, Baton Rouge, LA 70802	Sergio Aviles sergio@aps-testing.com	225-456-5714

23. Location:

If location is an evaluation criterion for this advertisement and the prime consultant intends to establish a local presence, describe the plan for doing so. Otherwise, leave this section blank.

3850 N. Causeway Blvd, Suite 1850
Metairie, LA 70002
T: 504.962.9212
la@hardestyhanover.com