



STATEMENT OF QUALIFICATIONS | CONTRACT Nos. 4400024021 and 4400024022 Bayou Barataria Movable Bridge Replacement CE&I State Project Nos. H.015028 (CE&I) and H.002264 (CE&I) F.A.P. Nos. H015028 and H002264 Routes: LA 302, LA 47 and LA 3257 Jefferson Parish

April 26th, 2022





April 26, 2022

www.hardestyhanover.com

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

Re: Contract Nos. 4400024021 and 4400024022 BAYOU BARATARIA MOVEABLE BRIDGE REPLACEMENT CE&I

Dear Selection Committee Members:

Hardesty & Hanover (H&H) is pleased to submit our qualifications to LADOTD to provide CE&I services for the Replacement of the Bayou Barataria Moveable Bridge. 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, especially those that specialize in complex structures such as movable bridges, that will help meet your schedules 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 deep knowledge of road and bridge design and construction, combined with his dedication, project management capabilities, and reputation with the LADOTD, 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 DOTD assigned District 02 construction coordinator during this project. Fred will be supported by our specialized Movable Bridge CE&I staff of qualified engineers and inspectors (structural, mechanical, and electrical) and experienced DOTD inspectors. Fred will be available full-time to devote the time needed to effectively deliver this project.

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 exceed your MPR requirements; and a roster of qualified professionals in all disciplines with availability to begin work immediately. We appreciate your consideration and look forward to providing LADOTD with a program of construction engineering and inspection for the Bayou Barataria bridge replacement CE&I project. Do not hesitate to contact us if you need clarification on our qualifications.

Sincerely, Hardesty & Hanover

tella

Paul Skelton, PE Principal-in-Charge

Babak Naghari

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

DOTD FORM: 24-102

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.

1. Contract title as shown in the advertisement	LA 302: Bayou Barataria MB Replacement, Phase 1, CE&I
2. Contract number(s) as shown in the advertisement	4400024021 and 4400024022
3. State Project Number(s), if shown in the advertisement	H.015028 and H.002264
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)	EF.0005124
6. Prime consultant mailing address	3850 N. Causeway Boulevard, Suite 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, Suite 1850 Metairie, LA 70002
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Babak Naghavi, PhD, PE, PH Regional Manager 504-605-7940 <u>bnaghavi@hardestyhanover.com</u>
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Paul Skelton, PE Principal 504-962-9212 <u>pskelton@hardestyhanover.com</u>
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): Paul Skelton, PE April 26, 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.2.0%A P S Engineering & Testing, LLC1.0%

<u>12. Past Performance Evaluation Discipline Table:</u>

Evaluation Discipline(s)	% of Overall Contract	Hardesty & Hanover (Prime)	Meyers Engineers, LTD	GOTECH, Inc. (DBE, SBE)	A P S Engineering & Testing, LLC (DBE, SBE)	Each Discipline must total to 100%
CE & I/OV	100%	90%	7%	2%	1%	100%
Identify the	e percentag	e of work for the over	all contract to be performe	d by the prime consu	ultant and each sub-	consultant.
Percent of Contract	100%	90%	7%	2%	1%	



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	2	12
Hardesty & Hanover, LLC	Supervisor – Engineer	4	18
Hardesty & Hanover, LLC	Engineer	4	38
Hardesty & Hanover, LLC	Engineer – Other	3	208
Hardesty & Hanover, LLC	Inspector – Bridge	2	32
Hardesty & Hanover, LLC	Inspector – Certified	1	1
Hardesty & Hanover, LLC	Inspector	2	20
Hardesty & Hanover, LLC	Senior Technician	7	36
Hardesty & Hanover, LLC	Supervisor - Other	2	8
Hardesty & Hanover, LLC	Engineer Intern	2	46
Hardesty & Hanover, LLC	Administrative	1	28
Meyer Engineers, Ltd.	Accountant	1	3
Meyer Engineers, Ltd.	Administrative	1	1
Meyer Engineers, Ltd.	Clerical	1	3
Meyer Engineers, Ltd.	Engineer	1	9
Meyer Engineers, Ltd.	Engineer Intern	0	2
Meyer Engineers, Ltd.	Inspector	0	4
Meyer Engineers, Ltd.	Inspector – Certified	2	4
Meyer Engineers, Ltd.	Inspector – Lead	1	1
Meyer Engineers, Ltd.	Planner	0	1
Meyer Engineers, Ltd.	Principal	1	1
Meyer Engineers, Ltd.	Supervisor – Engineer	1	2
GOTECH, Inc.	Supervisor - Other	1	2
GOTECH, Inc.	Inspector - Certified	2	17
A P S Engineering & Testing, LLC	Engineer	5	5
A P S Engineering & Testing, LLC	Driller	8	8
A P S Engineering & Testing, LLC	Technician	12	12



14. Organizational Chart:





<u>15. Minimum Personnel Requirements:</u>

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	Туре	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	9/30/2022
2	Timothy Noles, PE	Hardesty & Hanover, LLC		PE (31675)	LA	9/30/2023
3	Babak Naghavi, PE	Hardesty & Hanover, LLC		PE (20745)	LA	9/30/2022
3	Fred Wetekamm, PE	Hardesty & Hanover, LLC		PE (25369)	LA	3/31/2023
4	Babak Naghavi, PE	Hardesty & Hanover, LLC		PE (20745)	LA	9/30/2022
4	Fred Wetekamm, PE	Hardesty & Hanover, LLC		PE (25369)	LA	3/31/2023
5	George Foerster	Hardesty & Hanover, LLC		Movable Bridge Mechanical Inspector		
5	Mark Kaszczak. Jr.	Hardesty & Hanover, LLC		Movable Bridge Mechanical Inspector		
5	Travis Kimmins, PE	Hardesty & Hanover, LLC		Movable Bridge Mechanical Inspector PE (43676)	LA	3/31/2024
5	Robert Plocica	Hardesty & Hanover, LLC		Movable Bridge Mechanical Inspector		
5	Mark Soryal	Hardesty & Hanover, LLC		Movable Bridge Mechanical Inspector		
6	Frank Altro	Hardesty & Hanover, LLC		Movable Bridge Electrical Inspector		
6	Tarek Albishara	Hardesty & Hanover, LLC		Movable Bridge Electrical Inspector		



6	Milos Kivich	Hardesty & Hanover, LLC	Movable Bridge Electrical Inspector		
6	Marco Lara, PE	Hardesty & Hanover, LLC	Movable Bridge Electrical Inspector PE (44115)	LA	3/31/2024
6	Alexander Noble	Hardesty & Hanover, LLC	Movable Bridge Electrical Inspector		
7	Sergio Aviles, PE	A P S Engineering & Testing, LLC	PE (0033571)	LA	03/31/2024
7	Sairam Eddanapudi, MS, PE	A P S Engineering & Testing, LLC	PE (0035129)	LA	03/31/2024



Firm employed by	Hardesty & Hanover, L	LC			
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 / Mech. Engineering / State University of NY at Stony Brook		
Active registration	number / state / expirat	ion date	Professional Engineer: 27039 / LA / 3/31/2023		
Year registered	1995	Discipline	Mechanical Engineering		
Contract role(s) / br	ief description of respo	onsibilities	Principal-in-Charge – Meets MPR 1		
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevations relevations relevations for the second seco	nt to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders" hould cover the time specified in the applicable MPR(s).	, "designed	
03/18 – Present	IDIQ Movable Bridge (Principal-in-Charge re rehabilitation of SR 609 standard and special br mechanical, and electric plans. All designs are in	Contract, Statewi sponsible for the r and SR 605 base idge services, stat cal components of n accordance with	de, MS – Mississippi DOT routine/fracture critical inspection of I-110 Bridge over Biloxi Back Bay, and the full cule bridges as a task-order to the IDIQ Master Bridge Contract which includes dev tewide for MDOT. Scope of work includes inspection and rehabilitation of structura f the bridge as well as the roadway approaches and development of maintenance of AASHTO, FHWA and MDOT guidelines and specifications.	reloping I, and repair	
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-or 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 Ter Principal for the bridge and relay-based control bridge was replaced wit actuated slewing (push-	che Movable Brid rehabilitation invo system for this m h a new hydraulic pull) cylinders. Th	dge at Oaklawn Rehabilitation, St. Mary Parish, LA – Louisiana DOTD olving the electrical design, calculations, and plan preparation of the bridge power of ovable bridge located in St. Mary Parish, LA. Built in 1941, the original historically ally-operated swing bridge. The new through girder swing-span rotates with hydra ne project is currently in the post-design phase.	distribution significant ulically	



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.



Firm employed by	Hardesty & Hanover,	LLC					
Name	Babak Naghavi, PhD), PE, PH	12A	Years of relevant experience with this employer	4		
Title	Regional Manager			Years of relevant experience with other employer(s)	35		
Degree(s) / Years / S	pecialization		PhD / 1993 MS / 1982 / BS / 1979 /	/ Civil Engineering / Louisiana State University Civil Engineering / Louisiana State University Civil Engineering / Louisiana State University			
Active registration n	umber / state / expirati	on date	Professional Engineer: 20745 / LA / 9/30/2022 ATSSA Traffic Control Supervisor Refresher - ATSSA Flagger				
Year registered	1983	Discipline	Civil and Environmental Engineering				
Contract role(s) / bri	ef description of respo	nsibilities	Project Ma	nager – Meets MPR 2, 3, 4			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevan perience dates s	nt to the pro hould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders", the time specified in the applicable MPR(s).	, "designed		
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 (Project Manager respo bridge replaces the form Louisiana. Scope of wor field painting, and concr project is the 3rd largest LADOTD, Parish, and C	CE&I), Bayou Lat nsible for constru- ner LA 310 pontoc rk included concre ete approaches. N t ARAA funded tra coast Guard; and (fourche Bridg ction engineer on bridge at LA ete piers, insta Work involved ansportation proj QA/QC of proj	ge at Larose, Lafourche Parish, LA – LADOTD ring and inspection services for an on-system vertical lift bridge. Thi A 657 extension to LA 308. This is the largest span lift bridge in the S illation of structural steel members, welding, bolted connections, anch the structural steel paint inspection of all bolted connections. This \$3 roject in the state. Responsibilities included overall supervision; coord ject documentation.	is new tate of nor bolts, 30 million dination with		



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– 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.
06/09 – 12/10	S.P. No. 742-55-0004: Westside Boulevard Road Extension, Terrebonne Parish, LA – Louisiana DOTD Project Manager for this Urban Systems CE&I project. The project involved construction of new PCC pavement roadway for the extension of the existing Westside Boulevard from Marie Drive to St. Louis Canal. The scope of work included drainage area and utilities, unclassified excavation, grading, lime treatment, Class II base course, Superpave concrete shoulders, and associated items.
03/12 – 12/15	S.P. No. 737-99-1024: Safe Routes to School Project, Louisiana DOTD Districts 02,03,07 and 62– Louisiana DOTD Project Manager providing design and construction engineering and inspection services for selected projects involving sidewalks and related drainage modifications, curb extensions, signing, and striping. Work included sidewalk, signs, and marking improvements in the areas of schools such as: Daspit Elementary School in New Iberia, LA; two schools in DeRidder, LA; three schools in Orleans Parish, LA; Mandeville Elementary School in Mandeville, LA; and Hammond Junior High in Hammond, LA.
6/11-8/14	S.P. No. 852-26-0017 and SP No.825-25-0017 (CE&I): Interchange Improvements at Brownswitch Road, Route LA 1090 and LA1091, St. Tammany Parish, LA Louisiana DOTD Project Manager for this project which involved improvements to the intersection of LA 1090 and LA 1091 at Brownswitch Road. Both roadways were widened to add turn lanes. Work involved grading, subsurface drainage, base course, asphaltic concrete, traffic signalization, pavement markings, permanent signing, and related work.
4/12-6/14	S.P. No. 742-52-0012: I-10 SW Frontage Road Extension (CE&I), Slidell, LA Louisiana DOTD Project Manager for the construction of a concrete frontage road along the westbound of I-10 from approx. 1,300 feet north of LA 433 to approx. 300 feet south of Fremaux Road Interchange. Scope of work included grading/earthwork, base course, concrete paving, pre- cast concrete piling, approach slabs, lime treatment, concrete slab span bridge, pavement markings, and permanent signing.*
4/08-12/09	S.P. No.742-36-0123: Woodland Drive Rehabilitation (CE&I), New Orleans, LA Louisiana DOTD Project Coordinator for this Urban Systems CE&I project that involved removal of an existing road, grading, drainage structures, class II base course, PCC pavement, sidewalks, driveways, sewer system, water system, pavement markings, and related work on a section of Woodland Drive between General DeGaulle Drive and Tullis Drive.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC			
Name	Timothy Noles, PE	Timothy Noles, PE		Years of relevant experience with this employer	36
Title	Senior Structural En	gineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years /	Specialization		BS / 1984	/ Civil Engineering	
Active registration	number / state / expirati	ion date	Professio	nal Engineer: 31675 / LA / 9/30/2023	
Year registered	1989	Discipline	Civil Engi	neering	
Contract role(s) / br	ief description of respo	onsibilities	Technica	I Advisor/QC – Meets MPR 2	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevan perience dates sl	nt to the p hould cove	roposed contract, <i>i.e.</i> , "designed drainage", "designed girders" er the time specified in the applicable MPR(s).	, "designed
04/12 - 04/16 Boca Grande Causeway Swing Bridge Replacement Placida, FI – Gasparilla Island Bridge Authority Technical Advisor /Quality Control Engineer for the design of the replacement of a structurally deficient swing span bridge located on the Boca Grande Causeway. The fixed portion of the bridge utilized Florida I-beam girders founded on hammerhead pier caps and cast in place footings with 24-inch precast concrete piles. The project also included the installation of a permanent steel sheet pile bulkhead wall with cast in place concrete caps. Construction of critical temporary sheet pile walls required for phased construction, an a total of 0.24 miles of roadway construction.				le located caps and et pile ruction, and	
08/20 - Present	B/20 - Present L H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourge, LA – Louisiana DOTD Technical Advisor / Quality Control Engineer ensuring consistent performance by the construction engineering and inspection staft throughout the term of the project, including services for a new vertical lift bridge and operator's house. Monitoring construction activities; reviewing construction engineering inspection field records and reports; determining compliance with field testing methods and results; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; and construction close-out.				ection staff ion methods kages;
01/20 – Present	Almonaster Avenue R Technical Advisor / Qu construction inspection bridge. H&H's 2019 ass improvements to the ele operating capability. Alt rehabilitated superstruct guide assembly, live loa	ailroad Bridge ov uality Control Eng services required essment of the cir ectrical and mecha hough the existing ture. Developed no id bearings, count	ver the Indu gineer for th for the parti ca-1920, eli inical syster substructu ecessary de erweight tru	istrial Canal Rehabilitation, New Orleans, LA – Port of New Orlean ne bridge assessment, complete rehabilitative engineering design, and al replacement of the Almonaster Avenue Bridge, a movable Strauss-h igible for the National Register of Historical Places bridge revealed that ms, superstructure, and counterweight were required to return this bridge re could remain, modifications were deemed necessary to accommoda esign plans to replace the span drive and span lock machinery, operation nnion pin, and bushing.	s leel trunnion t ge to its full lte the ng strut,



03/01 – 09/01	CR 3/Mathers Bridge over Banana River, Indian Harbor Beach, FL – Brevard County Department of Engineering Project Manager/Lead Engineer responsible for construction inspection of a 200-foot swing bridge replacement and approach span rehabilitation involving a feasibility study and final design. H&H conducted an in-depth inspection of the structural, mechanical, and electrical systems for this 200-foot pony truss swing span bridge that was constructed in 1927. H&H provided swing span replacement, approach span improvements, and control house renovation plans to improve the roadway geometry, pedestrian access, and operation.
01/19 – Present	SR 605 Movable Bascule Bridge Rehabilitation, Ocean Springs, MS - Mississippi DOT Technical Advisor / Quality Control Engineer for the assessment, design, plan review, and quality control of SR 605 double-leaf bascule bridge, as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services, statewide for MDOT. Work includes inspection and rehabilitation of structural, mechanical, and electrical bridge components, roadway approaches and development of maintenance and repair plans. All designs are in accordance with AASHTO, FHWA and MDOT guidelines and specs.
01/15 – 03/17	Broad Causeway Bridge over ICWW, Bay Harbor Islands, FL – City of Bay Harbor Islands Principal-in-Charge for the project involving construction inspection for three bridges including a 1630-foot bascule span bridge. Scope included maintenance of traffic, roadway work, and bascule span rehabilitation including cathodic protection for the approach bridges substructure for \$14 million.
06/04 – 12/06	Broad Causeway Bridge over West Relief Canal, Bay Harbor Islands, FL – City of Bay Harbor Islands Principal-in-Charge for the \$4M project involving construction inspection for a five-span 200-foot pre-stressed concrete slab bridge accessing an island community. Scope included maintenance of traffic, utility relocation, roadway work, and bridge replacement.
08/08 – Present	Bayou Teche Bridge at Oaklawn – LADOTD Principal-in-Charge providing inspection, engineering design, and post-design services for new Bayou Teche Bridge at Oaklawn project. Built in 1941 to carry LA Route 323 over Bayou Teche, the original bridge is being replaced with a new hydraulically operated swing bridge. H&H provided the electrical design for the bascule bridge in line with LADOTD's design requirements and standard design details. This bridge replacement project included new traffic signals, gates, and a barrier system design which were provided by LADOTD's roadway, structural, and mechanical designers.
08/07 – 03/08	Pine Tree Avenue over Flamingo Waterway, Miami, FL – Miami-Dade County Public Works Department Principal-in-Charge of construction engineering inspection and design services for \$1 million substructure repairs to pre-stressed concrete piles and reinforced concrete piers. Repairs required an active impressive current application of cathodic protection.
08/08 – 08/13	Judge Seeber Vertical Lift Bridge, New Orleans, LA - Louisiana DOTD Technical Advisor /Quality Control Engineer overseeing the task order involving the replacement of the vertical life bridge's entire electrical system, counterweight ropes, counterweight guides, and span locks in addition to miscellaneous structural repairs. Design work for this eligible for the National Register of Historic Places bridge was completed within three months to meet the FEMA funding deadline. The electrical system was replaced in-kind using secondary resistance control operated with a drum switch in acLADOTD preference.



Firm employed by	Hardesty & Hanover, LLC					
Name	Andrew Barthle, Pl	Andrew Barthle, PE		Years of relevant experience with this employer	17	
Title	Senior Electrical Eng	Senior Electrical Engineer/Inspector		Years of relevant experience with other employer(s)	1	
Degree(s) / Years /	Specialization		BS / 2003 / Elec	trical Engineering		
Active registration 1	number / state / expirati	ion date	Professional Eng	Professional Engineer: 0034062 / LA / 3/31/2023		
Year registered	2008	Discipline	Electrical Engine	eering		
Contract role(s) / br	ief description of respo	nsibilities	Technical Advis	sor/QC		
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevant perience dates sl	nt to the propose hould cover the t	ed contract, <i>i.e.</i> , "designed drainage", "designed girders" time specified in the applicable MPR(s).	, "designed	
01/20 – Present	Almonaster Avenue Railroad Bridge over the Industrial Canal, New Orleans, LA – Port of New Orleans Electrical Engineer for the bridge assessment, complete rehabilitative engineering design, and construction phase services require for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge. H&H's 2019 assessment of the National Register of Historic Places eligible, circa-1920 bridge revealed that improvements to the electrical and mechanical systems superstructure, and counterweight were required to return this bridge to its full operating capability. Although the existing substructur 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.			s required ient of the systems, bstructure essary rweight		
08/08 – Present	H.002798.6; Bayou Teche Swing Bridge at Oaklawn, St. Mary Parish, LA – LADOTD Electrical Engineer responsible for providing electrical design calculations, plan preparations and post-design services for the bridge power distribution and relay-based control system for this movable bridge. Built in 1941, the original National Register of Historic Place eligible bridge was replaced with a new hydraulically operated swing bridge. H&H provided the electrical design for the bascule bridge in line with LADOTD's design requirements and standard design details and coordinated closely with the other design disciplines to assure success. All design deliverables were made in accordance with the project schedule. Due to permitting issues, design activities were placed on hold for several years extending the schedule. H&H is currently providing construction phase services for the project.			the bridge storic Places cule bridge plines to gn activities le project.		
04/12 – 04/16	Boca Grande Causeway Swing Bridge Replacement Placida, FI – Gasparilla Island Bridge Authority Electrical Engineer for the calculations, specifications, and plan preparation for electrical system of the replacement of a structural deficient swing span bridge located on the Boca Grande Causeway. The fixed portion of the bridge utilized Florida I-beam girders founded on hammerhead pier caps and cast in place footings with 24-inch precast concrete piles. The project also included the installation of a permanent steel sheet pile bulkhead wall with cast in place concrete caps. Construction of critical temporary sheet			ructurally irders the v sheet pile		



	walls required for phased construction, and a total of 0.24 miles of roadway construction. Andrew continues to perform inspections of the new swing span and serve on call to assist in troubleshooting issues that may arise.
08/08 – 08/13	SP 700-99-0430; Judge Seeber Vertical Lift Bridge over Inner Harbor Navigational Canal, New Orleans, LA – LADOTD Electrical Engineer responsible for overseeing the replacement of the vertical lift bridge's entire electrical system for this Preservation Priority Bridge. Scope included replacing the replay-based control system, and essentially the in-kind replacement of the switched secondary resistance motor drive with synchro-tie skew control. Prepared the initial scoping inspection report and coordinated post design services for the electrical and machinery rehabilitation of a 250-foot tower-drive vertical lift span.
04/18 – Present	SR 609 over Old Fort Bayou Bascule Bridge Rehabilitation, Gulfport, MS – Mississippi DOT Electrical Engineer of Record responsible for electrical inspection and design services as part of 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. H&H's 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/specifications. H&H is currently providing construction phase services.
09/06 –11/07	KCS Railroad Swing Bridge over Ouachita River, City of Monroe, LA - Kansas City Southern Railway Company Electrical Engineer responsible for the design, calculations, plan preparation, and specifications for repairs to the bridge electrical system for this hydraulically operated bridge. The project required replacement of track girders, drum girder repairs, and lateral bracing; the retrofit of turning mechanism (bearing wheels and spider rods), rail lifters; and the upgrade of the electrical control system on a new pre-cast pivot pier cap while maintaining railroad traffic and limited navigation closure.
01/19 – 08/20	SR 605 Over Industrial Waterway Canal Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT Electrical Quality Control Engineer responsible for the assessment, design, plan review, and quality control of electrical systems for the SR 605 double-leaf bascule bridge, as a task-order to the IDIQ Master Bridge Contract which included providing standard and special bridge services, statewide for MDOT. Scope included the inspection of structural, mechanical, and electrical components of the bridge and roadway approaches and the development of maintenance and rehabilitation/repair plans for elements identified during inspection. All designs were prepared in accordance with AASHTO, FHWA and MDOT guidelines & specs.
08/08 – 10/10	SW 11 th Avenue Swing Bridge over North Fork of New River, Fort Lauderdale, FL – City of Fort Lauderdale Electrical Engineer responsible for the design, calculations, plan preparation, and post design of the swing bridge power distribution and control systems. The pony truss swing bridge is operated by a motor coupled to a flux vector drive, with safety interlocks provided by a relay-based control system. The project involved the bridge rehabilitation study and reconstruction design for a historic 100-foot Pony Truss swing constructed in 1928. Included were in-depth inspection and rehabilitation design.



Firm employed by	by Hardesty & Hanover, LLC					
Name	Stephen Mikucki, I	PE	Years of relevant experience with this employer	27		
Title	Senior Mechanical E	Engineer	Years of relevant experience with other employer(s)	1		
Degree(s) / Years /	Specialization		BE / 1990 / Mechanical Engineering	BE / 1990 / Mechanical Engineering		
Active registration	number / state / expirat	ion date	Professional Engineer: 44849 / LA / 3/31/2023			
Year registered	1983	Discipline	Mechanical Engineering			
Contract role(s) / b	rief description of respo	onsibilities	Technical Advisor/QC			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevant perience dates si	nt to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", hould cover the time specified in the applicable MPR(s).	"designed		
12/20 – ongoing	Construction Engineering & Inspection Services for the Rehabilitation of the Broadway Bridge (vertical Lift) New York, N 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 loc machinery; replacement of elevators; balancing the lift span; repair of centering device. Responsible for reducer testing witnessing performed thermal photography to aid in inspection/reporting effort.					
2/17 – 7/17	Replacement of the Chapel Street Swing Bridge over Mill River New Haven, CT - City of New Haven Construction Engineer Inspector responsible for overseeing construction project for the \$14 million replacement design of an 4 highway swing span. Emergency repair expanded to a study of alternatives and culminated in a 220-foot-long, through box girder design. Construction engineering and inspection services included demolition of existing bridge, replacement of substructure, superstructure, control house, mechanical drives, and electrical system.					
08/12 – 10/15	Boca Grande Causeway Swing Bridge Replacement Placida, FI – Gasparilla Island Bridge Authority Swing Span Project Senior Mechanical Engineer responsible for reviewing and routing shop drawings, preparing the final as-built drawings. This project required the replacement of a structurally deficient swing span bridge located on the Boca Grande Causeway The fixed portion of the bridge utilized Florida I-beam girders founded on hammerhead pier caps and cast in place footings with 24-in precast concrete piles. The project also included the installation of a permanent steel sheet pile bulkhead wall with cast in place concrete caps. Construction of critical temporary sheet pile walls required for phased construction, and a total of 0.24 miles of roadw construction. Provides on call assistance troubleshooting issues that may arise which has included the design, fabrication, and installation of an auxiliary jack system to be used if the end lifts malfunctioned.			as-built auseway. vith 24-inch ace of roadway nd		



08/19 – 03/22	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. 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.
01/20 – Present	Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans Movable Bridge Mechanical Systems Expert contributing to the bridge assessment, complete rehabilitative engineering design, and construction inspection services required for the partial replacement of the Almonaster Avenue Bridge, a movable Strauss-heel trunnion bridge. H&H 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.
01/13 – 08/13	Lea Joyner / Ouachita River Bascule Bridge Rehabilitation, Monroe, LA – Louisiana DOTD Movable Bridge Mechanical Systems Expert for this emergency repair to a LADOTD Preservation Priority Bridge. Provided structural repair designs that included hanger plates and counterweight trunnion bearings for this underdeck Straus double-leaf bascule bridge. As part of a commissioning task, which included strain gaging of equipment for a contractor, H&H discovered a significant operational resistance in the counterweight bearings. Responsibilities included design, calculations, development of contract plans, cost estimate, construction support services, review of shop drawings, project submittals and installation procedures, and responding to RFIs submitted by the contractor for a counterweight trunnion replacement and bridge rehabilitation.
10/08 – 09/15	Alford Street Bascule Bridge Rehabilitation, Boston, MA – City of Boston Movable Bridge Movable Bridge Lead for this \$57 million bridge rehabilitation project, which includes the full replacement of twin-leaf, dual bascule bridge span and seven slab-on-stringer fixed approach spans. Substructure rehabilitation of the Alford St. Bridge includes new reinforced concrete pier caps, new reinforced bascule pier walls and a soil anchor seismic retrofit for existing abutments. Responsible for final PSE plan development, final project submission, and field commissioning efforts during bridge acceptance testing.
10/13 – 05/14	Marine Parkway Vertical Lift Bridge Rehabilitation, New York, NY – MTA Bridges and Tunnels Movable Bridge Mechanical Engineer responsible for the peer review of documents prepared by a rehabilitation consultant. As part of the peer review, discovered the operational issues at the central differential gear clutch that provided clarity in defining the scope of work items. Testing of tension in counterweight ropes and overseeing the adjustment of tension by the contractor based on the H&H procedures. Provided a constructability review of the 70% plans rehabilitation plans; key elements included strain gage measurements and alignment issues that identified the cause of the reported and ongoing span skew and balance issues.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC					
Name	Frederick Wetekam	Frederick Wetekamm, PE		Years of relevant experience with this employer	3		
Title	Senior Structural En	Senior Structural Engineer / Team Lea		Years of relevant experience with other employer(s)	30		
Degree(s) / Years / S	Specialization		ME / 2018 / Const BS / 1984 / Civil E	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) / br	ief description of respo	nsibilities	Project Engineer	– Meets MPR 3, 4			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the proposed hould cover the tin	contract, <i>i.e.</i> , "designed drainage", "designed girders", ne specified in the applicable MPR(s).	"designed		
8/20 - Present	L 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			rtical lift records; tual ıgs;			
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.				s in nd ıral repairs, use utilizing		
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-If x 72-If) with a latex modified concrete, replace the lifting ropes, replace most of the mechanical operating components, and rehabilitation of the operator house.			Certified lift span s, and			



06/12 – 12/13	US 90 Judge Seeber (Claiborne Ave) Vertical Lift Bridge (SP 001200), New Orleans, 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 repainting of the bridge while maintaining marine and vehicular traffic, replacing deteriorated structural components, and repairing lift span guide rails.
08/18 – 06/21	Lake Pontchartrain Causeway Safety Bay Improvement Project (CE&I), New Orleans, LA - Greater New Orleans Expressway Construction Engineer Inspector 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.
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. The project cost was approximately \$25.2M.
11/09-12/12	LADOTD Construction Project Orleans Parish, LA LA DOTD Construction Project Engineer in responsible charge providing construction engineering inspection services for Earhart Blvd. Rehabilitation Project. Directed all aspects of the program which was a complete reconstruction of the roadway and drainage from Hamilton to Fern. The project cost was approximately \$11.2 M.



Firm employed by	Hardesty & Hanover	r, LLC			
Name	Tarek Albishara, EIT			Years of relevant experience with this employer	4
Title	Electrical Engineer/I	Electrical Engineer/Inspector		Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		MS, Compute BS, Electrica	MS, Computer Science, 2016, NYIT BS, Electrical Engineering, 2010 Polytechnic University (NYU)		
Active registration r	number / state / expirat	ion date	FE NCEES II	D: 089612	
Year registered		Discipline		gineering	
Contract role(s) / br	ief description of respo	onsibilities	Movable Bri	dge Electrical Construction Inspector – Meets MPR 6	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevant perience dates s	nt to the prop hould cover tl	bosed contract, <i>i.e.</i> , "designed drainage", "designed girders" he time specified in the applicable MPR(s).	, "designed
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 operate control desk and gate operator's control stations; new span drives; new electrical motors; hydraulic auxiliary span drive; new electrica 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 suit field conditions, interfaced between the designer and the contractor, and performed additional inspection duries as required.				ajor between er, and of operator's v electrical ces; new uring eviewed designs to ired.
01/19-Present	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.			nplete ents to	
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			y Bridge, a 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-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.
08/16-present	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.
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, NyY 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 all performance specs; quality control of PCB boards and fire safety devices following procedures that comply with ISO-9000; troubleshooting of all fire safety devices and supporting units to PCB level; installed wire and program the Edwards Fire Alarm system; used this system to test all Casey's equipment and devices.



Firm employed by	Hardesty & Hanover, LLC				
Name	Frank Altro, PE	ank Altro, PE		Years of relevant experience with this employer	20
Title	Electrical Engineer	Electrical Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years /	Specialization		B.S., Electrical En	gineering, 1999, Northeastern University	
Active registration r	number / state / expirati	ion date	Professional Engir	neer: 93857 / NY / 9/30/2023	
Year registered	2014	Discipline	Electrical Enginee	ring	
Contract role(s) / br	ief description of respo	onsibilities	Movable Bridge E	Electrical Construction Inspector – Meets MPR 6	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevant perience dates sl	nt to the proposed hould cover the tir	contract, <i>i.e.</i> , "designed drainage", "designed girders", ne specified in the applicable MPR(s).	, "designed
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-need 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 ir 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.			h Bridge s as-needed er (PLC) al of uipment in mergency sole tor shaft	
02/14 – 04/15	Construction Engineering & Inspection Services for the Harlem River Lift Bridge Cable Replacement, New York, NY – Metro-Nor 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.			Metro-North cal n for bridge er operations.	
03/15 - Present	Battery Park Underpase Chief electrical inspect damage sustained in hu	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 amage sustained in hurricane sandy. The tunnel was completely flooded during the storm and the project will repair/replace all			due to e all



	affected mechanical and electrical equipment including carbon monoxide detection, fire protection and SCADA interface with NYC DOT supervisory networks.
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.



Firm employed by	Hardesty & Hanover	, LLC			
Name	Mor Diao, CCM, PN	Mor Diao, CCM, PMP		Years of relevant experience with this employer	3
Title	Senior CPM Schedu	Senior CPM Scheduler		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization		M.S., Const B.A., Inform	M.S., Construction Management, 2011, NYU Polytechnic B.A., Information Systems, 2007, Pace University		
Active registration r	number / state / expirati	ion date			
Year registered		Discipline		pering	
Contract role(s) / br	ief description of respo	nsibilities	CPM Sche	duler	
Experience dates (mm/yy-mm/yy)Experience and qualifications relevan intersection", etc. Experience dates sh		nt to the pro hould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	, "designed	
08/20 – Present	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)				iction of a e new records; preparing ilt plans. His sis Report
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.				ion/rejection ance with for running
02/19 – Present	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				- NYDOT ovement of e the two- sidewalks w 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. Construction Cost: \$79 million
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



Firm employed by	Hardesty & Hanove	r, LLC					
Name	George A. Foerste	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 Er	gineering, 1991, State University of New York at Stony Brook			
Active registration 1	number / state / expirat	ion date	Professional Engin 075770-1 / NY 2/2	Professional Engineer 075770-1 / NY 2/28/2025			
Year registered	1998	Discipline	Mechanical Engine	er			
Contract role(s) / br	ief description of respo	onsibilities	Movable Bridge N	lechanical Construction Inspector – Meets MPR 5			
Experience dates (mm/yy-mm/yy)	Experience and qual intersection", etc. Ex	ifications relevar sperience dates sl	nt to the proposed nould cover the tin	to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed buld cover the time specified in the applicable MPR(s).			
10/93	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 Rehabilitation 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 photography 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, VAVirginia DOTMechanical Engineer and Construction Inspector responsible for design of bridge machinery for a new single-leaf, simple trunnionbascule. \$69 million bridge replacement design project includes studies, preliminary and final design services, and construction supportservices. Involves a new low-profile, 4,035-foot concrete prestressed girder fixed bridge (Black Narrows) with a new 123'-6" single-leafbascule bridge (Chincoteague). Included public hearings, navigational study, and environmental issues.
04/07-06/09	Replacement of Brooklyn Bridge Travelers Construction Inspection Brooklyn, NYNew York State DOTLead 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.



Firm employed by	m employed by Hardesty & Hanover, LLC						
Name Matthew Gagliano, PE		20	Years of relevant experience with this employer	22			
Title	Senior Mechanical E	Ingineer		Years of relevant experience with other employer(s)	1		
Degree(s) / Years /	Specialization		M.S., Mechanical Engineering, 2018, Fairfield University B.E., Mechanical Engineering, 1994, Manhattan College				
Active registration	number / state / expirat	ion date	Professional	Professional Engineer: 0037500 / LA / 3/31/2023			
Year registered	2012	Discipline	Mechanical B	Engineering			
Contract role(s) / br	ief description of respo	nsibilities	Movable Bri	dge Mechanical Construction Inspector			
Experience dates (mm/yy-mm/yy)	Experience and qualitientersection", etc. Ex	fications relevan perience dates si	to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed nould cover the time specified in the applicable MPR(s).				
04/16 - 10/17	City of New Haven Lead Mechanical Engineer /Construction Inspector for the swing bridge rehabilitation. This project included mechanical/electrical component replacement, selective superstructure rehabilitation, substructure, and fender work. The 226-foot swing span is pivot bearing carrying 2 lanes of traffic and has overhead operating machinery and wedge machinery. Provided construction support and construction inspection including preparing daily site work memos.						
01/08 - 07/11	Replacement of the Craigie Drawbridge Boston, MA Massachusetts DOT Lead Mechanical Engineer and Construction Inspector responsible for inspection, design, prepared contract drawings, specifications, and cost estimate for complete replacement of the existing Craigie Drawbridge bascule span and operating machinery, along a heavily traveled commuter route, within a six-month marine navigation closure of the channel. This is a new twin double-leaf bascule 62-foot span carrying six lanes of traffic between Cambridge and Boston. Work consists of the rehabilitation of the historic structure consisting of several locks that are no longer utilized, by replacing deteriorated structural framing and concrete decking along each side of the bridge. The bascule piers were adapted for a simple-supported trunnion and floor-mounted drive machinery. Drawbridge work consisted of						
05/01 - 09/05	CR3/ Mathers Bridge over Banana River Indian Harbor Beach, FL Brevard County Mechanical Engineer and Construction Inspector for in-depth inspection of the structural, mechanical, and electrical systems for this 200' pony truss swing span bridge, constructed in 1927, to determine rehabilitation feasibility. H&H provided swing span replacement,						



	approach span improvements, and control house renovation plans to improve the roadway geometry, pedestrian access, bridge operation, and aesthetic appearance. This \$6 million swing span replacement included structural, architectural, mechanical, and electrical plans. Responsible for inspection, design, prepared contract drawings, specifications, and cost estimate. Reviewed shop drawings and bi-weekly machine shop fabrication inspections.
12/17 – 03/22	Grand Avenue Bridge Rehabilitation New Haven, CT City of New Haven and Connecticut DOT Lead Mechanical Engineer/Inspector responsible for rehabilitation design and construction support of the Grand Avenue Swing Bridge, a six-span structure, constructed in 1900. Machinery rehabilitation includes an all new 64 roller rim bearings, new operating machinery, and new end wedge machinery. Reviewed contractor submittals, attended progress meetings, performed key milestone site inspections.
11/18 – PRESENT	REHABILITATION OF ROUTE 1 BRIDGE OVER HOUSATONIC RIVER MILLFORD, CT CONNECTICUT DOT Project Engineer for the operating machinery and electrical repairs of the double leaf movable span. Repairs include refurbishing gear reducers, adding collars to the machinery shafts and new dewatering pumps for the counterweight pit. Reviewed contractor submittals, attended progress meetings, performed key milestone site inspections.
03/18 – Present	SR 609 Movable Bascule Bridge Rehabilitation, Ocean Springs, MS – Mississippi DOT Movable Bridge Mechanical Engineer responsible for 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 included the 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. His responsibilities included design of HVAC system and new water distribution and sewer including the vent system. All designs were created in accordance with AASHTO, FHWA, and MDOT guidelines and specifications. The project is currently in the construction phase.
01/21 – Present	Almonaster Avenue Railroad Bridge over the Industrial Canal Rehabilitation, New Orleans, LA – Port of New Orleans Sr. 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 bridge revealed that improvements to the electrical and mechanical systems, superstructure, and counterweight were required to return this bridge to its full operating capability. His responsibilities included design of HVAC system, plumbing, and the sewer system.



Firm employed by		Hardesty & Hanover, LLC		JAN				
Name Steven Hom, PE		(20)	Years of relevant experience with this employer	38				
Title		Senior Structural En	gineer	- CAY	Years of relevant experience with other employer(s)	38		
Degree(s) / Years /	'Spe	cialization		BSCE, 1982	2, University of Connecticut			
Active registration	num	ber / state / expirati	on date	Professional Engineer 073303-1 / NY 7/31/2022				
Year registered		1996	Discipline	Civil Engine	Civil Engineer/Structural Engineer			
Contract role(s) / b	rief (description of respo	nsibilities	Movable B	ridge Structural Inspector			
Experience dates (mm/yy-mm/yy)	Ex int	xperience and quali tersection", etc. Ex	fications relevar perience dates sl	It to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed nould cover the time specified in the applicable MPR(s).				
03/90-12/92	Replacement of the Chapel Street Swing Bridge over Mill River New Haven, CT City of New Haven Construction Engineer Inspector responsible for overseeing construction project for the \$14 million replacement design of an 1899 highway swing span. Emergency repair expanded to a study of alternatives and culminated in a 220-foot-long, through box girder swing design. Construction engineering and inspection services included demolition of existing bridge, replacement of substructure, superstructure, control house, mechanical drives, and electrical system							
01/15–12/17	01/15–12/17 Inspection of the Gowanus Expressway (Job 2946) Brooklyn, NY 01/15–12/17 New York State DOT, Region 11 Project Manager and Construction Engineer Inspector responsible for overseeing and managing the general bridge inspection project, which includes the inspection and examination of all structural components and conditions of Gowanus Expressway and ramp structures. The inspection followed all NYSDOT requirements. The two-year assignment included the inspection of over 800 spans.							
02/09-10/14	Construction Support Services for the Kew Gardens Interchange, Contract I Queens, NY New York State DOT, Region 11 Senior Structural Engineer providing construction support services for access improvements to the Kew Gardens Interchange. The Kew Gardens Interchange is the confluence of the Van Wyck Expressway, Grand Central Parkway, and Jackie Robinson Parkway. This three-level interchange also includes Union Turnpike and Queens Boulevard. The bridge work involved the replacement of structurally- deficient mainline viaducts and additional structures and the rehabilitation of remaining bridges. The project interfaced with a NYC Transit subway station and transit rail storage yard, and a rail bridge and included the design of a new two-story maintenance building.							



04/13-05/15	Biennial Inspection for Structural Components (Job 2825) Nassau and Suffolk Counties, NY New York State DOT, Region 11 Project Manager responsible for overseeing and managing the biennial bridge inspection project, which included the examination of all structural components and conditions of state and county bridges in Suffolk and Nassau Counties of Long Island. The inspection was performed following NYSDOT requirements. The two-year assignment included the inspection of over 300 bridges.
08/20-09/01	Construction Inspection Services for the Woodrow Wilson Bridge Fairfax, VA Virginia DOT Project Manager responsible for construction inspection, resident engineering services, and scour monitoring devices, and preparation and coordination of contract documents for deck replacement for the rehabilitation design for the I-95/I-495 crossing over the Potomac River. Performed in-depth study of operational problems and provided repair design for the 226-ft double-leaf bascule span. Performed lock machinery rehabilitation, joint repairs, fatigue crack repairs, structural steel and concrete repairs, and new wearing surface.
06/86-02/90	Rehabilitation and Deck Replacement of the Yankee Doodle Bridge Norwalk, CT Connecticut DOT Construction Engineer Inspector responsible for rehabilitation including replacement of deck, concrete substructure repairs, and pin and hanger assembly for \$11 million bridge rehabilitation of a 1200-foot-long, eight-lane river crossing. Provided design and construction engineering & inspection services for substructure and superstructure, including retrofit of pin and hangers, deck replacement, beam support, and inspection platforms. Performed fatigue inspection, painting, drainage, and steel and pier repairs.
02/83	Design of the Replacement of the Marvin Ridge Road over Merritt Parkway, Bridge No. 00714, CT Connecticut DOT Structural Construction Inspection Engineer for \$2.5 million replacement design for a 71-foot, fixed concrete arch bridge built in the 1930s. Provided inspection and evaluation. Included prestressed concrete deck units for main members cast off-site. Minimal roadway closures and roadway profile maintained.
02/84-12/84	Emergency Design and Repairs for the Mianus River Bridge Mianus, CT Connecticut DOT Structural Engineer responsible for pile foundations and repairs for \$1 million fast track, emergency design for a temporary bridge to replace the collapsed bridge over Interstate 95. Provided in-depth inspection, structural design, investigation for cause of collapse.
9/15-present	Design Review of the Replacement of the Norwalk River (Walk) Railroad Bridge Norwalk, CT Connecticut Dot Senior Structural Engineer/Peer Reviewer assisting ConnDOT as the owner's representative by providing peer reviews of the design submissions and a constructability review to examine the construction phasing, maintenance and protection of railroad operations, construction access, operational and safety concerns, and the need for temporary construction. In addition to structural, geotechnical, mechanical and electrical reviews, the review of track design, traction power, and C&S are included as peer review responsibilities. H&H also assisted the Department with cost estimating and scheduling.



Firm employed by	Hardesty & Hanover, LLC		0					
Name	Mark Kaszczak, Jr., EIT		APPL	Years of relevant experience with this employer	7			
Title	Mechanical Designe Construction & Shop	r and D Inspector	N.	Years of relevant experience with other employer(s)	0			
Degree(s) / Years / S	Specialization		B.S., Mecha M.S., Mecha	B.S., Mechanical Engineering, 2011, Manhattan College M.S., Mechanical Engineering, 2013, Manhattan College				
Active registration n	umber / state / expirati	ion date	Engineer-In	Engineer-In-Training / NY /				
Year registered	2014	Discipline	Mechanical	Engineering				
Contract role(s) / bri	ef description of respo	onsibilities	Movable B	ridge Mechanical Construction Inspector – Meets MPR 5				
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevan perience dates si	nt to the pro hould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	, "designed			
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	Construction Engineering & Inspection Services for the Rehabilitation 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.							



06/15–03/18	Construction Engineering & Inspection Services for the Mechanical & EleIctical (M&E) Major Rehabilitation of the Battery Park Underpass Manhattan, NY New York City DOT Mechanical & Electrical Construction Engineering 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 inlcuded replacement of all mechanical and electrical systems inlcuding pumps, ventilation, lighting, and warning systems and all assiciated 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 inspecdion 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	Construction Engineering & Inspection 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 strutural members in stages to provide better flow through section of roadway and facility upgrades. Provided on site 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. <i>[2021 ACEC-NY EEA Platinum Award winning project, Category C: Structural Systems.]</i>
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.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC					
Name	Linh-Thien Kim, El		35	Years of relevant experience with this employer	1		
Title	Civil Engineer		- PA	Years of relevant experience with other employer(s)	3		
Degree(s) / Years /	Specialization		B.S., Civil E	ngineering, 2017, University of New Orleans			
Active registration 1	number / state / expiration	ion date	Engineer Intern: 33538 / LA / 3/31/2022 ATSSA Traffic Control Technician				
Year registered	2017	Discipline	Constructio	Construction Engineer Inspector			
Contract role(s) / br	ief description of respo	nsibilities	Movable B	ridge Structural Inspector			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the pro hould cover	t to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed ould cover the time specified in the applicable MPR(s).			
08/18 – 06/21	Lake Pontchartrain Ca Structural Construction million bridge improvem Manager at Risk (CMAF provide new shoulders i	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 of work included necessary 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 de horizontal curve with a 5% slope. The continuous deck spans were 240-foot- long using four 60-foot-long deck spans with						


	width of 42.5' 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.



Firm employed by	Hardesty & Hanover	r, LLC		
Name	Travis Kimmins, Pl	E	Years of relevant experience with this employer	3
Title	Senior Mechanical E	Engineer	Years of relevant experience with other employer(s)	15
Degree(s) / Years / S	specialization		M.S., Mechanical Engineering, 2003, University of Tennessee, Knoxville B.S., Mechanical Engineering, 2001, University of Tennessee, Knoxville	
Active registration n	umber / state / expirati	ion date	Professional Engineer: 43676 / LA / 3/31/2024	
Year registered	2019	Discipline	Mechanical Engineering	
Contract role(s) / bri	ef description of respo	onsibilities	Movable Bridge Mechanical Construction Inspector – Meets MPR 5	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", hould cover the time specified in the applicable MPR(s).	"designed
01/19 – 2/19	Construction Enginee NY New York City DOT Mechanical Construct primary and secondary piers; replacement of ce HPU and generator, rem shafts and couplings; ar construction inspections tracking during operatio general demolition of ex created to track shop we comments to change or	ring Inspection (ion Engineering I reducers and bear entering locks, mac noval of non-opera nd cleaning, lubrica s per contract requ n with FARO laser kisting structural ar ork progress and N ders and coordina	CE&I) Services for Madison Avenue Bridge (swing bridge) Over Harlem River Inspector for NYCDOT contract #HBX644S for the replacement of span drive mach rings; replacement of rack and pinions, center pin rehabilitation; replacement of end chinery, and receiving sockets at rest piers; new hydraulic auxiliary drive diesel pow ational machinery; new electrically operated brakes; rehabilitation of machinery supp ation and adjustment of drum girder roller assembly. Mr. Kimmins performs shop an uirements. Field work includes observation of field surveys (general surveying and sp r tracking system), electrical demolition and installation of temporary electrical items and mechanical components slated for replacement under contract. Inspection report MURK 1 DWRs are produced for field work tracking. Work also includes reviewing a ting with client, contractor, and designer to address field conditions to aid in stream	New York, hinery, I lifts at rest vered by ports; new nd field span s, and ts are and provide hining work.
10/20 – 01/21	Broadway Bridge over New York City DOT Mechanical Construction reducers and provide sh machinery brakes; remo machinery; replacement performed thermal photo	r the Harlem Rive ion Engineering I in inspection work i naft for auxiliary po oval of abandoned t of elevators; bala ography to aid in ir	er Rehabilitation Bronx & Manhattan, NY Inspector for the rehabilitation of the Broadway Bridge over the Harlem River. Projection includes clean and inspect all the ropes and replace select ropes; replacement of prover; replacement of all pillow block sleeve bearing bushings; replacement of motor I rope oiling system; replacement of upper and lower air buffers; replacement of spatancing the lift span; repair of centering device. Responsible for reducer testing witne nspection/reporting effort.	ect rimary r and an lock essing and



01/18 – Present	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 – Florida DOT 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 intersection improvements and improves 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 responsible including shop drawing reviews, responses to RFIs, witnessing shop testing, and field support during key construction events. During construction, there was a change in consultants for CEI services. Mr. Kimmins took on a larger role to ensure that the project was completed in accordance with the requirements from the contract documents, and on schedule. The ferry remained operational throughout construction.



Firm employed by	by Hardesty & Hanover, LLC				
Name	Milos Kivich	Milos Kivich		t experience with this employer	20
Title	Electrical Engineer		Years of relevan	t experience with other employer(s)	20
Degree(s) / Years /	Specialization		E, Electrical Engineering, 2000	0, Stevens Institute of Technology	
Active registration	number / state / expirati	ion date			
Year registered		Discipline	Electrical Engineer		
Contract role(s) / br	rief description of respo	onsibilities	Novable Bridge Electrical Co	nstruction Inspector – Meets MPR 6	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevan perience dates s	to the proposed contract, <i>i</i> . uld cover the time specified	<i>e.</i> , "designed drainage", "designed girders" in the applicable MPR(s).	, "designed
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, two-tiered vertical lift bridge project, which includes complete rehabilitation of the civil, structural, electrical, and mechanical comport 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 new gates and signals; installation of CCTV and security system; and the installation of new roadway and navigational lighting. 			⁷ Bridge, a components systems; uty main fueled way and	
02/21 – 01/22	CE&I Services for Mac New York City DOT Electrical Construction devices, limit switches, fi (programmable logic con motors; hydraulic auxillia monitoring sensors; new	lison Avenue Bri n Engineering Ins eld sensors, encod trolller); replaceme ry span drive; new protection devices	e (swing bridge) Over Harlen ector for NYCDOT contract #H and resolvers; replacement of n of operator's control desk and ga ectrical navigation warning lights ew transformers; rehabilitation o	River New York, NY BX644S which includes replacement of bridge con notor control centers (MCCs), replacement of PLC ate operator's control stations; new span drives; ner ; new cables and conduits; new power distribution s f submarine cable terminal boxes; and slip ring at c	itrol system w electrical system enter 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 bridge rehabilitation project includes replacement of all gear boxes and major machinery, friction mitigation, tower to tower align issues, new flux vector drives and motors, bridge skew control equipment, droop cables, PLC control system, CCTV, fire alarm			sues. The alignment arm 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.
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.
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.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC			
Name	Marco Lara, PE		(- 2 c	Years of relevant experience with this employer	4
Title	Senior Electrical Eng	gineer		Years of relevant experience with other employer(s)	16
Degree(s) / Years / S	Specialization		B,S, / 2004 Electr	ical Engineering	
Active registration number / state / expiration date		Professional Engi NACE Certified C NACE Certified C NACE Certified C	neer: 0044115 / LA / 3/31/2024 P1 Cathodic Protection Tester (28390) P2 Cathodic Protection Technician (28390) orrosion Technician (28390)		
Year registered	2019	Discipline	Electrical Enginee	ering	
Contract role(s) / bri	ief description of respo	nsibilities	Movable Bridge	Electrical Construction Inspector - Meets MPR 6	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the proposed nould cover the time	l contract, <i>i.e.</i> , "designed drainage", "designed girders", me specified in the applicable MPR(s).	, "designed
07/19-Present	Boca Grande Causeway Swing Bridge Replacement Placida, FI – Gasparilla Island Bridge Authority Electrical Construction Engineering Inspector responsible for reviewing shop drawings, reviewing schedules, preparing the final builts, monitoring field activities. This project required the replacement of a structurally deficient swing span bridge located on the E Grande Causeway. Serves in an on call capacity under the current contact to assist in troubleshooting issues that may arise and so as the PM for any projects required.			the final as- on the Boca e and serve	
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 projec 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.			ions, lities television iers project g review, ents and	
2014 - 2015	 Main Street Vertical Lift Bridge Jacksonville, FL - FDOT District 2 2015 Electrical Construction Inspector responsible for the construction engineering and inspection of the electrical rehabilitation of a vertical lift bridge. Responsibilities included documentating work performed and equipment installed. Submitted daily reports to P 			n of a s to Project	



	Engineer of construction progress. Witnessed installation, insulation resistance testing of droop cables and final functionality check of electrical control system.
2011 - 2014	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.
2018 - 2020	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.
2007 - 2015	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.
2009 - 2011	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.



Firm employed by		Hardesty & Hanover, LLC				
Name		Kevin Meehan		25%	Years of relevant experience with this employer	1
Title		Principal Estimator			Years of relevant experience with other employer(s)	30
Degree(s) / Years /	Spe	ecialization		BSCE, 1989	9, Rutgers University	
Active registration	nun	nber / state / expirati	ion date			
Year registered			Discipline	Civil Engine	ering	
Contract role(s) / b	rief	description of respo	nsibilities	Senior Cor	struction Cost Estimator	
Experience dates (mm/yy-mm/yy)	E: in	xperience and quali tersection", etc. Ex	fications relevant perience dates si	nt to the pro hould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	', "designed
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. N 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 analyse change orders. Develop fee proposals 			e idge. Mr. xost analyses for		
02/20 – Present	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 boc girders, prestressed concrete beams and concrete segmental box girders; evaluation of environmental, wetland, and land use impact including tree survey and development of Section 4(f) documents			ses I-IV) on, existing ezoidal box ise impacts,		
06/20 – Present	Re W Pr cu Th co	eplacement of Three estchester County DPV rincipal Construction liverts and a bridge or ne project will consist ost estimating, load rate	Culverts and the N Estimator for thi the historic Brony of land survey, util ing and structural	Bronx River s project prov k River Parkw ity identification civil, geotech	r Parkway Bridge Westchester County, NY riding design and construction support of the complete replacement of ay incuding scour protection and roadway resurfacing of the existing on, traffic analysis, hazardous material testing, soil testing, archeolog nnical and architectural design.	of three J roadway. gical study,



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 million 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 11 th 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 Produce civil, structural, and architectural estimates for a range of project sizes. Coordinate publication of estimate reports.



Firm employed by	Hardesty & Hanover, LLC				
Name	Steven Nappi, PE	Years of relevant experience with this employer 3			
Title	Sr. Construction Engineer & Inspect	tion Lead Years of relevant experience with other employer(s) 13			
Degree(s) / Years / S	Specialization	B.S. Engineering; Minors-Structural Engineering and Mathematics, 2005, Roger Williams University, Rhode Island			
Active registration n	umber / state / expiration date	Professional Engineer:FL (2010)72412IMSA Traffic Signal InspectorIMSA Traffic Signal Technician I			
Year registered	2010 Discipline	Civil Engineering			
Contract role(s) / bri	ef description of responsibilities	Senior Construction Engineering Inspector			
Experience dates	Experience and qualifications relev	vant to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed			
(mm/yy–mm/yy)	intersection", etc. Experience dates	s should cover the time specified in the applicable MPR(s).			
07/16-Present	Boca Grande Causeway Swing Bridge Replacement Placida, FI – Gasparilla Island Bridge Authority Swing Span Project Construction Engineering Inspector responsible for construction and administrative aspects which included reviewing contract documents, holding meetings, reviewing progress pay estimates, change orders and the final estimate package, reviewing and routing shop drawings, reviewing and accepting schedules, updating submittal logs, preparing the final as-builts, monitoring field activities, and reviewing daily construction reports. Steve was tasked with reviewing claims and offering his opinion on entitlement. While in the field, he worked with inspectors to ensure permanent works were being installed in accordance with the contract documents. This project required the replacement of a structurally deficient swing span bridge located on the Boca Grande Causeway. The fixed portion of the bridge utilized Florida I-beam girders founded on hammerhead pier caps and cast in place footings with 24-inch precast concrete piles. The project also included the installation of a permanent steel sheet pile bulkhead wall with cast in place concret caps. Construction of critical temporary sheet pile walls required for phased construction, and a total of 0.24 miles of roadway construction. Steve contiues to serve as GIBA's Swing Span Consulting Engineer responsible for performing quarterly inspections of the new swing span, serve on call to assist in troubleshooting issues that may arise, and serve as the PM for any projects required. This included the design, fabrication, and installation of an auxilliary jack system to be used if the end lifts malfactioned and a				
10/20 – 12/21	GATOR CANAL BRIDGE REPLACEM Senior Project Construction Enginee new bridge is founded on 24-inch piles, on either side and have 3 spans that to	IENT NAPLES, FL - Collier County DOT ar and Inspector for the replacement of a structurally obsolete bridge (#034843) on CR 846. The , with cast-in-place caps and deck. The new bridge will have 12-foot lanes with 10-foot shoulders tal 105 feet long. Due to traffic on CR 846, the bridge construction utilized three traffic control			



	phases to maintain the current volume of commuters. Steve was responsible for assigning staff to this project and ensuring their satisfactory performance. He attended meetings, oversaw contractor operations, reviewed schedules, and provided quality assurance oversight for the project.
03/12-11/13	CR 78 (Pine Island Road) Matlacha Bascule Bridge Replacement Matlacha, FL - Lee County DOT Project Construction Engineer responsibilities included preparing agendas for progress meetings and recording minutes, preparing CPPR, holiday and weather letters, reviewing and approving estimates, tracking claims, shop drawing submittal logs, materials, and pay item overruns/underruns, updating/signing & sealing final as-builts, updating the computation book, and reviewing daily reports of construction. Steve was responsible for defending the County against claims which required his participation in depositions when the matter went to litigation. This 675-foot-long, \$17.3M bascule bridge replacement project included reconfiguration of the roadway approaches, new bulkhead seawalls, and storm drainage collection and treatment system. Project consisted of constructing a new single-leaf bascule bridge with multiple maintenance of traffic phases to maintain traffic on the existing adjacent bascule bridge. The new bridge is constructed of pre-cast prestressed pile foundations, micro-silica mass reinforced concrete substructure and pre-cast prestressed transversely post-tensioned superstructure deck slabs with a 5.5-inch reinforced concrete topping. The movable portion of the bridge consists of an 87.5-foot-long fracture critical steel plate main girder span rotated on trunnion bearings by twin hydraulic cylinders, each connected to the bottom plate of the span's trunnion girders. The movable bridge deck consists of both open and filled sections using lightweight concrete, along with steel traffic railings with above deck span locks.
01/21 – Present	Veterans Memorial Boulevard Roadway Extension Phase I Design-Build Naples, FL - Collier County DOT Senior Project Construction Engineer for the roadway extension and widening of Veterans Memorial Blvd. This project extended and widened the existing road 1.4 miles while adding 3 signalized intersections and street lighting throughout. The project will have over 4,000 feet of watermain and force main installed along with several thousand feet of drainage pipe and new structures leading to new ponds to handle the wastewater from the roadway. Significant clearing and grubbing was required to allow for the new road construction which required coordination with multiple permitting agencies. Steve was responsible for assigning staff to this project and ensuring their satisfactory performance. He attended meetings, assisted with claims avoidance, reviewed schedules, and provided quality assurance oversight for the project.
11/09-05/10	Cape Haze Drive Bridge Replacement (FPID: 426725-1-52-01) Charlotte County, FL - FDOT District 1 Project Manager and Construction Engineering Inspector for the demolition of an existing two-lane bridge replaced with a three- sided precast structure complete with shoulders and sidewalks. Utility relocations and concrete sheet pile bulkheads were also required under this contract.
01/11-03/12	SR 45 (US 41) from San Carlos Boulevard to Corkscrew Road Widening (FPID: 195765-1-52-01) Lee County, FL FDOT District 1 Project Manager and Construction Engineering Inspector for this \$14 million project which widened the last 3.4 miles of US 41 in the area from four lanes to six. In order to accomplish this, the existing bridge spanning the Estero River needed to be widened and significant utility relocations were performed both prior to and during construction. Drainage was placed under numerous MOT phases and new mast arms were installed.



Firm employed by	Hardesty & Hanover, LLC			
Name	Alexander H. Noble, PE		Years of relevant experience with this employer	24
Title	Lead Electrical Engi	neer	Years of relevant experience with other employer(s)	9
Degree(s) / Years / S	Specialization		BE, 1989, Electrical Engineering, Manhattan College	
Active registration n	umber / state / expiration	ion date	Professional Engineer 081079-1 / NY / 8/30/2023	
Year registered	2003	Discipline	Electrical Engineering	
Contract role(s) / bri	ef description of respo	onsibilities	Movable Bridge Electrical Construction Inspector – Meets MPR 6	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevant perience dates si	nt to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders" hould cover the time specified in the applicable MPR(s).	, "designed
2019 – Present 04/96 – 09/03	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 be Manhattan and the Bronx which includes replacement of bridge control system devices, limit switches, field sensors, encoder, and replacement of motor control centers (MCCs), replacement of PLC (programmable logic controlller); replacement of operator's cont and gate operator's control stations; new span drives; new electrical motors; hydraulic auxilliary span drive; new electrical navigatio lights; new cables and conduits; new power distribution system monitoring sensors; new protection devices; new transformers; reha submarine cable terminal boxes; and slip ring at center pier. Performed electrical inspection during rehabilitation, ensuring comp 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, interf between the designer and the contractor, and performed additional inspection duries as required.			ajor between nd resolvers; ntrol desk tion warning habilitation of npliance with top erfaced
5/21 – 8/21	Broadway Bridge over New York City DOT Electrical Construction two-tiered vertical lift bri of the bridge. Mr. Noble replacement of submari drive motor per tower; p generators; installation of navigational lighting.	r the Harlem Rive n Engineering Ins idge project, which e's electrical const ine cables, installa ome twp-speed squ of new gates and	er Rehabilitation Bronx & Manhattan, NY spector providing construction eingineering & inspection services for the Broadwa in includes complete rehabilitation of the civil, structural, electrical, and mechanical ruction inspection work involves the replacement of the entire bridge's electrical sy tion of one AC Flux Vector main drive cabinet with one AC squirrel cage Vector Du uirrel cage auxilliary drive motor will be installed per tower; installation of two diese signals; installation of CCTV and security system; and the installation of new roadw	y Bridge, a components γstems; uty main el fueled way and



	Replacement of the Chapel Street Swing Bridge over Mill River New Haven, CT
3/17 – 10/17	Construction Engineer Inspector responsible for overseeing construction project for the \$14 million replacement design of an 1899 highway swing span. Emergency repair expanded to a study of alternatives and culminated in a 220-foot-long, through box girder swing design. Construction engineering and inspection services included demolition of existing bridge, replacement of substructure, superstructure, control house, mechanical drives, and electrical system.
05/13 – 11/18	Rio Hondo Vertical Lift Bridge Rio Hondo, TX Texas DOT Project Electrical Engineer Construction Inspector for the replacement of the electrical system for the Rio Hondo vertical lift bridge. Conducted and in-depth inspection, analysis and report. Designed replacement power distribution system, PLC logic controls and flux vector AC drives and associated electrical machinery.
01/00 - 2015	Alford Street Bridge over the Mystic River Boston, MA City of Boston Electrical Engineer Inspector rehabilitation design of this 1,400-foot-long bridge crossing the Mystic River. Responsible for inspection of existing electrical system and new design of electrical system replacement, which included new relay logic, flux vector AC drives, submarine cables, conduit system, and traffic control devices. The bridge comprises eight spans; seven approach spans and twin, double-leaf steel bascules (160 feet long).
1999 - Present	 On-call Engineering Services New Haven, CT City of New Haven Lead Electrical Engineer Inspector responsible for multiple cycles of this on-call electrical engineering services. Provided on-call emergency inspection and repair of electrical systems for Grand Avenue, Ferry Street, and Chapel Street movable bridges. Provided troubleshooting of failed limit switches and wiring in traffic and barrier gates. Designed a new inverter drive system with PLC controls for the Chapel Street Bridge. Designed new Submarine cables and integrated new span locks into the PLC and MCC systems for Ferry Street Bridge. Also developed an operation and maintenance manuals.
1998 - 2001	Duluth Aerial Lift Bridge Duluth, MN City of Duluth Electrical Engineer/Construction Inspector responsible for design of electrical system for the reconstruction of a 350-foot lift span servicing the busiest inland port in the world (opens more than 6,000 times a year). The project entailed structural, mechanical, and electrical inspections and design for reconstruction of the historic landmark.
1996	SR 36 over Cedar Creek Slaughter Beach, DE Delaware DOT Electrical Engineer Construction Inspector for the replacement of a 60-foot bobtail swing over a navigable waterway. Provided on- site inspection and construction support services. Scope included pivot pier and approach span design. Electrical systems were redesigned to include new components and safety features.



Firm employed by	Hardesty & Hanove	r, LLC		
Name Kenneth Pecquet, El		El	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 / expirat	ion date	Engineer Intern: 31342 / LA / 9/30/2023	
Year registered	2013	Discipline	Electrical Engineering	
Contract role(s) / b	rief description of respo	onsibilities	Movable Bridge Electrical Construction Inspector	
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	ifications relevant sperience dates sl	int to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed cover the time specified in the applicable MPR(s).	designed
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 operat control desk and gate operator's control stations; new span drives; new electrical motors; hydraulic auxiliary span drive; new electric 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 bascu bridge, as a task-order to the IDIQ Master Bridge Contract which includes developing standard and special bridge services, statew for MDOT. Scope of work includes inspection and rehabilitation of structural, mechanical, and electrical components of the bridge, 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.



Firm employed by	Hardesty & Hanover	, LLC			
Name	Robert Plocica, PE		Years of relevant experience with this employer	19	
Title	Mechanical Enginee	r	Years of relevant experience with other employer(s)	4	
Degree(s) / Years /	Specialization		ME, Structural Engineering and Mechanics, 2003, The City College of New York BS, Mechanical Engineering, 1995, Binghamton University		
Active registration	number / state / expirati	on date	Professional Engineer 08023 / NY / 3/31/2025 NBIS Team Leader, 2008		
Year registered	2005	Discipline	Mechanical Engineer		
Contract role(s) / br	ief description of respo	nsibilities	Mechanical Engineering Construction Inspector – Meets MPR 5		
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications releva perience dates s	vant to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", 's should cover the time specified in the applicable MPR(s).	"designed	
10/20 – 10-20	Construction Engineering & Inspection Services for the Rehabilitation 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 photography to aid in inspection/reporting effort				
08/19 – 01/21	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. Plocica 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.
06/12 - present	Construction Support Services, Design, and Options Study For The Monroe Street Bascule Bridge Over The Portage River Muskingum County, OH - Ohio DOT Mechanical Engineer for study to determine bascule span replacement/rehabilitation options for the Port Clinton Bascule Bridge over the Portage River, and final design of the selected alternative. The three-span bridge includes a 99-foot double-leaf bascule main span flanked by steel girder approach spans was built in 1933. Examined movable span superstructure rehabilitation and replacement options. Performed the final design for the selected movable span replacement option and prepared the contract plans and special provisions. New machinery included Trunnion Bearing Assemblies, Operating Machinery and Span Lock Machinery. During construction, provided the DOT with review of Shop Drawings, Certified Prints, catalog cuts and shop and field procedure submittals for contract and design requirement compliance.
02/21 - 02/22	Districtwide State In-depth Bridge Inspections Florida DOT District 6 - FLORIDA DOT DISTRICT 6 Mechanical Engineer Inspector assisting on this on-call District 6 Master Work Order Agreement. Services include providing routine and interim inspections of the mechanical and electrical systems on state-owned movable bridges in accordance with federal and state regulations. Inspection reports, outlining detailed inspection findings, and prioritized repair recommendations are provided to the prime consultant for entry into the statewide database system. Emergency inspection support is provided on request.
02/11 - 05/12 11/15 - 03/16 01/19 - 06/19	Transfer Bridge Inspection at the Staten Island Ferry Terminals New York, NY - New York City DOT Mechanical Engineer/Inspector responsible for performing the in-depth mechanical inspection and report work for the 7 transfer slips (3 on the Manhattan Side / Whitehall Terminal, and 4 on the Staten Island Side / St. George Terminal). Each slip has two upper pedestrian bridges, and one lower vehicular bridge. The lower bridge is used to moor the Ferry into position during the docking procedure.
08/08-02/10	CE&I for the Rehabilitation of the Route 136 Bridge, Phase II Norwalk, CT - Connecticut DOT Construction Engineering Inspector performed construction inspection for replacement/rehabilitation of span lock machinery and span balance strain gage testing of double-leaf bascule bridge, Bridge No. 02295, Washington Street/Route 136 over Norwalk River in Norwalk, CT.
07/08-07/09	Construction Inspection for the Hamilton Avenue Skew Bascule Bridge Brooklyn, NY - New York City DOT Structural Engineer Inspector provided structural construction inspection services during installation of new north bascule span, flanking span, and trunnion towers. Generated daily work reports for Resident Engineer. This bridge reconstruction project included the replacement of the two movable-span superstructures, replacement of the mechanical and electrical systems, and replacement of the existing pier-protection system.



Firm employed by	Hardesty & Hanove	r, LLC				
Name	Amy Robards, PE	Amy Robards, PE		Years of relevant experience with this employer	2	
Title	Structural Engineer	/ Team Leader	10/100	Years of relevant experience with other employer(s)	7	
Degree(s) / Years /	Specialization		B.S. / 2012 / Civil	Engineering / University of New Orleans		
Active registration number / state / expiration date		Professional Engir FHWA-NHI 13005 SPRAT Level Rop ATSSA Traffic Con DOTD Certified St	Professional Engineer: 41718 / Louisiana / 9/30/2023 FHWA-NHI 130055/53 Safety Inspection of In-Service Bridges / Refresher 2018 SPRAT Level Rope Access Training ATSSA Traffic Control Supervisor Refresher – ATSSA Flagger DOTD Certified Structural Concrete Inspector / LADOTD / 12/13/2023			
Year registered	2017	Discipline	Civil and Environm	nental Engineering		
Contract role(s) / br	rief description of respo	onsibilities	Movable Bridge S	Structural Inspector		
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevant perience dates sl	nt to the proposed hould cover the tir	contract, <i>i.e.</i> , "designed drainage", "designed girders", ne specified in the applicable MPR(s).	, "designed	
10/19 – 01/20	Annual Inspection of a Structural Engineer/In Register of Historic Plac members, an electrical	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.			Orleans ional steel	
08/20 – Present	L H.001498.6; LA 24 a Project Engineer deliv Services include daily n contractor, parish gover progress reports; prepa	- H.001498.6; LA 24 and LA 16 Company Canal Vertical Lift Bridge, Bourge, LA – Louisiana DOTD Project Engineer delivering construction engineering and inspection services for a new vertical lift bridge and operator's house. Services include daily monitoring of all construction activities; maintaining all construction field records; coordinating with DOTD, contractor, parish government, and utilities; performing field testing; maintaining records of contractual operations, pay estimates and progress reports; preparing final estimate packages; conducting construction progress meetings; construction close-out, etc.				
03/16 – 10/17	US 190 Mississippi Ri Structural Inspector ro the US 190 Mississippi replacement of anchor	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 close-out.
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.
02/18 – 03/18	Lapalco Boulevard Bridge Repairs Construction Supplement, Lapalco, LA - Jefferson Parish Structural Engineer/Inspector responsible for providing annual inspection services and contributed to subsequent inspection report. A yearly valuation was requested by Jefferson Parish to determine the value of the bridge.
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 DOT Structural Engineer/Inspector providing 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.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC				
Name	Mark Soryal, PE			Years of relevant experience with this employer	9	
Title	Mechanical Enginee	er/Construction Ins	pector	Years of relevant experience with other employer(s)	0	
Degree(s) / Years / S	Specialization		BS, Mechanical Er	ngineering, 2011, The College of New Jersey		
Active registration n	umber / state / expiration	ion date	Professional Eng 101694 / NY / 7/31	Professional Engineer 101694 / NY / 7/31/2022		
Year registered	2019	Discipline	Mechanical Engine	eering		
Contract role(s) / bri	ef description of respo	onsibilities	Mechanical Engir	neering Construction Inspector – Meets MPR 5		
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar	nt to the proposed hould cover the time	contract, <i>i.e.</i> , "designed drainage", "designed girders", ne specified in the applicable MPR(s).	, "designed	
12/18 – 4/22	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 a performed thermal photography to aid in inspection/reporting effort.				ect primary or and an lock lessing and	
02/19 – 04/22	CE&I Services for Mac New York City DOT Mechanical Construct primary and secondary re replacement of centering generator, removal of no couplings; and cleaning, inspections per contract operation with FARO late of existing structural and work progress and MUF orders and coordinating	tison Avenue Brid ion Engineering I educers and bearin locks, machinery, n-operational mach lubrication and adju t requirements. Fie ser tracking syster d mechanical com RK 1 DWRs are pro- with client, contra	dge (swing bridge) Inspector for NYCD gs; replacement of ra and receiving sockets inery; new electrically ustment of drum girde eld work includes obs n), electrical demolit ponents slated for re oduced for field work ctor, and designer to	Over Harlem River New York, NY OT contract #HBX644S for the replacement of span drive mach tack and pinions, center pin rehabilitation; replacement of end lifts is at rest piers; new hydraulic auxiliary drive diesel powered by HF y operated brakes; rehabilitation of machinery supports; new shat er roller assembly. Mr. Soryal performs shop and field constructi servation of field surveys (general surveying and span tracking ion and installation of temporary electrical items, and general of eplacement under contract. Inspection reports are created to track tracking. Work also includes reviewing and provide comment of address field conditions to aid in streamlining work.	inery, at rest piers; 2U and fts and ion g during demolition rack shop ts to change	



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 of the project, 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.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC Matthew Thomas, PE					
Name	Matthew Thomas, PE			Years of relevant experience with this employer	3		
Title	CE&I project Engine	er	Y	Years of relevant experience with other employer(s)	7		
Degree(s) / Years / S	Specialization		B.S., 2010,	B.S., 2010, Environmental Engineering, Florida Gulf Coast University, Florida			
Active registration n	umber / state / expirat	ion date	Professiona FL (2019)	Professional Engineer FL (2019) 86405			
Year registered	2019	Discipline	Engineer				
Contract role(s) / bri	ef description of respo	onsibilities	Lead Cons	truction Engineering Inspector			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the pro hould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders", the time specified in the applicable MPR(s).	, "designed		
01/21 – Present	Veterans Memorial Boulevard Roadway Extension Phase I Design-Build Naples, FL - Collier County DOT Project Construction Engineer Inspector for the roadway extension and widening of Veterans Memorial Blvd. This project exten and widened the road 1.4 miles while adding 3 signalized intersection and street lighting throughout. The project will have over 4,0 feet of watermain and force main installed along with several thousand feet of drainage pipe and structures. Matt was responsible oversight of all construction and administrative aspects which includes reviewing contract documents, accommodating meetings, reviewing progress pay estimates, change orders and the final estimate package.				ct extended over 4,000 onsible for tings,		
07/19 – Present	Boca Grande Causeway Swing Bridge Replacement Placida, FL - Gasparilla Island Bridge Authority Construction Engineering Inspector responsible for assisting in performing quarterly inspections of the new swing sp continuous on-call consulting services to assist in troubleshooting issues that may arise, and peroforming field tasks rel operations and function of bridge. Tasks included the design, fabrication, and installation of an auxiliary jack system to l end lifts malfunctioned and a paint study to evaluate the current condition of the swing spans coating system.			t Placida, FL - Gasparilla Island Bridge Authority assisting in performing quarterly inspections of the new swing span, p leshooting issues that may arise, and peroforming field tasks related esign, fabrication, and installation of an auxiliary jack system to be us e current condition of the swing spans coating system.	providing to sed if the		
10/20 – 01/22	Gator Canal Bridge Replacement Naples, FL - Collier County DOT Project Engineer for the replacement of a structurally obsolete bridge (#034843) on County Road 846. The new bridge is founded 24-inch piles, with cast-in-place caps and deck. The new bridge will have 12-foot lanes with 10-foot shoulders on either side and h 3 spans that total 105 feet long. Due to traffic on CR 846 the bridge construction had to be phased to accommodate current volum commuters. Matt was responsible for oversight of all construction and administrative aspects which includes reviewing contract documents, accommodating meetings, reviewing progress pay estimates, change orders and the final estimate package.				ounded on and have t volume of rract		
11/16 – 1/19	White Boulevard over Project Manager for the approaches. This project	Cypress Canal B e replacement of <i>a</i> ct also includes ex	ridge Replace a structurally contensive draina	ement Naples, FL - Collier County DOT obsolete bridge (#034020) and roadway resurfacing/reconstructing fo age installations comprising of 4 large baffle box structures that were	r installed at		



	each corner of the bridge. Matt was responsible for oversight of all construction and administrative aspects which includes reviewing contract documents, attending meetings, reviewing progress pay estimates, change orders and the final estimate package, reviewing shop drawings, updating submittal logs, reviewing the final as-builts, monitoring field activities, and reviewing daily construction reports. The new bridge was founded on 18-inch square piles with concrete-in-place (CIP) caps and a one-foot six-inch cast-in-pace deck. The new wider bridge can accommodate 12-foot travel lanes, 5.5-foot shoulders, and 6.5-foot sidewalks.
10/16 – 6/18	Vanderbilt Drive Bridge Replacements Naples, FL - Collier County DOT Project Manager for the replacement of two existing, functionally obsolete bridges located on Vanderbilt Drive and the resurfacing/reconstruction of the roadway from approximately 300 feet south of Bridge #030178 to the south end of Bridge #034176 over the Cocohatchee River. Matt was responsible for all construction and administrative aspects which include review of contract documents, review of progress pay estimates, change orders and the final estimate package, reviewing shop drawings, submittal logs and the final as-builts, monitoring field activities. The existing bridge culvert was replaced with a double barrel 12-foot by 8-foot box culvert while the three-span bridge over Little Horse Pass were replaced with a single span founded on 24-inch pile end bents. The superstructure also included 36-inch Florida-I Beams with an eight-inch CIP concrete deck, CIP traffic barriers, and pedestrian walls. A concrete sheet pile wall was used to raise the existing roadway approximately seven feet. This project also included the reconstruction of a 10-foot shared path, deconstruction, and removal of a pedestrian bridge, and extensive utility relocations.
03/15 – 04/16	Collier Boulevard from Green Boulevard to Golden Gate Boulevard Widening Naples, FL - Collier County DOT Senior Construction Engineering Inspector for the replacement of one existing, functionally obsolete bridge located on White Boulevard and a newly constructed conspan bridge at the corner of 39th Street and Green Boulevard. Matt was responsible for all construction and administrative aspects, including attending meetings, monitoring field activities, and reviewing daily construction reports. This project also included the widening Collier Boulevard from four to six lanes, drainage installation, intersection widening, signalization work, and extensive utility relocations.
10/13 - 03/15	US 41 and Collier Boulevard Intersection Improvement - Naples, FL Collier County DOT and FDOT District 1 Senior Inspector/Contract Support Specialist for the widening of US 41 and Collier Boulevard intersection, in preparation for a future fly-over. This project also included signalization work, drainage, milling, and resurfacing of Collier Boulevard, and extensive utility relocations. Responsible for construction and administrative aspects which include a review of contract documents, attending meetings, review of progress pay estimates, change orders and the final estimate package, submittal logs, and monitoring field activities.
11/12 - 5/13	SR 776 Road Widening Englewood, FL - FDOT District 1 Inspector for the widening of SR 776 and installation of drainage structures that were needed to eliminate roadway flooding. This project also included the installation of a new sidewalk and signalization work that included new drill shafts. Responsible for inspection of drainage, roadway, signalization work, and reviewing daily reports of construction.



Firm employed by	Hardesty & Hanover	Hardesty & Hanover, LLC			
Name	Alfred A. Toro, NIC	Alfred A. Toro, NICET IV		Years of relevant experience with this employer	37
Title	Senior Construction	Inspector		Years of relevant experience with other employer(s)	0
Degree(s) / Years /	Specialization				
Active registration number / state / expiration date		Certifications SSPC C-3 NYC DOB 4-Hour Supported Scaffold Certificate NYSDOT Bridge Inspection Training Course Amtrak Safety Inspection Course NYSDOT BIPPI Training NYCTA Safety Inspection Course NYSDOT Site Manager Training (Construction Management System) Conrail Safety Inspection Course JUMP Construction Inspector			
Year registered		Discipline			
Contract role(s) / b	rief description of respo	nsibilities	Senior Cor	nstruction Inspector	
Experience dates (mm/yy–mm/yy)	Experience and quali intersection", etc. Ex	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).			', "designed
02/19 – 12/19	Construction Engineering and Inspection Services for Rehabilitation of the Madison Avenue Bridge (movable swing span) New York, NY - New York City DOT Chief/Senior Inspector for a \$35 million maintenance and repair contract involving extensive mechanical and electrical replacement of various components on this important bridge over the Harlem River. Mechanical work includes: Replacement of span drive machinery, primary and secondary reducers and bearings; replacement of rack & 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; cleaning, lubrication and adjustment of drum girder roller assembly. Electrical work includes: Replacement of Bridge Control System Devices, Limit Switches, Field Sensors, Encoder, and Resolvers, Replacement of Motor Control Centers (MCC's), 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. Structural/architectural work includes: Replacement of End Dams at				



	both approaches, new walkway around center pier for Maintenance, New concrete platform and walkway extension in mechanical room at center pier, gate house improvements.
02/18 – 04/22	Broadway Bridge over the Harlem River Rehabilitation Bronx & Manhattan, NY New York City DOT Construction Inspector providing construction inspection services for the Broadway Bridge, a two-tiered vertical lift bridge project, which includes complete rehabilitation of the civil, structural, electrical, architectural and mechanical components of the bridge. Mr. Toro's construction inspection work involves inspection of all structural elements of the replacement of the entire bridge.
11/20 - 12/21	Construction Inspection Services for Astoria Boulevard Bridge Over BQE Drive Queens, NY - New York State DOT Chief Inspector/Senior Inspector for this \$16 million project. The project involved the replacement of the steel superstructure, the concrete deck, the bearings, the approach slabs and the bridge railings. The concrete pedestals were replaced and cracks and spalls along the exposed face of the abutment stem and wingwalls were repaired.
9/15 - 12/17	Construction Engineering and Inspection Services for Rehabilitation of Houston St. Overpass at Franklin D. Roosevelt Drive New York, NY - New York City DOT Chief Inspector for this \$20 million project. Project involves demolition and complete superstructure replacement of the Houston Street Bridge. Other work includes substructure rehabilitation, traffic improvements, and miscellaneous painting. Critical elements include: high traffic volumes; night work; coordination with NYC OCMC; 3rd party review of demolition; and CPM Schedule review.
10/08 - 11/10	Construction Engineering and Inspection for Design/Build Rehabilitation of Northbound and Southbound Bruckner over Amtrak/CSX Railroad Bronx, NY - New York City DOT Construction Inspector for rehabilitation of primary steel members including safety improvements, gantry crane, and catenary installation. The \$60 million project consisted of rehabilitation of two highway bridges on the Bruckner Expressway in the Bronx under a 'fast track' Design/Build contract. Scope of the work included complete new superstructure and rehabilitation of the abutments on the northbound bridge. On the southbound bridge, reconstruction involved rehabilitation of the superstructure truss, replacement of the bridge deck and rehabilitation of the abutments. Also included was demolition, removal, repairs, paint removal, painting without impacting Amtrak/CSX operations below. Work also involved temporary relocation, support, and replacement of the RR catenaries. Most of the work over the railroads was performed off hours and Critical elements included - high traffic volumes; work within NYC limits; night work; extensive utility relocations that required ongoing coordination with utility companies; coordination with railroads and NYC OCMC, 3rd party review of demolition and CPM Schedule review.
01/15 - 09/15	Rehabilitation of the Oceanic Bridge (Movable Bascule) over the Navesink River Middletown, NJ- County of Monmouth Engineering Department Chief Construction Inspector responsible for rehabilitation and repairs of a major moveable bridge. Oversaw the structural steel replacement and deck repairs throughout the structure. The work consisted of full and partial depth deck repairs, lead abatement and painting, electrical/utility relocations, floor beam and stringer repairs and complex trunnion column repairs on the bascule span. This work was accomplished on a fast-track schedule with multiple shifts and complex MPT/detours.



Firm employed by Meyer Engineers, Ltd.						
Name Justin Bosarge			Years of relevant experience with this employer	5		
Title		Lead Construction Inspector			Years of relevant experience with other employer(s)	14
Degree(s) / Years /	/ Spe	cialization				
Active registration	num	ber / state / expirati	on date			
Year registered Discipline		LADOTD Ce LADOTD Po LADOTD As LADOTD St Traffic Cont	LADOTD Certified Embankment and Base Course 03/22/2024 LADOTD Portland Cement Concrete (PCC) Paving Inspector 03/19/2026 LADOTD Asphalt Concrete Paving Inspector 03/15/2026 LADOTD Structural Concrete Inspector 04/09/2023 Traffic Control Supervisor and Flagger			
Contract role(s) / brief description of responsibilities			nsibilities	Lead Const CE&I	truction Inspector, Roadway and Fixed Bridges CE&I and Movea	ble Bridge
Experience dates (mm/yy-mm/yy)	Ex int	xperience and quali tersection", etc. Ex	fications relevan perience dates si	nt to the pro	posed contract, <i>i.e.</i> , "designed drainage", "designed girders", the time specified in the applicable MPR(s).	"designed
03/21 - Present	State Project No. H.001498: Company Canal Bridge Replacement, Terrebonne Parish 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 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. Mr. Bosarge 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 Completed Inspection for the Construction Engineering and Inspection 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 planing asphaltic concrete, pavement patching, class II base course, superpave asphaltic concrete pavement, and traffic pavement markings. Construction Cost: \$3.9M
01/07-12/12	Performed Construction Engineering and Inspection for the following projects with Volkert <u>State Project No. 450-17-0025: I-10 Twin Spans, St. Tammany Parish</u> 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 M.O.T. inspections. Delegated responsibility to other inspectors by scheduling the daily tasks and assigning them to inspectors. Also trained most inspectors/senior inspectors that were hired after April 2007. <u>State Project No. 450-15-0025: I-10 Widening – Veterans to Clearview, Jefferson Parish</u> 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.



Firm employed by Meyer Engineers, Ltd.					
Name	Brian Mackey			Years of relevant experience with this employer	3
Title	Construction Inspecto	or		Years of relevant experience with other employer(s)	6
Degree(s) / Years / S	Specialization		B.S. Constru	uction Management, 2009, Louisiana State University	
Active registration n	umber / state / expiratio	on date			
Year registered	:	Discipline	LaDOTD Ce LADOTD Po LADOTD As LADOTD St Traffic Cont	ertified Embankment and Base Course 09/18/2026 ortland Cement Concrete (PCC) Paving Inspector 09/17/2026 sphalt Concrete Paving Inspector 08/03/2025 ructural Concrete Inspector 03/26/2026 rol Supervisor and Flagger	
Contract role(s) / bri	ef description of respons	sibilities	Constructio	on Inspector, Roadway and Fixed Bridges	
Experience dates (mm/yy-mm/yy)	Experience and qualifi intersection", etc. Expe	ications relevan erience dates sh	it to the pro nould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	, "designed
11/15-12/18	State Project No. H.007351: Country Drive Widening Phase A (Jeff Drive to Presque Isle Drive), Terrebonne Parish: Construction Inspector for the Construction Engineering and Inspection 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 GNOEC, Jefferson & St. Tammany Parishes: 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 include 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.				
2012-2016	 While employed with HNTB, 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	Meyer Engineers, Ltd.					
Name	Kyle Van Hoven		(90)	Years of relevant experience with this employer	10	
Title	Construction Inspec	Construction Inspector		Years of relevant experience with other employer(s)	0	
Degree(s) / Years /	Specialization					
Active registration	number / state / expirat	ion date				
Year registered	ed Discipline		LADOTD A LADOTD E LADOTD P LADOTD S Traffic Cont	LADOTD Asphalt Paving Inspector/Technician 03/26/2023 LADOTD Embankment and Base Course Inspector 10/27/2024 LADOTD Portland Cement Concrete Paving (PCC) Inspector 09/15/2025 LADOTD Structural Concrete Inspector 08/29/2025 Traffic Control Technician and Flagger		
Contract role(s) / b	rief description of respo	onsibilities	Construction	on Inspector, Roadway and Fixed Bridges		
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "design intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).				', "designed	
05/18-02/19	S.P. No. H.006599: Tammany Trace Camp Salmen Connector, St. Tammany Parish Construction Inspector as subconsultant to Principal Engineering, provided Construction Engineering and Inspection Services for the 1.512-mile-long project located south of Route US 190 from Neslo Road to Parish Parkway. The project consisted of a new asphalt path and accompanying drainage. The project includes clearing and grubbing, class II base course, asphalt concrete path, pavement striping, drainage structures, and rip rap. 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.					
05/17-06/20	S.P. No. 007175: Lapalco (Victory – Westwood), Jefferson Parish Lead Construction Inspector 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 (EST)					
03/12-11/13	S.P. No. H.007209.6: West Esplanade/Clearview Parkway Intersection, Jefferson Parish					



	Construction Inspector for Clearview Parkway at West Esplanade performing CE&I services which included the rehabilitation of the Clearview Parkway at W. Esplanade intersection. The work included 8" thick Portland cement concrete pavement restoration and a complete replacement of the drainage lines leading to the newly constructed triple barrel box culvert (278') and new double U-Turn Lane. Also included was excavation and embankment, asphalt concrete, grading, base course, concrete, sidewalks, lighting, signalization, water, pavement markings, guard rail systems, and utility adjustments. The project included verification of Critical Path Scheduling on Primavera Software. He utilized DOTD's Site Manager Program, and coordinated with DOTD, Jefferson Parish Engineering and Traffic/ Signalization departments. He completed all close out submittals including Form 2059 and record drawings. Construction Cost: \$3.7M
03/19-07/20	S.P. No. H.012783.6: WB Veterans: Severn Ave – Clearview Pkwy Construction Inspector performing CE&I services for Westbound Veterans Boulevard (Severn Avenue – Clearview Parkway) which includes pavement patching, Superpave asphaltic concrete, and combination curb and gutter. The work also includes cold planing asphalt pavement, concrete walks, handicap curb ramps, striping, loop detectors, guard rail, and new drainage structures. Construction Cost: \$2.8M



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		SSA	
Active registration 1	number / state / expirati	on date			
Year registered		Discipline			
Contract role(s) / brief description of responsibilities		DOTD Certified Inspector, Roadway and Fixed Bridge DOTD Certified Inspector / Mr. Millard has seven years of experience with the LA Department of Transportation and Development as an inspector of roadway and bridge construction according to state standards and specifications. Mr. Millard's duties will include surveying, layout, sampling, and testing materials, book and record keeping throughout the construction process.			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevan perience dates sh	it to the pro nould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	, "designed
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 Rout 05/18-03/20 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 a certified concrete paving inspector. Working as a subconsultant to Volkert, Inc., GOTECH provided the inspection services for				as a 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.



Firm employed by	GOTECH, Inc.	GOTECH, Inc.			
Name	John Poche	John Poche		Years of relevant experience with this employer	8
Title	Certified Inspector			Years of relevant experience with other employer(s)	39
Degree(s) / Years /	Specialization				
Active registration number / state / expiration date		 LA DOTD Structural Concrete Inspector Expires 11/19/2022 LA DOTD Asphalt Concrete Paving Inspector Expires 03/27/2026 LA DOTD PCC Paving Inspector Expires 11/12/2022 LA DOTD Authorized Profilograph Operator LA DOTD Authorized Profilograph Evaluator LA DOTD Concrete Field Tester Traffic Control Technician – ATSSA Expires 04/06/2025 Traffic Control Supervisor – ATSSA Expires 04/08/2025 Registered Flagger–ATSSA Expires 01/20/2025 			
Year registered		Discipline			
Contract role(s) / br	ief description of respo	nsibilities	Senior Cons	struction Inspector, Roadway and Fixed Bridge	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to intersection", etc. Experience dates show			posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	, "designed
07/20 – Present	LA DOTD - IDIQ Contract for CE&I for Safety Projects Statewide with a Majority of work in Districts 02, 61, and 62, Task Order: H.013271 Tangipahoa PH Local Road Safety Upgrade, Tangipahoa Parish, LA. As Lead Inspector, Mr. Poche is responsible for inspection and materials sampling and testing per the approved sampling plan, including signing, thermoplastic striping, and solar flashing beacons. He is the on-site point of contact between the contractor and Project Engineer. He is responsible for identifying field discrepancies, completing daily diaries in SiteManager software, entering material sample information into SiteManager Materials, and assuring the project is built in accordance with approved plans, special provisions and standard specifications. Mr. Poche is obtaining all project material documentation for 2059 throughout the duration of the project to meet the 30- day submission requirement.				
03/12-Present	Construction Inspection Support Annual Contract–SSO Program Inspection, East Baton Rouge Parish, LA Mr. Poche was the Senior Construction Inspector for the Construction Inspection Program for Baton Rouge's Sanitary Sewer Overflow (SSO) Program. Mr. Poche coordinated over 10 GOTECH inspection personnel that are assigned to construction or rehabilitation projects on pump stations, sewer, force mains, and gravity sewer lines.				



05/18-Present	Sales Tax Street and Road Rehabilitation Program Construction Supervision and Inspection, City of Baton Rouge/ERB Parish Mr. Poche provided inspector services for the Road Overlay and Repair project. GOTECH, Inc. provided Construction Inspectors and a Chief Construction Inspector to perform inspection of street rehabilitation construction services for the City of Baton Rouge for over 20 years. Duties included setting up and maintaining a project records system, production of partial and final estimated and plan changes, ensuring adherence to plans and specifications and the performance of field tests. The overall program has rehabilitated (asphalt overlay or reconstituted) over 1,500 miles of streets/roads.
02/09–08/12	LA DOTD I-12 Widening Design/Build O'Neal Lane to Denham Springs – SPN: 454-01-0047 & 454-02-0025 Mr. Poche was assigned to the GOTECH QA/QC team as a Senior Inspector. GOTECH provided construction inspection monitoring the construction of the roadway bridges and overpasses. 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 EBRP to the Denham Springs exit in Livingston Parish.
02/06-08/11	John James Audubon Bridge Design/Build, St. Francisville, LA Mr. Poche was assigned as a Senior Construction Inspector performing QA/QC inspection services for the Mississippi River Bridge Design and Build project located in St. Francisville. The Audubon Bridge project is being conducted as a design/build project for the Louisiana Department of Transportation and Development. The bridge will be a cable-stayed structure that crosses the Mississippi River north of Baton Rouge. It replaces a centuries-old ferry route that links Pointe Coupee Parish and West Feliciana Parish. At a length of 1,583 feet, the main span will be the longest in North America. GOTECH provided engineering design of the approach roadway network on the west (Pointe Coupee Parish) side of the river.



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 / S	Specialization		Associate D	egree 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 Engine	ering		
Contract role(s) / bri	ef description of respo	nsibilities	Senior Construction Inspector, Roadway and Fixed Bridge			
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the pro hould cover	posed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	, "designed	
03/21 - Present	AIP 3-22-0006-1110-20 Ken Prescott is the cer improvements. This new	18/ SP H.013690 tified inspector for <i>r</i> route is being bu	Runway13-3 [,] r the re-routin iilt to DOTD sj	1Safety Area and RPZ Improvements – PH I Ig of Plank Rd at EBR Airport to make room for the new safety ar pecification with FFA funds and will be returned to the State when co	ea and RPZ mpleted.	
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 a	ind Testing, LLC						
Name	Sergio Aviles, P.E.			Years of relevant experience with this employer	10			
Title	President / QAQC /	Testing and Accept	otance	Years of relevant experience with other employer(s)	10			
Degree(s) / Years / S	Specialization		BS Civil En	gineering/2001/Geotechnical				
Active registration r	umber / state / expirat	ion date	0033571/ L Work Zone,	0033571/ LA / 03/31/2024 Work Zone, Traffic Control Supervisor, Technician, and Flagger Certifications				
Year registered	2007	Discipline	Civil Engineering					
Contract role(s) / br	ief description of respo	onsibilities	Laboratory	/ Testing and Acceptance – Meets MPR 7				
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	fications relevar perience dates sl	nt to the pro hould cover	pposed contract, <i>i.e.</i> , "designed drainage", "designed girders" the time specified in the applicable MPR(s).	', "designed			
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 Project Manager Resp procedures. The purpos of an acceptable standa	A-1B-1: Westend (consible for the F are was to conducte ards for the propos	Group Field Testing d testing on the d roadway s	and Acceptance of construction materials according to LADOTD the subsurface, base and concrete placement at the site to enable an estructures.	approved valuation			
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 a	nd Testing, LLC						
Name	Sairam Eddanapud	li, 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 / expirati	on date	0035129/ LA	A / 03/31/2024				
Year registered	2008	Discipline	Civil Engine	ering				
Contract role(s) / br	ief description of respo	nsibilities	Laboratory	Testing and Acceptance – Meets MPR 7				
Experience dates (mm/yy-mm/yy)	Experience and quali intersection", etc. Ex	Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , "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: Laboratory Manager res the subsurface, base, a structures.	Westwood Drive ponsible for the fie nd concrete place	(WB Express eld testing and ment at the sit	sway to Lapalco): LADOTD d acceptance of construction materials. The purpose was to conduct te to enable an evaluation of an acceptable standards for the propos	testing on ed roadway			
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.



16. Staff Experience:

Firm employed by	A P S Engineering a	nd Testing, LLC							
Name	Paul Fulcher			Years of relevant experience with this employer	2				
Title	Senior Technician			Years of relevant experience with other employer(s)	8				
Degree(s) / Years / S	Degree(s) / Years / Specialization			Density Testing Embankment and Base Course (C 0303B) Nuclear Gauge Safety Certification ACI-Certified ATSSA Traffic Control Technician LA state-specific					
Active registration r	umber / state / expirati	on date							
Year registered		Discipline							
Contract role(s) / brief description of responsibilities			Senior Fiel	d Technician					
Experience dates (mm/yy-mm/yy)	Experience dates (mm/yy–mm/yy) Experience and qualifications relevant to the proposed contract, <i>i.e.</i> , "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).								
05/2018-01/2020	Project No. H.009250: I-10- Highland to LA 73 The purpose was to conduct testing on the subsurface, base course, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures. Mr. Fulcher is the senior field technician on site assign to perform all field testing for this project.								
01/2019- Present	Project No. 2012-FEMA The purpose was to cond acceptable standards for project.	-1B-1-Westend Gr ucted testing on the the proposed roadw	roup e subsurface, b vay structures.	base course, and concrete placement at the site to enable an evaluation of Mr. Fulcher is the senior field technician on site assign to perform all field	an testing for this				
04/2019 -Present	Project No. H.011795: Westwood Drive (WB Expressway to Lapalco) The purpose was to conduct testing on the subsurface, base course, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures. Mr. Fulcher is the senior field technician on site assign to perform all field testing for this project.								
05/2019 -Present	Project No. H.011798: A The purpose was to cond standards for the propose project.	irline Park Blvd (C uct testing on the su d roadway structure	a mphor-Wes ubsurface, bas es. Mr.	t Napoleon) Phase II se course and concrete placement at the site to enable an evaluation of an Fulcher is the senior field technician on site assign to perform all field testi	acceptable ng for this				



04/18 – 11/18	Project No. H.011798: Airline Park Blvd I The purpose was to conduct testing on the subsurface, base course and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures. Mr. Fulcher is the senior field technician on site assign to perform all field testing for this project.
05/2018 - Present	Project No. H.009250: I-10- Highland to LA 73 The purpose was to conduct testing on the subsurface, base course, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures. Mr. Fulcher is the senior field technician on site assign to perform all field testing for this project.
01/2019- Present	Project No. 2012-FEMA-1B-1-Westend Group The purpose was to conducted testing on the subsurface, base course, and concrete placement at the site to enable an evaluation of an acceptable standards for the proposed roadway structures. Mr. Fulcher is the senior field technician on site assign to perform all field testing for this project.



17. Firm Experience:

Firm name	На	Hardesty & Hanover, LLC				Past Performance Evaluation Discipline(s)* CE & I/C			CE & I/OV			
Project name	Co	ompany Canal Ve	ertical Lift Bri	dge Replace	ment CE8	<u>&I</u>	Firm responsibility (prime or sub			me or sub?)	Prime
Project number	•	H.001498 Owner's name				Louisiana Department of Transportation & Development			nent			
Project location	Lockport, LA						Owner's Project Manager Peggy Jo Paine			y Jo Paine		
Owner's addres	ss, j	phone, email	1201 Capito	I Access Roa	d, Baton F	Rouge, LA 7	0804 225.37	9.1065 <u>chris.guidry@</u>	la.gov			
Services commenced by this firm (mm/yy) 07/2020 To					Total c	Total consultant contract cost (\$1,000's)				\$4,0	00	
Services compl	ete	d by this firm	(mm/yy)	ongoing	Cost of	Cost of consultant services provided by this firm (\$1,000's)			,000's)	\$3,2	:00	

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-footlong lift span with an approximately 48-foot wide deck consisting of two 12-foot-wide travel lanes, two 8foot 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 LA 316 to the west to avoid conflict with the new bridge structure and



approach slabs. During the construction of the new vertical lift bridge and operator house, H&H is provided construction contract administration and construction engineering inspection services typically performed by the DOTO Project Engineer and their staff. H&H's scope included: 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; and prepare final estimate packages, including Form 2059.

Key Members: Babak Naghavi, PE; Fred Wetekamm, PE; Tim Noles, PE; Amy Robards, PE; Linh Kim, EI; Ken Pecquet; and Mor Diao (CPM)



Firm name	Ha	Hardesty & Hanover, LLC				Past Performance Evaluation Discipline(s)* CE &			CE & I/OV		
Project name	Ga	asparilla Island Swi	ng Bridge Rep	lacement			Firm responsibility (prime or su			rime or sub?)	Prime
Project number	I	n/a	Owner's name				Gasparilla Island Bridge Authority				
Project location	L	Placida, Florida Owner's Project Manager					roject Manager	Kathy Banson-Verrico			
Owner's addres	s, 1	phone, email	P.O. Box 19	18, Boca Gra	nde, FL 3	33921 941.	697.2271 ext 2	2 kathygiba@earthli	<u>nk.net</u>		
Services commenced by this firm (mm/yy) 02/2008 To					Total	Cotal consultant contract cost (\$1,000's)			9	2,119	
Services completed by this firm (mm/yy) ongoing C						Cost of consultant services provided by this firm (\$1,000's)			,000's)	51,734	

The Gasparilla Island Bridge Authority (GIBA) determined that the replacement of the bridge was necessary to improve carrying capacity, structural integrity, and bridge reliability and safety. Hardesty & Hanover has provided construction engineering and inspection under multiple contracts for this bridge.

H&H provided comprehensive design services for the replacement of the Gasparilla Island Swing Bridge which included field inspection, a feasibility study, complete design, and post-design engineering support. During construction and prior to joining H&H, Steve Nappi performed CE&I on the replacement swing bridge and was responsible for construction and administrative aspects of the new bridge, including review of contract documents and shop drawings; coordination of field inspection of structural, mechanical, and electrical components; assisting in preparation of progress pay estimates; updating shop drawing submittal logs; preparing the final as-builts, computation books, and pay item overruns/underruns; and reviewing daily reports of construction. Steve kept the client abreast of all situations affecting the project and attended meetings regarding construction claims to provide his professional opinion and recommendations on how to proceed. This project finished ahead of schedule and only saw a 5% increase from the contractor's original bid.

After completion of the construction, H&H was retained by GIBA to provide support on an on-call contract beginning in 2019 which continues today. Tasks awarded include: Providing On-Call Assignments for Bridge Issues (e.g., addressing noises emanating from mechanical components which were covered under manufacturer's warranty, the malfunction of a drive motherboard, failure of the bridge end lift to drive under generator power due to a faulty surge suppressor, limit switch malfunctions, shorting of electrical components and rewiring with spares, and PLC error messages); inspecting for concrete cracks and spalls; Designing a dowel repair for noise emanating from Bearing Pillow Block using an FN2 fit to resist movement of the pinion bearing pillow block; designed and installed an Auxiliary Jacking System Design in the event that a catastrophic event rendered the end lift reducer useless; Performing Coating Analysis of the existing coating system which was performed by NACE-certified H&H paint inspectors.



Key Members: Andrew Barthle, PE; Marco Lara, PE; Steven Mikucki, PE; Steven Nappi, PE; Timothy Noles, PE; Matthew Thomas, PE



Firm name	На	Hardesty & Hanover, LLC				Past Performance Evaluation Discipline(s)* CE & I/O			CE & I/OV			
Project name	Co Bi	onstruction Engin ridge Rehabilitati	neering and I on	r Madison A	Avenue	Je Firm responsibility (prime or sub?)				Prime		
Project number	Ŧ	#HBX644S Owner's name New Y					City DOT					
Project location	L	New York, NY Owner's Project Manager Ashok Kumar, P					k Kumar, PE					
Owner's addres	ss,]	phone, email	55 Water St	reet, 8 th Floor	, New Yorl	k, NY 10041	212-839-4670	akumar@dot.nyc.	<u>gov</u>			
Services commenced by this firm (mm/yy) 08/17 Tota					Total c	otal consultant contract cost (\$1,000's)				\$2,6	20	
Services compl	ete	d by this firm	(mm/yy)	ongoing	Cost of	Cost of consultant services provided by this firm (\$1,000's)			,000's)	\$2,4	.39	

Hardesty & Hanover is performing Construction Engineering and Inspection services as part of a joint venture with EnTech Engineering for the rehabilitation of the Madison Avenue Bridge. The bridge connects the boroughs of Manhattan and the Bronx and was constructed in 1910 with reconstructions in the 1960s and 1990s. The structure consists of a swing span with two flanking spans, two approach ramps on the Manhattan side and one approach structure in the Bronx (138th Street). The rim bearing swing span is 307.6 feet long, supported on a center pier and two rest piers.

Mechanical construction engineering and inspection work is being performed by H&H for: replacement of span drive machinery, primary and secondary reducers and bearings; replacement of rack and pinions, including center pin rehabilitation; replacement of end lifts at rest piers; a new hydraulic auxiliary drive dieselpowered by HPU and generator, removal of non-operational machinery (1994 contract); design for new electrically-operated brakes; rehabilitation of machinery supports; new shafts and couplings; cleaning, lubrication, and adjustment of drum girder roller assembly.

A variety of electrical construction engineering and inspection work includes the replacement of field sensors, limit switches, encoder, resolvers, operator's control desk and gate operator's control stations, control cabinets, motor control center, PLC, span drives, hydraulic auxiliary span drive, electrical motors, navigation warning lights, all interconnecting wiring, power distribution system monitoring sensors, protection devices, and transformers. While structural/architectural CE&I work being performed by H&H includes replacement of End Dams at both approaches, new walkway around center pier for maintenance, a new concrete platform and walkway extension in the mechanical room at center pier, and gate house improvements.



Key Members: Tarek Albishara; George Foerster, PE; Diao Mor, CCM, PMP; Mark Kaszczak, EIT; Travis Kimmins, PE; Milos Kivich; Stephen Mikucki, PE; Alexander Noble, PE; Kenneth Pequet, PE; Robert Plocica, PE; Mark Soryal, PE; Alfredo Toro.



<u>17. Firm Experience: Broadway</u>

Firm name	Hardesty & Hanove	Hardesty & Hanover, LLC				Past Performance Evaluation Discipline(s)*C			CE & I/OV	
Project name	Construction Engi of Broadway Bridg	nspection Se arlem River	ervices for	the Rehat	ilitation	Firm responsibility (prime or sub?)			Prime	
Project number	n/a	Owner's r	name	New York	City DOT					
Project location	Bronx & Manhat	tan, NY				Owner's Project Manager Kursheed Khan			eed Khan	
Owner's addres	s, phone, email	55 Water St	, NY, NY 21	2.839.409	2 kkhan@	dot.nyc.gov				
Services commenced by this firm (mm/yy) 12/18				Total consultant contract cost (\$1,000's)					\$3,094	
Services comple	ongoing	Cost of consultant services provided by this firm (\$1,000's)				,000's)	\$1,645			

The Broadway Bridge is a two-tiered vertical lift bridge. The upper deck carries NYCTA's IRT subway line. The lower deck carries two northbound and three southbound lanes of vehicular traffic. It also has two-seven feet wide sidewalks for pedestrians. The current Broadway vertical lift bridge is the third movable steel structure at this location. The current structure, a double deck vertical lift bridge to carry the subway and vehicular traffic, was built in 1960. Hardesty & Hanover is providing CE&I services for this project, which includes complete rehabilitation of civil, structural, electrical, and mechanical components of the bridge. Specifically, the mechanical work included: Cleaning and inspecting 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; and Repair of centering device.

Electrical work performed by H&H included: Replacement of entire bridge 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; Installation of new roadway and navigation lighting. Architectural work included: Rehabilitation of Control House; Rehabilitation of two gateman's shelters; Rehabilitation of Gateman's house; Rehabilitation of two machinery houses at the top of the towers; and Asbestos and PCB abatement.

Key Members: Tarek Albishara; George Foerster, PE; Mark Kaszczak, EIT; Travis Kimmins, PE; Milos Kivich; Kevin Meehan; Steve Mikucki, PE; Alexander Noble, PE; Robert Plocica, PE; Mark Soryal, PE; Alfredo Toro.



Firm name	На	Hardesty & Hanover, LLC				Past Performance Evaluation Discipline(s)* CE 8			CE & I/OV		
Project name	J.	T. Carr Chapel St	reet Bridge P	Phase I – CE8	&I Service		Firm responsibility (prime or sub?)			Prime	
Project number	r	n/a	Owner's r	name	me City of New Haven, CT						
Project location	L	New Haven, CT Owner's Project Manager Zachary Shapiro									
Owner's addres	s, 1	phone, email	200 Orange	St. 5th Floor,	New Hav	ren, CT 0651	0 203.946.	8096 203.946.8096			
Services commenced by this firm (mm/yy) 03/				03/17	Total consultant contract cost (\$1,000's)					\$92	
Services comple	ete	d by this firm	(mm/yy)	11/17	Cost of	f consulta	nt services j	provided by this firm	m (\$1	,000's)	\$71

Hardesty & Hanover performed construction engineering inspection services for the J.T. Carr Chapel Street Bridge over the Mill River. This Phase I Structural, Mechanical, and Electrical rehabilitation project included field inspection in accordance with the current Connecticut Department of Transportation Standard Specifications. The J.T. Carr Chapel Street Bridge is a center-bearing swing bridge, originally constructed in 1992. The bridge consists of a box girder swing span which has an overall length of 226 feet and provides 72-foot-wide clear channels in the open position. The rehabilitation of this 25-year-old bridge included the structural, mechanical, and electrical systems of the bridge, and was undertaken to eliminate deficient conditions and restore the bridge to a state of good repair as dictated by the Connecticut DOT's Bridge Inspection Manual. The rehabilitation project was administered by the City of New Haven and funded through Local Bridge Program funds.

H&H personnel were responsible for the functions of Chief Inspector and the functions of Electrical, Mechanical, and Structural Office Engineer/Inspector. Their responsibilities included field inspection; conducting progress meetings and special meetings as required; and assisting in the resolution of contract inquiries and field changes. H&H was also responsible for ensuring that the contractor adhered to all contract requirements and made all required submittals in a timely manner. To support field inspection, H&H office engineers were responsible for maintaining records and documenting the progress of the contract work. H&H's responsibilities also included reviewing the contractor's CPM, bar charts, and/or other project schedules, and reviewing contractor-submitted requisitions for payment, which included certifying that quantities submitted for payment were accurate.



Key Members: Matthew Gagliano, PE; Steven Hom, PE; Stephen Mikucki, PE; Alexander Noble, PE



Firm name	Meyer Engineers, Ltd. Past Performance Evalu				uation Discipline	(s)* CE&I/(OV		
Project name	LA 18 (4 th St. Ext. – Burmaster)					Firm responsibility (prime or sub?) Sub			
Project number S.P. No. H.001413.6 (CE&I) (20-1643) Owner's name									
Project location Jefferson Parish Owner's J					ner's Pr	oject Manager			
Owner's address, phone, email 200 Mardi Gras Blvd., 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)				\$628 (EST)	
Services completed by this firm (mm/yy)			03/18	Cost of consultant services provided by this firm (\$1,000's)			00's)	\$400 (EST)	

Meyer Engineers, Ltd. is completing the Construction Engineering and Inspection Services for LA 18 (4th St. Ext. – Burmaster) in Jefferson Parish. 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.

The drainage work includes over 9,600 LF of concrete drainpipe (up to 96" diameter), trench excavation, safety protection (greater than 5' depth), catch basins, bedding material, concrete headwalls, and riprap. Meyer Engineers, Ltd. is utilizing DOTD's Site Manager Program and coordinating with DOTD District 02 and Jefferson Parish. Meyer also reviews and manages shop drawings and Requests for Information (RFI).

Meyer Engineers, Ltd. will submit the final submittal package to the DOTD Construction Audit Section including Form 2059 and as-built drawings. The construction cost is \$7.2 Million. 100% of the work for this project was performed in Louisiana.

Members Involved: Richard Meyer, David Dupre, Randy Oustalet, Byron Mackey (Lead Inspector), Justin Bosarge, Kyle Van Hoven





Firm name	Meyer Engineers, Ltd.		Past Perf	ormance Evalu	ation Discipline	(s)* CE&I/OV		
Project name	Inspection for Safety Bay Improve	Inspection for Safety Bay Improvements Causeway Bridge					Sub	
Project number	N/A	e Greater	Greater New Orleans Expressway Commission					
Project location	Jefferson & St. Tammany Par	Owner's Project Manager Robert Schmidt (Huval)						
Owner's address	ss, phone, email 3939 N. Cause	way Boulevard, #	400, Metairie,	LA 70002; 504-8	335-3118; BSchmidt	@huvalassc.com		
Services commenced by this firm (mm/yy) 08/18			Total consultant contract cost (\$1,000's)			\$628 (EST)		
Services completed by this firm (mm/yy) 03/19 0				Cost of consultant services provided by this firm (\$1,000's)				

In the decades since the construction of the Causeway, standards for bridges have changed to provide improved safety characteristics. This Safety Bay Improvement project significantly increased emergency stopping area and widened the Causeway Bridges to provide a shoulder in at least 12 locations. This

project was delivered with the CMAR (Construction Manager-At-Risk) method. Meyer Engineers, Ltd. (Meyer) in conjunction with others provided construction contract administration and construction engineering inspection services. The services were performed in accordance with DOTD's standards and procedures. Meyer performed the following services under the direct supervision of the GNOEC.

- 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 accepted, the acceptability of traffic control, and the charging of contract time.
- ✤ Performed the required field testing for QA in accordance with the latest DOTD Sampling and Testing Method.
- Inspected the Contractor's construction operations (daily) to ensure that all work is performed in general compliance with the specified plans and specifications.
- Kept clear and concise records of the contractual operations, prepare monthly pay estimates, and made monthly progress reports in conformance with GNOEC requirements.
- ✤ Managed the RFI process and coordinated and/or performed the inspection of the fabrication of pre-cast materials.

Challenge/Solution

- + 24-hour Inspection: Pile driving operation was increased to multiple crews running 24-hour shifts. Meyer staff quickly adapted to working day and night shifts.
- Prompt Submission of Documents from Remote Locations: Working long hours in the middle of Lake Pontchartrain, Meyer staff produced and submitted all daily documentation on the day the work was performed.
- Adverse Weather: Conditions on Lake Pontchartrain change quickly. Wind, waves, rain, lightning, heat, and cold were all encountered and handled in stride. When the contractor worked, we worked.
- Other: Working on barges and bridges over the lake presents a unique conflict with nature. There were regular occurrences of infestations. Large spiders (including the occasional black widow, brown widow, and brown recluse), and sudden dense swarms of flies that were so dense that all work was shut down immediately because workers had difficulty breathing without inhaling the insects and the friction brakes on the ringer crane stopped working. The swarms also clogged the intakes of air conditioning units and generators to point of mechanical failure in some instances.

Team Members: Richard Meyer | Justin Bosarge | Byron Mackey

Page 84 of 117Prime consultant name: Hardesty & Hanover





Firm name	Meyer Engineers, Ltd.			Past Perfo	Past Performance Evaluation Discipline(s)* CE&I (Not Rat			(Not Rated)		
Project name	LA 24 and LA 31	&I)	Firm responsibility (prime or sub?) Sub					Sub		
Project number	S.P. No. H.001498 Owner's name			Louisian	Louisiana Department of Transportation and Development (Subconsultant to					
				Hardesty	/ & Hanover)					
Project location	Terrebonne Pa		Owner's P	roject Mana	ger	Chris Roger	S			
Owner's addres	s, phone, email	5056 W. Ma	in Street, Houma,	LA 70360; 98	35-858-2424;	Christopher.F	Rogers@)LA.GOV		
Services commenced by this firm (mm/yy) 09/20 7			Total consul	otal consultant contract cost (\$1,000's)				\$399		
Services completed by this firm (mm/yy) On-Going C			Cost of cons	sultant servi	ces provided	l by thi	s firm (\$1,0)00's)	\$399	

Meyer Engineers, Ltd. (Meyer), as a subconsultant to Hardesty & Hanover, is providing Construction Engineering and Inspection Services including, but not limited to, construction of a new vertical lift bridge over the Company Canal on LA 24 and new operator's house in Bourg, Louisiana in Tangipahoa Parish. The new vertical lift bridge will be built on existing alignment. These services will be performed in accordance with DOTD's

Standards and Procedures. The following services to be performed will be under the direct supervision of DOTD:

- Maintain all construction field records; make daily entries in the project diary (DWR) to indicate the Consultant's personnel and Contractor's personnel present on the job site, 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.
- Coordinate with DOTD and appropriate utility representative for all relocations/adjustments of utility facilities for the construction of work site.
- Provide all necessary personnel and equipment to perform the required field-testing for quality assurance in accordance with the latest DOTD Sampling and Testing Manual.
- Inspect Contractor's construction operations (daily) to ensure that all work is performed in accordance with the specified plans and specifications.
- Keep clear and concise records of the contractual operations, prepare monthly pay estimates, and make monthly progress reports in conformance with DOTD requirements. Inspection of construction will not include shop and mill inspections and their approval.
- Prepare final estimate packages, including Form 2059 "Summary of Test Results" in conformance with DOTD requirements.

Team Members: Richard Meyer | Justin Bosarge | Byron Mackey







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Firm name	GOTECH, Inc.			Past Perfe	ormance Evalu	uation Discipline	(s)*	CE&I/OV & S	urvey
Project name	I-12 Widening Desi	gn / Build				Firm responsibility	ility (prim	ne or sub?)	sub
Project number	454-01-0047 & 454	4-02-0025	Owner's	name	LA DOTD				
Project location East Baton Rouge & Livingston Parishes, LA					Owner's Pro	Project Manager Mark Chenevert / Jeff Burst			ırst
Owner's address, phone, email 1201 Capitol Access Road, Room 405-E, Baton Rouge, LA 70802-4438, 225-379-1591, mark.chenevert@la.gov							gov		
Services commenced by this firm (mm/yy) 02/09 Total				Total consultant	al consultant contract cost (\$1,000's)			N/A	
Services completed by this firm (mm/yy) 08/12 C				Cost of consultant services provided by this firm (\$1,000's)			0's) \$2,9	50	

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.

Project staff includes the following: Rhaoul Guillaume, Sr., P.E. CE&I Department: Terry Cormier, Nathan Millard, John Poche, Kenneth Prescott & Charles Stewart Survey Crew: Raymond Belmer & Jacob Belmer CADD Department: Diane Henderson





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Firm name	GOTECH, Inc.	Past Perfo	rmance Evalu	uation Discipline	(s)* CE&I/OV					
Project name	Retainer Contract for Construction E	ngineering Manage	ement and Sta	ſf	Firm responsibility (prime or sub?) sub					
5	Augmentation Services for District 03				-	• u				
Project number	4400004729 (CE&I)	Owner's nam	e		LA DOTD					
Project location	Acadia, Lafayette, Evangeline, Ib	Owner's Pro	oject Manager Mark Chenevert /							
5	Mary & Vermilion Parishes, LA				5 0	Alan Dale, P.E.				
Owner's address	Owner's address, phone, email 1201 Capitol Access Road, Room 405-E, Baton Rouge, LA 70802-4438, 225-379-1591, mark.chenevert@la.gov									
Services comm	enced by this firm (mm/yy)	10/14 Total	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			

As a Sub-Consultant to GEC, GOTECH provides construction inspectors, document control person, and an office manager on the DOTD 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.

Project staff includes the following: Rhaoul Guillaume, Sr., P.E. CE&I Department: Terry Cormier, Kenneth Prescott & Bertin Arlt, Jr. Document Control: Claudia Thompson



Firm name	A P S Engineering & Testing, LLC Past Performance E					rmance Ev	valuation Discipline	(s)*	CE & I/OV			
Project name	I- 1	I-10: Highland to LA 73						Firm responsibility (prime or sub?)				sub
Project number		H.009250		Owner'	s name	La DOTD)					
Project location	1	St. Tammy Parish Owner's Project Manager Peggy Paine, F						y Paine, P.E.				
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 To				Total c	Total consultant contract cost (\$1,000's)					N/A		
Services completed by this firm (mm/yy)				01/20	Cost of	Cost of consultant services provided by this firm (\$1,000's)					\$400	Эk

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.

Members involved: Sergio Aviles, PE; Sai Eddanapudi, ME, PE; Surendra Raj Pathak, MS, PE; Shafia Nazneen; Donna Easterly; Cindy Falks; Shiva Anumula; Paul Fulcher; and Casey Francois.





18. Approach and Methodology:

Project Understanding

Bayou Barataria Movable Bridge Replacement Project consists of construction of the movable swing span bridge, operator's house, associated substructure elements, and pier protection system along relocated LA 302, and new bridge and roadway construction along LA 45 between LA 45 and LA 3257 in Jefferson Parish. The Barataria Bridge structure consists of a new swing span and precast pre-stressed girder approach spans across Bayou Barataria as well as traffic and pedestrian gates and barriers. During this contract we will provide construction contract administration and Construction Engineering and Inspection (CE&I) services for construction of the movable swing span, the precast pre-stressed girder approach spans, and roadway construction along LA 45 in Jefferson Parish.

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. H&H has performed CE&I services for both types of float in and stick build swing spans.

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 extensive experience with similar DOTD CE&I projects and will work directly with the district 02 DOTD assigned Construction Coordinator during project construction. Fred will be supported by our specialized movable bridge CE&I staff of qualified engineers and inspectors (structural, mechanical, and electrical) and experienced DOTD field staff of 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, LAPAVE software

required by DOTD; tablets with mobile data and HeadLight software (Fieldbook and Material); and wireless remote access.

1 – Safety

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

Key Issues of the Swing Bridge Construction

We have organized the key issues into two broad categories: (1) Key Operational/Management Issues and (2) Key Technical Issues

Key Operational/Management Issues

Our team places a high priority on construction safety, and we are very 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 movable bridge experience and understanding of the relevant health & safety issues of movable bridge construction. The approach to our work activities will include training for working over water, working adjacent to swing span operating machinery, working with electrical equipment, and fall protection. Staff will receive orientation and training regarding the hazards of working near heavy movable components. 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 very 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 preconstruction meeting.

H&H Performing CE&I Services for Willis Ave. Swing Bridge

- 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 amongst 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.

Key Technical Issues

Key technical components of the swing bridge construction that require close attention are:

- Superstructure Considerations
 - Deck Pouring Screed operation; Camber; Concrete weight The swing span (specify the type of deck in the contract plans) needs to be poured in its deflected shape to avoid cracking. A procedure needs to be implemented by the contractor to address how they will stabilize the bridge during the deck pour. Additionally, concrete unit weights will need to be checked throughout the pour and records of where the concrete was placed to assist in balancing span.
 - Steel Erection Shop erection; Temporary bracing; Field erection or float in; and Field structure tolerances
 - Structural protective coating

Checks to be performed during erection/installation will include verification of size and type of all rigging as shown on picking procedures, cleanliness of connection, no reaming of primary member connections, and that excessive force is not used to force connections into alignment. When field erection is used, a common issue with construction is deviations in how the span is erected in the shop compared to the field. In the past, this has resulted in field survey not matching shop measurements as well as components not mating properly. We will caution the Contractor of the importance of erecting the bridge in the shop with the same support points as the field. We will also discuss the specifications to ensure the Contractor understands the requirements for both shop erection, and field.

• Span Support Considerations

 Balance – Transverse; Longitudinal; Temporary; Permanent Balancing of a swing span requires a well thought out and executed plan. We will discuss this with the contractor and discuss options of determining the final balance of the structure.

The Contractor will be required to have a Specialty Engineer to perform the balance calculations and balance measurement verification. H&H has developed specific methods of measuring/verifying swing span balance.

 Geometrical Verification Checks: - Balance wheels gaps, pivot bearing elevation, end lift pedestal elevation, pivot girder support elevations, concrete block-outs on approach and swing span tips, centering device tolerances, end lift or roller shoe tolerances.

Verification of the geometrical checks listed above will be critical. The H&H CE&I Team will establish and witness hold points to review critical placements prior to final acceptance. Field staff along with experienced H&H swing span engineers will check to ensure clearances shown in the plans and specs are met.

- End Lifts or Rollers Final stiffness of superstructure, lift requirements, driving power.
 - Tests will be performed to ensure the theoretical stiffness of the structure are verified and compatible with the drive machinery.

• Machinery Considerations

Mechanical components will be checked that they are or have been properly packaged for protection during shipment. Shipments arriving at the construction site will be inspected for damage. All material certifications will be checked for correctness and any material substitution must be approved by the designer or will not be considered acceptable.

Alignment of a swing span must start at pivot point and positioned based on accurate surveys to meet the design tolerance for machinery performance. Some key construction items are:

- o Concentricity alignment of the track with respect to the pivot bearing
- Hydraulic components if used



- Rack/pinion alignment within the tolerance of the swing span rotational run-out
- \circ $\,$ Balance Wheel alignment at the seated position and coordination with the end lifts or rollers
- o Transverse live load support alignment at the pivot pier
- End lift or roller elevation based on established load to lift range and actual span end deflection
- Vertical lift barrier system ropes, sheaves, machinery alignment, thruster brake timing, etc.

In the field, components, their assembly, and alignment will be checked for compliance with approved shop and assembly drawings. All mounting bolts will be checked for proper torque when specific torques are specified. Torque wrenches must be calibrated (by the Contractor). Final testing of the machinery components to demonstrate that they properly perform their function will be witnessed by H&H CE&I Team of experienced swing span inspectors. Final inspection will include machinery alignment, proper fastener installation, proper painting of mechanical components, proper lubrication of all sliding surfaces and proper machinery operation. Field painting of machinery is usually touch up to any nicks during installation. Protection of machinery is imperative for operation.

• Electrical Considerations

- o NEC Clear Workspace
- Engage state electrical inspector where appropriate
- Navigation Lighting Ensure the channel is always lit appropriately during construction
- o Submarine Cable/Conduit Installation and Testing
- o Conduit and Enclosure Supports and Mounting
- Control System Commissioning Integration between electrical controls and mechanical systems, rotary cam and snap-action limit switch trigger points, span, and hydraulic control gearmotor position control (or VFD control where applicable), etc.
- Lightning Protection and Surge Suppression Proper installation ensures a reliable system
- Arc Flash Labeling Ensure time in schedule for designer to perform arc flash calculations prior to the end of contract time

• Architectural Considerations

Visibility; Accessibility; Permitting; HVAC; MEP; Fire Alarm; Security System

- Appurtenances
 Cate operation: Signals: Fonder 5
- Gate operation; Signals; Fender Systems
- Fixed Bridge and Roadway Approaches
 Construction of a precast pre-stressed girder bridge and roadway approaches
 including signage.

Functional testing/final acceptance of swing bridge construction

Coordination between the electrical and mechanical disciplines is critical for complete testing of all systems. Early in the shop drawing approval process emphasis will be placed on acceptance testing and commissioning. The Contractor, H&H CE&I Team, and the Engineer of Record will work closely to identify any upcoming issues and to provide early resolution. Control system commissioning/field testing is critical and requires special attention from the Contractor and CE&I field staff.

Project Schedule

Contract schedule will coincide with the construction schedule that is anticipated to be 3.25 years for the construction of the swing bridge and 3 years for construction of the fixed bridge and roadway approaches with an overlap of 1-2 years.

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.



Construction of Bayou Teche Bridge at Oaklawn



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	\$65,342
Hardesty & Hanover, LLC	Road	H.014363.5	Sidewalk Improvements to Conform to ADA – Task Order 1 St. Tammany Parish	\$92,782
Hardesty & Hanover, LLC	CE&I/OV	H.001498.6	LA 24 and LA 316: Company Canal Bridge (CE&I), Terrebonne Parish	2,521,735
	1	1		
Meyer Engineers, Ltd.	CE&I/OV	H.001498	LA 24 & LA 316 Company Canal Bridge	\$377,489
Meyer Engineers, Ltd.	CE&I/OV	H.007331.6	Pakenham Drive (LA 46 – LA 39)	\$4,783
Meyer Engineers, Ltd.	CE&I/OV	H.007175	Lapalco (Victory – Westwood)	\$77,014
Meyer Engineers, Ltd.	Road	H.004727	Howard Avenue Extension (Loyola Avenue – LaSalle Street)	\$5,693
	T	T		
GOTECH, Inc. (Subconsultant to Volkert, Inc.)	CE&I/OV	4400004631 TO 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 Huval)	Survey	H.004791	Belle Chasse Bridge & Tunnel Replacement (Plaquemines Parish)	\$40,150
GOTECH, Inc. (Subconsultant to GEC, Inc.)	CE&I/OV	4400017006; TO H.011670	I-10 / Loyola Interchange Improvements (Jefferson Parish)	\$578,549
GOTECH, Inc. (Subconsultant to Hardesty & Hanover, LLC)	CE&I/OV	4400017430; TO H.001498.6	LA 24 & 316: Company Canal Bridge CE&I (Terrebonne Parish)	\$304,467



GOTECH, Inc. (Subconsultant to WSP)	Planning	4400017327	IDIQ Innovative Procurement & Alternative Delivery Support Services, Statewide	\$74,052
GOTECH, Inc. (Subconsultant to GEC, Inc.)	CE&I/OV	4400019950 TO H.003003 TO 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 GEC, Inc.)	Survey	4400011354 TO H.014552.5 TO H.014553.5 TO H.014556.5 TO H.014557.5	IDIQ Electrical LA 31: I-49 Interchange Lighting District 03 (Lafayette)	\$0 \$0 \$27,538 \$48,690
GOTECH, Inc. (Subconsultant to R.C. Lambert Consultants, LLC)	CE&I/OV	4400019550 SPN: H.001234	LA 1: Port Allen Canal Bridge Replacement Phase 1 (HBI) (CE&I) Route LA 1 (West Baton Rouge Parish)	\$787,337
GOTECH, Inc. (Subconsultant to GEC, Inc.)	CE&I/OV	4400023074 TO H.010725	IDIQ Contract for Construction, Engineering & Inspection & Staff Augmentation - Pecan Island Rd - District 61 (Hammond)	\$82,736
A P S Engineering & Testing, LLC	GEOTECH	H.013127	Retainer Contract for Geotechnical Services	\$53,996
A P S Engineering & Testing, LLC	GEOTECH	H.013144	Retainer Contract for Geotechnical Services	\$45,457

DO NOT SUM



Naghavi, Babak (H&H)







Wetekamm, Frederick (H&H)





Richard Barnaby, Director National Highway Institute



<u>20. Certifications/Licenses</u>:

Kim, Linh (H&H)





Pecquet, Kenneth (H&H)





Robards, Amy (H&H)





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



Toro, Alfred (H&H)





Bosarge, Justin (Meyer Engineers)





Mackey, Byron (Meyer Engineers)





ATSSA

PROOF OF TRAINING THIS CERTIFICATE HUREBY RECOGNIZES THAT

Byron Mackey

hes attended Traffic Control Supervisor-LA State Specific

Training Course

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

This is to affirm that

to be designated as a

CERTIFIED FLAGGER

Instructor Signature

TC. Cl.

5/24/2022 State Jssued in

ATSSA

Dam H. No.K.

phileen Testachow

President, CEO

President of Member Services

Van Hoven, Kyle (Meyer Engineers)











Asphalt Paving Inspector/Technician

02ND Expiration Date: 3/26/2023





GOTECH, Inc (DBE & SBE)





Millard, Nathan (GOTECH)











Poche, John (GOTECH)




Prescott, Ken (GOTECH)





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A P S Engineering and Testing, LLC (DBE & SBE)





Aviles, Sergio (A P S Engineering and Testing)



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



Eddanapudi, Sairam (A P S Engineering and Testing)





Fulcher, Paul (A P S Engineering and Testing)





<u>21. QA/QC Plan and/or Work Plan:</u>

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:

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, P.E. 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 RGuillaume@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

Page 115 of 117 Prime consultant name: Hardesty & Hanover

