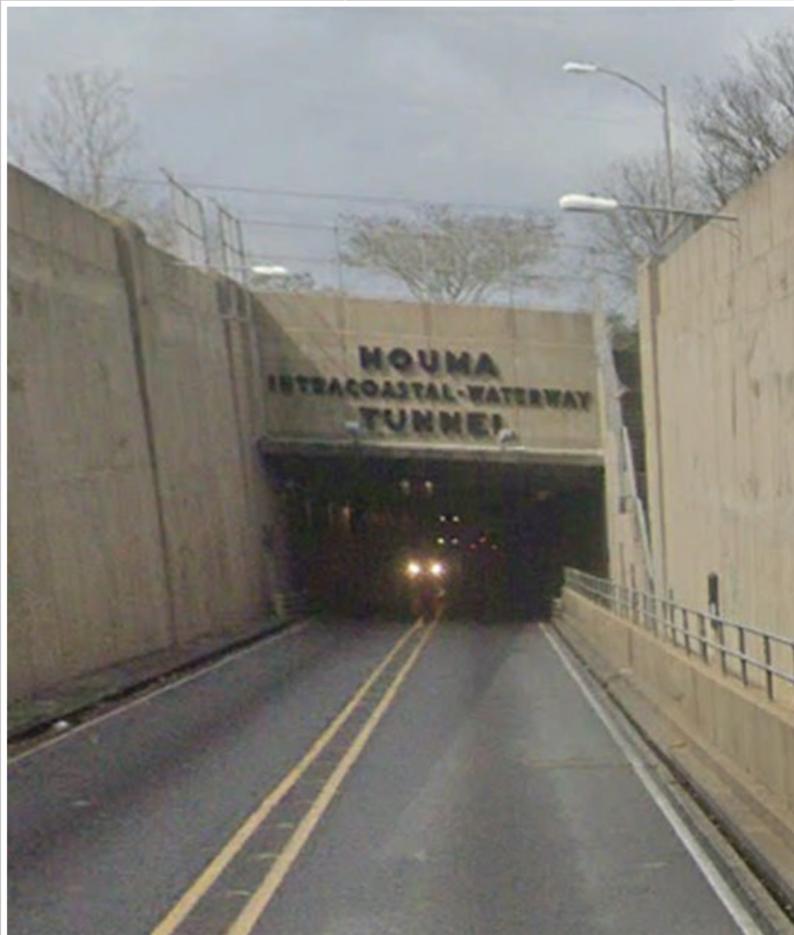




IDIQ CONTRACT FOR TUNNEL INSPECTION SERVICES STATEWIDE

CONTRACT NO. 4400028222

Request for Qualifications 



December 19, 2023



DOTD FORM: 24-102

(Revised January 1, 2023)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

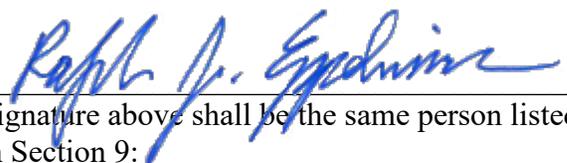
ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1. Contract Name as shown in the advertisement	IDIQ Contract for Tunnel Inspection Services
2. Contract Number(s) as shown in the advertisement	Contract No. 4400028222
3. State Project Number(s), if shown in the advertisement	
4. Prime consultant name (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	Modjeski and Masters, Inc.
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0000570
6. Prime consultant mailing address	1100 Poydras Street, Suite 900, New Orleans, LA 70163
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	1100 Poydras Street, Suite 900, New Orleans, LA 70163
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Ralph J. Eppehimer, PE Senior Vice President 504-524-4344 RJEppehimer@modjeski.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Ralph J. Eppehimer, PE Senior Vice President 504-524-4344 RJEppehimer@modjeski.com

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

Modjeski and Masters, Inc.

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 above shall be the same person listed in Section 9:

Date: December 19, 2023

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.

<u>Firm(s):</u>	<u>Firm(s)' %:</u>
Vectura Consulting Services, LLC	5.0%
APS Engineering and Testing, LLC	5.0%

12. Past Performance Evaluation Discipline Table:

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

The **only** past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other (please specify).

Past Performance Evaluation Discipline(s)	% of Overall Contract	Modjeski and Masters, Inc.	ECM Consultants, Inc.	Volkert, Inc.	APS Engineering and Testing, LLC	Vectura Consulting Services, LLC	Each Discipline must total to 100%
Bridge	90%	70%	15%	15%			100%
Geotech	5%				100%		100%
Traffic	5%					100%	100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.							
Percent of Contract	100%	63%	13.5%	13.5%	5%	5%	

13. Firm Size:

For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (please specify)" and include the classification title inside the parentheses.

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Modjeski and Masters, Inc.	Principal	1	7
	Supervisor - Eng	2	15
	Supervisor - Other	1	11
	Engineer	1	6
	Engineer-Other	4	21
	Engineer Intern	1	19
	Technician	1	2
	Senior Technician	1	3
	CADD Technician	1	9
	Professional	0	1
ECM Consultants, Inc.	Principal	1	2
	Engineer	1	6
	Inspector - Certified	5	15
	Inspector	2	16
Volkert, Inc.	Inspector - Bridge	6	10
	Principal	1	4
	Supervisor – Eng	1	8
APS Engineering and Testing, LLC	Engineer	3	3
	Driller	5	5
	Engineer Intern	1	1
	Technician	12	12
	Clerical	2	2
Vectura Consulting Services, LLC	Supervisor - Eng	2	2
	Engineer	2	4
	Engineer Intern	1	1
	Inspector	2	2

14. Organizational Chart:



- (1) Work Zone Training Compliant
- (2) Traffic Engineering Process and Report Training

PROJECT MANAGEMENT

<p>Ralph J. Eppehimer, PE Principal-in-Charge & QC</p>	<p>Bradly C. Croop, PE Project & Contract Management</p>
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GEOTECHNICAL AND TESTING

Sergio Aviles, PE
Geotechnical Manager

Sairam Eddanapudi, PE
Senior Geotechnical Engineer

Surendra Pathak, PE⁽¹⁾
Staff Geotechnical Engineer

TUNNEL INSPECTION

<p>Alexander Waardenburg, PE, NCTI Tunnel Inspector – Mechanical</p> <p>Christopher D. Buckel, PE, NCTI Tunnel Inspector – Structural</p> <p>Maxwell J. Fyrster, EI, NCTI Tunnel Inspector – Structural</p>	<p>Robert I. Peters, PE, NCTI Tunnel Inspector – Electrical</p> <p>William R. Bolt, PE, NCTI Tunnel Inspector – Structural</p> <p>Thomas M. Burns, PE, NCTI Tunnel Inspector – Structural</p>
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TRANSPORTATION MANAGEMENT

Sheelagh Brin Ferlito, PE, PTOE^{(1) (2)}
Principal

Laurence L Lambert, PE, PTOE, PTP^{(1) (2)}
Principal

Reece Rodrigue, PE, PTOE, RSP1^{(1) (2)}
Project Traffic Engineer

Kristen Farrington, PE, PTOE, RSP1^{(1) (2)}
Project Traffic Engineer

Cade Nelson, EI
Traffic Engineer Intern

Ronald St. Angelo
Construction Specialist

David Watkins⁽¹⁾
Construction Specialist

<p>Ujjal Dasgupta, PE⁽¹⁾ Principal</p> <p>Benjamin Dow⁽¹⁾ Tunnel Inspector</p> <p>Bob Tate⁽¹⁾ Tunnel Inspector</p> <p>Kim Martinez⁽¹⁾ Tunnel Inspector</p>	<p>Zachary Collier, PE⁽¹⁾ Project Engineer / Coordinator</p> <p>Emilio Rodriguez⁽¹⁾ Tunnel Inspector</p> <p>Robert Brown⁽¹⁾ Tunnel Inspector</p> <p>Jules Saunee⁽¹⁾ Tunnel Inspector</p>
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<p>Janet Evans, PE Principal in Charge</p> <p>Aaron Immel, PE, NCBI, NCTI, CFM Tunnel Inspector</p> <p>Paul Swann, NCBI, NTIS Tunnel Inspector</p> <p>Stephen Dossett, PE, NCBI, NTIS Tunnel Inspector</p>	<p>Steven Armstrong, PE, NCBI Lead Inspector</p> <p>Britt Bumpers, PE, NCBI, NCTI Tunnel Inspector</p> <p>Robbie Chambless, NCBI, NTIS Tunnel Inspector</p> <p>Todd Powell, NBIS, NTIS Tunnel Inspector</p>
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15. Minimum Personnel Requirements:

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

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	Ralph J. Eppehimer, PE	Modjeski and Masters, Inc.	PE #23251 – Civil	LA	3/31/2025
2	Ralph J. Eppehimer, PE	Modjeski and Masters, Inc.	PE #23251 – Civil	LA	3/31/2025
3	Alexander F. Waardenburg, PE, NCTI	Modjeski and Masters, Inc.	PE #44759 – Mechanical Certified Tunnel Inspector	LA	3/31/2025
4	Aaron Immel, PE, NCBI, NCTI, CFM	Volkert, Inc.	PE #29153 – Civil Certified Tunnel Inspector	LA	3/31/2025
	Britt Bumpers, PE, NCBI, NCTI	Volkert, Inc.	PE #30046 – Civil Certified Tunnel Inspector	LA	9/30/2024
5	Robert I. Peters, PE, NCTI	Modjeski and Masters, Inc.	PE #44769 – Electrical Certified Tunnel Inspector	LA	3/31/2025
6	Bradly C. Croop, PE, NCTI	Modjeski and Masters, Inc.	Two (2) Years Experience		
	Chris Buckel, PE, NCTI	Modjeski and Masters, Inc.	Two (2) Years Experience		
	Thomas Burns, PE, NCTI	Modjeski and Masters, Inc.	Two (2) Years Experience		
	Maxwell Fyrster, EI, NCTI	Modjeski and Masters, Inc.	Two (2) Years Experience		
	Ujjal Dasgupta, PE	ECM Consultants, Inc.	Two (2) Years Experience		
	Ben Dow	ECM Consultants, Inc.	Two (2) Years Experience		
	Emilio Rodriguez	ECM Consultants, Inc.	Two (2) Years Experience		
	Bob Tate	ECM Consultants, Inc.	Two (2) Years Experience		

(Add rows as needed)

16. Staff Experience:

Résumés shall be provided for all prime and sub-consultant personnel listed in Sections 14 and/or 15 of the proposal. Résumés of personnel not identified in Section 14 or Section 15 of the proposal should not be included and will not be evaluated. Résumés should be **limited to 2 pages per person**. Any certificates required by the advertisement are to be placed in Section 20.

Firm employed by Modjeski and Masters, Inc.			
Name	Ralph J. Eppheimer, PE	Years of relevant experience with this employer	40
Title	Director of Field Services	Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization	BS 1982 Civil Engineering		
Active registration number / state / expiration date	23251	LA	03/31/2025
Year registered	1989	Discipline	Civil
Contract role(s) / brief description of responsibilities Mr. Eppheimer will serve as Principal-in-Charge for each task order. He has vast experience in all aspects of field services including new bridge construction, safety and maintenance inspections of existing bridges, repair and rehabilitation of bridges, and emergency response to bridge accidents. He has also been the construction project manager, resident engineer, assistant resident engineer and technical advisor on a number of significant fixed and movable bridge projects. Mr. Eppheimer fulfills MPR #1 and #2.			
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 years of experience specified in the applicable MPR(s).		
07/23 – Ongoing	Five Tunnel In-Depth Inspections – Pennsylvania Turnpike Commission Modjeski and Masters is performing in-depth inspections of the PA Turnpike Commission's 5 rock-bored tunnels during 2023 and 2024. Tunnels include Allegheny, Tuscarora, Kittatinny, Blue Mountain and Lehigh Tunnels, located at mileposts 122.18 in Somerset County, 186.16 in Huntingdon County, 197.48 in Franklin County, 198.50 in Franklin County and A-70.26 in Lehigh County, respectively. The inspection services will be performed in accordance with NTIS. Tunnel inspections will include, but not be limited to, structural integrity, drainage, electrical, mechanical, lighting, portal buildings, roadway pavement, and safety features. Mr. Eppheimer serves as the Principal-in-Charge for this project.		
05/23 – 06/23	Bobby Hopper Tunnel Inspection – Arkansas Department of Transportation Modjeski and Masters, Inc. performed an inspection of the Bobby Hopper Tunnel near Winslow, AR for Arkansas Department of Transportation. The tunnel received a 100% hands-on inspection of all the tunnel elements both within and on top of Tube A (SB) and B (NB) bores, the mountain above the tubes, and around/throughout the North and South portals and approaches. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the 2015 Specifications for National Tunnel Inventory; the NBIS Inspection Standards, the AASHTO Manual for Bridge Inspection and Evaluation, and the National Highway Institute Bridge Inspector’s Reference Manual. A 27' scissor lift and a 45' manlift provided by Hugg and Hall Equipment Company of Springdale, AR, were used to access elements above the roadway including, but not limited to the upper portions of the concrete liner, the portals and adjacent retaining walls, the lighting system, lighting supports, and the support anchors. Mr. Eppheimer serves as the Principal-in-Charge for this project.		
4/19 – 6/19	UPRR Roseville Tunnel Inspection – Union Pacific Railroad Modjeski and Masters inspected nine in-service UP operated Tunnels on the Roseville Subdivision. The intent of the inspection was to conduct an inventory inspection of several tunnels on the Roseville Subdivision, identify tunnel defects,		



	prioritize identified defects, aid UP personnel in recording located defects, and provide education/training to Union Pacific inspectors on the inspection process. Tunnels inspected included concrete lined, concrete lined with timber sets, shotcrete lined, shotcrete lined with steel sets, and natural rock lined tunnels. Mr. Eppehimer was Principal-in-Charge of this project.
11/13- 2/14, 11/14- 8/15, 02/16 – 01/17, 03/17 – 01/18	4400002687 In-Depth Inspection of Complex Structures Retainer – Various Bridges, Statewide As a member of a multi-firm team, Modjeski and Masters was tasked to provide Structural, Mechanical, Electrical, and Coatings inspection services to perform multiple In-Depth Bridge Inspections for various bridges throughout the state of Louisiana, as a part of the ongoing statewide Complex Structures Inspection Retainer with the LADOTD. The inspections were performed using technical rope access and rappelling, aerial work platforms, and standard climbing techniques. Bridge conditions, including specific defects, were documented and presented in an inspection report and PONTIS/Inspect-Tech forms, along with repair recommendations and a full coatings evaluation report. Mr. Eppehimer served as Project Manager for these inspections.
08/12 – 01/18	H.000343 US 190 Huey P. Long Bridge Construction Engineering & Inspection, Baton Rouge, LA. This project provided construction engineering and inspection services for the through truss cantilever bridge that carries US 190, as well as one rail line over the Mississippi River in Baton Rouge, LA. The 12,000+ foot bridge was in need of several repairs such as replacing elements in the steel approach and main spans, repairing navigation lighting, constructing retaining walls, placing guard rail, and repairing pavement. M&M is also providing project administration, paint inspection, as well as environmental monitoring services during construction. Mr. Eppehimer served as the Principal-in-Charge and Project Manager for this project.
05/10 - 02/14	Galveston Railroad Bridge - Construction Services, Galveston, TX This project provided for the replacement of the existing 115 ft. span Scherzer Rolling Lift Bascule bridge in the Galveston Bay Railroad Causeway with a 385 ft. simple truss vertical lift bridge. The replacement bridge is a single-track, open deck, simple through Warren Type truss span and provides 300 ft. of horizontal clearance and 73 ft. of vertical clearance over the Intracoastal Waterway. Mr. Eppehimer was the Project Manager/Construction Engineering Inspector for the construction phase of the project. His duties included managing the construction of the bridge, as well as the float-in procedures. He also supervised on-site procedures and processes during construction and answered RFIs from the contractor.
09/09 – 04/12	EJ&E Vertical Lift Bridge 552 Replacement. Joliet, IL Canadian National Railway The Illinois River Bridge, No. 552, was originally built as four, 154' fixed through truss spans and was converted to a vertical lift bridge 80 years ago. M&M designed the replacement vertical lift span of 348' with a maximum lift vertical clearance of 56'. M&M also collected relevant data, evaluated alternatives, established design criteria, cost estimates, prepared project report, and provided the final vertical lift bridge design. M&M provided construction management services. Mr. Eppehimer was the project manager and primary construction engineer inspector for the construction services portion of the project.
03/09 – 01/10	Bridge 73.31 across Bayou Boeuf. Amelia, LA BNSF Railway Company This project called for replacement of the bridge superstructure consisting of a 150 ft. open deck TPG swing span, six 80 ft. open deck simple TPG spans and three approach beam spans to the east for a total length of 693 ft. The new bridge replicates the existing span in length and style. The steel girder approaches were replaced by precast concrete ballast spans. Mr. Eppehimer served as the Construction Project Manager for M&M from 2009 to 2010, overseeing the replacement of an older single-track railroad, through-plate girder swing span with a new through-plate girder swing span for BNSF Railway.

16. Staff Experience:

Firm employed by Modjeski and Masters, Inc.					
Name	Bradly Croop, PE, NCTI		Years of relevant experience with this employer		22
Title	Tunnel Inspection Team Leader		Years of relevant experience with other employer(s)		0
Degree(s) / Years / Specialization		BS 2001 Civil Engineering			
Active registration number / state / expiration date		PE076936 PA 09/30/2025			
Year registered	2009	Discipline	Civil		
Contract role(s) / brief description of responsibilities					
Mr. Croop is a registered professional engineer with 22 years of experience in field inspection and evaluation services. He is a Project Manager within the firm's Field Services Unit. He serves as Project Manager for the inspection, evaluation and preparation of bridge condition reports. He has significant experience performing inspections on various tunnels as well as suspension, truss, girder, movable (basculer, vertical lift and swing), and beam bridges for numerous authorities, DOT's and railroads. He is a National Certified Tunnel Inspector having completed FHWA-NHI Tunnel Safety Inspection Courses. He is also a Certified Bridge Safety Inspector (CBSI) having completed the FHWA-NHI Course No. 130055 - Safety Inspection of In-Service Bridges, FHWA-NHI Course No. 130078 - Fracture Critical Member Inspection Techniques for Steel Bridge and is up-to-date with refresher courses. He is trained in various methods of non-destructive testing including Ultrasonic, Magnetic Particle and Dye Penetrant. Mr. Croop fulfills MPR #6.					
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 years of experience specified in the applicable MPR(s).				
04/23 - Ongoing	Five Tunnel In-Depth Inspections – Pennsylvania Turnpike Commission Modjeski and Masters is performing in-depth inspections of the PA Turnpike Commission's 5 rock-bored tunnels during 2023 and 2024. Tunnels include Allegheny, Tuscarora, Kittatinny, Blue Mountain and Lehigh Tunnels, located at mileposts 122.18 in Somerset County, 186.16 in Huntingdon County, 197.48 in Franklin County, 198.50 in Franklin County and A-70.26 in Lehigh County, respectively. The inspection services will be performed in accordance with NTIS. Tunnel inspections will include, but not be limited to, structural integrity, drainage, electrical, mechanical, lighting, portal buildings, roadway pavement, and safety features. Mr. Croop serves as the Project Manager for this project.				
04/23 - Ongoing	Bobby Hopper Tunnel Inspection – Arkansas Department of Transportation Modjeski and Masters, Inc. performed an inspection of the Bobby Hopper Tunnel near Winslow, AR for Arkansas Department of Transportation. The tunnel received a 100% hands-on inspection of all the tunnel elements both within and on top of Tube A (SB) and B (NB) bores, the mountain above the tubes, and around/throughout the North and South portals and approaches. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the 2015 Specifications for National Tunnel Inventory; the NBIS Inspection Standards, the AASHTO Manual for Bridge Inspection and Evaluation, and the National Highway Institute Bridge Inspector's Reference Manual. A 27' scissor lift and a 45' manlift provided by Hugg and Hall Equipment Company of Springdale, AR, were used to access elements above the roadway including, but not limited to the upper portions of the concrete liner, the portals and adjacent retaining walls, the lighting system, lighting supports, and the support anchors. Mr. Croop serves as the Project Manager for this project.				
03/21 – 05/21	Wawona Tunnel Inspection. Yosemite National Park, California - FHWA – Eastern Federal Lands Dept. The Wawona Tunnel is a horseshoe shaped, single bore rock tunnel with sections of concrete lining and gunite/shotcrete lining that was constructed in 1930. The tunnel carries two (2) opposing lanes of traffic through the mountainside. The tunnel is 4,237.0' long and is the longest highway tunnel in California. Three ventilation/exhaust fans and a control room are located in a transverse tunnel at approximately mid-length of the tunnel. Adjacent to the West Portal, an emergency backup diesel generator is housed in a small building to the north of the portal. M&M performed an In-Depth inspection of the tunnel mechanical and electrical systems including lighting, fire protection, and signage. Mr. Croop served as the Project Manager for this project. He oversaw the inspection scheduling, coordination, and report review and quality control.				
02/15 01/19 – 07/19 04/20	Fort McHenry Tunnel North Facilities - Interim Inspection – Baltimore, MD - MDTA The Fort McHenry Tunnel carries eight lanes of I-95 traffic below the Baltimore Harbor. The structure was built in 1985. The tunnel is comprised of four bores, two bores northbound (east) and two southbound (west), each carrying two lanes of traffic. The tunnel has an overall length of approximately 7,209'. Each bore consists of the main roadway opening, a supply air duct below the roadway (lower plenum) and an exhaust air duct above the roadway (upper plenum). The ventilation buildings at both ends of the tunnel house the machinery for the supply and exhaust fans and the water removal and fire suppression systems. There are administrative and security offices in the east ventilation building. M&M completed the structural, electrical and mechanical inspection of the four-tube, bi-directional tunnel and ventilation buildings in 2009, 2012, 2015, 2018, 2019 and 2020. Mr. Croop's duties included managing				

Modjeski and Masters, Inc.

	multiple simultaneous inspection projects, leading the inspection of interstate tunnels, suspension bridges, truss bridges and movable bridges; performing UT tests; writing inspection reports; performing quality assurance inspections and reports; uploading inspection notes to online databases; and error checking the database. He also assisted with the Tunnel Inspection Guidelines for inclusion in the facilities inspection manual.
02/15 01/19 – 07/19 04/20	<p>Baltimore Harbor Tunnel - Baltimore, MD - MDTA</p> <p>Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300', plus an additional 1,450' of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out width of 29'-8" and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel's roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Croop's duties included leading the tunnel inspection, performing UT tests; writing inspection reports; performing quality assurance inspections and reports; uploading inspection notes to online databases; and error checking the database. He also assisted with the Tunnel Inspection Guidelines for inclusion in the facilities inspection manual.</p>
08/17 – 09/19	<p>Spring Garden Street and Kelly Drive Tunnel Inspection – Philadelphia, PA – City of Philadelphia</p> <p>The Spring Garden Street Tunnel is owned and operated by the City of Philadelphia. The tunnel was originally constructed in 1924 as a trolley rail car tunnel below the Art Museum Oval (Eakins Oval). In 1956 the tunnel was closed to trolley car traffic. The tunnel was reconstructed in 1960 to carry two lanes of Route 43 Westbound traffic. At the time of inspection, the north lane was closed to traffic and the south lane carried Route 43 westbound traffic from Pennsylvania Avenue to the Spring Garden Street Bridge. The tunnel consisted of portals, walls, ceiling, girders, columns, concrete slab on grade, and an asphaltic wearing surface. The cast-in-place tunnel liner (consisting of the reinforced concrete walls and ceilings) and the portals were composed of reinforced concrete. Segments of the ceiling also consisted of steel tunnel roof girders encased in reinforced concrete with exposed bottom flanges. The concrete slab-on-grade was overlaid with an asphalt wearing surface roadway with concrete curbs. Along the centerline of the tunnel, there were 178 steel columns that supported the tunnel ceiling. The total length of the tunnel was 948'-0" from portal-to-portal. The out-to-out width of the structure was 25'-0". The clear roadway width was approximately 10'-0" for each travel lane. The minimum vertical roadway underclearance was 13'-2", located at the east portal near the tunnel centerline. The minimum lateral clearances for both the north and south lanes was 1'-0", located at the east portal. Mr. Croop was the tunnel inspection team leader.</p> <p>The Kelly Drive Tunnel is owned and operated by the City of Philadelphia. The tunnel was originally constructed in 1871. The tunnel currently channels four opposing traffic lanes of Kelly Drive (2 lanes each direction), formerly known as East River Drive, through a rock promontory just North of Brewery Hill Drive and along the east bank of the Schuylkill River. The tunnel consists of rock portals and an unlined rock bore with an asphalt slab-on-grade travel way edged with granite block curbs. The total length of the bore is 140'-0" from portal-to-portal. The out-to-out width of the structure is 41'-0". The clear roadway width is approximately 39'-0". A hands-on inspection was performed on the tunnel liner, portals, asphalt wearing surface and granite block curbs. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the National Bridge Inspection Standards of the FHWA; the 2011 AASHTO Manual for Bridge Evaluation; and the 2012 FHWA Bridge Inspectors Reference Manual. Mr. Croop was the tunnel inspection team leader.</p>
02/11-11/12 10/15-12/15	<p>District Department of Transportation Tunnel Inspections - Washington, DC - DDOT</p> <p>From 2006 to the present, M&M has inspected the District's 17 tunnels and underpasses. These tunnels range in length from 80' to 3,300' in length and carry interstates under arterials and arterials under arterials throughout Washington, DC. The major tunnel structures include:</p> <ul style="list-style-type: none"> • I-395 Mall Tunnel - Carries eight lanes (four lanes each direction) of I-395 Center Leg traffic under Constitution Avenue, Pennsylvania Avenue, Maryland Avenue, Independence Avenue and Washington Avenue. Approximately 3,374' in length. • Air Rights Tunnel - Carries Street, NW, over the I-395 Center Leg, Inner Loop under K Street, NW. Approximately 81' in length. • 9th Street Tunnel - Carries three lanes of one-way traffic Southbound on the 9th Street Expressway under the Mall, Independence Avenue, Jefferson Drive and Madison Drive, in Southwest Washington, DC. Approximately 1,158' in length. • 12th Street Tunnel (North and South) – The 672' North Tunnel carries three lanes of 12th Street southbound under Madison Avenue. The 270' South Tunnel carries 2 lanes of 12th Street northbound under Independence Avenue. <p>Mr. Croop was a team leader and performed the hands-on inspection of various structure types including tunnels, segmental concrete bridges, and steel girder bridges.</p>

16. Staff Experience:

Firm employed by Modjeski and Masters					
Name	Alexander Waardenburg, PE, NCTI		Years of relevant experience with this employer		13
Title	Mechanical/Tunnel Inspection Team Leader		Years of relevant experience with other employer(s)		0
Degree(s) / Years / Specialization		BS 2010 Mechanical Engineering			
Active registration number / state / expiration date		PE085048 PA 9/30/2025			
Year registered	2016	Discipline	Mechanical		
Contract role(s) / brief description of responsibilities Mr. Waardenburg joined Modjeski and Masters in 2010 and has been assigned to the firm's Mechanical / Electrical Section. He has been involved in a variety of tunnel inspection and design projects. Mr. Waardenburg has experience in tunnel inspections, preliminary studies, final design, and analysis. He has completed the FHWA-NHI 130110 Tunnel Safety Inspection course and the FHWA-NHI 130125 Refresher course, and he is a NHI Certified Instructor. He fulfills MPR #3.					
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 years of experience specified in the applicable MPR(s).				
06/23 - Ongoing	Five Tunnel In-Depth Inspections – Pennsylvania Turnpike Commission Modjeski and Masters is performing in-depth inspections of the PA Turnpike Commission's 5 rock-bored tunnels during 2023 and 2024. Tunnels include Allegheny, Tuscarora, Kittatinny, Blue Mountain and Lehigh Tunnels, located at mileposts 122.18 in Somerset County, 186.16 in Huntingdon County, 197.48 in Franklin County, 198.50 in Franklin County and A-70.26 in Lehigh County, respectively. The inspection services will be performed in accordance with NTIS. Tunnel inspections will include, but not be limited to, structural integrity, drainage, electrical, mechanical, lighting, portal buildings, roadway pavement, and safety features. Mr. Waardenburg was the lead mechanical engineering on this inspection.				
05/23 - Ongoing	Bobby Hopper Tunnel Inspection – Arkansas Department of Transportation Modjeski and Masters, Inc. performed an inspection of the Bobby Hopper Tunnel near Winslow, AR for Arkansas Department of Transportation. The tunnel received a 100% hands-on inspection of all the tunnel elements both within and on top of Tube A (SB) and B (NB) bores, the mountain above the tubes, and around/throughout the North and South portals and approaches. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the 2015 Specifications for National Tunnel Inventory; the NBIS Inspection Standards, the AASHTO Manual for Bridge Inspection and Evaluation, and the National Highway Institute Bridge Inspector's Reference Manual. A 27' scissor lift and a 45' manlift provided by Hugg and Hall Equipment Company of Springdale, AR, were used to access elements above the roadway including, but not limited to the upper portions of the concrete liner, the portals and adjacent retaining walls, the lighting system, lighting supports, and the support anchors. Mr. Waardenburg was the lead mechanical engineering on this inspection.				
01/22 - Ongoing	FHWA-NHI-130110 and FHWA-NHI-130125 Tunnel Inspection Courses Training, Various Locations - FHWA Mr. Waardenburg is an instructor for these two training courses. These courses cover the entire breadth of knowledge necessary to manage or execute a successful tunnel inspection based on the National Tunnel Inspection Standards (NTIS), Tunnel Operations, Maintenance, Inspection and Evaluation (TOMIE) Manual and Specifications for the National Tunnel Inventory (SNTI).				
03/21 – 05/21	Wawona Tunnel Inspection. Yosemite, CA - FHWA Mr. Waardenburg led the Mechanical and Electrical inspection team for the Wawona Tunnel in Yosemite National Park. In his role as Team Leader, he was responsible for locating mechanical deficiencies concerning ventilation, fire safety, and rainwater management systems as well as coordination of equipment and access for the electrical inspection, and report development. He completed bearing vibration measurements on ventilation motors and bearings and air speed measurements. Report development included documenting element categories and quantities, discussing all deficiencies observed in the tunnel ventilation systems, fire safety systems, and water draining systems, and documenting element condition states using the FHWA TOMIE Manual and FHWA Specifications for National Tunnel Inventory.				
02/19 – 05/19	Fort McHenry Tunnel North Facilities - Interim Inspection – Baltimore, MD - MDTA The Fort McHenry Tunnel carries eight lanes of I-95 traffic below the Baltimore Harbor. The structure was built in 1985. The tunnel is comprised of four bores, two bores northbound (east) and two southbound (west), each carrying two lanes of traffic. The tunnel has an overall length of approximately 7,209'. Each bore consists of the main roadway opening, a supply air duct below the roadway (lower plenum) and an exhaust air duct above the roadway (upper plenum). The ventilation buildings at both ends of the tunnel house the machinery for the supply and exhaust fans and the water removal and fire suppression systems. There are administrative and security				

	<p>offices in the east ventilation building. M&M completed the structural, electrical and mechanical inspection of the four-tube, bi-directional tunnel and ventilation buildings in 2009, 2012, 2015, 2018, 2019 and 2020. Mr. Waardenburg was part of the tunnel inspection team.</p>
02/19 – 05/19	<p>Baltimore Harbor Tunnel - Baltimore, MD - MDTA Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300', plus an additional 1,450' of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out width of 29'-8" and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel's roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Waardenburg was part of the tunnel inspection team.</p>
08/17 – 09/19	<p>Spring Garden Street and Kelly Drive Tunnel Inspection – Philadelphia, PA – City of Philadelphia The Spring Garden Street Tunnel is owned and operated by the City of Philadelphia. The tunnel was originally constructed in 1924 as a trolley rail car tunnel below the Art Museum Oval (Eakins Oval). In 1956 the tunnel was closed to trolley car traffic. The tunnel was reconstructed in 1960 to carry two lanes of Route 43 Westbound traffic. At the time of inspection, the north lane was closed to traffic and the south lane carried Route 43 westbound traffic from Pennsylvania Avenue to the Spring Garden Street Bridge. The tunnel consisted of portals, walls, ceiling, girders, columns, concrete slab on grade, and an asphaltic wearing surface. The cast-in-place tunnel liner (consisting of the reinforced concrete walls and ceilings) and the portals were composed of reinforced concrete. Segments of the ceiling also consisted of steel tunnel roof girders encased in reinforced concrete with exposed bottom flanges. The concrete slab-on-grade was overlaid with an asphalt wearing surface roadway with concrete curbs. Along the centerline of the tunnel, there were 178 steel columns that supported the tunnel ceiling. The total length of the tunnel was 948'-0" from portal-to-portal. The out-to-out width of the structure was 25'-0". The clear roadway width was approximately 10'-0" for each travel lane. The minimum vertical roadway underclearance was 13'-2", located at the east portal near the tunnel centerline. The minimum lateral clearances for both the north and south lanes was 1'-0", located at the east portal. The Kelly Drive Tunnel is owned and operated by the City of Philadelphia. The tunnel was originally constructed in 1871. The tunnel currently channels four opposing traffic lanes of Kelly Drive (2 lanes each direction), formerly known as East River Drive, through a rock promontory just North of Brewery Hill Drive and along the east bank of the Schuylkill River. The tunnel consists of rock portals and an unlined rock bore with an asphalt slab-on-grade travel way edged with granite block curbs. The total length of the bore is 140'-0" from portal-to-portal. The out-to-out width of the structure is 41'-0". The clear roadway width is approximately 39'-0". A hands-on inspection was performed on the tunnel liner, portals, asphalt wearing surface and granite block curbs. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the National Bridge Inspection Standards of the FHWA; the 2011 AASHTO Manual for Bridge Evaluation; and the 2012 FHWA Bridge Inspectors Reference Manual. Mr. Waardenburg performed the Mechanical Inspection and developed the report for this project. Report development included documenting element categories and quantities, discussing all deficiencies observed in the tunnel ventilation systems and water draining systems, and documenting element condition states using the FHWA TOMIE Manual and FHWA Specifications for National Tunnel Inventory.</p>
11/17 – 04/21	<p>Downtown and Union Station Tunnel Inspections – St. Louis, MO – Metrolink M&M was contracted to perform routine inspections of the Metro Downtown Tunnel, the Union Station Tunnel, and the Eads Bridge over a 4 year period for Metrolink. The Downtown Tunnel and Union Station Tunnel inspections were performed biannually. During the first inspections completed in 2005, M&M developed inspection databases for all three structures. Databases were updated for current deficiencies and inspection reports were prepared after each inspection summarizing the overall condition of the structure, including general observations, particularly notable findings, and repair recommendations. Mr. Waardenburg was part of the tunnel inspection team. Downtown Tunnel: consists of 3 main segments including two intermediate station platforms. The tunnel has a total length of 4,460'. Typical construction consists of a double-chamber tunnel. The specific scope of work for this project includes a routine inspection of the Downtown Tunnel, updating the Metro Downtown Tunnel Inspection Database, and submitting an inspection report that outlines the inspection findings and presents structural recommendations based on those findings. Union Station Tunnel: consists of 3 main segments that includes an eastern segment (composed of steel members); a center segment (composed of concrete ceiling slab with drop panels, supported with capitals atop concrete columns); and a western segment (composed of a two-cell reinforced concrete box, culvert-like sections). The tunnel has a total length of 1,085'. An overall evaluation of the structure, including an in-depth inspection and load capacity ratings, was performed. Upon completion of the evaluation, the scope of work was expanded to include the preparation of repair plans and construction inspection.</p>

16. Staff Experience:

Firm employed by Modjeski and Masters, Inc					
Name	Robert I. Peters, PE, NCTI		Years of relevant experience with this employer		14
19			Years of relevant experience with other employer(s)		19
Degree(s) / Years / Specialization		MS/1989/Electrical Engineering BS/1987/Engineering			
Active registration number / state / expiration date		PE080682 PA 9/30/2025			
Year registered	2013	Discipline	Electrical		
Contract role(s) / brief description of responsibilities Mr. Peters joined Modjeski and Masters, Inc. in 2009. He has over 33 years of industrial control system engineering experience with 9 years of experience being with movable bridges. Mr. Peters is assigned to the firm's Electrical / Mechanical Section and has been involved in a variety of bridge projects, including tunnel inspections. He completed NHI 130110 - Tunnel Safety Inspection (2016) and NHI 130124 – Tunnel Safety Inspection Refresher (2022). He fulfills MPR #5.					
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 years of experience specified in the applicable MPR(s).				
05/19 – 07/20	Annual Facilities Inspection Open-End Contract. Statewide, MD - Maryland Transportation Authority This project involves the annual inspection of more than 150 bridges and tunnels throughout Maryland. Bridge types include fracture critical, deck truss, thru truss, steel and concrete multi-beam, steel and concrete girder, suspension, steel and concrete box, bascule bridges and two complex, long tunnels. Mr. Peters assisted with the inspection of the electrical components for the tunnels. He also provided QA/QC review of tunnel reports and the Structure Inspection and Recommendations (ASIR) database.				
09/19 – 12/19	Moffat Tunnel Ventilation Design. Moffat, CO Union Pacific Railroad (2019-2020) M&M was contracted for this design/build of new control systems for a 6-mile railroad tunnel. The overall project scope includes replacing the high voltage variable frequency drives for the ventilation fans, replacement of the PLC (Programmable Logic Controller) based control system and upgrading the ventilation system's monitoring sensors. The project also includes site visits and construction observation. Mr. Peters provided technical support for the ventilation system controls upgrade and provided drafting support to update all associated electrical drawings.				
02/19 – 05/19	Fort McHenry Tunnel North Facilities - Interim Inspection – Baltimore, MD - MDTA The Fort McHenry Tunnel carries eight lanes of I-95 traffic below the Baltimore Harbor. The structure was built in 1985. The tunnel is comprised of four bores, two bores northbound (east) and two southbound (west), each carrying two lanes of traffic. The tunnel has an overall length of approximately 7,209'. Each bore consists of the main roadway opening, a supply air duct below the roadway (lower plenum) and an exhaust air duct above the roadway (upper plenum). The ventilation buildings at both ends of the tunnel house the machinery for the supply and exhaust fans and the water removal and fire suppression systems. There are administrative and security offices in the east ventilation building. M&M completed the structural, electrical and mechanical inspection of the four-tube, bi-directional tunnel and ventilation buildings in 2009, 2012, 2015, 2018, 2019 and 2020. Mr. Peters was part of the tunnel inspection team.				
02/19 – 05/19	Baltimore Harbor Tunnel - Baltimore, MD - MDTA Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300', plus an additional 1,450' of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out				

	width of 29'-8" and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel's roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Peters was part of the tunnel inspection team.
07/17 – 12/17	<p>Hartford Tunnel Inspection. Hartford, CT – Connecticut DOT</p> <p>The I-84 tunnel is approximately 822 feet long and operated over a heavily traveled roadway. Four eastbound and four westbound lanes accommodate vehicular traffic on the roadway. The platform has been provided with a mechanical ventilation system to allow the safe transit of vehicles through the tunnel, under normal and emergency conditions. The total ventilation system consists of the following systems and subsystems:</p> <ul style="list-style-type: none"> - Ventilation System - Fans - Emergency Generator System - Electrical Distribution System - Emergency Distribution System <p>Mr. Peters performed the electrical portion of the I-84 tunnel ventilation system inspection and assisted with developing the condition report for the associated electrical equipment</p>
01/17 – 08/19	<p>Downtown and Union Station Tunnel Inspections – St. Louis, MO – Metrolink</p> <p>M&M was contracted to perform routine inspections of the Metro Downtown Tunnel, the Union Station Tunnel, and the Eads Bridge over a 4 year period. The Downtown Tunnel and Union Station Tunnel inspections were performed biannually. During the first inspections completed in 2005, M&M developed inspection databases for all three structures. Databases were updated for current deficiencies and inspection reports were prepared after each inspection summarizing the overall condition of the structure, including general observations, particularly notable findings, and repair recommendations. Mr. Peters assisted with developing plans and specifications for providing new power components, a backup generator, and upgraded tunnel lighting.</p> <p>Downtown Tunnel: consists of 3 main segments including two intermediate station platforms. The tunnel has a total length of 4,460'. Typical construction consists of a double-chamber tunnel. The specific scope of work for this project includes a routine inspection of the Downtown Tunnel, updating the Metro Downtown Tunnel Inspection Database, and submitting an inspection report that outlines the inspection findings and presents structural recommendations based on those findings.</p> <p>Union Station Tunnel: consists of 3 main segments that includes an eastern segment (composed of steel members); a center segment (composed of concrete ceiling slab with drop panels, supported with capitals atop concrete columns); and a western segment (composed of a two-cell reinforced concrete box, culvert-like sections). The tunnel has a total length of 1,085'. An overall evaluation of the structure, including an in-depth inspection and load capacity ratings, was performed. Upon completion of the evaluation, the scope of work was expanded to include the preparation of repair plans and construction inspection.</p>

16. Staff Experience:

Firm employed by Modjeski and Masters, Inc.					
Name	William R. Bolt, PE, NCTI		Years of relevant experience with this employer		16
Title	Tunnel Inspection Team Leader		Years of relevant experience with other employer(s)		3
Degree(s) / Years / Specialization		BS 2007 Civil Engineering Technology			
Active registration number / state / expiration date		PE087147 PA 9/30/2025			
Year registered	2017	Discipline	Civil		
Contract role(s) / brief description of responsibilities Mr. Bolt joined Modjeski and Masters, Inc. in 2007 and is assigned to the Field Services Business Unit. He has extensive experience in the inspection of all structural and non-structural components of tunnels, as well as, short, medium and long span steel and concrete bridges; including subsequent preparation of condition reports and forms for numerous authorities, DOT's and railroads. Mr. Bolt has broad experience updating and using various bridge management system databases for a variety of owners including PennDOT BMS2 iForms, ASIR, NJComBIS, InspectTech, MiBRIDGE, etc. He fulfills MPR #6.					
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 years of experience specified in the applicable MPR(s).				
05/23 - Ongoing	Five Tunnel In-Depth Inspections – Pennsylvania Turnpike Commission Modjeski and Masters is performing in-depth inspections of the PA Turnpike Commission's 5 rock-bored tunnels during 2023 and 2024. Tunnels include Allegheny, Tuscarora, Kittatinny, Blue Mountain and Lehigh Tunnels, located at mileposts 122.18 in Somerset County, 186.16 in Huntingdon County, 197.48 in Franklin County, 198.50 in Franklin County and A-70.26 in Lehigh County, respectively. The inspection services will be performed in accordance with NTIS. Tunnel inspections will include, but not be limited to, structural integrity, drainage, electrical, mechanical, lighting, portal buildings, roadway pavement, and safety features. Mr. Bolt was part of the tunnel inspection team.				
03/23 - Ongoing	Bobby Hopper Tunnel Inspection – Arkansas Department of Transportation Modjeski and Masters, Inc. performed an inspection of the Bobby Hopper Tunnel near Winslow, AR for Arkansas Department of Transportation. The tunnel received a 100% hands-on inspection of all the tunnel elements both within and on top of Tube A (SB) and B (NB) bores, the mountain above the tubes, and around/throughout the North and South portals and approaches. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the 2015 Specifications for National Tunnel Inventory; the NBIS Inspection Standards, the AASHTO Manual for Bridge Inspection and Evaluation, and the National Highway Institute Bridge Inspector's Reference Manual. A 27' scissor lift and a 45' manlift provided by Hugg and Hall Equipment Company of Springdale, AR, were used to access elements above the roadway including, but not limited to the upper portions of the concrete liner, the portals and adjacent retaining walls, the lighting system, lighting supports, and the support anchors. Mr. Bolt was part of the tunnel inspection team.				
09/14 – 10/14 05/15 – 10/15 10/18 – 07/19	Fort McHenry Tunnel North Facilities - Interim Inspection – Baltimore, MD - MDTA The Fort McHenry Tunnel carries eight lanes of I-95 traffic below the Baltimore Harbor. The structure was built in 1985. The tunnel is comprised of four bores, two bores northbound (east) and two southbound (west), each carrying two lanes of traffic. The tunnel has an overall length of approximately 7,209'. Each bore consists of the main roadway opening, a supply air duct below the roadway (lower plenum) and an exhaust air duct above the roadway (upper plenum). The ventilation buildings at both ends of the tunnel house the machinery for the supply and exhaust fans and the water removal and fire suppression systems. There are administrative and security offices in the east ventilation building. M&M completed the structural, electrical and mechanical inspection of the four-tube, bi-directional tunnel and ventilation buildings in 2009, 2012, 2015, 2018, 2019 and 2020. Mr. Bolt was part of the tunnel inspection team.				
08/17 – 09/19	Spring Garden Street and Kelly Drive Tunnel Inspection – Philadelphia, PA – City of Philadelphia				

	<p>The Spring Garden Street Tunnel is owned and operated by the City of Philadelphia. The tunnel was originally constructed in 1924 as a trolley rail car tunnel below the Art Museum Oval (Eakins Oval). In 1956 the tunnel was closed to trolley car traffic. The tunnel was reconstructed in 1960 to carry two lanes of Route 43 Westbound traffic. At the time of inspection, the north lane was closed to traffic and the south lane carried Route 43 westbound traffic from Pennsylvania Avenue to the Spring Garden Street Bridge. The tunnel consisted of portals, walls, ceiling, girders, columns, concrete slab on grade, and an asphaltic wearing surface. The cast-in-place tunnel liner (consisting of the reinforced concrete walls and ceilings) and the portals were composed of reinforced concrete. Segments of the ceiling also consisted of steel tunnel roof girders encased in reinforced concrete with exposed bottom flanges. The concrete slab-on-grade was overlaid with an asphalt wearing surface roadway with concrete curbs. Along the centerline of the tunnel, there were 178 steel columns that supported the tunnel ceiling. The total length of the tunnel was 948'-0" from portal-to-portal. The out-to-out width of the structure was 25'-0". The clear roadway width was approximately 10'-0" for each travel lane. The minimum vertical roadway underclearance was 13'-2", located at the east portal near the tunnel centerline. The minimum lateral clearances for both the north and south lanes was 1'-0", located at the east portal. Mr. Bolt was part of the tunnel inspection team.</p> <p>The Kelly Drive Tunnel is owned and operated by the City of Philadelphia. The tunnel was originally constructed in 1871. The tunnel currently channels four opposing traffic lanes of Kelly Drive (2 lanes each direction), formerly known as East River Drive, through a rock promontory just North of Brewery Hill Drive and along the east bank of the Schuylkill River. The tunnel consists of rock portals and an unlined rock bore with an asphalt slab-on-grade travel way edged with granite block curbs. The total length of the bore is 140'-0" from portal-to-portal. The out-to-out width of the structure is 41'-0". The clear roadway width is approximately 39'-0". A hands-on inspection was performed on the tunnel liner, portals, asphalt wearing surface and granite block curbs. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the National Bridge Inspection Standards of the FHWA; the 2011 AASHTO Manual for Bridge Evaluation; and the 2012 FHWA Bridge Inspectors Reference Manual. Mr. Bolt was part of the tunnel inspection team.</p>
<p>09/14 – 10/14 05/15 – 10/15 10/18 – 07/19</p>	<p>Baltimore Harbor Tunnel - Baltimore, MD - MDTA Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300', plus an additional 1,450' of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out width of 29'-8" and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel's roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Bolt was part of the tunnel inspection team.</p>
<p>09/09 – 03/12 03/17 – 06/17</p>	<p>District Department of Transportation Tunnel Inspections - Washington, DC - DDOT From 2006 to the present, M&M has inspected the District's 17 tunnels and underpasses. These tunnels range in length from 80' to 3,300' in length and carry interstates under arterials and arterials under arterials throughout Washington, DC. The major tunnel structures include:</p> <ul style="list-style-type: none"> • I-395 Mall Tunnel - Carries eight lanes (four lanes each direction) of I-395 Center Leg traffic under Constitution Avenue, Pennsylvania Avenue, Maryland Avenue, Independence Avenue and Washington Avenue. Approximately 3,374' in length. • Air Rights Tunnel - Carries Street, NW, over the I-395 Center Leg, Inner Loop under K Street, NW. Approximately 81' in length. • 9th Street Tunnel - Carries three lanes of one-way traffic Southbound on the 9th Street Expressway under the Mall, Independence Avenue, Jefferson Drive and Madison Drive, in Southwest Washington, DC. Approximately 1,158' in length. • 12th Street Tunnel (North and South) – The 672' North Tunnel carries three lanes of 12th Street southbound under Madison Avenue. The 270' South Tunnel carries 2 lanes of 12th Street northbound under Independence Avenue. <p>Mr. Bolt was part of the tunnel inspection team.</p>

16. Staff Experience:

Firm employed by Modjeski and Masters, Inc.					
Name	Christopher D. Buckel, PE, NCTI		Years of relevant experience with this employer		15
Title	Tunnel Inspection Team Leader		Years of relevant experience with other employer(s)		1
Degree(s) / Years / Specialization		BS 2008 Civil Engineering			
Active registration number / state / expiration date		PE062066054 IL 11/30/2025			
Year registered	2013	Discipline	Civil		
Contract role(s) / brief description of responsibilities Mr. Buckel joined Modjeski and Masters, Inc. in 2008, and is a Field Services Engineer with the firm's Edwardsville, IL office. Mr. Buckel has assisted with the analysis, load capacity rating, design and rehabilitation of highway structures. He has also assisted with routine NBIS, fracture critical, and in-depth condition inspections of highway, tunnel and railroad structures of various sizes, including the preparation of report documentations and repair recommendations. He is an experienced technical access climber, having assisted with the inspections of numerous major river structures which utilized special climbing techniques. Mr. Buckel fulfills MPR #6					
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 years of experience specified in the applicable MPR(s).				
01/17 – 03/20	Union Station Tunnel Rehabilitation – Design – St. Louis, MO – Bi-State Development M&M has been selected to perform engineering services required for the rehabilitation and replacement of the oldest portions of the Union Station Tunnel in St. Louis, Missouri. The work will help to maintain a viable alignment for Bi-State Development's MetroLink commuter rail services and provide continued access to 18th and Clark Streets and surrounding destinations such as the St. Louis Union Station, the Peabody Opera House and the Scottrade Center. The project will employ a construction manager/general contractor (CM/GC) delivery model where the preliminary design team works with the CM/GC to complete contract documents and oversee construction.				
06/19 - Ongoing	Metro Downtown Tunnel Repairs Part 1 – St. Louis, MO – Bi-State Development MM will assist Metro with determining and implementing appropriate repairs for the Downtown tunnel which will include structural and mechanical (standpipe) repairs. The project will be coordinated with the FTA to obtain a Categorical Exclusion for this historic structure. Due to the deteriorated condition of the existing dry standpipe, a new dry standpipe system will be designed and detailed and the existing system will be completely removed and replaced. MM will have CCI review the tunnel configuration and interpret the standpipe design criteria requirements from the current NFPA codes and standards. CCI will provide written recommendations in a brief letter report for Metro's files. MM will design and detail the dry standpipe replacement in accordance with CCI's recommendations, upon approval from Metro and the authority having jurisdiction (City of St. Louis). MM's design will include design of the support brackets and acceptable attachment to the historic structure, as well as staging details for the removal and replacement of the standpipe system. The sequence of construction will take into account life safety concerns, as well as safety during construction.				
06/2010 – 08/2010	Union Station Tunnel Investigation- St. Louis, MO - Metro The Union Station Tunnel consists of three main segments; the first is composed of steel members, the next is a concrete ceiling slab with drop panels supported by concrete columns, and the last segment is a two-cell reinforced concrete box tunnel. Critical defects were documented during a routine inspection. M&M was retained to perform an in-depth inspection of select structural components exhibiting significant section loss, determine as-inspected ratings, develop rehabilitation plans, and provide construction assistance.				

16. **Staff Experience:**

Firm employed by Modjeski and Masters, Inc.					
Name	Thomas M. Burns, PE, NCTI		Years of relevant experience with this employer		11
Title	Tunnel Inspection Team Leader		Years of relevant experience with other employer(s)		3
Degree(s) / Years / Specialization		BS 2012 Civil/Environmental Engineering			
Active registration number / state / expiration date		PE088804 PA 9/30/2025			
Year registered	2018	Discipline	Civil		
Contract role(s) / brief description of responsibilities					
Mr. Burns joined Modjeski and Masters, Inc. (M&M) in 2012. He is assigned to the Field Services department and has inspection experience on complex bridges and tunnels. He fulfills MPR #6					
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 years of experience specified in the applicable MPR(s).				
11/14 01/19 – 05/19 03/20 – 04/20	<p>Fort McHenry Tunnel North Facilities - Interim Inspection – Baltimore, MD - MDTA</p> <p>The Fort McHenry Tunnel carries eight lanes of I-95 traffic below the Baltimore Harbor. The structure was built in 1985. The tunnel is comprised of four bores, two bores northbound (east) and two southbound (west), each carrying two lanes of traffic. The tunnel has an overall length of approximately 7,209'. Each bore consists of the main roadway opening, a supply air duct below the roadway (lower plenum) and an exhaust air duct above the roadway (upper plenum). The ventilation buildings at both ends of the tunnel house the machinery for the supply and exhaust fans and the water removal and fire suppression systems. There are administrative and security offices in the east ventilation building. M&M completed the structural, electrical and mechanical inspection of the four-tube, bi-directional tunnel and ventilation buildings in 2009, 2012, 2015, 2018, 2019 and 2020. Mr. Burns was part of the tunnel inspection team.</p>				
11/14 01/19 – 05/19 03/20 – 04/20	<p>Baltimore Harbor Tunnel - Baltimore, MD - MDTA</p> <p>Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300', plus an additional 1,450' of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out width of 29'-8" and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel's roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Burns was part of the tunnel inspection team.</p>				
12/14 – 09/17	<p>District Department of Transportation Tunnel Inspections - Washington, DC - DDOT</p> <p>From 2006 to the present, M&M has inspected the District's 17 tunnels and underpasses. These tunnels range in length from 80' to 3,300' in length and carry interstates under arterials and arterials under arterials throughout Washington, DC. The major tunnel structures include:</p> <ul style="list-style-type: none"> • I-395 Mall Tunnel - Carries eight lanes (four lanes each direction) of I-395 Center Leg traffic under Constitution Avenue, Pennsylvania Avenue, Maryland Avenue, Independence Avenue and Washington Avenue. Approximately 3,374' in length. • Air Rights Tunnel - Carries Street, NW, over the I-395 Center Leg, Inner Loop under K Street, NW. Approximately 81' in length. • 9th Street Tunnel - Carries three lanes of one-way traffic Southbound on the 9th Street Expressway under the Mall, Independence Avenue, Jefferson Drive and Madison Drive, in Southwest Washington, DC. Approximately 1,158' in length. • 12th Street Tunnel (North and South) – The 672' North Tunnel carries three lanes of 12th Street southbound under Madison Avenue. The 270' South Tunnel carries 2 lanes of 12th Street northbound under Independence Avenue. <p>Mr. Burns was part of the tunnel inspection team.</p>				

16. **Staff Experience:**

Firm employed by Modjeski and Masters, Inc					
Name	Maxwell J. Fyrster, EI, NCTI		Years of relevant experience with this employer		9
Title	Field Services Engineer in Training		Years of relevant experience with other employer(s)		0
Degree(s) / Years / Specialization		BS 2012 Civil Engineering			
Active registration number / state / expiration date		EIT018609 PA			
Year registered	2013	Discipline	Civil		
Contract role(s) / brief description of responsibilities Mr. Fyrster joined Modjeski and Masters, Inc. in 2014. He is assigned to the Field Services department and has inspection experience on complex bridges and tunnels. He is SPRAT Level I certified and fulfills MPR #6					
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 years of experience specified in the applicable MPR(s).				
10/14 – 06/19	<p>District Department of Transportation Tunnel Inspections - Washington, DC - DDOT From 2006 to the present, M&M has inspected the District’s 17 tunnels and underpasses. These tunnels range in length from 80’ to 3,300’ in length and carry interstates under arterials and arterials under arterials throughout Washington, DC. The major tunnel structures include:</p> <ul style="list-style-type: none"> • I-395 Mall Tunnel - Carries eight lanes (four lanes each direction) of I-395 Center Leg traffic under Constitution Avenue, Pennsylvania Avenue, Maryland Avenue, Independence Avenue and Washington Avenue. Approximately 3,374’ in length. • Air Rights Tunnel - Carries Street, NW, over the I-395 Center Leg, Inner Loop under K Street, NW. Approximately 81’ in length. • 9th Street Tunnel - Carries three lanes of one-way traffic Southbound on the 9th Street Expressway under the Mall, Independence Avenue, Jefferson Drive and Madison Drive, in Southwest Washington, DC. Approximately 1,158’ in length. • 12th Street Tunnel (North and South) – The 672’ North Tunnel carries three lanes of 12th Street southbound under Madison Avenue. The 270’ South Tunnel carries 2 lanes of 12th Street northbound under Independence Avenue. <p>Mr. Fyrster was part of the tunnel inspection team.</p>				
02/15 – 03/15	<p>Fort McHenry Tunnel North Facilities - Interim Inspection – Baltimore, MD - MDTA The Fort McHenry Tunnel carries eight lanes of I-95 traffic below the Baltimore Harbor. The structure was built in 1985. The tunnel is comprised of four bores, two bores northbound (east) and two southbound (west), each carrying two lanes of traffic. The tunnel has an overall length of approximately 7,209’. Each bore consists of the main roadway opening, a supply air duct below the roadway (lower plenum) and an exhaust air duct above the roadway (upper plenum). The ventilation buildings at both ends of the tunnel house the machinery for the supply and exhaust fans and the water removal and fire suppression systems. There are administrative and security offices in the east ventilation building. M&M completed the structural, electrical and mechanical inspection of the four-tube, bi-directional tunnel and ventilation buildings in 2009, 2012, 2015, 2018, 2019 and 2020. Mr. Fyrster was part of the tunnel inspection team.</p>				
02/15 – 03/15 2018	<p>Baltimore Harbor Tunnel - Baltimore, MD - MDTA Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300’, plus an additional 1,450’ of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out width of 29’-8” and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel’s roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Fyrster was part of the tunnel inspection team.</p>				

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Ujjal DasGupta, P.E.		Years of relevant experience with this employer	28
Title	President		Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization		B.S. / 1968 / Civil Engineering; ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor and LPA Core Training Module		
Active registration number / state / expiration date		0019849 / LA /09-30-2025		
Year registered	1982	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities				
<p>Mr. DasGupta will serve as the Principal in charge for ECM for this contract. His vast experience in managing inspections of several LADOTD tunnels, complex Movable bridges, fixed bridges and major roadway improvements will be an asset for this contract. He has over 53 years of experience in project management, civil and structural inspections and engineering design, construction management, and construction engineering & inspection (CE&I) services.</p> <p>Mr. DasGupta meets MPR #6.</p>				
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 years of experience specified in the applicable MPR(s).			
05/10-08/12	<p>S.P. No. 700-38-0110 Belle Chasse Tunnel Rehabilitation, LADOTD, Plaquemines Parish, LA: Mr. Dasgupta served as Project Principal/POC for this \$2.1 tunnel rehabilitation project and was responsible for overall performance, QA/QC and contract management. ECM provided field inspection, design support and construction administration for rehabilitation of the tunnel. ECM’s scope of services included, Field inspection for physical condition assessment of the elements of the tunnel included in the scope ; Assist in preparation of report and cost estimates for approved rehabilitation items; Assist in preparation of bid documents; Attend the pre-construction meeting; Provide Construction Administration including Managing RFIs and Change Requests from contractor; Keeping clear and concise records of the contractual operations; Managing RFIs and Change Requests from contractor and Attending substantial and final completion inspections.</p>			
03/14 - 03/16	<p>S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA. Served as Project Manager for ECM for this project. ECM provided visual inspection, documentation and report preparation support services for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope for visual inspection of the project included structural elements; drainage system; electrical systems including tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems and mechanical system including pumps, ventilation and standpipe. ECM’s scope of services included, but not limited to: Field inspection with the project team; Inspection of tunnel and approach pavements, tunnel walls, drainage, portal buildings; Report preparation support and reviews and Cost estimating</p>			
02/20 – 05/20	<p>Belle Chasse Tunnel Inspection for DBi, Plaquemines Parish, LA. As Principal, Mr. Dasgupta performed visual inspections with the inspection team that included structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and preparing inspection report for submission to DOTD, summarizing findings and provide recommendations based on engineering judgement for potential maintenance and repair needs during the construction of the proposed new Belle Chasse bridge. Inspection of tunnel included structural, mechanical and electrical elements.</p>			

	<p>This included tunnel walls, joints, leak repair joints, liners, approach pavements, general deterioration for Liner walls, Crown Liner;; Walkway Floor & Wall; Air Duct; Air Flues and Niches; Fence; Portals; Tile Finish and Tunnel Roadway, Ventilation System; Carbon Monoxide Detection System, Plumbing and Sewage Disposal; HVAC and Space Heating; Tunnel Drainage; Fire Protection; Compressed Air System. Tunnel lighting; Power Distribution System; Gretna Side Pump Room; Mid Channel Pump Room; Belle Chasse Side Pump Room; The Belle Chasse side fan room; Pump starter control panels; Emergency Power System; Fire Alarm System; CO detection system; Tunnel Traffic Control system and CCTV etc.</p>
02/08 – 08/13	<p>S.P. No. 713-38-0001 (CE&I), Doullut Canal Movable Swing Bridge construction, LADOTD, Plaquemines Parish, LA: Mr. DasGupta served as Project Manager for providing CE&I services this \$11.8 million swing movable bridge construction project for LADOTD. Project involved removal of existing bridge and construction of a movable steel girder bridge with concrete bridge piers and concrete slab span approaches over Doullut Canal. This 150’ unequal arm steel swing span bridge is operated by dual hydraulic motors and provides access to Highway 11, which had been closed since Hurricane Katrina. Project scope included driving piles, concrete piers, cofferdam, steel girders, bolted connections, and field paint inspection of all girders and other steel members of the swing bridge. His responsibilities included overall supervision, document reviews, coordination, and QA/QC for the project.</p>
01/12 – 03/14	<p>S.P. No. H.006318.6 (CE&I): St. Ann Movable Swing Bridge over Bayou Terrebonne, Terrebonne Parish, LA : Mr. DasGupta served as principal-in-charge for this CE&I project that involved removal of an existing single lane steel truss swing span bridge structure, existing fender system, timber bulkhead, and existing timber piling and construction of a new \$4.2 million bobtail 90’ single swing movable steel girder bridge with concrete bridge piers over Bayou Terrebonne. New construction also included , concrete slab bridge approaches, concrete approach slabs, timber fender system, operator house, navigational lighting, grading, aggregate surfacing, and asphaltic concrete roadway paving.</p>
01/09-12/13	<p>S.P. No. 064-05-0085 (CE&I), Bayou Lafourche Vertical Lift Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Dasgupta served as Principal and Contract Manager for the CE&I services for this \$32 million vertical lift movable bridge. This new bridge replaced the former LA 310 bridge at LA 657 extension to LA 308. This is the largest span lift bridge in the state of Louisiana. The scope of work included marine pile driving, concrete piers, concrete towers, installation of structural steel members for the movable bridge, sheaves, cables, barriers, guard rails, field painting, and concrete approaches. This project is the 3rd largest ARAA funded transportation project in the State. His responsibilities included overall management and to ensure that all contractual requirements are met.</p>
01/21- Ongoing	<p>S.P. No. H.004791 (CQCM), Belle Chase Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA. Mr. Dasgupta is serving as Technical Advisor for the Construction Quality Control Management (CQCM) services provided by ECM for this \$182 million, P3 design-build project to construct a new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. The project will include the demolition of the existing Perez Bridge and Tunnel. The new bridge is being constructed to current clearance standards for marine vessels as required by the US Coast Guard. This work includes pile load testing, pile driving, installing prestressed concrete girders, steel girders, concrete deck, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing, roadway lighting, MSE Wall construction and striping. ECM’s Quality Control team of engineers and LADOTD certified inspectors are responsible for sampling and testing to ensure compliance with the project’s plans and specifications.</p>

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Zachary Collier, P.E.		Years of relevant experience with this employer	4
Title	Project Engineer/Inspection Coordinator		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			B.S./ 2014/ Civil Engineering, ATSSA Work Zone Traffic Control Flagger, Technician	
Active registration number / state / expiration date			#42957/LA/ 3/31/2025	
Year registered	2018	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Collier has about 9 years of experience working on construction engineering and Inspection projects. He worked for LADOTD for 4 years In District 61 Project Engineer's Office. His projects included roadway and bridge construction, roadway rehabilitation, drainage repair and enhancements, utilities relocations, and pedestrian facility improvements. His duties and responsibilities included administering state construction contracts, plan review, staffing construction projects with certified inspectors, change order reviews and approvals. Mr. Collier will serve as ECM's Project Engineer/ Inspection Coordinator for this contract .	
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 years of experience specified in the applicable MPR(s).			
10/2021-Ongoing	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA. ECM is serving as the Construction Quality Control Firm (CQCF) for this \$182 million , P3 design-build project to construct a new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. The project includes the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. The new bridge is being constructed to current clearance standards for marine vessels as required by the US Coast Guard. This work includes pile load testing, pile driving, installing prestressed concrete girders, steel girders, concrete deck, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing, roadway lighting, MSE Wall construction and striping. ECM's Quality Control team of engineers and LADOTD certified inspectors are responsible for sampling and testing to ensure compliance with the project's plans and specifications. Mr. Collier is serving as the Project Engineer for this project.			
04/19-05/22	S.P. No. H.013579, Pecue Lane/I-10 Interchange Phase II Bridges Over I-10, LADOTD, East Baton Rouge Parish, LA: Mr. Collier served as the Project Engineer for this \$14.6 million overpass construction project includes two new multi-lane bridges over I-10 in Baton Rouge which will form the center of one of the state's first diverging diamond interchanges. He provided supervision of inspection services , contract administration services that included project coordination, attending progress meetings, document management, data entry in SiteManager , manage RFIs and submittals, review plan change requests, review monthly pay estimates, prepare plan changes, keep concise record of all documents in chronological order so that project closeout documentation for final acceptance, including the 2059 will be arranged and completed properly on time.			
07/20-11/22	Severn Avenue Reconstruction: Veterans to W. Esplanade, Jefferson Parish, LA: Mr. Collier served as the Project Engineer for this \$14 million complete street construction project. This project included PCC paving, major drainage improvements, ADA facilities, the addition of dedicated bike lanes, addition of turn lanes, traffic and pedestrian signals, street lighting and landscaping etc. He provided CE&I services that included project coordination, managing inspection services , data entry in SiteManager , manage RFIs and submittals, review monthly pay estimates, and keep concise record of all documents in chronological order so that project closeout documentation will be completed timely for final acceptance. He is also coordinating with DOTD, Parish and utility entities.			

04/19-6/20	S.P. No. H.006546 Intersection Upgrade N. Canal & 7th St, Lafourche Parish, LA - Work on this project included installation of new turn lanes, traffic signals, sidewalks, and handicapped curb ramps. The project also included installation of new drainage pipes and structures and milling and overlaying the existing 4 lane divided highway. Mr. Collier served as the Project Engineer on this project which is part of LA DOTD's Safe Routes to Public Places Program (SRTPPP).
04/19-11/19	S.P. No. H.012479 – Audubon Avenue and Ardoyne Drive, Mini-Roundabout, Lafourche Parish, LA: Mr. Collier served as Project Engineer and provided CE&I services for this roundabout project which is part LA DOTD Safe Routes to School Program. This project included milling and overlaying the existing intersection, installing new curb and gutters in a roundabout configuration and installing ADA compliant pedestrian facilities. Mr. Collier served as the project Engineer on this project.
2/18–5/18	I-110 Ramps at Convention and Florida LADOTD East Baton Rouge Parish, LA As DOTD Asst. Project Engineer, Mr. Collier was responsible for the construction administration of this project that involved widening and rehabilitating the I-110 northbound exit ramp at Convention Street and the I-110 southbound entrance ramp at Florida Street.
10/17–10/18	S.P. No. H.010560 – Essen Lane Widening, East Baton Rouge Parish, LA: Mr. Collier served on the Project Engineering team for this \$8 million widening project. Work included adding an additional travel lane on northbound Essen Lane, milling and overlaying the existing 4 lane roadway, new signalized intersections, new ADA ramps at all driveways and intersections, and additional drainage capacity. He provided contract administration support that included project coordination, managing inspection services, data entry in SiteManager , manage RFIs and submittals, review monthly pay estimates, and keep concise record of all documents in chronological order.
10/17–10/18	S.P. No. H.011295 – Government Street Rehabilitation, East Baton Rouge Parish, LA: Mr. Collier served on the Project Engineering team for this \$12 million project which consists of rehabilitating the sidewalks and driveways, milling and overlaying the existing asphalt roadway, and patching and overlaying the existing PCCP on Government Street to add a bike lane and to create a more pedestrian friendly facility. This project also includes a roundabout at Government Streets intersection with Lobdell Avenue. Mr. Collier's responsibilities included contract administration services for the project.
10/17-8/18	S.P. No. H.011322 – River Road: Florida to Phlox – Multi-use Path, East Baton Rouge Parish, LA: This project included constructing a multi-use path, ADA accessible ramps and crosswalks, and milling and overlaying the existing 2-mile 4 lane roadway on River Road (US-61X). Mr. Collier served at the Assistant Project Engineer and was responsible for overseeing contract administration, inspection, and final closeout.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Benjamin Dow		Years of relevant experience with this employer	15
Title	Senior Inspector		Years of relevant experience with other employer(s)	17
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Dow has over 32 years of experience in performing inspection for projects such as: tunnels, roads & bridges, dams, levees, and coastal restoration projects. He meets MPR #6.	
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 years of experience specified in the applicable MPR(s).			
32 years of experience	<ul style="list-style-type: none"> • LADOTD certified Embankment and Base Course Inspector; • ATSSA Certified Flagger, Technician, Supervisor. • NHI Certified-Safety Inspection of In-Service Bridges; • LADOTD Movable Bridge Inspection Workshop; • Training Aids for Dam Safety (TADS) 			
02/20 – 04/20	Belle Chasse Tunnel Inspection for DBi, Plaquemines Parish, LA. As Inspector, Mr. Dow performed visual inspections with the inspection team that included structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and preparing inspection report for submission to DOTD, summarizing findings and provide recommendations based on engineering judgement for potential maintenance and repair needs during the construction of the proposed new Belle Chasse bridge. Inspection of tunnel included structural, mechanical and electrical elements. He performed structural and civil inspections that mostly included tunnel walls, joints, leak repair joints, liners, approach pavements, general deterioration for Liner walls, Crown Liner; Walkway Floor & Wall; Fence; Portals; Tile Finish and Tunnel Roadway, Plumbing and Sewage Disposal; Tunnel Drainage and Gretna Side; Mid Channel and Belle Chasse Side Pump Room etc.			
03/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA. Served as Senior Inspector and provided visual inspection, documentation and support for report preparation for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope of the project included visual inspection of the structural elements; drainage system; electrical systems, tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems and mechanical system including pumps, ventilation and standpipe. Mr. Dow performed visual inspection for the condition of the pavement system including Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings. Structural Inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage etc.			
04/22-on going	S.P. No. 713-38-0001, Belle Chasse Bridge, A P3 Design-Build Project, LADOTD, (Developer: Plenary Infrastructure Belle Chasse LLC), Mr. Dow is providing construction inspection services as one of the inspectors for this \$182 million new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. This project will include the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. This work includes pile driving, installing steel girders, installing prestressed concrete girders, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing etc.			

01/09 -12/13	S.P. No. 064-05-0085, Bayou Lafourche Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Dow served as construction inspector for this \$32 million vertical lift bridge. This 122' x84' movable section is the largest span lift bridge in the state. The work included driving concrete piles, steel sheet pile TRS, concrete piers, 96' high concrete towers, installation of structural steel members of the bridge, sheaves, cables welding, bolted connections, anchor bolts, and concrete approaches..
09/21-03/22	S.P. No. H.011752, Severn Avenue Corridor Improvement, LADOTD/Jefferson parish-DPW, Jefferson, LA; Mr. Dow served as one of the Construction Inspector on the project. Scope of project include removal and replacement of existing PCC pavement with new PCC pavement , sidewalks with 8' wide brick paver sidewalks, ADA compliant ramps, striping, crosswalks at intersections, driveway aprons, corridor improvements to facilitate new bike lane, addition of Turn Lane at 17 th street and West Esplanade, replacement and upgrade of subsurface drainage system, streetscaping, new bike path., new decorative street lighting, pedestrian lighting and pedestrian signals.
05/11-08/13	S.P. No. H.003203.6: I-10 Calcasieu River Bridge Repairs, LA DOTD; Calcasieu Parish, LA: Mr. Dow provided construction inspection services for structural steel repairs to the approach trestle bents and stringers, repairs to the connections of the main deck truss & steel cantilever truss members, painting of truss connections, anchor bolt repairs, and associated repairs to the approach roadway pavement expansion joints. He conducted an initial inspection/assessment of the unforeseen conditions during construction and collected information (including field dimensions and photos of what has been encountered) for their review by the project engineer.
06/21-04/22	JPPW No. 2013-010-RB, Lapalco Blvd. Bridge over Bayou Segnette, Jefferson Parish DPW, Jefferson Parish, LA: Mr. Dow provided construction inspection for rehabilitation of this 3,000' long bridge in Jefferson Parish. He performed inspections for the replacement of all bearing pads for the girders that required lifting of each span individually, replace all damaged and bent anchor bolts and angle clits, replace all deck expansion joint systems, remove and replace the bridge's concrete curtain walls, installing new expansion joint materials on the deck and installation of a heavy steel structure to support the concrete girders in the event the movement of the span continues beyond the bent cap.
05/14-12/16	S.P. No. 4400003534 Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA: Mr. Dow provided inspection services for approximately 100 bridges under this five-year retainer contract. Scope of work included detailed reports involving elements and conditions rating and documentation of any significant deviations from as-built conditions for each inspection, recommendations for rehabilitation/repair, as well as other pertinent data. Some notable bridge inspections included: <ul style="list-style-type: none"> • LA 16 Over Amite River Moveable Bridge, Livingston Parish, LA • US 90 Over West Pearl River Truss Steel Vertical Lift Bridge, St. Tammany Parish, LA • US 90 Over West Middle River Cantilever Trusses Bridge, St. Tammany Parish, LA • Lapalco Blvd Over Harvey Canal Bascule Bridge, Jefferson Parish, LA • LA 56 Smith Ridge Cable-Stayed Moveable Truss Bridge Terrebonne Parish, LA.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Emilio Rodriguez		Years of relevant experience with this employer	13
Title	Senior Inspector		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities Mr. Rodriguez has over 33 years of experience as an inspector. He has provided inspections for tunnels, fixed and movable bridges, coatings and painting, dam safety, inspections, periodic inspection of levees, earthen and rock dikes construction, erosion protection, in-service bridge inspection, underwater bridge inspections and coastal restoration projects. He meets MPR #6.				
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 years of experience specified in the applicable MPR(s).			
33 years of experience	<ul style="list-style-type: none"> • NACE Coating Inspector Level 2 Certified • FHWA-NHI Certified – Safety Inspection of In-Service Bridges • LADOTD Movable Bridge Inspection Workshop • ATSSA Work Zone Traffic Control Flagger, Supervisor; • DOT/FAA Drone Remote Pilot; • Aerial Boom Lifts and Scissor Lift • OSHA-10 			
03/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA: Mr. Rodriguez performed visual inspection, documentation and report preparation support services for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS) . Scope included structural elements drainage system, electrical systems including tunnel lighting, traffic control, CCTV, fire/incident detection, power distribution, supervisory Control and data acquisition systems, mechanical system including pumps, ventilation and standpipe. A visual inspection and documentation the condition of the pavement system included Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings. Structural Inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage etc.			
05/10-08/12	S.P. No. 700-38-0110 Belle Chasse Tunnel Rehabilitation, LADOTD, Plaquemines Parish, LA: Mr. Dasgupta served as Project Principal/POC for this \$2.1 tunnel rehabilitation project and was responsible for overall performance, QA/QC and contract management. ECM provided field inspection, design support and construction administration for rehabilitation of the tunnel. ECM’s scope of services included, Field inspection for physical condition assessment of the elements of the tunnel included in the scope ; Assist in preparation of report and cost estimates for approved rehabilitation items; Assist in preparation of bid documents; Attend the pre-construction meeting; Provide Construction Administration including Managing RFIs and Change Requests from contractor; Keeping clear and concise records of the contractual operations; Managing RFIs and Change Requests from contractor and Attending substantial and final completion inspections.			
02/23-On going	S.P. No. 713-38-0001, Belle Chasse Bridge and Tunnel Replacement, A P3 Design-Build Project, LADOTD, (Developer: Plenary Infrastructure Belle Chasse LLC), Mr. Rodriguez is providing construction inspection services as one of the inspectors for this \$182 million new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. This project will include the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. This work includes pile driving, installing steel girders, installing prestressed concrete girders, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing etc.			

02/09-04/11	S.P. No. 064-05-0085, Bayou Lafourche Bridge at Larose, LADOTD, Lafourche Parish, LA: Mr. Rodriguez served as construction and coating inspector for this \$32 million vertical lift bridge. This 122' x84' movable section is the largest span lift bridge in the state. The work included driving concrete piles, steel sheet pile TRS, concrete piers, 96' high concrete towers, installation of structural steel members of the bridge, sheaves, cables welding, bolted connections, anchor bolts, and concrete approaches. Project also included inspection of surface preparation and field painting/protective coating of main deck span, lift heads, mechanical components, electrical and control systems.
06/13-03/14	St. Ann Bridge over Bayou Terrebonne LADOTD Terrebonne Parish, LA Construction Inspector: Mr. Rodriguez provided construction inspection for this \$4.2 million movable bridge construction project including approach roadways under the Off-System Bridge Replacement Program. The project involved construction of a new bobtail 90' single swing movable steel girder bridge with concrete bridge piers and concrete slab span approaches over Bayou St. John to replace an existing single lane steel truss swing bridge structure. The scope included driving concrete piles, concrete pier construction and steel movable bridge installation with structural components such as main girders, floor beams, cross bracings, end dams, stiffeners, angles, bolts etc. including all electrical and mechanical items ; surface preparation and field painting/coating of girders and all steel structural components, timber fender system, navigational lights and asphaltting concrete roadway construction.
05/11-05/13	I-10 Calcasieu River Bridge Repairs LADOTD Calcasieu Parish, LA Construction Inspector: Mr. Rodriguez provided construction inspection services for this \$7.8 million project involving structural steel repairs to the approach trestle bents and stringers, repairs to the connections of the main deck truss & steel cantilever truss members, painting of truss connections, anchor bolt repairs, and associated repairs to the approach roadway pavement expansion joints. He conducted an initial inspection/assessment of the unforeseen conditions during construction and collected information (including field dimensions and photos of what has been encountered) for their review by the project engineer. He also provided inspection of surface preparation and application of protective coating for all structural steel components. This also involved monitoring ambient conditions, coating mixing, wet and dry film thickness and final coating cure, cleaning. Work included removal of lead-based paint under strict requirements of Coast Guard prior to repainting.
07/13-02/14 & 06/21-04/22	Lapalco Bridge Over Bayou Segnette, Jefferson Parish, LA. Mr. Rodriguez performed comprehensive bridge inspection as one of the FHWA-NBIS certified inspectors, conforming to National Bridge Inspection Standard (NBIS). This involved complete physical inspection of all the structural elements of the bridge for documenting deficiencies, damages and non-standard elements for the Lapalco Blvd. Bridge over Bayou Segnette. Work included structural inspections of girders, bents, risers, anchor bolts, bearing pads, deck, expansion joints, railings, curtain walls and approaches. as well as underwater inspections of the piers and foundation and scour depths, and inspection of coating (LBP) of the steel girders. Mr. Rodriguez also provided construction inspection for the project from 06/21-04/22 that included replacing all bearing pads for the girders which required lifting of each span individually, replace all damaged and bent anchor bolts and angle clits, replace all deck expansion joint systems, remove and replace the bridge's concrete curtain walls, installing new expansion joint materials on the deck and a heavy steel structure to support the concrete girders in the event the movement of the span continues beyond the bent cap.
08/14 – 12/16	Contract No. 4400003534, Retainer Contract for Underwater Bridge Inspections, LADOTD; Statewide, LA: Mr. Rodriguez provided bridge inspection for performing about 400 underwater bridge inspections for this five-year retainer contract. Of the 400 bridges, 42 of them are movable bridges. A report is generated for each inspection that would include the results of the inspection and other pertinent data.
06/10-08/12	Dullout Canal Moveable Bridge LADOTD Plaquemines Parish, LA Construction Inspector: Mr. Rodriguez served as Construction Inspector for this \$11.8 million movable bridge including approach roadways, located in Plaquemines Parish. The project involved construction of a movable steel girder swing bridge with concrete bridge piers and concrete slab span approaches over Doullut Canal to replace an existing bridge. This 150-foot unequal arm steel swing span bridge is operated by dual hydraulic motors and provides access to Highway 11. The scope included cofferdam construction, driving concrete piles, concrete pier construction and steel movable bridge installation including all electrical and mechanical items for the movable bridge and provided inspection for all surface preparation and field painting/coating of girders, floor beams, cross bearings, and end dams for the swing bridge.

16. Staff Experience:

Firm employed by ECM Consultants, Inc. (contract)				
Name	Bob Tate		Years of relevant experience with this employer	18
Title	Senior Inspector		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization			High School Diploma	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities			Mr. Tate has over 38 years of experience in performing inspection of tunnels, roads & bridges, drainage and utilities projects. He meets MPR #6.	
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 years of experience specified in the applicable MPR(s).			
38 years of experience	Certifications: <ul style="list-style-type: none"> • USACE Certified Construction Quality Management • LADOTD certified Structural concrete Inspector (to be renewed) • ATSSA Certified Technician and Supervisor • OSHA 10 			
01/14 – 03/16	S.P. No. 4400004383, Harvey Tunnel Inspection, LADOTD, Jefferson Parish, LA. Served as Senior Inspector and provided visual inspection, documentation and support for report preparation for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS) . The scope of the project included visual inspection of the structural elements; drainage system; electrical systems, tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems and mechanical system including pumps, ventilation and standpipe. Mr. Tate performed visual inspection for the condition of the pavement system including Tunnel roadway, approach roadways, barriers, sidewalks, walls, hatches, adits, manways, wall niches, and passage doors and the portal buildings. Structural Inspection for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage etc.			
02/14 – 03/16	Belle Chasse Tunnel Inspection, LADOTD, Plaquemines Parish, LA. As Inspector, Mr. Tate performed visual inspections with the inspection team that included structural, electrical, mechanical engineers and inspectors. The purpose of this tunnel inspection was to assess existing condition of the tunnel as per DOTD requirements and assist prime for preparing of inspection report for submission to DOTD. Report included a summary of findings and provide recommendations based on engineering judgement for potential maintenance and repair needs. Inspection of the Belle Chasse Tunnel included structural, mechanical and electrical elements in Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). He performed structural and civil inspections that mostly included tunnel walls, joints, leak repair joints, liners, approach pavements, general deterioration for Liner walls, Crown Liner; Walkway Floor & Wall; Fence; Portals; Tile Finish and Tunnel Roadway, Plumbing and Sewage Disposal; Tunnel Drainage and Gretna Side; Mid Channel and Belle Chasse Side Pump Room etc.			
04/09-10/16	Bayou Lafourche Bridge at Larose, LADOTD; Lafourche Parish, LA. Mr. Tate served as construction inspector for this \$32 million Bayou Lafourche Vertical Lift Bridge project. He provided inspection of various items of construction works as directed by the lead inspector. Scope of work involved construction inspection for driving concrete piles, concrete pier construction, concrete bridge towers, installation of the 122’ span and 84’ wide steel movable section, bridge railings, painting steel structure, approach roadways and roadway modifications			

02/18 - 07/19	N. Flannery/Firewood and Cloverland Bridges, East Baton Rouge Parish, LA SP No. H.010661.6: Mr. Tate is providing construction inspection for this project that involves the complete replacement of the N. Flannery, Firewood and Cloverland bridges. The project includes the removal of existing bridge structures, construction of new bridge substructure & superstructure components, adjacent embankments & roadway. Also included are quality control aspects such as monitoring contractor operations, preparing samples for QA testing and documentation as well as monitoring contractors for compliance with plans and specifications.
06/17 - 02/18	S.P. No. 009250, I-10: Highland to LA 73 Design-Build Project, LADOTD, East Baton Rouge/Ascension Parish, LA: Mr. Tate served as Structural Concrete Inspector for this \$72 million design-build project to widen I-10 from four to six lanes in both east and westbound directions, bridge modifications including replacing I-10 bridge over Highland Road, widening and rehabilitating I-10 bridge over Bayou Manchac, and rehabilitating LA 928 over I-10, and replacing I-10 over LA 73.
09/11-08/12	S.P. No. H.003203.6, (CE&I): I-10 Calcasieu River Bridge Repairs, LA DOTD, Calcasieu Parish, LA. Mr. Tate provided construction inspection for this bridge repair project that involved repairs to the approach trestle bents and stringers, repairs to the connections of the main deck truss and steel cantilever truss members, replacement of many damaged bridge railing in kind, cleaning and removal of lead based paint, painting of truss connections, anchor bolt repairs, and associated repairs to the approach roadway expansion joints
08/16- 11/18	S.P. No. H.007259: Fleur De Lis Drive Reconstruction (30th-Old Hammond Hwy), LADOTD; Orleans Parish, LA: Mr. Tate provided construction inspection services for this \$12 million reconstruction of Fleur de Lis Drive, a main artery in a residential corridor. The project includes grading, drainage, drainage structures and utilities, class II base course, superpave asphaltic concrete pavement, Portland cement concrete pavement, as well as ADA accessible ramps, sidewalks, curb and gutter, driveways and removal/replacement of sewer force mains and water mains. Mr. Tate monitored contractors' operations, prepared daily reports, records change orders, and assisted in coordinating testing/sampling.
06/08-08/13	Doullut Canal Bridge, LADOTD, Plaquemines Parish, LA Mr. Tate served as construction inspector for this CE&I project involving removal of existing bridge and construction of a movable steel girder bridge with concrete bridge piers and concrete slab span approaches over Doullut Canal. This 150-foot unequal arm steel swing span bridge is operated by dual hydraulic motors and provides access to Highway 11. Project scope included driving concrete piles, concrete piers, cofferdam, steel girders, bolted connections, and field paint inspection of all girders and other steel members of the swing bridge. His responsibilities included monitoring daily construction activities, preparing daily reports, recording of various work quantities etc.
01/09-02/12	S.P. No. 742-36-0123: Woodland Drive Rehabilitation; Orleans Parish, LA: Mr. Tate provided construction inspection for this project which involved grading, drainage structures, class II base course, PCC pavement, sidewalks, driveways, sewer system, water system, placing pavement markings, and related work on a section of Woodland Drive between General DeGaulle Drive and Tullis Drive in Orleans Parish. He prepared daily reports, reviewed pay estimates, monitored contractor activities and coordinated with the Project Engineer. Construction Cost was \$3.4M.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Robert Brown		Years of relevant experience with this employer	8
Title	Lead Certified Inspector		Years of relevant experience with other employer(s)	19
Degree(s) / Years / Specialization		High School Diploma;		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Mr. Brown is a. Brown has over 27 years of experience, including 12 years in inspection that includes Highways, major bridges, Asphalt and PCC roadways construction, inspection of structural concrete work, utilities relocations and new Drainage, Sewer and Water systems installations. He will serve as Lead certified Inspector for this contract.		
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 years of experience specified in the applicable MPR(s).			
27 years of experience	<ul style="list-style-type: none"> • LADOTD certified PCC Paving Inspector; • LADOTD certified Embankment and Base Course Inspector, • LADOTD certified Structural Concrete Inspector, • LADOTD certified Authorized Concrete Field Tester; • ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor; • Confined Space entry certified • OSHA-10 			
04/21- Ongoing	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA. ECM is serving as the Construction Quality Control Firm (CQCF) for this \$182 million , P3 design-build project to construct a new mid-level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. The project will include the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. The new bridge is being constructed to current clearance standards for marine vessels as required by the US Coast Guard. This work includes pile load testing, pile driving, installing prestressed concrete girders, steel girders, concrete deck, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing, roadway lighting, MSE Wall construction and striping. ECM’s Quality Control team of engineers and LADOTD certified inspectors are responsible for sampling and testing to ensure compliance with the project’s plans and specifications. Mr. Robert is serving as Lead certified inspector for this project.			
10/20-04/21	Pecue Lane/I-10 Interchange Phase II: Bridges Over I-10, East Baton Rouge Parish, LA: Mr. Brown served as the Certified Inspector for this \$14.6 million overpass construction project which includes two new multi-lane bridges over I-10 in Baton Rouge which will form the center of one of the state’s first diverging diamond interchanges. He provided inspection services that included daily monitoring construction activities for compliance with plans and specifications, preparing daily diary, keeping track of daily work item quantities, attending progress meetings, maintaining all construction field records, review plan change requests, review monthly pay estimates.			

01/19-03/19	S.P. No. H.010661.6-2 (CE&I), N. Flannery/Firewood/Cloverland Bridges, East Baton Rouge Parish, LA: Mr. Brown has provided Inspection services as one of the inspectors for the replacement of three bridges in East Baton Rouge Parish. He was responsible for inspecting construction work for compliance with plans and specifications, prepare daily reports, keeping track of quantiles of pay items, personnel and equipment used by the contractor etc.
10/10- 08/12	Construction of Levees, LPV 20.2: Mr. Brown served as Construction Inspector for the extension of levee berm foreshore at Reach 3 along Lake Pontchartrain. The project was over 14,000 feet in length with shoreline extension of about 150 feet. Geotextile separator fabric was placed underwater for stability, a graded stone berm was constructed, and the area between the berm and existing shoreline was filled in with sand and uncompacted fill. Mr. Brown was responsible for evaluating contractor quality control system; observing all construction phases to ensure compliance; reviewing shop drawings and submittals; checking quantities; reviewing requests for change orders; observing and reviewing three phase inspection (preparatory, initial, follow-up) for all features of work; and inspecting construction materials before installation
11/10-08/12	Quality Assurance Representative for USACE Civil Construction Projects. Mr. Brown provided quality assurance inspection services for LPV 20.2 reaches 3 and 4 extended levee berm foreshores. The project was over 14,000 feet in length along Lake Pontchartrain in Metairie. Materials comprised of R2200 graded stone, geotextile separator fabric, sand, and uncompacted fill. All materials and equipment were brought in by barge. The shoreline was extended out 150 feet. Geotextile separator fabric was placed underwater for stability and a graded stone berm was constructed. The area between this berm and the existing shoreline was filled in with sand and uncompacted fill. The quantity of the R2200 graded stone was over 317,000 tons.
02/09- 08/10	Harvey Canal Floodwall, Harvey, LA: Mr. Brown served as Survey Party Chief for construction layout and as-builts of the Harvey Canal floodwall. The project was a concrete T-wall with sheet piles , multiple rows of battered and vertical H-piles, and consisted of drainage monoliths, gate monoliths, and a pedestrian gate. Mr. Brown coordinated between three main area superintendents and multiple field superintendents
01/19-10/20	S.P. No. 009250, I-10: Highland to LA 73 Design-Build Project, LADOTD, East Baton Rouge/Ascension Parish, LA: Mr. Brown has served as a Construction Inspector for this \$72 million design-build project to widen I-10 from four to six lanes in both east and westbound directions, add deceleration and acceleration lanes at the Highland Road and LA 73 interchanges, roadway lighting replacement, and bridge modifications including replacing I-10 bridge over Highland Road , widening and rehabilitating I-10 bridge over Bayou Manchac, increasing the vertical clearance and rehabilitating LA 928 over I-10, and replacing I-10 over LA 73. On this project, Mr. Brown has attained his LADOTD certification in PCC Paving and has almost completed the certification for Embankment and Base Course.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Kim Martinez		Years of relevant experience with this employer	9
Title	Lead DOTD Certified Inspector		Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization		High School Diploma; LADOTD Asphalt and PCC Paving Inspector; Embankment and Base Course Inspector, ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor, Nighttime Traffic Control, OSHA-10		
Active registration number / state / expiration date		N/A		
Year registered	N/A	Discipline	N/A	
Contract role(s) / brief description of responsibilities		Ms. Martinez has 39 years of experience in performing construction inspection of roads, movable bridges, fixed bridges, drainage and utilities construction projects and documenting daily activities in Site Manager and Headlights.		
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 years of experience specified in the applicable MPR(s).			
39 years of experience	<ul style="list-style-type: none"> • LADOTD certified PCC Paving Inspector; • LADOTD certified Asphalt Paving Inspector • LADOTD certified Embankment and Base Course Inspector, • ATSSA Work Zone Traffic Control Flagger, Technician & Supervisor, • Nighttime Traffic Control • OSHA-10 			
11/21-ongoing	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA. ECM is serving as the Construction Quality Control Firm (CQCF) for this \$182 million , P3 design-build project to construct a new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. The project includes the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. The new bridge is being constructed to current clearance standards for marine vessels as required by the US Coast Guard. This work includes pile load testing, pile driving, installing prestressed concrete girders, steel girders, concrete deck, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing, roadway lighting, MSE Wall construction and striping. ECM’s Quality Control team of engineers and LADOTD certified inspectors are responsible for sampling and testing to ensure compliance with the project’s plans and specifications. Ms. Martinez is serving as one of the certified inspector for this project.			
04/09-10/15	S.P. No. 064-05-0085, Bayou Lafourche Movable Bridge at Larose, LADOTD, (CE&I) Lafourche Parish, LA: Ms. Martinez provided construction inspection for this \$32 million Bayou Lafourche Vertical Lift Bridge project to replace the existing LA 310 bridge at LA 657 extension to LA 308. Project included marine pile driving, piers construction, concrete tower columns; the installation of structural steel girder framed movable sections including sheaves, cables, etc.; operator’s building; welding; bolted connections; anchor bolts; concrete approaches; and roadway reconstruction, etc. Work also included electrical and mechanical works, and surface preparation and field painting/protective coating of main deck span, lift heads, & mechanical components. Her responsibilities included daily QA inspection, maintaining all construction field records; making daily entries in SiteManager; coordinating with the U.S. Coast Guard, LADOTD Coordinator and Parish Engineer/Representative, coordination for all relocations/adjustments of utility facilities within the construction of the site; inspecting the contractor’s construction operations and work for compliance with contract documents, preparing final estimate packages; and “As-Built” plans.			

06/08-08/13	S.P. No. 713-38-0001, Doullut Canal Movable Bridge, (CE&I), Plaquemines Parish, LA, Ms. Martinez served as Certified Inspector for this \$12 million project involving the construction of a movable steel girder bridge over Doullut Canal to replace an existing bridge. This 150-foot unequal arm steel swing span is operated by dual hydraulic motors . Project included driving piles, concrete piers, steel girder bridge, operator’s house, field painting of all girders for the swing bridge and PCC bridge approaches
02/18-10/18	S.P. No. 009250 I-10: Highland to LA 73 Design-Build Project, LADOTD, East Baton Rouge/Ascension Parish, LA. Ms. Martinez served as Construction Inspector for this \$72 million design-build project to widen I-10 from four to six lanes in both east and westbound directions, add deceleration and acceleration lanes at the Highland Road and LA 73 interchanges, roadway lighting replacement, and bridge modifications including replacing I-10 bridge over Highland Road, widening and rehabilitating I-10 bridge over Bayou Manchac, increasing the vertical clearance and rehabilitating LA 928 over I-10, and replacing I-10 over LA 73.
11/16—5/19	S.P. No. H.007259: Fleur De Lis Drive Reconstruction (30th-Old Hammond Hwy), (CE&I) LADOTD; Orleans Parish, LA: Ms. Martinez is providing construction inspection services as Lead Inspector for this \$12 million roadway reconstruction of Fleur de Lis Drive, a main artery in a residential corridor. The project includes grading, drainage, drainage structures and utilities, class II base course, superpave asphaltic concrete pavement, Portland cement concrete pavement, as well as ADA accessible ramps, sidewalks, curb and gutter, driveways and removal/replacement of sewer force mains and water mains. Ms. Martinez provides oversight of contractors’ operations, provides daily documentation in Site Manager, prepares field changes and records change orders, and assists in coordinating testing/sampling.
06/16-11/17	DPW No. 2000-B01: Gravier St. (S. Galvez to Broad St) City of New Orleans-DPW, LA: Ms. Martinez provided inspection services for this \$5.8 million roadway reconstruction project involving roadway removal, new subsurface drainage, 20” waterline, sewer lines, PCC roadways pavement, concrete sidewalks and driveways. She served as the primary construction inspector on site, monitored, prepared daily reports, computed quantities of work items, reviews monthly pay estimates and coordinates with Project Engineer and contractor.
02/11-07/13	S.P. No. H.003203.6, I-10 Calcasieu River Bridge Repairs, LADOTD, (CE&I), Calcasieu Parish, LA: Ms. Martinez provided construction inspection services for this \$7.8 million repair work at I-10 Calcasieu River Bridge , involving main truss connection repairs, saddle bearing repairs, cleaning and removal of lead based paint, painting of truss connections, pin plate connection repairs, anchor bolt repairs, trestle bent connection repairs, deck joint repairs, bridge handrail repairs, and roadway pavement joint repairs. She was responsible for maintaining construction field records, inspecting contractor’s construction operations, daily inspection of traffic control signs and barricades, daily work reports, and coordination with project engineers.
05/20 – 10/21	S.P. No. H.011752, Severn Avenue Corridor Improvement, LADOTD/ Jefferson parish-DPW, Jefferson, LA; Ms. Martinez is serving as the Lead Construction Inspector on the \$14 million project. Scope of project include removal and replacement of existing PCC pavement with new PCC pavement , sidewalks with 8’ wide brick paver sidewalks, ADA compliant ramps, striping, crosswalks at intersections, driveway aprons, corridor improvements to facilitate new bike lane, addition of Turn Lane at 17 th street and West Esplanade, replacement and upgrade of subsurface drainage system, streetscaping, new bike path., new decorative street lighting , pedestrian lighting and pedestrian signals.

16. Staff Experience:

Firm employed by ECM Consultants, Inc.				
Name	Jules Saunee		Years of relevant experience with this employer	2
Title	Certified Lead Inspector		Years of relevant experience with other employer(s)	14
Degree(s) / Years / Specialization		Bachelor of Science Construction Engineering Technology, LADOTD.		
Active registration number / state / expiration date		N/A		
Year registered		Discipline	N/A	
Contract role(s) / brief description of responsibilities		Mr. Saunee has over 16 years of experience in construction inspection of Highways, major bridges, Asphalt and PCC road construction, Structural concrete, utilities relocations and new Drainage, Sewer and Water systems installations.		
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 years of experience specified in the applicable MPR(s).			
16 years of experience	<ul style="list-style-type: none"> • LADOTD certified Asphalt Paving Inspector; • LADOTD certified Portland Cement Concrete Paving Inspector, • LADOTD certified Embankment and Base Course Inspector; • LADOTD certified Structural Concrete Inspector • ATSSA Certified Flagger, Technician, Supervisor 			
10/2021-Ongoing	S.P. No. H.004791, Belle Chasse Bridge and Tunnel Replacement, P3, Design-Build Project, Plaquemines Parish, LA. Mr. Saunee is serving as one of the certified inspectors for the \$182 Million construction of a new 4 lane bridge over the Intracoastal Waterways. ECM is serving as the Construction Quality Control Firm (CQCF) for this P3 design-build project to construct a new Mid-Level fixed span bridge that will span the Intracoastal Waterway on Louisiana Highway 23. The project includes the demolition of the existing Perez Movable Bridge and the Belle Chasse Tunnel. The new bridge is being constructed to current clearance standards for marine vessels as required by the US Coast Guard. This work includes pile load testing, pile driving, installing prestressed concrete girders, steel girders, concrete deck, on grade roadway including earthwork, subbase and base, drainage, utilities relocation, PCC pavement, Asphaltic Concrete pavement, concrete barrier railing, roadway lighting, MSE Wall construction and striping. ECM’s Quality Control team of engineers and LADOTD certified inspectors are responsible for sampling and testing to ensure compliance with the project’s plans and specifications. Mr. Saunee is involved in inspection of all aspects of the project including but not limited to pile driving inspection, rebar inspection of structures, inspection of structural concrete pours, and monitoring contractor’s quality control.			
12/2010-05/2012	Huey P Long Bridge Widening: Mr. Saunee served as one of the Inspector for the \$1.2 Billion widening of the Huey P Long Bridge in Metairie, LA. Project included erecting new railroad support structures, constructing a 3-lane bridge on both sides by widening the existing bridge. Work also included construction of major elevated bridge approaches and PCC roadway on both east and west banks. The asphaltic concrete Jefferson Highway on the East Bank was repaved, and a new PCC U S 90 Highway was constructed on Westbank. Mr. Saunee served as the lead Inspector for concrete, PCC roadway, asphaltic concrete paving and infrastructure installation.			
04/2017-04/2020	I-10 Widening Breaux Bridge to Lafayette: Mr. Saunee served as one of the inspectors for this \$100 Million Widening of I-10 for seven (7) miles between Breaux Bridge and Lafayette. The project included the construction of a 2-lane asphaltic concrete interstate, widening 5 existing bridges, replacing 1 bridge , and the removal/replacement of the existing 2-lane asphaltic concrete interstate in			

	each direction. Mr. Saunee served as the lead Inspector on Asphalt work on the job involving approximately 300,00 tons of asphalt and all Electrical items. He also assisted Office and Project Engineers with monthly estimates and coordinated all SiteManger reports and final submittal package
04/2020-10/2020	I-10 Loyola Interchange. Mr. Saunee served as one of the inspectors for \$125 Million Interstate Overpass Exit/Entrance to the Louis Armstrong International Airport. The Project entails construction 2 new overpasses exiting and entering I-10 at Loyola Avenue in Kenner, LA. and the reconstruction of Loyola Avenue under the I-10. Mr. Saunee performed inspection of Prestressed Precast Concrete piles Driving operation as well as frequently performed nighttime traffic safety inspections.
07/2021-08/2021	Lesan Dr UST Removal: Mr. Saunee served as the Lead Inspector for the \$60,000 removal of 2 underground fuel tanks. Project entailed the removal of the 2 500 gallons fuel tanks, backfilling the hole left by the removal and replacing the concrete parking lot that was disturbed by the removal as well as any other miscellaneous details that the SFLPAE added. Mr. Saunee oversaw all aspects of the project and ensures all activities were done within SFLPAE standards.
10/2020-06/2021	Causeway Bridge Rail Rehabilitation: Mr. Saunee served as one of the inspectors for the \$40 Million rehabilitation of the Causeway Bridge side rails. The project consisted of installing new rails on the entire southbound side of the bridge as well as installing several new side bound signs and removal of call boxes. Mr. Saunee oversaw several crews doing the installation of the new rails and compiled the data from crews and other inspectors for office use.
04/2016-04/2017	Ormond Blvd Repair/Mill/Overlay: Mr. Saunee served as the Lead Asphalt Inspector for the asphalt mill/overlay of Ormond Blvd in St. Charles Parish at a cost of \$1 Million. He also assisted in the PCCP inspection of Ormond Blvd. Compiled monthly estimates for Project Engineer's review.
02/2016-08/2016	Our Lady of The Lake Medical Complex: Mr. Saunee served as the lead inspector for the street/pedestrian ramp repair around the Our Lady of the Lake Medical Complex at a cost of \$800,000. Mr. Saunee inspected the removal and replacement of cracked panels, the removal of existing pedestrian ramps and the replacement of said ramps with ADA compliant ramps, and the sealing of the minor cracks in concrete panels. Compiled monthly estimates for Project Engineer's review.
06/2011-08/2011	Jefferson Parish Submerged Roads Program: Mr. Saunee served as the lead inspector for the Jefferson Parish submerged roads program in Old Metairie which provided PCCP panel replacements for roads that were damaged in Hurricane Katrina. Mr. Saunee oversaw the removal and replacement of all damaged panels in the contracts. This portion of the program was at a cost of \$1.5 Million. Compiled monthly estimates for Project Engineer's review.

16. Staff Experience:

Firm employed by Volkert, Inc.				
Name	Aaron Immel, PE, NCBI, NCTI, CFM		Years of relevant experience with this employer	28
Title	Certified Tunnel Inspector		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.S. / 1994 / Civil Engineering		
Active registration number / state / expiration date		29153 / Louisiana / 03/31/2025 Certified Tunnel Inspector (CTI), FL #00009 Certified Bridge Inspector (CBI), AL #548 ASFPM Certified Floodplain Manager (CFM), No. 04001163		
Year registered	2000	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Aaron currently serves as Volkert's Bridge Inspection Manager where he oversees and leads inspection services for many of Volkert's large, long-term structures inspection contracts. Mr. Immel meets the requirements for MPR #4.		
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 years of experience specified in the applicable MPR(s).			
2004 - Ongoing	Structural Engineering and Inspection Services for the Metropolitan Atlanta Rapid Transit Authority (MARTA): Principal-in-Charge/QC Manager/Team Leader <ul style="list-style-type: none"> • 16 miles of heavy rail transit aerial structures including 37 tunnels and 14 aerial stations • 4.64 miles of steel box girders; 1.40 miles of steel plate girders; 0.06 miles of rolled shape steel; 1.5 miles of pre-cast segmental concrete box girders; 5 miles of cast-in-place concrete box girders; 3.23 miles of AASHTO concrete girders; 0.12 miles of concrete thru-girders; and 0.02 miles of concrete flat slab bridges • Mr. Immel performed hands-on inspections and performed QC audits of element level tunnel inspections 			
2005 - 2022	Nationwide Inspection Services for the Eastern Federal Lands Highway Division of FHWA Principal-in-Charge/Quality Control Manager/Team Leader/Underwater Inspection Supervisor <ul style="list-style-type: none"> • Nearly 5,000 bridge, culvert, and tunnel inspections in 45 states and Washington DC • Performed over 950 load ratings • Mr. Immel has served as team leader for 1,296 inspections to date • Mr. Immel also led the value engineering review of the proposed post-tensioned, segmental concrete box girder Laurel Fork Bridge on Blue Ridge Parkway in North Carolina 			
2018	Elizabeth River Crossings - Midtown Tunnel Inspection for Collins Engineers, Inc. Principal-in-Charge/QC Manager <ul style="list-style-type: none"> • Included structural, civil, mechanical, electrical, signage, and protective systems • Element level inspections in accordance with National Tunnel Inspection Standards (NTIS) • Mr. Immel performed the QA audit of the inspection reports 			
2013 - Ongoing	Complex Bridge Inspection Services throughout Mississippi for the Office of State Aid Road Construction			

	<p>Principal-in-Charge/QC Manager</p> <ul style="list-style-type: none">• Approximately 104 structures in 15 counties• Included four movables (bascule, swing, and lift) <p>Performed load ratings on all structures inspected</p>
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(Add rows as needed)

16. Staff Experience:

Firm employed by Volkert, Inc.				
Name	Britt Bumpers, PE, NCBI, NCTI		Years of relevant experience with this employer	27
Title	Certified Tunnel Inspector		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		B.S. / 1996 / Civil Engineering		
Active registration number / state / expiration date		30046 / Louisiana / 9/30/2024 Certified Bridge Inspector (CBI), AL, #1102 Certified Tunnel Inspector (CTI), FL, #00027		
Year registered	2002	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Mr. Bumpers has led tunnel inspections across the country including in Montana and Idaho for the United States Forest Service, and tunnels owned and maintained by the Louisiana Department of Transportation and Development. With his civil background and his structural experience, Mr. Bumpers brings a unique perspective when inspecting the civil and safety systems inside a tunnel. Mr. Bumpers meets the requirements for MPR #4.		
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 years of experience specified in the applicable MPR(s).			
04/20-03/22	IDIQ Contract for Tunnel Inspections (LADOTD) Bridge Inspector. Volkert is a subconsultant to Mott MacDonald providing inspection support services at all three tunnels. To date, Volkert has provided structural inspection assistance to Mott MacDonald at the Houma, Harvey, and Belle Chasse tunnels in southeastern Louisiana. This project consists of conducting in-depth tunnel inspections statewide and development of inspection reports and rehabilitation plans, as necessary. The inspections included the identification of anomalies or deficiencies at the tunnels that required immediate attention via visual and hands-on inspections of all structural components, non-destructive testing, visual inspections of mechanical and electrical components (ventilation/pumps etc.), and visual inspections of maintenance and preservation efforts. The team also developed tunnel inspection reports that highlighted necessary repairs and any replacements that need to be made at the sites. The report included condition states, element notes, pictures, and sketches of any noted deficiencies.			
2004 - Ongoing	Structural Engineering and Inspection Services for the Metropolitan Atlanta Rapid Transit Authority (MARTA): Principal-in-Charge/QC Manager/Team Leader <ul style="list-style-type: none"> • 16 miles of heavy rail transit aerial structures including 37 tunnels and 14 aerial stations • 4.64 miles of steel box girders; 1.40 miles of steel plate girders; 0.06 miles of rolled shape steel; 1.5 miles of pre-cast segmental concrete box girders; 5 miles of cast-in-place concrete box girders; 3.23 miles of AASHTO concrete girders; 0.12 miles of concrete thru-girders; and 0.02 miles of concrete flat slab bridges • Mr. Bumpers performed QA audits of element level tunnel inspections 			
2005 - 2022	Nationwide Inspection Services for the Eastern Federal Lands Highway Division of FHWA Principal-in-Charge/Quality Control Manager/Team Leader/Underwater Inspection Supervisor			

	<ul style="list-style-type: none"> • Nearly 5,000 bridge, culvert, and tunnel inspections in 45 states and Washington DC • Mr. Bumpers has led 252 bridge, culvert, and tunnel inspections to date
2018	<p>Elizabeth River Crossings - Midtown Tunnel Inspection for Collins Engineers, Inc. Principal-in-Charge/QC Manager</p> <ul style="list-style-type: none"> • Included structural, civil, mechanical, electrical, signage, and protective systems • Element level inspections in accordance with National Tunnel Inspection Standards (NTIS) • Mr. Bumpers led the structural and civil inspections

16. Staff Experience:

Firm employed by Volkert, Inc.			
Name	Paul Swann, NCBI, NTIS	Years of relevant experience with this employer	19
Title	Certified Tunnel Inspector	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			
Active registration number / state / expiration date		Certified Bridge Inspector (CBI), FL #440 Certified Bridge Inspector (CBI), AL #634 Certified Tunnel Inspector (CTI), FL #Pending	
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Mr. Swann joined Volkert in 2004 as a member of the Bridge Inspection Department where he served as an assistant topside and underwater inspector. He has known grown into one our senior team leaders, often getting called upon to lead inspections which require challenging logistics and planning.	
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 years of experience specified in the applicable MPR(s).		
04/20-03/22	IDIQ Contract for Tunnel Inspections (LADOTD) Bridge Inspector. Volkert is a subconsultant to Mott MacDonald providing inspection support services at all three tunnels. To date, Volkert has provided structural inspection assistance to Mott MacDonald at the Houma, Harvey, and Belle Chasse tunnels in southeastern Louisiana. This project consists of conducting in-depth tunnel inspections statewide and development of inspection reports and rehabilitation plans, as necessary. The inspections included the identification of anomalies or deficiencies at the tunnels that required immediate attention via visual and hands-on inspections of all structural components, non-destructive testing, visual inspections of mechanical and electrical components (ventilation/pumps etc.), and visual inspections of maintenance and preservation efforts. The team also developed tunnel inspection reports that highlighted necessary repairs and any replacements that need to be made at the sites. The report included condition states, element notes, pictures, and sketches of any noted deficiencies.		
2013 - Ongoing	Statewide Complex Bridge Inspections in Mississippi for the Office of State Aid Road Construction - Team Leader <ul style="list-style-type: none"> • Approximately 104 structures in 15 counties • Included fracture critical inspections of steel plate girders, railroad flat cars, and movable (basculer, swing, and lift) bridges 		
2005 - 2022	Nationwide Inspection Services for the Eastern Federal Lands Highway Division of FHWA Topside and Underwater Team Leader <ul style="list-style-type: none"> • Nearly 5,000 bridge, culvert, and tunnel inspections in 45 states and Washington DC • Mr. Swann has performed 1046 bridge, culvert, and tunnel inspections to date 		
2004 - Ongoing	Countywide Bridge Inspection Services for Mobile County, Alabama Topside and Underwater Team Leader <ul style="list-style-type: none"> • Approximately 103 structures requiring topside and underwater inspections • In 2015, converted inspections to element level 		

16. Staff Experience:

Firm employed by Volkert, Inc.			
Name	Robbie Chambless, NBIS, NTIS	Years of relevant experience with this employer	30
Title	Certified Tunnel Inspector	Years of relevant experience with other employer(s)	28
Degree(s) / Years / Specialization			
Active registration number / state / expiration date		Certified Bridge Inspector (CBI), AL #313 Certified Bridge Inspector (CBI), FL #646 Certified Tunnel Inspector (CTI), FL #Pending	
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Mr. Chambless joined Volkert in 2021. Prior to joining Volkert, he spent 28 years with the Alabama Department of Transportation. During that time, he worked his way from Bridge Inspector Trainee to Chief Bridge Inspector to Maintenance Operations Manager.	
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 years of experience specified in the applicable MPR(s).		
04/20-03/22	IDIQ Contract for Tunnel Inspections (LADOTD) Bridge Inspector. Volkert is a subconsultant to Mott MacDonald providing inspection support services at all three tunnels. To date, Volkert has provided structural inspection assistance to Mott MacDonald at the Houma, Harvey, and Belle Chasse tunnels in southeastern Louisiana. This project consists of conducting in-depth tunnel inspections statewide and development of inspection reports and rehabilitation plans, as necessary. The inspections included the identification of anomalies or deficiencies at the tunnels that required immediate attention via visual and hands-on inspections of all structural components, non-destructive testing, visual inspections of mechanical and electrical components (ventilation/pumps etc.), and visual inspections of maintenance and preservation efforts. The team also developed tunnel inspection reports that highlighted necessary repairs and any replacements that need to be made at the sites. The report included condition states, element notes, pictures, and sketches of any noted deficiencies.		
2021	Washburn Tunnel Inspection for Texas Department of Transportation as a subconsultant WSP -Team Leader <ul style="list-style-type: none"> • 2,936’ long, immersed steel tube complex tunnel beneath the Houston Ship Canal • Volkert was responsible for the inspection of the electrical and mechanical system • Mr. Chambless assisted with the mechanical systems inspection 		
2021 - Ongoing	Regionwide Bridge and Tunnel Inspection Services for Alabama Department of Transportation – Southwest Region Team Leader <ul style="list-style-type: none"> • Task order based assignments; to date Volkert has performed 238 inspections including the Bankhead and Wallace Tunnels • Mr. Chambless served as a team leader performing routine inspections 		
2021 - Ongoing	Countywide Bridge Inspection Services for Mobile County, Alabama Team Leader <ul style="list-style-type: none"> • Approximately 103 structures requiring topside and underwater inspections • In 2015, converted inspections to element level 		

16. Staff Experience:

Firm employed by Volkert, Inc.				
Name	Stephen Dossett, PE, NCBI, NTIS		Years of relevant experience with this employer	6
Title	Certified Tunnel Inspector		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		Bachelor of Science / 2008 / Civil Engineering		
Active registration number / state / expiration date		38365 / Louisiana / 03/31/2021 Certified Bridge Inspector (CBI), AL #797 Certified Tunnel Inspector (CTI), FL #Pending		
Year registered	2000	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Mr. Dossett performs thorough inspections of various types of structures and bridges across the county for various clients, including federal, state, and county agencies. He compiles comprehensive bridge inspection reports for routine, interim, underwater, snooper, and emergency structural inspections; and analyzes structural stability of bridges with unknown foundations to determine the susceptibility to scour.		
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 years of experience specified in the applicable MPR(s).			
2013–2016, 2019-2022	Nationwide Bridge Inspection Services for the Eastern Federal Lands Highway Division of FHWA Project Engineer/Team Leader/QA Manager <ul style="list-style-type: none"> • Over 5,000 bridge, culvert, and tunnel inspections in 46 states and Washington DC • Performed over 950 load ratings • Mr. Dossett has performed 255 bridge and culvert inspection to date 			
2013 - Ongoing	Statewide Complex Bridge Inspections in Mississippi for Office of State Aid Road Construction Field Operations Manager/Team Leader <ul style="list-style-type: none"> • Approximately 104 structures in 15 counties • Included four movables (basculer, swing, and lift) • Performed load ratings on all structures inspected 			
2014 - 2015	Load Rating Services for Plaquemines Parish Owned Bridges Project Engineer/Bridge Inspector <ul style="list-style-type: none"> • Required reviews of existing bridge plans, previous reports, as-built drawings, and on-site inspections • Ratings were based on inventory loads, current operating loads, legal loads, hauling loads and permit requirements • Mr. Dossett performed load rating assessments 			

16. Staff Experience:

Firm employed by Volkert, Inc.				
Name	Todd Powell, NBIS, NTIS		Years of relevant experience with this employer	16
Title	Certified Tunnel Inspector		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization				
Active registration number / state / expiration date		Certified Bridge Inspector (CBI), FL #377 Certified Bridge Inspector (CBI), AL #629 Certified Tunnel Inspector (CTI), FL #Pending		
Year registered		Discipline		
Contract role(s) / brief description of responsibilities		Mr. Powell joined Volkert in 2006 after working with the Florida Department of Transportation for nine years. He has over 25 years of bridge inspection experience on nearly all bridge types.		
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 years of experience specified in the applicable MPR(s).			
2005 - 2022	Nationwide Bridge Inspection Services for the Eastern Federal Lands Highway Division of FHWA Project Engineer/Team Leader/QA Manager <ul style="list-style-type: none"> • Over 5,000 bridge, culvert, and tunnel inspections in 46 states and Washington DC • Performed over 950 load ratings • Mr. Powell has performed 780 bridge, culvert, and tunnel inspections to date 			
2013 - Ongoing	Statewide Complex Bridge Inspections in Mississippi for Office of State Aid Road Construction Team Leader <ul style="list-style-type: none"> • Approximately 104 structures in 15 counties • Included four movables (bascule, swing, and lift) • Performed load ratings on all structures inspected 			
2006 - Ongoing	Countywide Bridge Inspection Services for Mobile County, Alabama Team Leader <ul style="list-style-type: none"> • Approximately 103 structures requiring topside and underwater inspections • In 2015, converted inspections to element level 			

16. Staff Experience:

Firm employed by Volkert, Inc.				
Name	Steven Armstrong, PE		Years of relevant experience with this employer	1
Title	Certified Bridge Inspector		Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization		B.S. / 2015 / Civil Engineering M.S. / 2021 / Civil Engineering		
Active registration number / state / expiration date		44405 / Louisiana / 9/30/2024 ; Certified Bridge Inspector (CBI), FL		
Year registered	2020	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Mr. Armstrong has particular expertise in the structural inspection of overhead ancillary sign structures; submerged structural inspections of infrastructure including bridges, wharves, weirs, rock dikes/jetties, concrete and timber foundations; and high-resolution acoustic imaging of underwater structures.		
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 years of experience specified in the applicable MPR(s).			
Ongoing	Louisiana Department and Transportation and Development (LaDOTD), IIJA Off-System Bridge Replacement Program; District 04, Louisiana. Engineer who assists in the implementation and management of the DOTD’s Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program (OSBR). Initial services for this project included site screening and bridge selection for replacement based on matrix/spreadsheet cataloging specific site information in order to select the structures that meet the program timeline and budget.			
10/21 – 02/22	Louisiana Port of New Orleans (PONO) Harmony Street and 7th Street Wharf Inspection as part of the PONO Structural Inspection and Load Rating Contract, Louisiana. Mr. Armstrong was the team leader for the inspection of the rail line adjacent to the wharf edge; including the substructure, superstructure, and rail condition rating per the AREMA guidelines. Volkert is tasked to review and analyze existing structural load ratings of the rail bridge and update the load rating if findings deem necessary.			
02/23-02/24	Routine Waterfront Inspection of PoNOLA France Road Terminal for Boh Bros. Construction, LLC. Mr. Armstrong is the Project Manager and Team Leader responsible for the overall routine waterfront inspection in accordance with the American Society of Civil Engineers (ASCE) Standard Practice Manual for Underwater Investigations and ASCE Waterfront Facilities Inspection and Assessment. This task include an above and below water inspection followed by an in-depth report provided to the client			
02/20-09/24 est.	LA 23: Belle Chasse Bridge and Tunnel (HBI) Improvements, Plaquemine Parish (LADOTD) Project Engineer. Volkert will be responsible for providing all Engineering Design and Construction Support services including implementation of the Construction Quality Assurance Plan for the Belle Chasse Bridge & Tunnel Public Private Partnership (P3) Project which provides for the replacement of the Belle Chasse Tunnel and Judge Perez Lift Bridge with a new toll bridge. This includes the development of construction plans, bridge replacement plans, decommissioning of the Tunnel and development of O&M plans. As the OVT, Volkert will provide guidance and support to the LADOTD Project Manager prior to and during reviews, develop review comments, attend project meetings, ensure that the P3 adheres to their contract, and address other assignments as directed.			

16. Staff Experience:

Firm employed by Volkert, Inc.				
Name	Janet Evans, PE		Years of relevant experience with this employer	14
Title	Principal-in-Charge		Years of relevant experience with other employer(s)	26
Degree(s) / Years / Specialization		MBA / 1986 / Business Administration BS / 1980 / Civil Engineering		
Active registration number / state / expiration date		21307 / LA / 09/30/2022		
Year registered	1984	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Principal-in-Charge overseeing all inspection, design, and construction activities for the duration of the project.		
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 years of experience specified in the applicable MPR(s).			
<i>40 years of experience</i>	Ms. Evans joined Volkert in 2008 and has over 40 years of roadway and bridge project management and design experience in design and construction of transportation projects. Her combination of construction and design experience has been utilized by the department in various alternative delivery projects including the development of draft CMAR guidelines and the development of a design build construction manual. She has renewed her ATSSA Traffic Control Supervisor, Technician and Flagger certifications recently. Ms. Evans experience from both the construction side and the design side allow her to provide insight which aids in the resolution of issues in alternative delivery projects. She has numerous years of experience serving as a principal on alternative LADOTD projects and is currently providing Construction Quality Assurance on several urban roadway and bridge replacement projects in the area.			
04/21-03/22	Principal-in-Charge for IDIQ Contract for Tunnel Inspections (LADOTD). This project consists of conducting in-depth tunnel inspections statewide and development of inspection reports and rehabilitation plans, as necessary. The inspections included the identification of anomalies or deficiencies at the tunnels that required immediate attention via visual and hands-on inspections of all structural components, non-destructive testing, visual inspections of mechanical and electrical components (ventilation/pumps etc.), and visual inspections of maintenance and preservation efforts. The team also developed tunnel inspection reports that highlighted necessary repairs and any replacements that need to be made at the sites. The report included condition states, element notes, pictures, and sketches of any noted deficiencies. Volkert is a subconsultant to Mott MacDonald providing inspection support services at all three tunnels. To date, Volkert has provided structural inspection assistance to Mott MacDonald at the Houma, Harvey, and Belle Chasse tunnels in southeastern Louisiana.			
04/20-03/22	IDIQ Contract for Tunnel Inspections (LADOTD) Principal-in-Charge. Volkert is a subconsultant to Mott MacDonald providing inspection support services at all three tunnels. To date, Volkert has provided structural inspection assistance to Mott MacDonald at the Houma, Harvey, and Belle Chasse tunnels in southeastern Louisiana. This project consists of conducting in-depth tunnel inspections statewide and development of inspection reports and rehabilitation plans, as necessary. The inspections included the identification of anomalies or deficiencies at the tunnels that required immediate			

	attention via visual and hands-on inspections of all structural components, non-destructive testing, visual inspections of mechanical and electrical components (ventilation/pumps etc.), and visual inspections of maintenance and preservation efforts. The team also developed tunnel inspection reports that highlighted necessary repairs and any replacements that need to be made at the sites. The report included condition states, element notes, pictures, and sketches of any noted deficiencies.
02/20-09/24 est.	LA 23: Belle Chasse Bridge and Tunnel (HBI) Improvements, Plaquemine Parish (LADOTD) Principal-in-Charge. Volkert will be responsible for providing all Engineering Design and Construction Support services including implementation of the Construction Quality Assurance Plan for the Belle Chasse Bridge & Tunnel Public Private Partnership (P3) Project which provides for the replacement of the Belle Chasse Tunnel and Judge Perez Lift Bridge with a new toll bridge. This includes the development of construction plans, bridge replacement plans, decommissioning of the Tunnel and development of O&M plans. As the OVT, Volkert will provide guidance and support to the LADOTD Project Manager prior to and during reviews, develop review comments, attend project meetings, ensure that the P3 adheres to their contract, and address other assignments as directed.
08/17 - 07/20	I-10: Highland Road to LA 73 Design-Build, East Baton Rouge and Ascension Parishes, LA (LA DOTD) Ms. Evans is serving as Principal-in-Charge for the Owner Verification Team (OVT) on Task Orders 3 & 4 which allows Volkert to provide procurement and project oversight and acceptance for both design and construction for the I-10 Design-Build project from High-land Road in East Baton Rouge Parish to LA 73 in Ascension Parish. She is responsible for all project oversight for the Design and Construction on this \$72M Design-Build project. This project consists of upgrading a portion of I-10 in East Baton Rouge and Ascension Parish to a six-lane controlled access facility including construction of a new six-lane I-10 overpass at Highland Road. State Contract No. 4400004915 TO 3 & 4, S.P. No. H.009250
09/14 - 09/19	Retainer Contract for Design-Build and Other Alternative Delivery Support Services, Statewide, LA (LA DOTD) Ms. Evans is serving as project engineer and specification engineer on completed Task Orders 1 - 2. Although this work was done in connection with another firm, the Volkert staff, with the construction background, provided the majority of the write ups including the development of the contract type selection matrix, guidelines and procedures for scoring methodology, fee determination for CMAR contractors for pre-construction services, and guidelines for awarding CMAR construction contracts including GMP, negotiations, contractor fee or margins on construction contract and the development and tracking of Hot Points for Discussion with stakeholders. State Contract No. 4400004915 TOs 1 & 2, S.P. No. H.009250

16. Staff Experience:

Firm employed by A P S Engineering and Testing, LLC				
Name	Sergio Aviles, P.E., M.ASCE		Years of relevant experience with this employer	11
Title	President		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		BS Civil Engineering/2001/Geotechnical		
Active registration number / state / expiration date		0033571/ LA / 03-31-2024		
Year registered	2007	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Project Manager/Design Guidance/Field Crew and Lab Management		
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 years of experience specified in the applicable MPR(s).			
11/19–06/22	Project No. H. H.001352 and H.002273: Comite River Diversion Bridge at LA-67, LA-19 and LA-19 Railroad Bridge LA-67 and LA- 19- A P S was selected with the winning team for the design of the diversion CMAR project. A P S performed the Geotechnical Design for the project. Mr. Aviles was the Project Manager for the Project Design team.			
09/19–05/23	Project No. H.004100: I-10 Widening LA 415 to Essen LN- A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU Lakes. A P S drilled a total of eight (8) over the waterborings and 44 land borings. Along with this drilling and sampling, A P S tested for strength and engineering characteristics of the soils with approximately 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Aviles was the Project Manager to the Geotechnical Investigations			
04/23-Present	Project No. BA-0153 (CPRA) Mid Barataria Sediment Diversion- A P S was tasked to provide quality assurance, inspection and testing throughout the construction of the sediment diversion. Mr. Aviles is the Manager of Inspection and Testing			
03/01 – 05/05	<p>The following list consists of projects that Mr. Aviles did the design or assisted on the design while at LADOTD. These projects include pile design, slope stability, settlement analysis, and construction services (PDA, CAPWAP, and WEAP).</p> <p>ON SYSTEM PROJECT LIST:</p> <p>Mr. Aviles served as the staff geotechnical engineer while at the Pavement and Geotechnical Section for the following projects below. Projects include Embank Design, Pile Design, Drilled Shaft Design, MSE Wall Design, and Construction Supervision. Major project costs estimated over one million dollars:</p> <ul style="list-style-type: none"> • 015-04-0037 LA524-LA123 Route US165, 015-05-0035 LaSalle, 015-07-0044 (Route 165 Cadwell, 276-03-0016 Tangipahoa River Bridge, 3132 01-0029, 362-01-0009 Rat Bois, 452-01-0039 I-55 CrossOvers, 742-07- 0098 Susek Drive, Bayou Perrie and Sand Beach Bayou 103-01-0025, Broadway Ave.700-40-0127, Cameron Route La. 27 193-02-0042, Causeway Boulevard interchange Route I-10 450-15-0098,Clayton-Greenville 026-03-0025, Crescent City Connection 283-08-0143(46), Cross Bayou Bridge 090-01-0020, Flannery at Florida 742-17-0008.Innerloop 427 			

(Add rows as needed)

16. Staff Experience:

Firm employed by A P S Engineering and Testing, LLC				
Name	Sairam Eddanadi, M.E., P.E.		Years of relevant experience with this employer	10
Title	Chief Engineer		Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization		ME/Civil Engineering BE/Civil Engineering		
Active registration number / state / expiration date		0035129/ LA / 03-31-2024		
Year registered	2008	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Laboratory QA Manager/Design Engineer		
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 years of experience specified in the applicable MPR(s).			
11/19–06/22	Project No. H. H.001352 and H.002273: Comite River Diversion Bridge at LA-67, LA-19 and LA-19 Railroad Bridge LA-67 and LA- 19- A P S was selected with the winning team for the design of the diversion CMAR project. A P S performed the Geotechnical Design for the project. Mr. Sai was the Senior Design Engineer for the Project Design team.			
09/19–05/23	Project No. H.004100: I-10 Widening LA 415 to Essen LN- A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU Lakes. A P S drilled a total of eight (8) over the waterborings and 44 land borings. Along with this drilling and sampling, A P S tested for strength and engineering characteristics of the soils with approximately 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Sai was the project QA to the Geotechnical Investigations.			
04/23–Present	Project No. BA-0153 (CPRA) Mid Baratavia Sediment Diversion- A P S was tasked to provide quality assurance, inspection and testing throughout the construction of the sediment diversion. Mr. Sai is the Assistant Quality Manager.			
08/16–10/19	Project No. H.012422: I-110 Interchange Modification at Terrace Ave- A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave Exit. A P S tested for strength and engineering characteristics of the soils with approximately 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits performed by A P S Laboratory. Mr. Sai was QA to the Geotechnical Investigations.			
11/17–2/18	Project No. H.013193: US 61 Thompson Creek Bridge Replacement- A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. A P S tested for strength and engineering characteristics of the soils. Mr. Sai was QA to the Geotechnical Investigations.			

(Add rows as needed)

16. Staff Experience:

Firm employed by A P S Engineering and Testing, LLC				
Name	Surendra Pathak, M.S., P.E.		Years of relevant experience with this employer	9
Title	Staff Engineer		Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		MSCE/2013/Civil Engineering BE/2007/Civil Engineering		
Active registration number / state / expiration date		004348/LA/09-03-2025		
Year registered	2019	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Laboratory QA Manager/Design Engineer		
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 years of experience specified in the applicable MPR(s).			
11/19–06/22	Project No. H.004100: I-10 Widening LA 415 to Essen LN- A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU lakes. Along with this drilling and sampling A P S will also test for strength and engineering characteristics of the soils with. A total of eight (8) over the water borings and 44 land borings with approximately 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Surendra was a staff engineer to the Geotechnical Investigations.			
09/19–05/23	Project No. H.002273, H.000710, and H.001352 Comite River Diversion Bridge at LA-67, LA-19 and LA-19 Railroad Bridge LA-67 and LA-19: A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 12 deep borings for the new and replacement bridges at Highway 19, 67, and 964. A P S tested for strength and engineering characteristics of the soils. Mr. Surendra was QC to the Geotechnical Investigations.			
04/23–Present	Project No. BA-0153 (CPRA) Mid Barataria Sediment Diversion– APS was tasked to provide quality assurance, inspection and testing throughout the construction of the sediment diversion. Mr. Surendra is a Staff Engineer for this project.			
08/16–10/19	Project No. H.013193: US 61 Thompson Creek Bridge Replacement- A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. A P S tested for strength and engineering characteristics of the soils. Mr. Surendra was a staff engineer to the Geotechnical Investigations.			
11/17–2/18	Project No. H.001344: US 190 over Bogue Falaya River- A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundation recommendation. Mr. Surendra was a Design Engineer for the project design team.			

(Add rows as needed)

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC				
Name	Sheelagh Brin Ferlito, PE, PTOE		Years of relevant experience with this employer	8
Title	Principal		Years of relevant experience with other employer(s)	27
Degree(s) / Years / Specialization		B.S. / 1988 / Civil Engineering		
Active registration number / state / expiration date		PE.0025383 / LA 9/30/2025		
Year registered	1993	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Traffic Control Design, Traffic Signal Analysis and Design / TMPs / Peer Reviews		
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 years of experience specified in the applicable MPR(s).			
07/21 - current	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge, LA) Brin is the task leader for Vectura for the Construction Engineering and Inspection of 24 traffic signals . Brin oversaw the review of signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Brin and Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.			
07/19 – current	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) Brin is the lead traffic engineer for entire the New Capacity Projects program management team. All traffic engineering scope of services, traffic / speed data collection, traffic design studies, safety studies, and traffic signal design plans are reviewed by Brin. She is in constant communication with the Traffic Engineering staff of DOTD and EBR Traffic Engineering Department. She understands the current requirements for all aspects of traffic engineering projects.			
07/19 – current	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement PPP (Belle Chasse, LA) Brin is the project manager for the temporary and permanent traffic signal plans for the intersections of LA 23 at Burmaster St and at Engineers Rd. She based her traffic signal plans on design year volumes that were developed using growth rates from the New Orleans Regional Planning Commission Travel Demand Model. This project is the first ever Public-Private-Partnership performed by Louisiana DOTD.			
09/20 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish, LA) Brin is the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction along LA 30 in Gonzales, LA. The project involves replacing three existing signalized intersections with multilane roundabouts along LA 30 at I-10 Interchange ramps and at Tanger Boulevard. Vectura also developed signal timing plans for each phase of the construction to maintain progression along LA 30.			
07/18 – 04/19	LA 1 Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Design West Baton Rouge Parish, Addis, LA Brin developed a Pedestrian Crosswalk Study and Traffic Signal Construction Plans for the intersection of LA 1 at LA 990 in Addis, LA. The study was based on DOTD Traffic Engineering Manual Crosswalk Guidelines followed by traffic signal design plans based on DOTD requirements. The study included traffic and pedestrian traffic data collection, a speed study, crash analyses, intersection analyses and progression analyses . The signal plans included pedestrian signal equipment, signal timing parameter calculations, crosswalk striping, signs, DOTD pay items, estimated quantities, and construction cost. Brin also assisted with the Parish with the DOTD Permit Request for Intersection Control Devices on a State Right of Way.			
09/17-04/18	US 11 at US 190 Bus. (Fremaux Ave.) Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Equipment Design Slidell, LA Brin developed a formal traffic study for a proposed crosswalk with pedestrian traffic signal equipment and pedestrian clearance timings based on DOTD requirements. Brin assisted with vehicle and pedestrian data collection, spot speed study, analyzed 3-year intersection crash data and developed signal timing for pedestrians to cross the street . From the design study, a set of Traffic Signal Modification Plans were developed to implement the recommended alternative.			
09/16 - 04/17	H.004957.5 I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study (St. Tammany Parish, LA) Brin was the project manager of a formal DOTD traffic study for the new alignment of LA 3241 with the purpose of obtaining both existing and projected future traffic variables in accordance with standard operating procedures typically performed in these types of analyses. The traffic study included alternative analyses to improve the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management and complete streets. Specific access management			

	features examined included intersection improvements, median openings, and U-turns, spacing and type of openings, signalization of intersections and roundabouts. Brin developed the safety analyses report for the project
04/14 – 12/14	H.002301 Signal Design for N. Sherwood Forest Dr. Widening Project (Baton Rouge, LA) As the project engineer, Brin was in responsible charge for data collection and design for three signalized intersections as part of a road widening project as per EBR DPW and DOTD requirements. Ms. Ferlito developed the traffic signal equipment, signal timing and communication construction plans, special provision specifications, quantities, and cost estimate. She also performed tasks to develop the striping plans and sequence of construction plans which included temporary signal equipment placement due to lane shifts during construction.
07/12-03/14	EBR 03-TS-CI-0026 CE&I for EBR Traffic Signal Systems Jefferson Highway Construction (Baton Rouge, LA) Brin was the Project Resident Engineer on behalf of EBR for performing CE&I services for the construction of 11 traffic signals . She maintained records of the contractor's daily operations, coordinated significant events that affected construction progress including utility issues, reviewed shop drawings, conducted monthly progress meetings, recorded daily installed quantities, developed change orders and monthly contractor pay estimates. She also coordinated with DOTD ITS division for fiber splicing into interstate I-12 fiber backbone and ATM / EOC building. She processed all monthly tasks in EBR formats as well as well as all items on the EBR project closeout checklist.
07/08-09/09	SPN 013-05-0043 CE&I for EBR Traffic Signal Systems Phase IV Construction (Baton Rouge, LA) Brin was the Project Resident Engineer for DOTD and EBR to perform CE&I services for the construction of 21 traffic signals . She developed the project Sample Plan, maintained records of the contractor's daily operations, coordinated significant events that affected construction progress including utility issues, reviewed shop drawings, conducted monthly progress meetings, recorded daily installed quantities, coordinated concrete sampling for DOTD Materials Lab, developed change orders and monthly contractor pay estimates. She also coordinated with DOTD ITS division for fiber splicing into Airline Highway fiber backbone and ATM / EOC building. She processed all monthly tasks electronically in DOTD Site Manager and in EBR required formats as well as all items on the DOTD Project Closeout Checklist including the 2059 Report.
01/09 – 03/12	S.P. No. 700-99-0332 US 165 Corridor Study Pineville Brin was the Senior Project Engineer for a corridor traffic study in Pineville, LA. The project included traffic data collection, forecast traffic volume development, existing analyses and proposed alternative analyses that included improved traffic signal timings. She used Highway Capacity Manual software, Sidra software and VISSIM traffic simulation software to evaluate existing and proposed alternative conditions. Access management principles were applied to the proposed alternatives.
09/13 – 04/14	S.P. 700-99-0477 Jefferson Hwy. Signal Design (Baton Rouge, LA) Ms. Ferlito designed traffic signal plans for 11 intersections along Jefferson Highway between College Drive and the I-12 On Ramp in Baton Rouge. Design included traffic data collection, traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout . Design also included traffic signal synchronization signal timing and pedestrian signal timing. She prepared estimated quantities, preliminary and final signal construction plans, and specifications.
03/05 – 11/05	Airline Hwy Widening SPN 700-99-0332 (Baton Rouge, LA) Brin designed 8 traffic signals as part of the Airline Hwy. widening project in Baton Rouge. Her design included traffic data collection, traffic signal equipment, signal synchronization timing, fiber communication, storage length calculations based on queues analyses, special provision specifications, quantities, and cost estimate . This project included fiber design to be the first Baton Rouge project to connect video surveillance images and traffic controller information to the ATM / EOC.
02/03 – 01/04	EBR Traffic Signal Systems Phases IV and V SPN 700-17-0172 (Baton Rouge, LA) Brin was the project engineer for the design of 66 signalized intersections on eight arterials in Baton Rouge which included traffic data collection, traffic signal equipment, pedestrian crosswalk equipment, emergency vehicle and railroad preemption equipment, fiber interconnect equipment as well as traffic signal synchronization. Brin prepared traffic signal construction plans, estimated quantities, and specifications.

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC				
Name	Laurence Lucius Lambert, II, PE, PTOE, PTP		Years of relevant experience with this employer	8
Title	Principal		Years of relevant experience with other employer(s)	18
Degree(s) / Years / Specialization		B.S./1997/Civil Engr. M.S./2006/Civil Engr. (Transportation focus) M.B.A./2010		
Active registration number / state / expiration date		PE.0029901 / LA / 3/31/2024		
Year registered	2001	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Traffic Control Design, Traffic Signal Analysis and Design / TMPs / Peer Reviews		
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 years of experience specified in the applicable MPR(s).			
07/23 – 11/23	H.015504.5 CCC Decorative Lighting Level 4 TMP (New Orleans, LA) Laurence was the project manager for a Level 4 Traffic Management Plan (TMP) for the Crescent City Connection (CCC). Laurence oversaw the lane closure analysis based on queuing. A safety analysis of the construction zone was also performed to identify any “hot spots”. The results were summarized in a report that was reviewed by DOTD.			
12/21 – current	H.012030.5 US 371 KCS RR Overpasses HBI (Webster Parish, LA) Laurence was the project manager for the design of permanent pavement marking and signing sheets for the construction plans in MicroStation. He will also participate in the QC of the sequence of construction and detour route.			
06/21 – 02/22	H.013267 Capital Area Pathways Project (Baton Rouge, LA) Laurence was project manager for a traffic study to evaluate trail crossings at three state routes that required DOTD approval. The traffic study included traffic data collection, safety analysis, existing conditions analysis and alternative analysis . Laurence used the DOTD Traffic Engineering Manual, MUTCD, and FHWA guidance to develop the most effective trail crossing alternatives.			
07/19 – current	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) At the beginning of the program, Laurence worked with the Capital Region Planning Commission to produce measures of effectiveness from the travel demand model to prioritize the MOVEBR project list. Laurence and Pong Wu developed a list of vehicle miles traveled, V/C ratios and vehicles hours of delay. Laurence also provided peer review for the traffic studies for Ben Hur Road and Lee Drive.			
02/21 - 03/21	H.013256.5 I-10 ITS Scott to Lake Charles (Southwest Louisiana) Laurence was the lead traffic engineer for a Level 2 TMP for the construction of ITS equipment along I-10. The plan included a safety strategy that included a CAT Scan, LOS determination utilizing Citrix data, lane closure recommendations based on a queue analysis and public information strategies.			
04/18 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger & I-10 Gonzales (Ascension, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans . Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the MUTCD details on roundabouts.			
04/18 – 12/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans . Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the MUTCD details on roundabouts.			
02/20 – 09/21	College Drive Corridor Enhancement from Perkins Road to I-10 (Baton Rouge, LA) Laurence was the project manager to develop Chapter 1 (Data Collection), Appendix A (Initial Data Collection), and Appendix B (Final Data Collection) for proposed improvements College Drive. Since the I-10 interchange was included in the study, approval from DOTD was required . Vectura collected, turning movement counts, 85% speed data, travel time runs, queue measurements, field observations, verification of Traffic Signal Inventories, and bicycle / pedestrian / transit observations.			
10/17 - 10/18	H.013025 LA 182 (University Avenue) Corridor Planning Study (Lafayette, LA) Laurence was the lead transportation engineer for a Corridor Planning Study for LA 182. The scope focused on improving safety and mobility for pedestrian, bicycle, and transit users. Laurence collected AM & PM peak vehicle turning movement counts as well as pedestrian and bicycle counts. Laurence coordinated with the Acadiana Planning Commission to develop growth rates and design year volumes . Laurence then performed Highway Capacity Manual analysis for 5 intersections along the intersection analyses for the signalized and roundabout controlled alternatives. Included in the study was a safety analyses of five intersections and the intermediate			

	segments. Based on the results of the safety analysis, Laurence provided design criteria to the design team for improving safety of pedestrians, bicycles, and vehicles.
09/16 - 04/17	H.004957.5 I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study (St. Tammany Parish, LA) Laurence was the lead traffic engineer for a DOTD traffic study for the new LA 3241 alignment with the purpose of obtaining both existing and projected future traffic variables in accordance with standard operating procedures typically performed in these types of analyses. Laurence worked closely with the NORPC and District 62 to develop design year volumes using data from the travel demand model. The traffic study examined concepts that improved the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management that included the I-12 interchange ramps. Laurence collected 7-day, 24-hour counts w/ classification on mainlines, turning movement counts for morning and evening peak periods and speed data for mainlines. Laurence also developed a VISSIM traffic simulation model of the preferred alternative.
07/14 - 01/17	FHWA Intersection & Interchange Geometrics: Innovative Design Considerations for All Users (Multiple States) FHWA funded workshops for state Departments of Transportation that were interested in learning more about innovative intersection & interchange design. Laurence presented either part or all the one-day or two-day workshops that included modules on the overall policy and goals of FHWA for these types of innovations, roundabouts, roundabout interchanges, DLTs, DDIs, J-turns / Superstreets, MUT, Thru-turns, quadrant, and the assessment tools (CAP-X) available to compare the measures of effectiveness of each innovation. Each module includes sections on design, traffic operations, safety and multi-modal accommodation Laurence has presented for the Alabama, Kentucky, Ohio, Oklahoma, Massachusetts, Tennessee, and Texas Departments of Transportation under this contract.
06/16 - 09/17	H.004490 Stage 0 Roundabout Studies, (Lafayette Parish, LA) Laurence performed a Stage 0 Feasibility Study for roundabouts at ten intersections in the Lafayette area. The scope was developed based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Laurence, along with Brin, collected 7-day, 24-hour counts w/ classification, turning movement counts for peak periods and speed data for mainlines . Once the traffic data was collected, Laurence performed traffic signal warrants analyses , performed a Sidra unsignalized, signalized and roundabout analyses. After the analyses were completed, Laurence developed a report that captured the results.
03/10 - 11/11	S.P. No. 700-09-0171 Stage 0 and 1 Study I-49 Inner City Connector (Shreveport, LA) This 3.5-mile route will connect existing I-49 / I-20 interchange to the proposed I-49 / I-220 interchange. After completing the Stage 0 , Laurence was the project manager for the traffic analyses for the EA phase. The total traffic analyses effort included over 30 TransCAD Models, 20 interchanges and 70 intersections. Analyses included signalized and unsignalized intersections, basic freeway segments, freeway merge / diverge segments and freeway weaving segments at the studied intersections and interchanges. This project included performing both Interchange Modifications Reports (IMRs) and Interchange Justification Reports (IJRs).
11/09 – 08/10	I-12 at Millerville Road Interchange Modification Request (Baton Rouge, LA) The scope of this project consisted of preparing and obtaining environmental clearance for the proposed future roadway and signal improvements at the I-12 / Millerville Road Interchange. Laurence prepared documents and obtained environmental clearance for all on-site work and held public meetings. Laurence developed all HCS analyses and a micro-simulation model. Laurence also participated in several public meetings to satisfy the environmental clearance requirements.
09/06 - 09/07	EBR 06-CS-HC-00012 Downtown Baton Rouge Signal Project (Baton Rouge) Laurence was the Project Manager to develop construction plans to upgrade 29 signals in downtown Baton Rouge as part of the EBR Green Light Plan. Laurence developed a design study that included traffic data collection , handicap ramp recommendations, countdown pedestrian signals and internally illuminated street name signs.
04/04 - 09/06	Stage 0 I-10 at Pecue Lane Interchange Justification Study (Baton Rouge, LA) Laurence was the lead traffic engineer for a Stage 0 traffic study analyzing the proposed interchange at I-10 and Pecue Lane. Laurence developed current and future traffic volumes based on the CRPC TransCAD model growth rates. Using HCS, Laurence analyzed signalized and unsignalized intersections , basic freeway segments, freeway merge / diverge segments and freeway weaving segments. Laurence also developed a micro-simulation model in both VISSIM and TSIS.
04/04 - 12/04	I-10 Frontage Roads, Picardy Interchange, Bluebonnet Siegen (Baton Rouge, LA) Laurence provided the traffic analysis for a highly unique reconfiguration of interstate ramps that included frontage roads and an overpass of I-10 for new an interchange at Picardy. HCS and VISSIM were the primary analysis tools for the analysis. As part of the design team that developed the concept for this project, Laurence performed feasibility studies , developed design criteria, and coordinated with city, state and federal agencies for approvals as well as gathered public input. Laurence prepared traffic signal timings and designs that included cost estimates for the project.

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC				
Name	Reece Rodrigue, PE, PTOE, RSP1		Years of relevant experience with this employer	3
Title	Project Traffic Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		B.S. / 2013 / Civil Engineering		
Active registration number / state / expiration date		PE. 0042074 / LA / 3/31/2024		
Year registered	2017	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Project Engineer for Traffic Control Design, Traffic Signal Analysis and Design / TMPs / Peer Reviews		
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 years of experience specified in the applicable MPR(s).			
04/21 - current	MOVEBR Direct Select for Traffic Signal Design, Baton Rouge, LA Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This project included a traffic design report, preliminary and final plans for traffic signals that included traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. The design also included traffic signal synchronization signal timing and pedestrian signal timing.			
07/21 – current	H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge) Reece is part of the team responsible for Construction Engineering and Inspection . Reece has reviewed the signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.			
01/21 – 05/21	H.013256 - I-10 ITS Scott to Lake Charles (Lafayette, Acadia, and Jefferson Davis Parishes) Reece was a member of the subconsultant team who was tasked with reviewing the ITS plans for 15 sites along I-10 where CCTV cameras were being installed. Reece was responsible for measuring anticipated construction quantities and producing a cost estimate for said quantities by using DOTD’s Bid Tabulation and Cost Estimating Tool .			
09/20 – 12/21	H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish) Reece was a project engineer, who participated in the production of the temporary signal design associated with the sequence of construction for the roundabout at US 171 at Boone St. He conducted a thorough analysis of the US 171 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			
09/20 – 12/21	H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish) Reece was a project engineer, who assisted in the production of the temporary signal design associated with the sequence of construction for the roundabouts on LA 30 in Gonzales, LA. This project consists of eight proposed construction phases. He assisted in calculating the temporary pole heights, determining the placement location for the temporary poles for each phase, measuring and calculating clearance intervals. Reece conducted a thorough analysis of the LA 30 corridor’s existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			
04/20 - current	H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse) Reece is the project engineer who designed the temporary traffic signal for the intersection of LA 23 at Engineers Rd. The design of the temporary signals is set for eight phases of construction per the anticipated sequence of construction. Temporary pole location and heights were recommended for placement for use for all construction phases. Vehicle clearance interval calculations were conducted for each phase in accordance with DOTD and ITE guidance. Reece is responsible for producing the traffic impact analysis portion of the Traffic Management Plan, which was also used in planning for the permanent and temporary signal timing plans. Reece also produced permanent signal plans for the LA 23 intersections at Engineers Road and at Burmaster Street. He evaluated STOP bar locations, calculated vehicle, and pedestrian clearance intervals, designed the railroad preemption sequence for both at-grade crossings, designed the wiring layout, and developed the interconnect plan. Reece maintains correspondence with the fellow design engineering team for product consistency. In addition, Reece reviewed and approved shop drawings that were submitted by the contractor.			
04/21 - current	MOVEBR Direct Select for Traffic Signal Design, Baton Rouge, LA Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This project included a traffic design report, preliminary and final plans for traffic signals that included traffic signal layout, fiber			

	interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. The design also included traffic signal synchronization signal timing and pedestrian signal timing.
02/20 – 09/21	College Drive Corridor Enhancement from Perkins Road to I-10 (Baton Rouge, LA) Reece was the task leader for organizing and formatting the data collection of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.
07/19 – 12/19	Burgess Avenue at Duff Road Traffic Signal Design, Walker, LA Reece was responsible for the design of a fully actuated signalized intersection in the city of Walker, LA. The traffic signal was determined to meet signal warrants upon completion of the Foxglove subdivision in Livingston Parish, LA. Plans included road widening, signal face indication schedule, signal sequence chart, sign schedule, detector schedule, controller timing, wiring diagram, and free operation phasing diagram. Reece met with city officials to discuss the feasibility of constructing a traffic signal as opposed to other alternative measures for improving the intersection.
02/16 - 12/16	H.005733.5 US 190 Superstreet Task Order (St. Tammany Parish) Reece was a team member responsible for the layouts for the US 190 Superstreet signal designs. He created the preliminary plans using CAD software program MicroStation V8i. He aided in the technical design of each intersection. He conducted field inspections to verify locations of existing equipment as well as observing the area for feasible proposed utility locations. He attended project team meetings to discuss the project details as well as the plan-in-hand walk-through.
01/16 – 11/17	Ochsner Main Campus Traffic Signals (Jefferson Parish) Reece served as a design engineer for the traffic signal plans for the two Ochsner Main Campus access traffic signals with US 90 (Jefferson Hwy). The goal of the design was to implement updated pedestrian timings as well as optimize progression through the US 90 corridor. He reviewed traffic data and assigned time of day coordination timing parameters for the two intersections so that they may be included in the coordinated system west of the intersections. He used TruTraffic to determine the appropriate offset parameters so that vehicles may progress efficiently through the coordinated system. Plans for the two intersections were drafted in the form of DOTD's latest version of the TSI format. He was responsible for estimating construction quantities using DOTD's 2016 Spec Item list.
10/16 – 05/17	Loyola Interchange Modification Request, Kenner, LA Reece was a team member in the production of an Interchange Modification Report (IMR) for the I-10 at Loyola Dr. Interchange. He was an active member in collecting vehicle travel time data and processing the data. He also aided in collecting vehicle queues at the study intersections. He also assisted in the Vissim model calibration.
02/15 – 12/15	H.011646 Retainer Contract for DOTD District 02 Traffic Signal Inventories - Nola 3 Reece served as the lead engineer in the production of the traffic study for the District 02 Traffic Signal Inventories. The objective was to effectively correct the progression of traffic through the US 90 (Broad St) corridor. He reviewed vehicle crash data at all intersections in the study scope. He conducted travel time runs. He created a model with existing traffic signal timing information using Synchro 8 Software. He recommended traffic signal pedestrian clearance times and yellow and red clearance times for each intersection. He used MicroStation V8i when designing traffic signal plans in DOTD's TSI format.

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC				
Name	Kristen Gahagan Farrington, PE, PTOE, RSP1		Years of relevant experience with this employer	2
Title	Project Traffic Engineer		Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		B.S. / 2013 / Civil Engineering		
Active registration number / state / expiration date		PE. 0042785 / LA / 3/31/2025		
Year registered	2016	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Project Engineer for Traffic Control Design, Traffic Signal Analysis and Design / TMPs / Peer Reviews		
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 years of experience specified in the applicable MPR(s).			
07/23 – 11/23	H.015504.5 CCC Decorative Lighting Level 4 TMP (New Orleans, LA) Kristen was the lead traffic engineer for a Level 4 Traffic Management Plan (TMP) for the Crescent City Connection (CCC). Kristen performed a lane closure analysis based on queuing. A safety analysis of the construction zone was also performed to identify any “hot spots”. The results were summarized in a report that was reviewed by DOTD.			
12/21 – current	H.012030.5 US 371 KCS RR Overpasses HBI (Webster Parish, LA) Kristen was the project engineer to design permanent pavement marking and signing sheets for the construction plans in MicroStation. She will also participate in the QC of the sequence of construction and detour route.			
04/21 - current	CP No. 16 CI-US-0032 Bus Rapid Transit (BRT) Improvement Project (Baton Rouge, LA) Kristen a project engineer for a traffic design study and traffic signal design of 19 signals along three corridors: Plank Road, 22nd Street and US 190 (Florida Street). Kristen assisted the prime consultant with the safety analysis as well.			
08/21 – 04/22	H.013267 Downtown to Scotlandville Parkway Trail Safety Enhancement Study (Baton Rouge, LA) Kristen was a project engineer for a design study to evaluate the recommended street crossing treatments of the trail at eight locations. The project consisted of collecting vehicular speed and volume data at the proposed trail crossings. Geometric field checks were also performed to determine if any hazards to pedestrians or cyclists existed. Once the field data was collected and analyzed, appropriate crossing treatments utilizing the <i>FHWA STEP Guide for Improving Pedestrian Safety at Unsignalized Locations</i> were developed that included Rectangular Rapid-Flashing Beacons (RRFB) and Pedestrian Hybrid Beacons (PHB’s). Currently, Vectura is developing plans for the PHB’s at four locations which will be the first implementation of PHB’s in the Baton Rouge area.			
02/20 – 09/21	MOVEBR College Drive Enhancement Project (Baton Rouge, LA) Kristen assisted with the data collection task of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.			
6/19 - 2/21	H.013459 US 167 Improvements Stage 0 Elsie Street to Gilbert Street (St. Landry Parish, LA) Kristen served as project manager for a Stage 0 study to evaluate the addition of a third lane to US 167 from Elsie Street south to a point past Gilbert Drive. Environmental impacts and cost estimates were prepared, as well as a benefit-cost analysis of all improvements considered. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis. Designed high-level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.			
6/19 - 2/21	H.013460 US 167 Improvements Stage 0 Enola Street to Ross Road (Evangeline Parish, LA) Kristen served as project manager for a Stage 0 study of a two-lane road to remove a curvilinear section of US 167 from Enola Street near LA 748, southeast for approximately 1.2 miles. The study compared connecting existing property owners to a new roadway with driveways or intersection of old roadway. Environmental impacts and cost estimates were prepared. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis, as well as a benefit-cost analysis. Designed high-level concept exhibits and a comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.			

04/19 – 6/21	H.013817.1 LA 117 Improvements Stage 0 (Vernon and Natchitoches Parishes, LA) Kristen served as project engineer responsible for a Stage 0 study for 18 miles of two-lane LA 117 from LA 8 to LA 118. The study evaluated the impacts of correcting deficient vertical and horizontal geometry along the corridor, widening for the addition of shoulders, and adding passing lanes and turn lanes at strategic locations along the corridor. Kristen was responsible for performing the safety analysis including crash rate number method, over-representation, CAT Scan quality assurance, HSM existing safety analysis, and No-Build Analysis. Kristen designed high-level concept exhibits, evaluated environmental impacts, and prepared high level cost estimates and comparison matrices to determine which preliminary alternatives best meet the purpose and need of the project. Kristen compiled all findings in the Stage 0 report and coordinated with stakeholders and local agencies to ensure the purpose and need of project is met.
03/19 – 11/19	H.012311 LA 429 Connector Stage 0 (Ascension Parish, LA) Kristen was the task leader for the preparation of a Stage 0 study to evaluate alignments for a limited-access corridor (LA 429) near I-10, between LA 30, LA 73, and US 61. Two alternatives for the widening and reconstruction of LA 429 were evaluated. The scope consisted of stakeholder and public meetings, site visits and data collection, phasing of alternative development for the corridor, scope and budget checklists, and an opinion of probable cost to prepare the Stage 0 Report. Kristen served as the civil engineer responsible for designing high level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes, coordinated with interchange study consultants for a cohesive project, and wrote report.
11/18 - 3/21	H.013322 LA 3040 Feasibility / Safety Study Stage 0 (Houma, LA) Kristen served as project engineer for a study to identify safety and operational issues along 2.5 miles of Martin Luther King Boulevard (LA 3040) in Houma, LA to evaluate reasonable alternatives to address any deficiencies discovered. Kristen was responsible for compiling a data collection plan for submittal to DOTD, including count locations, determined peak periods, and peak hours. Kristen performed peak period observations in the field and geometric field checks, as well as unmet demand observations and calculations . Kristen prepared TMC figures, as well as performed existing analysis in Vistro. Compiled all data collected into Appendices A and B per the DOTD Traffic Process and Report and wrote Chapter 1 of report. Kristen represented the project at stakeholder meetings to discuss project status.
04/18 – 04/19	H.011243.1 I-49 at US 190 and LA 31 Interchange Improvements Stage 0 (St. Landry Parish, LA) Kristen was the project engineer responsible for crash and safety analysis, report writing, planning, and designing for this Stage 0 Study to evaluate alternatives to improve traffic operations and safety at the I-49 interchanges with US 190 and LA 31. Crash and safety analysis was performed using the LADOTD CAT Scan tool and IHSDM, and line and grade was prepared to DOTD Design Standards for various corridors, including arterial collectors and freeway ramps. Close coordination with traffic engineer ensured maximum improvement of safety and operations given limited right-of-way and utility conflicts along the corridors.
09/17 – 09/18	H.011160 LA 73 Corridor Study Stage 0 LA 74 to LA 621 (Ascension Parish, LA) Kristen was the designer responsible for concept development, report writing, and impact analysis for a Stage 0 study. The purpose of the study was to evaluate conceptual alternatives to improve capacity and operations along the LA 73 corridor and its connecting transportation network. The scope included the evaluation of three interchange configurations for the interchange of I-10 at LA 73 in conjunction with two corridor alternatives for LA 73, resulting in six different alternatives for which line and grade, impacts, and high-level cost estimates were prepared.
11/16 – 07/17	H.001271 Cane River Bridge Church Street Route LA 1-X Environmental Assessment Kristen was the project engineer responsible for assisting with the site visits, data organization, analysis of permanent alternatives and traffic control alternatives , and traffic report to aid in the delivery of an environmental assessment for the Cane River Bridge Replacement

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC				
Name	Cade Nelson, EI		Years of relevant experience with this employer	<1
Title	Traffic Engineer Intern		Years of relevant experience with other employer(s)	2
Degree(s) / Years / Specialization		B.S./2020/Civil Engineering		
Active registration number / state / expiration date		EI.0034583 / LA / 09/30/2024		
Year registered	2020	Discipline	Civil	
Contract role(s) / brief description of responsibilities		Project Engineer Intern		
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 years of experience specified in the applicable MPR(s).			
8/23 – current	H.014746.1 Stage 0 LA 383 (Iowa, LA) Cade assisted in pulling crash data from DOTD crash 1 and performed field observations as part of traffic data collection			
05/23 – current	H.012030.5 US 371 KCS RR Overpasses HBI (Webster Parish, LA) Cade assisted the project engineer with the design of permanent pavement marking and signing sheets for the construction plans in MicroStation. She will also participate in the QC of the sequence of construction and detour route.			
06/23 – 08/23	MOVEBR Direct Select for Traffic Signal Design (Baton Rouge, LA) Cade assisted with the development of some of the signal construction plan sheets in MicroStation.			
09/23 - current	H.011507.1 Monroe Phase 3 SEA (Ouachita Parish, LA) Cade performed a field review of 35 signalized intersections that included controllers, detection, and communication. The field data will be used to develop a constraints analysis for upgrading to fiber optic communication and adaptive signalization.			
05/23 – current	MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) Clade assisted with quality control reviews to assist the City of Baton Rouge with their reviews.			
09/23 - current	H.972462.1 Stage 0 Feasibility Study – US 190B / Fremaux Avenue Sidewalk Study (Slidell, LA) Cade assisted in the deployment of the traffic data collection devices, collected spot speed data, and performed intersection observations.			
07/23 – 09/23	H.015504.5 CCC Decorative Lighting (New Orleans, LA) Cade assisted with the sortation and review of crash data, assisted project manager with the lane closure analysis, and assisted with develop figures in CAD for the report.			

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC			
Name	Ronald St. Angelo	Years of relevant experience with this employer	<1
Title	Construction Specialist	Years of relevant experience with other employer(s)	48
Degree(s) / Years / Specialization		High School Diploma / 1975	
Active registration number / state / expiration date			
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Senior-level Construction Specialist	
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 years of experience specified in the applicable MPR(s).		
02/03 – 04/23	<p>Jack B Harper Electrical, LLC (Walker, LA) Ronnie specialized in programming traffic signal controls / ITS equipment and troubleshooting construction issues in the field such as utility conflicts and traffic signal issues. He was a project manager for numerous traffic signal related projects and oversaw a team of field technicians for signal related construction projects. He was an estimator for bidding traffic signal / ITS equipment projects. Ronnie worked extensively throughout the state of Louisiana on hundreds of local, state, and federally funded traffic signal / ITS projects, to include major metropolitan areas, such as Greater New Orleans, Baton Rouge, and Lafayette. During this time, Ronnie worked on projects that built intersections from the ground up, to include base / signal installation, signal control electrical installation, and signal termination. Read and interpreted construction plans to ensure proper installation requirements were met for span wire and mast arm installation. Extensive experience in installing all forms of traffic signals during all construction phases. Assisted site inspectors with confirming mast arm foundation locations; drawing reviews; change requests; and verifying controller data collection and timing checks.</p>		
07/75 – 01/03	<p>East Baton Rouge Traffic Engineering Division Ronnie was a certified IMSA Level 1 & 2 Technician while employed at the City of Baton Rouge. Ronnie performed numerous construction tasks in relation to traffic signals within East Baton Rouge Parish. Construction included traffic signal poles, signal heads, signal wiring, vehicle detection, traffic signal controller / cabinet power service. In the earlier part of his career, the traffic signal controllers consisted of mechanical parts. As time progressed, the controller evolved to steady-state technology. In addition, Ronnie performed traffic signal tasks related to maintenance after damage from collisions or extreme weather. While employed in the city, Ronnie was tasked with maintaining over 300 signals that included DOTD intersections. Ronnie started his career at the City of Baton Rouge as a Technician, then Traffic Signal Technician, then Foreman and finally a supervisor. Ronnie was also responsible for programming traffic signal controllers while at the City.</p>		

16. Staff Experience:

Firm employed by Vectura Consulting Services, LLC			
Name	David Watkins	Years of relevant experience with this employer	<1
Title	Construction Specialist	Years of relevant experience with other employer(s)	35
Degree(s) / Years / Specialization		High School Diploma / 19788	
Active registration number / state / expiration date			
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Senior-level Construction Specialist	
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 years of experience specified in the applicable MPR(s).		
11/06 – 02/23	Jack B Harper Electrical, LLC (Walker, LA) David worked extensively throughout the state of Louisiana on hundreds of local, state, and federally funded traffic signal projects, to include major metropolitan areas, such as Greater New Orleans, Baton Rouge, and Lafayette. During this time, worked projects that built intersections from the ground up, to include base / signal installation, signal control electrical installation, and signal termination. Read and interpreted blueprints to ensure proper installation requirements were met for span wire and mast arm installation. Extensive experience in installing all forms of traffic signals during all construction phases. Assisted site inspectors with confirming mast arm foundation locations; drawing reviews; change requests; and verifying controller data collection and timing checks.		
03/01 – 10/06	Dave’s Electric (Denham Springs, LA) David conducted electrical work on numerous residential and commercial job assignments. He was responsible for installing all wiring and electrical components as directed by site blueprints; installed all circuits and electrical items during multi-phasal construction projects (i.e rough-in; trim-out); conducted final walk-through inspection; completed punch list items as required. David was also assigned as site lead during most job assignments.		
01/96 – 04/01	Diamond Electric Company, Inc. (Baton Rouge, LA) David performed duties as a Traffic Signal Technician Level I that included technical work in the construction, installation, maintenance, and repair of traffic signal systems. David also developed the ability to read and interpret blueprints during this time. Maintained electrical experience while working on roadways requiring traffic control. David also performed technical tasks to maintain and install all traffic signals, signal systems, signs, and associated traffic equipment. He delivered and set-up barricades for work zones, detours, and other areas in need of barricades; assisted with traffic control as needed. David performed related technical tasks; worked with contractors on the installation and relocation of traffic signals and components.		

17. Firm Experience:

Identify the team's project experience **most relevant** to the scope in the advertisement. **The projects should be limited to a total of 20, with no more than 5 projects being represented by the prime consultant and with no more than 3 projects represented by each sub-consultant on the team. If more than 5 projects are identified for the prime consultant, all projects identified after the first 5 will not be evaluated. If more than 3 projects are identified for a single sub-consultant, all projects identified after the first 3 from that sub-consultant will not be evaluated.** Include no more than one page per project. Projects identified shall only include work performed by firms on the team. The projects identified do not necessarily need to have been DOTD projects.

Firm name	Modjeski and Masters, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Bobby Hopper Tunnel Inspection		Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	Arkansas Department of Transportation	
Project location	Winslow, AR		Owner's Project Manager	Jessica Jackson, PE
Owner's address, phone, email	10324 Interstate 30, Little Rock, AR 72209 (501)569-2218, Jessica.Jackson@ardot.gov			
Services commenced by this firm (mm/yy)	03/23	Total consultant contract cost (\$1,000's)		\$161
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)		\$161

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

Modjeski and Masters, Inc. performed an inspection of the Bobby Hopper Tunnel near Winslow, AR for Arkansas Department of Transportation. The tunnel received a 100% hands-on inspection of all the tunnel elements both within and on top of Tube A (SB) and B (NB) bores, the mountain above the tubes, and around/throughout the North and South portals and approaches. The inspection was completed in accordance with the 2015 FHWA Tunnel Operations, Maintenance, Inspection and Evaluation Manual; the 2015 Specifications for National Tunnel Inventory; the NBIS Inspection Standards, the AASHTO Manual for Bridge Inspection and Evaluation, and the National Highway Institute Bridge Inspector's Reference Manual. A 27' scissor lift and a 45' manlift provided by Hugg and Hall Equipment Company of Springdale, AR, were used to access elements above the roadway including, but not limited to the upper portions of the concrete liner, the portals and adjacent retaining walls, the lighting system, lighting supports, and the support anchors. M&M provided the following deliverables:

- Detailed narrative inspection report illustrating both general and specific findings with photographs, sketches, testing data and tables as necessary.
- Detailed descriptions of the various tunnel electrical, mechanical and operations systems.
- Prioritized listing of maintenance needs.
- State and federal reporting forms will be completed and uploaded into InspectX as needed.

Key Personnel: Bradly Croop, PE, William Bolt, PE, Josh Rinehart, PE, Beth Sample, PE, John Van Riper, EI, Thien Pham, PE, Alexander Waardenburg, PE



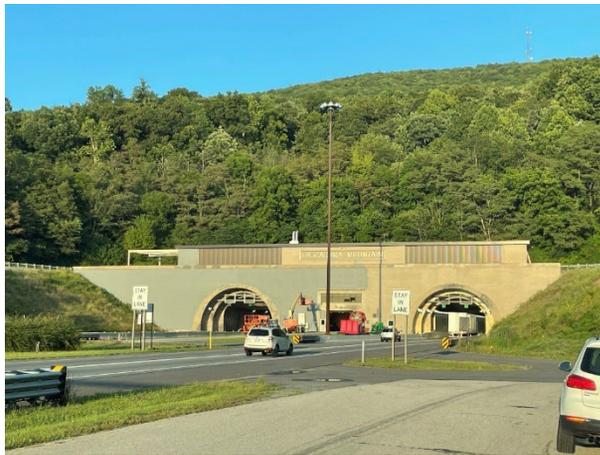
17. Firm Experience:

Firm name	Modjeski and Masters, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Inspection of Pennsylvania Turnpike Tunnels		Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	Pennsylvania Turnpike Commission	
Project location	Statewide, PA	Owner's Project Manager	James Hibbs, PE	
Owner's address, phone, email	P. O. Box 67676, Harrisburg, PA, (717) 939-9551, jhibbs@paturndpike.com			
Services commenced by this firm (mm/yy)	05/23	Total consultant contract cost (\$1,000's)	\$4,000	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm (\$1,000's)	\$1,656	

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

In-depth inspection of the PA Turnpike Commission's 5 rock-bored tunnels during 2023 and 2024. Tunnels include Allegheny, Tuscarora, Kittatinny, Blue Mountain and Lehigh Tunnels, located at mileposts 122.18 in Somerset County, 186.16 in Huntingdon County, 197.48 in Franklin County, 198.50 in Franklin County and A-70.26 in Lehigh County, respectively. The inspection services will be performed in accordance with NTIS. Tunnel inspections will include, but not be limited to: structural integrity, drainage, electrical, mechanical, lighting, portal buildings, roadway pavement, and safety features. Design services for critical issues may be included as part of the agreement.

Key Personnel: **Bradly Croop, PE, William Bolt, PE**, Josh Rinehart, PE, George Warner, **Max Fyrster, Alexander Waardenburg, PE**



17. Firm Experience:

Firm name	Modjeski and Masters, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Harvey Tunnel Scoping Inspection and Rehabilitation		Firm responsibility (prime or sub?)	Prime
Project number	H.010673	Owner's name	Louisiana Department of Transportation and Development	
Project location	Jefferson Parish, LA		Owner's Project Manager	Ryan Reviere, PE
Owner's address, phone, email	1201 Capital Access Rd, Baton Rouge, LA 70802, 225-379-1071, Ryan.Reviere@la.gov			
Services commenced by this firm (mm/yy)	11/12	Total consultant contract cost (\$1,000's)	\$657	
Services completed by this firm (mm/yy)	12/15	Cost of consultant services provided by this firm (\$1,000's)	\$316	

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

The Harvey Canal Tunnel is a vehicular tunnel built in 1957 on the West Bank of Jefferson Parish. It carries four lanes of traffic (2 lanes per tube) with pedestrian access on old Business US 90 (Westbank Expressway) under the Harvey Canal which is part of the Intracoastal Waterway. From portal to portal the tunnel is 1080 feet long with 5.0% profile grades in each direction and a 300-foot vertical curve at the centerline of canal. The overall width of the tunnel is 65'-0" with a cross-section depth of 20'-10". The concrete roadway is 4-3/4" thick reinforced by welded wire mesh which is independent from the bottom structural portion of the tunnel.

Project Features:

The intent of this Task Order was to develop a Scope of Work and Preliminary Plans for the rehabilitation of the Harvey Canal Tunnel. In addition to this primary charge additional items were to bring some items up to code (where feasible) and to make the tunnel and access to its equipment more "maintenance friendly". This phase of the Task Order was accomplished by reviewing DOTD documents of former tunnel inspections, meeting with DOTD personnel, and an on-site condition inspection and evaluation. Engineers and architects for each major discipline (structural, mechanical, electrical, architectural) met with counterparts from the DOTD along with district maintenance personnel at the site in order to observe and discuss all aspects of the tunnel and identify issues and problems to be addressed.. M&M provided plans for structural repairs and/or upgrades to the following items:

- Concrete Roadway and Deck Drainage System
- Tunnel Expansion Joints
- Pedestrian Handrails and Stairways
- Portal Headwalls
- Tunnel Tiles

PERSONNEL: Bruce E. Peterson, PE, Greg P. Taravella, PE, Cullen J. Ledet, PE



17. Firm Experience:

Firm name	Modjeski and Masters, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Baltimore Harbor Tunnel Inspection		Firm responsibility (prime or sub?)	J/V
Project number		Owner's name	Maryland Transportation Authority	
Project location	Baltimore, MD		Owner's Project Manager	Dan Williams
Owner's address, phone, email	410-537-7824			
Services commenced by this firm (mm/yy)	09/14	Total consultant contract cost (\$1,000's)		\$335
Services completed by this firm (mm/yy)	09/19	Cost of consultant services provided by this firm (\$1,000's)		\$308

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

Modjeski and Masters (M&M), as part of a joint venture with RK&K, has been responsible for in-depth inspections, client liaisons, and QAQC for four successive, three-year Open-End contracts with the Maryland Transportation Authority (MDTA). The Joint Venture is responsible for the physical, on-site inspection of the Authority's facilities. These facilities include: I-95 JFK Memorial Highway, Baltimore Harbor Tunnel Thruway (tunnel under water), Seagrit Marine Terminal, Fort McHenry Tunnel (tunnel under water), Francis Scott Key Bridge (truss), Harry W. Nice Memorial Bridge (truss), William Preston Lane Jr. Memorial Bridges (suspension).

Owned and operated by the Maryland Transportation Authority, the Baltimore Harbor Tunnel consists of two tubes with a total length of 6,300', plus an additional 1,450' of cast-in-place concrete structure at the north end. Constructed in 1958, each tube has an out-to-out width of 29'-8" and carries a two-lane highway, I-895 NB and I-895 SB respectively. The tunnel's roadway lighting system consists of wall-mounted induction lamp luminaries at varying spacing throughout both tubes. M&M completed the structural, electrical and mechanical inspection of the tunnel, pump room, and ventilation buildings in 2013 and 2014. In 2015 and 2016, M&M performed a complete sounding inventory of the tunnel walls and subsequent rehabilitation plans for removal and replacement of loose tiles and deteriorated concrete lining. Mr. Rinehart was part of the tunnel inspection team.

M&M has completed NBIS inspections, ultrasonic pin testing, strain gage monitoring, emergency response, and an overall review of the bridge inspection processes and procedures of the MDTA throughout the life of these contracts.

Project Relevance:

- *NBIS Bridge Inspections*
- *Tunnel Inspection*
- *Emergency Response*
- Non-destructive Testing
- Review of Agency's Bridge Inspection Program

Key Personnel: Bradly Croop, PE, William Bolt, PE, Tom Burns, PE, Max Fyrster, Rob Peters, PE, Lex Waardenburg, PE, Josh Rinehart, EI



Modjeski and Masters, Inc.

17. Firm Experience:

Firm name	Modjeski and Masters, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Downtown Tunnel and Union Station Tunnel Inspections		Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	MetroLink	
Project location	St. Louis, MO		Owner's Project Manager	Joni Korte
Owner's address, phone, email	314-982-1400 x1672			
Services commenced by this firm (mm/yy)	01/05	Total consultant contract cost (\$1,000's)		\$120
Services completed by this firm (mm/yy)	03/09	Cost of consultant services provided by this firm (\$1,000's)		\$120

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

M&M was contracted to perform routine inspections of the Metro Downtown Tunnel, the Union Station Tunnel, and the Eads Bridge over a 4 year period. The Downtown Tunnel and Union Station Tunnel inspections were performed biannually. The Eads Bridge was inspected annually. During the first inspections completed in 2005, M&M developed inspection databases for all three structures. Databases were updated for current deficiencies and inspection reports were prepared after each inspection summarizing the overall condition of the structure, including general observations, particularly notable finding, and repair recommendations. Inspections were performed in accordance with the MetroLink Structures Inspection Manual guidelines for Routine Inspections. MM will assist Metro with determining and implementing appropriate repairs for the Downtown tunnel which will include structural and mechanical (standpipe) repairs.

- **Downtown Tunnel:** consists of 3 main segments including two intermediate station platforms. The tunnel has a total length of 4,460'. Typical construction consists of a double-chamber tunnel. The specific scope of work for this project includes a routine inspection of the Downtown Tunnel, updating the Metro Downtown Tunnel Inspection Database, and submitting an inspection report that outlines the inspection findings and presents structural recommendations based on those findings.
- **Union Station Tunnel:** consists of 3 main segments that includes an eastern segment (composed of steel members); a center segment)composed of concrete ceiling slab with drop panels, supported with capitals atop concrete columns); and a western segment (composed of a two-cell reinforced concrete box, culvert-like sections). The tunnel has a total length of 1,082'. An overall evaluation of the structure, including an in-depth inspection and load capacity ratings, was performed. Upon completion of the evaluation, the scope of work was expanded to include the preparation of repair plans and construction inspection.

Project Relevance:

Personnel: **Rob Peters, PE, Lex Waardenburg, PE**

- Cut-and-over Tunnel
- In-ground Tunnel
- Tunnel Inspection & Repairs
- Analysis and Load Ratings
- Annual Inspections
- Mechanical & Electrical Inspection & Repairs



17. Firm Experience:

Firm name	ECM Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Harvey Tunnel Inspection		Firm responsibility (prime or sub?)	Sub to Hatch Mott MacDonald
Project number	State Project No. 4400004383	Owner's name	LADOTD	
Project location	Jefferson Parish, Louisiana		Owner's Project Manager	Haylye Brown, P.E.
Owner's address, phone, email	PO Box 94245, Baton Rouge, LA 70604. 225.379.1500, Haylye.brown@la.gov			
Services commenced by this firm (mm/yy)	03/14	Total consultant contract cost (\$1,000's)	NA	
Services completed by this firm (mm/yy)	03/16	Cost of consultant services provided by this firm (\$1,000's)	\$101	

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

ECM provided visual inspection, documentation and report preparation support services for the Harvey Tunnel in accordance with the National Tunnel Inspection Standards (NTIS). The scope for visual inspection of the project included:

- structural elements
- drainage system
- electrical systems including tunnel lighting, traffic control, CCTV, fire/incident detection, Power Distribution, Supervisory Control and Data Acquisition systems
- mechanical system including pumps, ventilation and standpipe

Scope of services included, but not limited to the following:

1. **Structural Inspection** for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for:
 - portal approaches and buildings; floors, walls, ceiling, and support members; ceiling slabs, supports and finishes; Joints in locations of tunnel leakage
2. **Drainage Inspection**
 - existing points of water infiltration and control features, appurtenances, the existing drainage facilities., the existing drains and piping components and the drainage gallery under the tunnel.

3. Electrical Inspection

A visual assessment of the equipment for assessment of the tunnel electrical systems included:

- Tunnel lighting inspection for functionality and luminance output; Tunnel Traffic Control including signage; CCTV; Fire Detection Systems; Main incoming switchgear, Transformers and Power Distribution system; Panel boards and disconnect enclosures and boxes; Supervisory Control and Data Acquisition (SCADA) system; Standby power supplies, UPS transfer switches and generators and; Instrumentation and Controls

4. Mechanical Inspection

A visual inspection of the equipment and an assessment of the tunnel mechanical system included:

- Tunnel Ventilation System; Carbon Monoxide Detection System; Plumbing and Sewage Ejection; HVAC and Space Heating; Fire Protection; and Compressed Air System.

5. Civil Inspection

A visual inspection and documentation the condition of the pavement system included:

- Tunnel roadway, approach roadways, barriers, sidewalks, walls. hatches, adits, manways, wall niches, and passage doors and the portal buildings.

ECM's scope of services included, but not limited to the following:

- Field inspection with the project team
- Inspection of tunnel and approach pavements, tunnel walls, drainage, portal buildings
- Report preparation support and reviews
- Cost estimating



Personnel worked on this project and included in this proposal: Ujjal DasGupta, P.E., Emilio Rodriguez, Ben Dow, Bob Tate

17. Firm Experience:

Firm name	ECM Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Belle Chasse Tunnel Inspection		Firm responsibility (prime or sub?)	Prime
Project number	State Project No. NA	Owner's name	DBi Services, LLC	
Project location	Plaquemines Parish, Louisiana		Owner's Project Manager	Clarke Woods
Owner's address, phone, email	6707 Monroe Hwy, Ball, Louisiana 71405, NA, Clarke.woods@dbiservices.com			
Services commenced by this firm (mm/yy)	02/20	Total consultant contract cost (\$1,000's)	\$75	
Services completed by this firm (mm/yy)	04/20	Cost of consultant services provided by this firm (\$1,000's)	\$40	

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

ECM Consultants, Inc. was engaged by DBi Services to perform the **baseline inspection of the Belle Chasse Tunnel** and the movable bridge. The purpose of the inspection is to perform visual inspections to assess present conditions, summarize findings and provide recommendations based on engineering judgement for potential maintenance and **repair needs during the construction of the proposed new Belle Chasse bridge**. The duration of construction is anticipated to be approximately four years. As per the contract between the LADOTD and the Developer of this P3 project, which is the first of its kind in Louisiana, the Developer will be required to operate and maintain the tunnel and the movable bridge during the construction period. The inspection involved review of the previous inspections performed by LADOTD and site visit by NHI certified engineers and NHI certified inspectors. The inspections for both the bridge and the tunnel were performed on February 29, 2020.

ECM provided visual inspection, documentation and report preparation services for the Belle Chasse Tunnel in accordance with the National Tunnel Inspection Standards (NTIS).

Details of inspection services provided included, but not limited to the following:

1. **Structural Inspection** for evidence of settlements and distresses, signs of cracking, convergence, shifting, or general deterioration for:
 - Liner walls, Crown Liner; Construction Joints; Leak Repair Joints; Walkway Floor; Walkway Wall; Air Duct; Air Flues and Niches; Fence; Portals; Tile Finish and Tunnel Roadway.
2. **Mechanical Inspection of:**
 - Tunnel Ventilation System; Carbon Monoxide Detection System; Plumbing and Sewage Disposal; HVAC and Space Heating; Tunnel Drainage; Fire Protection; Compressed Air System.

3. Electrical Inspection of:

- Tunnel lighting; Power Distribution System; Gretna Side Pump Room; Mid Channel Pump Room; Belle Chasse Side Pump Room; The Belle Chasse side fan room; Pump starter control panels; Emergency Power System; Fire Alarm System; CO detection system; Tunnel Traffic Control system and CCTV.

As prime, ECM's scope of services included, but not limited to the following:

- Project coordination with LADOTD and subconsultants
- Field inspection with the project team
- Inspection of tunnel structural and civil elements including, tunnel walls, joints, leak repair joints, liners, tunnel and approach pavements etc.
- Mechanical system inspection and
- Report preparation with recommendations.



Personnel worked on this project and included in this proposal:
Ujjal DasGupta, P.E., Kazem Alikhani, PE, Heidi Gremillion, PE, Ben Dow

17. Firm Experience:

Firm name	ECM Consultants, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Belle Chasse Tunnel Rehabilitation		Firm responsibility (prime or sub?)	Sub to KBR
Project number	State Project No. 700-38-0110	Owner's name	LADOTD	
Project location	Plaquemines Parish, Louisiana		Owner's Project Manager	Kevin Reed
Owner's address, phone, email	PO Box 94245, Baton Rouge, LA 70604. 225.379.1916, Kevin.reed@la.gov			
Services commenced by this firm (mm/yy)	05/10	Total consultant contract cost (\$1,000's)	\$190	
Services completed by this firm (mm/yy)	08/12	Cost of consultant services provided by this firm (\$1,000's)	\$62	

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

ECM provided inspection, design support and construction administration services for this \$2.1 million rehabilitation of the Belle Chasse Tunnel. Scope of the project included:

- **Joints Repair including:**
 - Leak Sealant Injection Treatment including sealing each tunnel structural joints circumference in three phases using hydrophilic urethane material
- **Electrical Rehabilitation including:**
 - Closed Circuit Television System
 - Gas Sensors/Transmitters
 - Fire Alarm System
 - Over Height Vehicle Detection System
 - Variable Message Sign (VMS)
 - Tunnel Lighting
- **Mechanical Rehabilitation including:**
 - Insulated Secondary Contained Aboveground Storage Tank
 - Ventilation Louvers
 - Gate valves and Check valves
 - Repair/Refurbish Suspended Wet Pit Pumps

- **Structural Rehabilitation**
 - Joint Repair System
 - Water diversion curb plate

ECM's scope of services included, but not limited to the following:

- **Field inspection for physical condition assessment of the elements of the tunnel**
- Assist in preparation of report and preparation of cost estimates for approved rehabilitation items
- Assist in preparation of bid documents
- Attend the pre-construction meeting
- Provide Construction Administration including:
 - Managing RFIs and Change Requests from contractor
 - Keeping clear and concise records of the contractual operations
 - Managing RFIs and Change Requests from contractor
- Attending substantial completion and final inspection and preparing "Punch List"



Personnel worked on this project and included in this proposal:
Ujjal DasGupta, P.E. , Emilio Rodriquez

17. Firm Experience:

Firm name	Volkert, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Nationwide Bridge Inspection Services		Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	Eastern Federal Lands Highway Division of the Federal Highway Administration	
Project location	Nationwide		Owner's Project Manager	Marcus Miller, PE
Owner's address, phone, email	FHWA 22001 Loudon County Parkway, Suite E2-3-300, Ashburn VA 20147; 703.997.8416; marcus.miller@dot.gov			
Services commenced by this firm (mm/yy)	07/04	Total consultant contract cost (\$1,000's)	\$13,044.19	
Services completed by this firm (mm/yy)	On-Going	Cost of consultant services provided by this firm (\$1,000's)	\$12,463.25	

Since 2004, Volkert has been performing tunnel inspections for the Eastern Federal Lands Highway Division of the Federal Highway Administration. These tunnels have included simple concrete lined, unlined, masonry liners, and shotcrete lined tunnel; and complex tunnels in California and Kentucky/Tennessee. In addition to the structural portions of the tunnels, these tunnels included lighting, ventilation, and fire suppression systems. In all, EFLHD has 61 tunnels in their inventory. Volkert developed detailed tunnel inspection plans for the continued inspection of these structures. Additionally, Volkert authored the Tunnel Inspection Program Policies & Procedures manual in 2020. This manual describes general safety, inspection types, field inspection logistics; and defines the roles of the key personnel. It details the inspection procedures for initial and routine inspections. Specifically illustrating the measurements required and their locations, procedures for taking photos and capturing video, and the procedures for reporting a critical finding. It also gives page by page guidance for report preparation.



Volkert has performed the inspection of the Cumberland Gap Tunnel, one of two tunnels in the country that connects two states, over several cycles. This complex tunnel features two bores carrying two lanes of traffic each through the Cumberland Mountains. The tunnel inspection is performed at night with a lane closure in each bore. The structural condition of the tunnel and cross passageways is completed in conjunction with the inspection of the lighting, signage, and ventilation systems. The portals are inspected during the day for better visibility. The maintenance logs, control room, pumps, and electrical systems are also inspected.

Staff Included: Aaron Immel, Britt Bumpers, Paul Swann, Robbie Chambliss, Stephen Dossett, Todd Powell

17. Firm Experience:

Firm name	Volkert, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	Structural Engineering and Inspection Services		Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	Metropolitan Atlanta Rapid Transit Authority (MARTA)	
Project location	Atlanta, GA		Owner's Project Manager	Phillippe Thomas
Owner's address, phone, email	2400 Piedmont Road NE, Atlanta GA 30324; 404.848.5410; E: pthomas@itsmarta.com			
Services commenced by this firm (mm/yy)	7/2012	Total consultant contract cost (\$1,000's)	\$8,750	
Services completed by this firm (mm/yy)	7/2027 Est	Cost of consultant services provided by this firm (\$1,000's)	\$5,350	

From 2012-2022, the Volkert-CERM Team has served as MARTA's provider and trusted partner for structural inspection engineering services. They were recently reselected for another cycle of inspections. Volkert began providing inspection services to MARTA in 2005 as a subconsultant. Beginning in 2012, Volkert has served as MARTA's prime inspection consultant with CERM as a DBE partner. Together, Volkert-CERM have provided all of MARTA's consultant structural inspection services for the last 10 years.

Key tasks performed by Volkert during the course of this contract and extensions:

Four annual inspection cycles of carbon-fiber reinforced N915 69-span bridge	Inspection of 38 tunnels totaling 9 miles
Inspection of retrofit repairs of steel box beam span (with Lehigh University)	Inspection of 166 U-walls, MSE walls, and other retaining walls
Inspection of steel truss pedestrian bridges at MARTA stations	QA/QC of MARTA in-house structural inspections
Computer/digital inspection report data collection and management implementation	

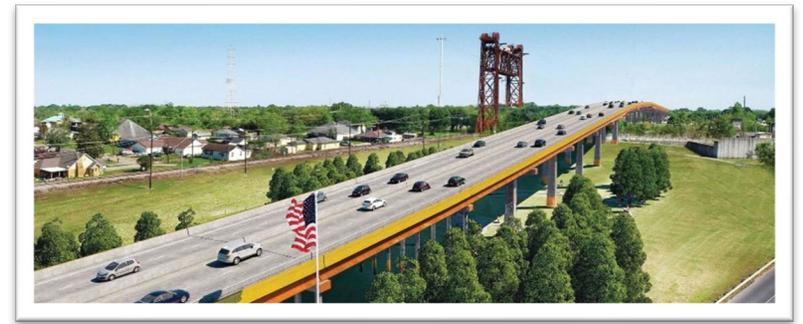
Over the course of these inspections, Volkert and CERM have developed an in-depth understanding of the safety requirements and best practices in accessing and conducting inspections at MARTA facilities. Our inspectors, under the leadership of project manager Abbas Eshagieh-Meybodi, have used both traditional and innovative inspection techniques such as visual inspections, core samples, leak testing, sounding, thermal imaging, petrographic evaluation, vibration testing, ultrasound, ground-penetrating radar, and other types of non-destructive testing (NDT). Inspection results have been compiled and submitted in timely and complete reports, including computerized data collection and reporting since 2018. Through our partnership with MARTA, we have also benefited from lessons learned such as best methods for efficient inspections or taking advantage of contractors' presence in tunnels to complete inspections. Under the project management of Mr. Eshagieh-Meybodi, Volkert has increased the participation of our DBE partners, especially CERM, to a level that now meets the participation requirements and expectations of MARTA. As part of Volkert's long standing partnership with the Metropolitan Atlanta Rapid Transit Authority (MARTA), Volkert was responsible for the initial element level inspection of 36 rail tunnels that accounted for approximately 9 miles of MARTA's transit rail system. These detailed, "hands on" inspections were performed during non-peak hours with coordinated track closures at nights and on weekends. Volkert's team produced detailed tunnel inspection plans and the reports of their findings with recommendations of maintenance and rehabilitation needs.

Staff Included: **Aaron Immel, Britt Bumpers**

17. Firm Experience:

Firm name	Volkert, Inc.		Past Performance Evaluation Discipline(s)*	Bridge
Project name	LA 23: Belle Chasse Bridge and Tunnel (HBI) Improvements		Firm responsibility (prime or sub?)	Prime
Project number	H.004791	Owner's name	LADOTD	
Project location	Plaquemine Parish, LA		Owner's Project Manager	Nicholas Olivier
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802; 225-379-1133, nicholas.olivier@la.gov			
Services commenced by this firm (mm/yy)	02/20	Total consultant contract cost (\$1,000's)	\$1.5M	
Services completed by this firm (mm/yy)	09/24 est.	Cost of consultant services provided by this firm (\$1,000's)	\$170M est.	

The project shall consist of replacing the existing Belle Chasse Tunnel and Judge Perez Lift Bridge at the Algiers Canal. Proposed improvements shall include a four-lane fixed height bridge with pedestrian and bicycle accommodations. The LA 23 Intracoastal Waterway (ICWW) /Judge Perez Bridge (Structure No. 02380620200432, Recall No. 002500, Louisiana Historic Resource Inventory No. 38-00017) is a steel vertical lift bridge built in 1967 to carry LA 23 traffic over the ICWW. It is located in Belle Chasse, Plaquemines Parish (approximately latitude 29.871715, longitude -90.008684). The overall bridge length is approximately 2558 feet, including its pre-stressed concrete stringer/multi-beam and steel girder approaches. The main lift span is approximately 150 feet long by 34 feet wide. The main span with the lift towers is approximately 250 feet long.



Volkert will be responsible for providing all Engineering Design and Construction Support services including implementation of the Construction Quality Assurance Plan for the Belle Chasse Bridge & Tunnel Public Private Partnership (P3) Project which provides for the replacement of the Belle Chasse Tunnel and Judge Perez Lift Bridge with a new toll bridge. This includes the development of construction plans, bridge replacement plans, decommissioning of the Tunnel and development of O&M plans. As the OVT, Volkert will provide guidance and support to the LADOTD Project Manager prior to and during reviews, develop review comments, attend project meetings, ensure that the DBT adheres to their contract, and address other assignments as directed. Volkert will verify that all the P3 submittals (i.e. Safety Plan; FAA permits; US Coast Guard Permits; USACE permits; Quality Manual; etc.) conform with the DBT contract documents (Final RFP) and that all required meetings (i.e. Pre-Work Conference; Design Mobilization meeting; Site Mobilization meeting; Progress Meetings; Design Reviews, etc.) are held and meeting minutes are taken.

Staff Included: **Jan Evans**

17. Firm Experience:

Firm name	A P S Engineering and Testing, LLC		Past Performance Evaluation Discipline(s)*	Geotech
Project name	I-10 Widening LA 415 to Essen LN		Firm responsibility (prime or sub?)	Sub
Project number	H.004100	Owner's name	DOTD	
Project location	Baton Rouge, LA		Owner's Project Manager	Kristy Smith, P.E.
Owner's address, phone, email	1201 Capital Access Rd., Baton Rouge, LA 70802-4438/ 225.379.1016/ kristy.smith2@la.gov			
Services commenced by this firm (mm/yy)	09/19	Total consultant contract cost (\$1,000's)	N/A	
Services completed by this firm (mm/yy)	05/23	Cost of consultant services provided by this firm (\$1,000's)	\$400K	

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

Scope- geotechnical investigation to provide client with the necessary information for planning and design of I-10 widening. A P S was tasked to drill and sample a total of 52 deep borings starting at the Washington exit and ending at the LSU lakes. Along with this drilling and sampling, A P S tested for strength and engineering characteristics of the soils. A total of eight (8) over the water borings and 44 land borings with approximately 1000 triaxial compression, unconsolidated drained or undrained (uu) and atterberg limits performed.

Key Personnel:

Engineering

- Sergio Aviles, P. E . - Project Manager
- Sai Eddanapudi, M. E . , P. E. - Project Engineer
- Surendra Raj Pathak, M. S. , P. E. - Staff Engineer

Laboratory Testing

- Sergio Aviles, P.E. - QA/ QC
- Sai Eddanapudi, M. E., P. E. - QA/ QC

Drilling

- Van George – Driller
- Melvin Vasquez - Driller Tech
- Eric Bateaste - Driller

SIMILARITIES TO PROFESSIONAL GEOTECHNICAL SERVICES	
X	Geotechnical Explorations (Ge)
X	Geotechnical Design (Gd)
X	Geotechnical Construction (Gc)
X	Topographic Survey (Lc)
X	Cmar
X	Contract Management (Cm)



17. Firm Experience:

Firm name	A P S Engineering and Testing, LLC		Past Performance Evaluation Discipline(s)*	Geotech
Project name	Comite River Diversion Bridge at LA-67, LA-19 and LA-19 Railroad Bridge		Firm responsibility (prime or sub?)	Sub
Project number	H.001352; H.002273	Owner's name	Huval & Associates, Inc.	
Project location	East Baton Rouge, LA		Owner's Project Manager	Thomas M. Gattles III, P.E.
Owner's address, phone, email	922 West Don't des Mouton Rd., Lafayette, LA 70507 / 337.264.3798/ tgattle@huvalassoc.com			
Services commenced by this firm (mm/yy)		Total consultant contract cost (\$1,000's)		
Services completed by this firm (mm/yy)		Cost of consultant services provided by this firm (\$1,000's)		

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

Scope- Geotechnical engineering to provide client with the necessary information for planning and building of LA-19 RR bridge - slope stability (embankment), LA-19 RR bridge - embankment/ mse wall settlement/ retaining wall, LA 19 twin bridge s - ppc piles, LA-67 bridge - drilled shafts. A P S drilled and sampled all the borings for DOTD and testing was performed in house by A P S laboratory. All the necessary geotechnical design was be performed by A P S.

key personnel:

Engineering

- Sergio Aviles, P. E . - Project Manager
- Sai Eddanapudi, M. E . , P. E. - Project Engineer
- Surendra Raj Pathak, M. S. , P. E. - Staff Engineer

Laboratory testing

- Sergio Aviles, P.E. - QA/ QC
- Sai Eddanapudi, M. E., P. E. - QA/ QC

Drilling

- Van George - driller
- Eric Bateaste- driller
- Melvin Vasquez – driller tech
- Oscar Johnson- driller tech
- Tre nton Ande rson- driller tech

SIMILARITIES TO PROFESSIONAL GEOTECHNICAL SERVICES	
<input checked="" type="checkbox"/>	Geotechnical explorations (ge)
<input checked="" type="checkbox"/>	Geotechnical design (gd)
<input checked="" type="checkbox"/>	Geotechnical construction (gc)
<input checked="" type="checkbox"/>	CMAR
<input checked="" type="checkbox"/>	Constructability
<input checked="" type="checkbox"/>	Contract management (cm)



17. Firm Experience:

Firm name	A P S Engineering and Testing, LLC		Past Performance Evaluation Discipline(s)*	Geotech
Project name	Mid Barataria Sediment Diversion		Firm responsibility (prime or sub?)	Sub
Project number	BA-0153	Owner's name	HNTB Corporation	
Project location	Plaquemines Parish, LA		Owner's Project Manager	Avis Gaines, P.E.
Owner's address, phone, email	601 Poydras Street, Suite 1530, New Orleans, LA / 504.872.3011 / againes@HNTB.com			
Services commenced by this firm (mm/yy)	04/23	Total consultant contract cost (\$1,000's)	N/A	
Services completed by this firm (mm/yy)	On-going	Cost of consultant services provided by this firm (\$1,000's)	\$737K	

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

The goal of this project is to reestablish a connection between the Mississippi river and the mid Barataria basin. CRPA proposes to create a diversion complex in Plaquemines parish, LA in order to build coastal wetlands over the next 50 years. Scope- provide construction administration and quality assurance through laboratory testing, inspection, and construction materials testing.

Key personnel:

Engineering and inspection

Sergio Aviles, P.E.- Quality Manager

Sai Eddanapudi, M. E. , P. E.- Assistant Quality Manager

Surendra Pathak - M. S. ,P. E- Engineer

Dhananjay Chetput - Engineer

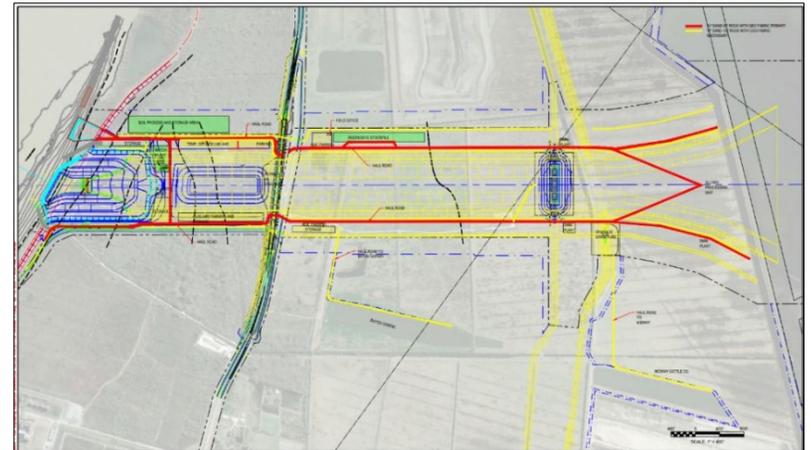
Joseph Layton – QA/QC Supervising Technician

Francis Steid-Assistant Supervisor Technician

Robert Delatte-Technician

Paul Fisher- Technician

Oscar Perez- Technician



17. Firm Experience:

Firm name	Vectura Consulting Services, LLC		Past Performance Evaluation Category(ies)*	Traffic
Project name	I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study		Firm responsibility (prime or sub?)	sub
Project number	H.004957.5	Owner's name	DOTD	
Project location	Lacombe, LA	Owner's Project Manager	Joachim C Umeozulu, P.E	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1386, Joachim.Umeozulu@la.gov			
Services commenced by this firm	09/16	Total consultant contract cost (\$1,000's)	\$1,895	
Services completed by this firm	05/17	Cost of consultant services provided by this firm (\$1,000's)	\$84	

As part of the DOTD TIMED program, Vectura prepared a formal traffic study for the new alignment of LA 3241. The traffic study examined concepts that improved the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management and complete streets. The study included analyses for intersection and corridor improvements such as median openings, spacing of openings, signalized, unsignalized and roundabout intersections.

Task 1 Data Collection

Vectura collected the following traffic data for 10 intersections:

- 7-day (mainlines) and 2-day (side streets) 24-hour tube counts with vehicle classification
- Turning movement counts for morning and evening peak periods
- 15-minute driveway counts
- Traffic Signal warrants, radar speed studies and sight distance evaluation
- Developed growth rate methodology and AM and PM peak forecast traffic volumes

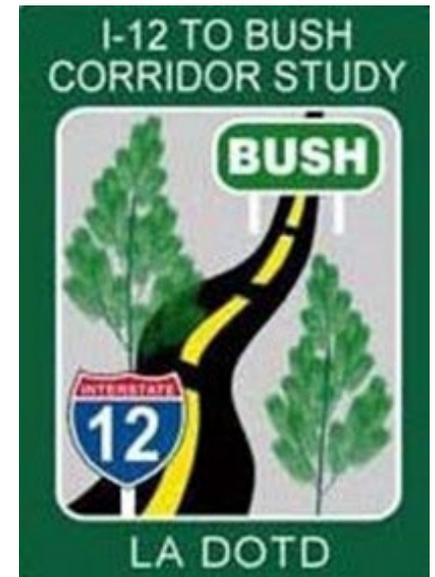
Task 2 Traffic Study

This task included a roundabout study as defined in EDSM VI.1.1.5, VI.1.1.1 and DOTD Traffic Engineering Manual Section 20.2. This task included the following elements:

- Performed Vistro and Sidra analyses for existing conditions
- Performed Vistro and Sidra analyses for Implementation and Design Years.
- Intersection alternatives included restricted median openings, signalized and unsignalized intersections, median U-turns at existing signal locations, restricted crossing U-turn (RCUT) intersections, and roundabouts
- Developed Vissim model of the preferred corridor layout
- Developed Draft Traffic Study Report (3 copies)

Task 3 Safety Analyses

- Developed 3-year crash analyses report as per DOTD standards



Personnel Utilized on this project: **Brin Ferlito**, **Bridget Robicheaux**, and **Laurence Lambert** (100% performed in Louisiana)

17. Firm Experience:

Firm name	Vectura Consulting Services, LLC		Past Performance Evaluation Category(ies)*	Traffic
Project name	CCC Decorative Lighting		Firm responsibility (prime or sub?)	sub
Project number	H.015504.5	Owner's name	Louisiana Department of Transportation and Development	
Project location	New Orleans, LA		Owner's Project Manager	Christina Rizzo, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802; (225) 242-4500; christina.brignac@la.gov			
Services commenced by this firm	07/23	Total consultant contract cost (\$1,000's)	unknown	
Services completed by this firm	11/23	Cost of consultant services provided by this firm (\$1,000's)	\$79.1	

As a sub-consultant to Modjeski and Masters, Vectura completed a Level 4 Traffic Management Plan (TMP) for the Crescent City Connection (CCC) decorative lighting improvements project. The TMP was prepared in accordance with the DOTD EDSM VI.1.1.8 and the Level 4 TMP Checklist.

Data Collection

- Vectura coordinated with DOTD to obtain the needed traffic data to perform the lane closure analysis

Design Year Volume Development

- Travel Demand Model data, Growth rate methodologies in accordance with NCHRP 765, design year volume development

Safety Analyses

- Staff from Vectura performed a safety analysis of the latest three years of crash data
- Vectura reviewed the summary of crashes to achieve 90% quality assurance in CATScan
- Approximately 30% of the 1,043 crashes were evaluated in CATScan

Temporary Traffic Control (TTC) Details and Plans

- Vectura analyzed the proposed TTC lane closures with queue analysis
- Times of recommend lane closures developed by Vectura

Work Zone Management Strategies

- Vectura developed a series of mitigating recommendations based on the safety analysis
- Vectura documented the recommended times of lane closures
- A cost estimate of the TMP implementation was developed

Personnel Utilized on this project: Brin Ferlito, Laurence Lambert, Bridget Robicheaux, Reece Rodrigue, Kristen Farrington, and Cade Nelson (100% performed in Louisiana)

17. Firm Experience:

Firm name	Vectura Consulting Services, LLC		Past Performance Evaluation Category(ies)*	Traffic
Project name	LA 1 at LA 990 Crosswalk Study and Traffic Signal Design		Firm responsibility (prime or sub?)	Prime
Project number	H.011558	Owner's name	West Baton Rouge Parish Government	
Project location	Addis, LA	Owner's Project Manager	Kevin Durbin, PE, AICP	
Owner's address, phone, email	880 N. Alexander Avenue Port Allen, LA 70767 (225) 336-2434 Kevin.Durbin@wbrCouncil.org			
Services commenced by this firm	11/20	Total consultant contract cost (\$1,000's)	\$22,000	
Services completed by this firm	12/21	Cost of consultant services provided by this firm (\$1,000's)	\$22,000	

Vectura was hired by West Baton Rouge Parish to perform a Crosswalk Traffic Engineering study and to develop Traffic Signal Design plans for the intersection of LA 1 and LA 990 (Addis Lane) in Addis, LA. The crosswalk was first conceptualized as part of a trail that connects the Mississippi River Trail to points west of LA 1 in the West Baton Rouge Parish Comprehensive Plan (PlanWEST) dated 9/22/11 as well as included in a Stage 0 report titled CMAQ Proposal WBR-2 dated 04/30/14.

A Crosswalk Traffic Engineering Study was performed based on the Traffic Engineering Manual (TEM)

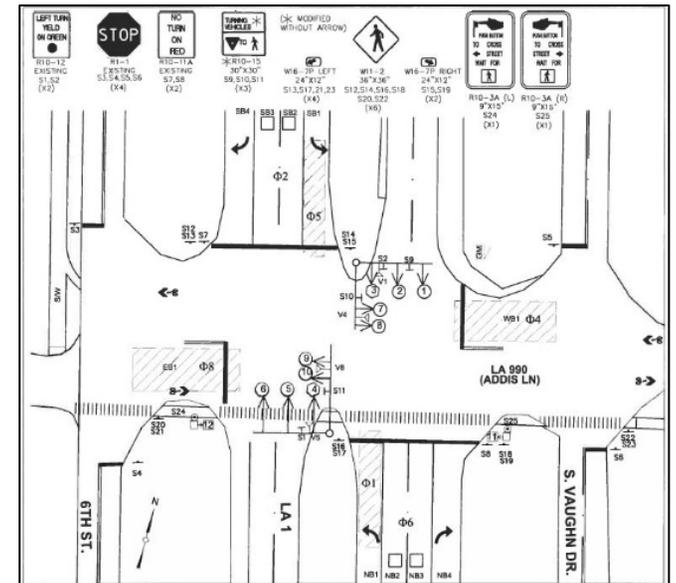
Section 3B.2.9, Section 20.2 & EDSM VI.3.1.6 Section 5 and included the following elements:

- Collected 24-hour traffic approach volumes, speed data, crash history and sight distance
- Collected AM and PM peak hour vehicle and pedestrian turning movement counts
- Developed **safety analyses** using 3-year crash data from Crash1 as per DOTD standards
- Performed pedestrian crosswalk warrants as per TEM Section 3B.2.9
- Performed AM and PM Peak **signal timing and progression** for existing conditions
- Performed AM and PM Peak **signal timing and progression** for future conditions

Traffic Signal Construction Plans was performed for LA 1 at LA 990 based on the latest DOTD Traffic Signal Inventory v3.2, DOTD Signal Design Manual, MUTCD & EDSM VI.3.1.6 Section 5. This task included signal timing parameter calculations, signal equipment layout, wiring diagram, DOTD pay items, estimated quantities and construction cost.

Vectura also assisted with the DOTD **Permit** Request for Intersection Control Devices on a State Right of Way

Personnel Utilized on this project: **Brin Ferlito, Reece Rodrigue, Laurence Lambert, and Bridget Robicheaux (100% performed in Louisiana)**



18. Approach and Methodology:

INTRODUCTION OF TEAM & COMMITMENT TO EXCELLENCE

Modjeski and Masters, Inc. is a premier leader in the design, inspection, and rehabilitation of Tunnels and Tunnel Systems. We have honed the practices of engineering and inspection since the founding of our firm. From fixed and movable bridges to port facilities, tunnels, and other structures, our expert structural, mechanical, and electrical engineers understand how to inspect, maintain, and preserve complex structures using creative solutions that combine past experiences, tried and true methodology; and, when effective, with the latest technology. We embrace today's challenges and continue to evolve, searching for new and better inspection and engineering methods.

M&M has performed 149 tunnel inspections in the past 15 years and is currently teaching the Tunnel Inspection and Refresher courses nationwide, providing us unique insight and knowledge of the nation's tunnels. Our firm has also assembled plans and specifications for the structural, mechanical and electrical rehabilitations of 6 Tunnels. M&M draws on 130 years of the highest quality engineering services, and specializes full-service tunnel inspection, evaluation, maintenance and repair. M&M has 225 engineers and staff, with an office in New Orleans. Our team will ensure quality work, contract compliance, thorough documentation, safe practices, and the highest professional caliber inspection and engineering services to the LADOTD through our experience, engineering and inspection skills, judgment, and attention to project schedule and financial aspects.

M&M has assembled a team that is uniquely qualified to provide the required engineering and inspection, contract administration, and support services to the LADOTD for this contract. Together, we will combine an outside perspective and expertise with intimate knowledge of the LADOTD's Houma and Harvey tunnels, operation procedures, and unique issues and challenges to deliver quality inspections.

ECM has extensive experience with DOTD in tunnel inspection and rehabilitation as well as construction engineering and inspection services on, both fixed and movable bridges, elevated highways and on grade highways construction projects. Also, ECM's inspection staff and Project Engineers are trained and experienced in Site Manager, Headlight, and LAPAVE applications being used by DOTD. ECM has an enhanced ability to provide updates on the progression of the project on a timely basis. ECM provided visual inspection, documentation, and prepared reports for the Belle Chasse Tunnel as Prime and Harvey Tunnel as subconsultant in accordance with the National Tunnel Inspection Standards (NTIS). For this Project, ECM will provide Structural, Mechanical, and Electrical inspection capabilities.

Volkert has a long history of inspecting tunnels dating back to their initial task order for EFLHD on the Blue Ridge Parkway in 2005 before the NTIS was established and the TOMIE published. Since that first task order, Volkert has performed numerous cycles of routine tunnel inspections and the initial NTIS element level inspections for all the tunnels in the EFLHD inventory which includes 61 simple and complex tunnels across the country. In addition to our work on the EFLHD tunnels, they have performed the initial element level inspections and processing of the 37 tunnels throughout Atlanta that serve MARTA's light rail system. As part of Volkert's on-call contract with the Tennessee Department of Transportation, they performed the initial NTIS inspections of the seven state owned tunnels in 2017, and the routine inspections over the next two cycles. Volkert will provide structural inspection capabilities to this project team.

APS Testing is a leading authority in geotechnical on-site engineering and design, with more than a quarter-century of combined on-staff experience. Each member of their well-trained staff boasts a combination of technical knowledge and field experience designed to foster successful projects. For this project, APS Testing will provide geotechnical testing and geotechnical inspection services. APS Testing is a certified DBE firm.

Vectura consulting services has unique expertise in providing transportation engineering services from the early planning stages of a project to the development of design plans and through final implementation in the field. Vectura will be providing transportation management plan services for this project. Vectura is a certified DBE firm.

PROJECT UNDERSTANDING

M&M understands that the project will include performing a visual inspection of all aspects of the tunnels and evaluation of defects found. Structural components, including portals, retaining walls, roadway, barriers, tunnel liners, ventilation ducts, building and drainage structures will be examined for signs of deterioration, distress or damage. Areas of suspected unsound concrete will be sounded with hammers, chain drags or delamination rollers, as necessary to determine the extent of delamination. Areas will be marked with keel, chalk or spay chalk to enhance visibility in photographs. If loose concrete, tiles or other liner material is discovered, it will be carefully removed to prevent uncontrolled falls onto live traffic. Geotechnical components, including aspects of embankments, retaining walls, approach roadways, rights-of-way, and maintenance facilities will be examined for evidence of erosion, settlement, subsidence, or any signs of subsurface distress. Electrical elements, including power distribution systems, emergency generators, lighting and lighting control systems, CCTV or other tunnel monitoring and communications systems, PLC's and switchgears will be closely examined and tested as necessary to determine proper operation and reliability. Mechanical systems, including ventilation and exhaust fans, dampers, fan controls and motors, and pumps will be inspected and tested for signs of damage or distress and functionality.

In addition to visual inspection techniques, M&M will employ various forms of NDT to aid in the detection of potential problems. Thermographic cameras will be used to detect overheating electrical components, motors, pumps and bearings; light detectors can be used to determine the adequacy of tunnel lighting; accelerometers may be employed to detect excessive vibration of fans or motors; and decibel sound readings can be recorded for comparative analysis of fans, motor and pumps.

- Our team will draw from our extensive experience to communicate inspection findings and reporting of conditions found using LADOTD asset management software, InspectX and other channels LADOTD prefers. Inspection services will be performed in accordance with Tunnel Operations, Maintenance, Inspection and Evaluation Manual FHWA-HIF-15-005 and Specifications for the National Tunnel Inventory, FHWA-HIF-15-006.
- Understanding the nature and remediation methods for any defects uncovered, our team is capable of providing appropriate maintenance recommendations and procedures, and assisting LADOTD with development of preservation and replacement options through plans and specifications or other methods.
- Our team provides full-service support for all of these objectives and any other tunnel related services required.

M&M TEAM'S NOTABLE PAST EXPERIENCE

M&M recently performed routine structural, civil, mechanical, and electrical inspections of the **Bobby Hopper Tunnel in Arkansas**, using InspectX Asset Management software for reporting. As part of the inspection, M&M worked with ArDOT to identify maintenance needs for the tunnel and has been engaged by ArDOT engineering services to rehabilitate highway, structural, mechanical, and electrical issues, including full replacement of lighting and electrical systems.

Since 2007, M&M has performed routine and in-depth inspections of the **Washington, D.C. DOT's** inventory of 17 tunnels on a biennial basis. We also performed the initial element inventory inspections when the SNTI was developed and have performed load ratings of these tunnels.

M&M is currently providing routine structural, civil, mechanical, and electrical inspections of the **Pennsylvania Turnpike Commission's** inventory of 5, two-bore interstate highway tunnels. These rock-bored tunnels pass through various mountains throughout Pennsylvania and carry Interstates 76 and 476 and total approximately 50,000-feet in length.

M&M has performed 6 in-depth structural, mechanical, and electrical (SME) inspections of the **Fort McHenry Tunnel for the MDTA**. This 7,200' tunnel carries eight lanes of I-95 traffic in four bores below the Baltimore Harbor. Also included in each inspection were the 2 ventilation buildings and portal pump rooms. Because of our expertise and experience, in 2009 MDTA asked M&M to write the Tunnel Inspection portion of their Facility Inspection Manual.

For the **Baltimore Harbor Tunnel**, M&M performed 2 in-depth SME inspections, including ventilation buildings and pump rooms. The Baltimore Harbor Tunnel carries four lanes of I-895 in two bores for 7,750' below Baltimore Harbor. Due to significant findings of delaminated liner, MDTA asked M&M to develop rehabilitation plans and specifications.

FHWA-NHI-130110 Tunnel Safety Inspection. M&M is currently teaching both the initial NHI tunnel inspection course and the refresher course to tunnel inspectors and owners nationwide.

Through our past experience, our team knows to anticipate issues and challenges unique to inspection and maintenance of tunnels. Some of these items include:

- **Coordination with LADOTD personnel** to access and operate tunnel ventilation and electrical systems including ventilation fans, dampers, backup generators, switchgears, power distribution systems, and substations.
- **Deterioration of mechanical and electrical system components** resulting from operation in the tunnel environment is a critical issue, and inspections will analyze the impact of the operational environmental on the mechanical and electrical system components.
- The electrical and ventilation **systems are not identical** at all tunnels, requiring unique inspection methods at each tunnel.
- **MOT lane closures or alternate route planning** will be required for each tunnel inspection. Proper sequencing is essential for efficient inspections, therefore close coordination with LADOTD personnel regarding closure schedules will be required. Certain areas, such as plenums and portal buildings, can be inspected outside of closure windows to maximize efficiency. **Overnight closures are anticipated for the tunnels.**
- **Groundwater infiltration impacts** on tunnel structures and systems poses unique challenges for tunnel maintenance. Existing methods to collect and route infiltrating groundwater will be reviewed and their effectiveness evaluated.
- Over time, **differential settlement** may become a critical issue. This condition is especially problematic between approach segments and main tube segments. Inspections will analyze the effects of differential settlement on the tunnel and portal building structural elements.

- **Steel hanger rods** that support the ceiling slabs are often considered fracture critical members, meaning that their failure may result in a partial ceiling panel collapse. It is known that a number of these rods have previously been noted as loose, bent, or broken during past inspections.
- **Conduit, signage, and other appurtenances** within the roadway level of the tunnels can pose a potential hazard to the travelling public if not adequately secured. All of these non-structural components will be closely examined for loose, deteriorated, or insufficient attachment.
- **Loose wall / ceiling tiles** pose a falling object threat to traffic. Whenever possible, inspectors will remove loose tiles in a safe and controlled manner to prevent accidental falling on live traffic.
- **Confined space entry** procedures are anticipated for several areas including but not limited to plenums, ventilation buildings,

PROJECT APPROACH & INSPECTION METHODS

Prior to the inspection, M&M will hold a project kickoff meeting with the LADOTD in order to establish protocols for the inspection, establish chain of command, understand maintenance of traffic needs, discuss inspection schedule, discuss electrical and mechanical systems testing needs and learn as much as possible about the tunnels and their operation. Following this meeting, a list of personnel contacts and roles will be created and shared with all parties involved in the project. M&M will also develop a site-specific safety plan in accordance with OSHA, MUTCD, etc. and Team safety meetings will identify known and anticipated risks, “lock-out tag-out” procedures, confined space entry procedures and emergency response procedures. Critical finding protocols and reporting preferences will be determined during the meeting and this information will be given to all team members prior to the start of work.

Inspection Preparation - Past reports, plan drawings, plans of action and related documentation will be reviewed prior to inspections to create inspection packets used in the field to quickly compare previous findings to current. These packets, all relevant plans and past reports will be loaded onto tablet computers to greatly enhance inspectors’ access to reference materials. Vectura will coordinate with DOTD to obtain traffic volume and safety data for traffic study to perform safety analysis and alternative route analysis. If historic data is not available, Vectura will follow the Traffic Study Scope of Services as outlined on the DOTD Traffic Engineering website. Staff from Vectura have worked closely with the staff of DOTD through the development and implementation of the TEPR process. Vectura will utilize this experience to navigate the TEPR process to arrive upon the optimum detour route. Along with specifying the correct TTC Details, Vectura will coordinate with the road designers on a Work Zone Impact Management Strategy document to minimize risk and delays to the travel public.

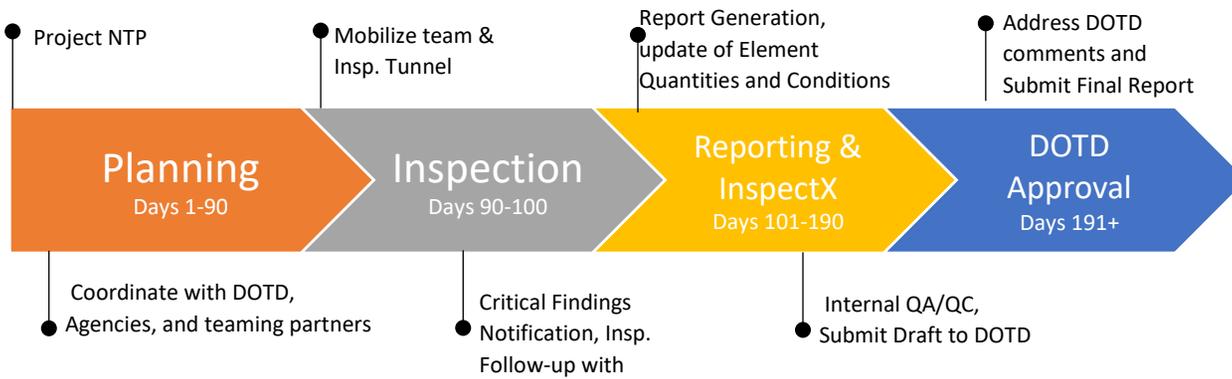
Inspection - The inspections will include both visual and hands-on inspections of all components of the tunnel, approach roadways, operations, electrical, mechanical, fire and life-safety systems. Inspection services will be performed in accordance with TOMIE, and the SNTI. Tunnel linings will be examined for loose, unsound, missing or cracked tiles. Cracks in the tunnel liner will be closely examined for signs of water infiltration. Displacements between segments will be documented especially between approach segments and main tunnel segments. The roadway and barriers will be inspected for cracks, deterioration, displacements, spalls and delamination. Light fixtures, conduits and junction boxes within the tunnels will be examined for proper operation, soundness of connections, loose or disconnected components and intensity. Fire and life-safety components within the tunnels, including fire standpipes, emergency call boxes, heat/smoke/CO detectors will be tested for proper functionality, as needed. In the ventilation and electrical rooms, the various fans, dampers and motors will be tested for proper operation, damage and deterioration. Electrical systems, including switchgears, PLC’s, power distribution, emergency power and other components will be tested for proper operation. Since the tunnels pass under waterways, water collection and pumping systems will be thoroughly examined to determine proper functionality, reliability and operation. During the inspection, any critical findings will be communicated immediately to the LADOTD following the pre-determined protocols.

Inspectors utilize proper inspection, measuring and safety equipment, including PPE, hammers, rulers, tape measures, calipers, crack gages, scrapers, marking tools, etc. All inspectors are issued and experienced using tablet computers to document and transmit inspection findings. All inspectors are trained in the use of D-meters, magnetic particle (MT) and dye penetrant (PT) testing and will have devices on hand. Additionally, several inspectors are trained in ultrasonic testing (UT). It is anticipated that a bucket truck (with proper maintenance of traffic) will be used to inspect the underside of the tunnel liner/ceiling, upper portions of walls and lighting components. In addition to standard inspection techniques outlined in the TOMIE, the M&M Team can provide in-house specialized non-destructive testing, including:

- Electrical current and voltage testing, resistance monitoring and thermographic imaging to document the condition of tunnel electrical and control systems.
- Vibration, displacement monitoring and acoustic measurements for ventilation fan testing and lumen readings for lighting inspections.
- Ultrasonic testing of connection bolts, hangers, pins, shafts, etc.

Once the inspections are completed, comprehensive reports will be generated that clearly present the findings and make appropriate repair recommendations using the LADOTD’s Tunnel Asset software, InspectX, drawing from recent experience using InspectX to record and report on findings from the inspection of ARDOT’s Bobby Hopper Tunnel.

The following is a sample schedule of major milestones and tasks for a typical task order.



MAINTENANCE, REPAIR, PRESERVATION & OTHER SERVICES

The M&M team is pleased to offer full life-cycle engineering services for the maintenance, repair, and preservation of LADOTD's tunnels. Through a unified project management approach and integration with other disciplines including mechanical, electrical, geotechnical, highway, and construction engineering, and geotechnical testing capabilities, our team has the resources necessary to deliver a technically accurate, practical and constructible projects, and with the experience to complete them on time and within budget. Volkert, ECM and M&M have experience in working with the LADOTD for CEI projects and in design review. Our teams are trained in ProjectManager, SiteManager, and Headlight.

Emergency Inspection and Engineering Response – M&M's team is well versed in responding to unplanned and emergency needs. The M&M project manager and our team's inspection staff are available 24-hours a day for emergency response. As part of our initial Work Plan, an emergency response plan will be developed identifying personnel, contact information and procedures to be followed during an emergency, which will be provided to LADOTD at the initiation of the project. Upon notification of an emergency, our Project Manager will assemble the best possible team to immediately respond to the situation.

SAFETY, SECURITY, AND QA/QC

Safety During Field Work - Modjeski and Masters understands how paramount a culture of safety is at all times. Field work can be hazardous and requires proper training and equipment. For this project, M&M plans to employ its Corporate Employee Safety Manual which provides employees of Modjeski and Masters, Inc. and the Project Team engaged in field work with information for their protection, safety and health in the work environment. Prior to the start of field work, a site-specific safety plan will be prepared and implemented on-site. The plan will define the hazards of the work and the proper and safe procedures for addressing the hazards. The Inspection Team Leader will be the Safety Representative responsible for implementing the safety plan. All inspection team members are trained in First Aid and CPR and are trained in confined space access.

Security – The M&M team understands the sensitive nature of the work being performed and the need to protect LADOTD assets from physical and virtual threats. All team members working on this contract will be refreshed in cybersecurity training prior to working with LADOTD information technology assets. Additionally, all team members will have successfully completed required appropriate work zone training prior to engaging in field work.

QA/QC - M&M is dedicated to delivering projects on schedule and at the lowest cost possible without sacrificing quality. We have adopted a formal QA Plan to guide all inspection and design activities. The plan stresses understanding of the scope of work for the assignment, assigning of appropriate staff for the work, adherence to the client's requirements and standards and checking of all work by staff of equal or higher qualifications.

Modjeski and Masters' team is prepared for and would appreciate the opportunity to perform the subject inspections on the Harvey Canal and Houma Tunnels and address any subsequent rehabilitative efforts needed. A benefit to the LADOTD is that both tunnels are in close proximity to our firm's New Orleans office. We therefore request favorable consideration of our project team for this IDIQ contract.

19. Workload:

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

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

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

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

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Past Performance Evaluation Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
M&M	Bridge	JN 3144	Expert witness services in bridge design, construction, repair and forensic analysis	\$266,601
		Retainer Contract 4400002538	Engineering Services for Bridge Preservation Statewide	
M&M	Bridge	H.010882.6	4th Street Bridge Rehabilitation Paint (Supplement No. 3) Route LA 18	\$1,724
		Retainer Contract 4400005395	Construction Engineering and Inspection with Painting Statewide	
M&M	CE&I/OV	H.011705.6	US 11 Lake Pontchartrain Bridge Rehabilitation - Ph2, Supl	\$130,885
M&M	CE&I/OV	H.011494.6	US 90 Atchafalaya River Bridge Rehabilitation	\$0
M&M		Retainer Contract 4400004921	Complex Bridge Rating (on-system trusses and other complex bridges) Statewide	
M&M	Bridge	H.009859.5	Load Rating of 14 Complex Bridges	\$256,501
		Retainer Contract 4400005774	Bridge Preservation Statewide	
M&M	Bridge	H.001234.5	Port Allen Canal Bridge	\$64,231
		IDIQ Contract 4400012382	Bridge Preservation Statewide	
M&M	Bridge	H.003144.6-2	Luling Bridge Cable Stay Replacement Project	\$324,366
M&M	Other (Roadway Lighting)	H.004791	Subconsultant: Belle Chasse B7T Replacement P3 - Electrical and Structural	\$16,165
		IDIQ Contract 4400017263	Bridge Preservation Statewide	

M&M	Other (Roadway Lighting)	H.013866.6	I-12: LA 21 to US 190 Navigation Lighting & Roadway Lighting	\$59,280
M&M	Other (Roadway Lighting)	H.003184.6	I-10: Texas State Line - E. of Coone Gully - CRES	\$47,067
M&M	Bridge	H.011485.6	LA336-1: Bayou Teche Bridge Rehabilitation	\$49,376
M&M	Other (Roadway Lighting)	H.012889.5	I-20 Rehabilitation - Roadway Lighting (Pines Road to I-220)	\$102,973
M&M	Bridge	H.009859.5	Prien Lake Bridge Structural Rating	\$18,259
M&M	Bridge	H.014280.5	Bayou Ramos Bridge Girder Study	\$37,560
M&M	Bridge	H.014673.5	I-49 US 165 Debonded PPC Girder Rehab	\$0
M&M	Bridge	H.014587	LA 302: Kerner Ferry Bridge Repairs PH 2 - Constr Support	\$66,868
M&M	Bridge	H.013946.6	Sunshine Bridge Fender Construction - 2021	\$15,702
M&M	Bridge	H.014406.6	Houma Navigation Canal Swing Bridge - Electrical Repair CRED	\$12,153
M&M	Bridge	H.014465.5	Perry Bridge Rehabilitation - Final Design	\$0
M&M	Bridge	H.004647.6 (T.O. 1)	I-20 MS River Bridge at Vicksburg, - Monitoring	\$35,385
M&M	Bridge	H.015028.6	Bayou Barataria Bridge MB Replacement - Phase I	\$139,305
M&M	Bridge	H.001234.6	LA 1 Port Allen Bridge - Geotech Settlement Remediation	\$115,940
M&M	Bridge	H.010882.6	LA18: 4th Street Bridge Rehabilitation Construction Support	\$20
M&M	Bridge	H.009479.6	West Larose Lift Bridge Rehabilitation - Const Support	\$17,853
M&M	Bridge	H.011705.6	US 11 Lake Pontchartrain Bridge Rehabilitation - Ph2	\$54,252
M&M	Other (Roadway Lighting)	H.012889.6	I-20 Rehab (Pines Road to I-220) Bossier City Lighting CRES	\$123,398
M&M	Other (Roadway Lighting)	H.009266.5	I-10 (LA 73 to LA 30)	\$2,540
M&M	Bridge	Contract 44-18646 H.004100	Subconsultant: LA 415 to Essen Lane on I-10 and I-12 CMAR RCP Plans	\$253,443
M&M	Bridge	Contract 44-21128 H.001234.6	Subconsultant: LA 1: Port Allen Canal Bridge Replacement - Phase 1 CRES	\$39,335
M&M	Bridge	Contract 44-21128 H.014258.6	Subconsultant: LA 1: Port Allen Canal Bridge Repl. - Phase 2 NB Design	\$107,261
		IDIQ Contract 4400020063	Electrical Services Statewide	
M&M	Bridge	H.014212.6	I-10 Atchafalaya Bridge Navigational Lights Repl	\$38,078
M&M	Other (Roadway Lighting)	H.014646	I-20: US 165 to Garrett Road Lighting	\$69,763

M&M	Other (Roadway Lighting)	H.014555.5	I-10 at LA109 Interchange Lighting (Toomey)	\$142,301
M&M	Other (Roadway Lighting)	H.015019.5	I-10 at LA3063 Interchange Lighting (Vinton)	\$145,992
M&M	Other (Roadway Lighting)	H.015085.5	I-10 @ LA108 Interchange (Vinton) Lighting	\$162,132
M&M	Bridge	Contract 44-20156 H.011965.6	Subconsultant: LA 47 IWGO Bridge Rehab CRES	\$161,432
		IDIQ Contract 4400014317	Painting Inspection and Environmental Monitoring with Construction Engineering and Inspection - Statewide	
M&M	CEI/OV	H.011487.6	LA 182: Berwick Bay Bridge Rehabilitation	\$2,548,127
		IDIQ Contract 4400024187	Bridge Preservation Statewide	
M&M	Other (Roadway Lighting)	H.015504.5	CCC Decorative Lighting	\$0
M&M	CEI/OV	H.003144.6	MRB (Luling) CEI of Latent Defects	\$190,690
M&M	Bridge	H.015115.5	LA 24 over ICWW Repair	\$217,787
M&M	Bridge	H.011137.6	I-12: LA 1077 to LA 21	\$112,598
M&M	Bridge	Contract 44-05673 H.011235.5	Subconsultant: I-49 South @ Verot School Road	\$75,953
		IDIQ Contract 4400021593	Bridge Load Rating Services Statewide	
M&M	Bridge	H.009859.5	Bridge Load Rating (Task Order 1)	\$2,113,135
M&M	Bridge		Subconsultant: CEC - Acrow Bridge In-depth and Cursory Inspections Vacherie LA 20	\$31,303
M&M	Bridge	Contract 44-024187 H.001779 (TO 3)	Subconsultant: Jimmie Davis Bridge (LA 511) (HBI)	\$0
M&M	Bridge	Contract 44-22581 H.011221.5	I-10: N.O. CBD3 (Poydras - Louisa)	\$560,908
M&M	Bridge	Contract 44-22581 H.011222.5	I-10: N.O. CBD4 (Louisa - I510)	\$416,551
ECM	CE&I/OV	Contract # BC-PSA 05, S.P. # H.0044791	Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project	\$1,593,336
ECM	CE&I/OV	Contract # 4400019872 H. 009175.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (St. Bernard Signing and Striping Local Road Safety Program)	\$14,546

ECM	CE&I/OV	Contract# 4400019872 H.011949.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (RWD Signing Plaquemines Parish Local Road Safety Program)	\$10,500
ECM	CE&I/OV	Contract# 4400019872 H.012682.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (Pedestrian Crosswalk Enh [NO PH2])	\$10,916
ECM	CE&I/OV	Contract# 4400019872 H.013789.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (Curve Signing & Striping (Evangeline))	\$84,361
ECM	CE&I/OV	Contract# 4400019872 H.013767.6	IDIQ CE&I for Safety Projects Statewide with Majority of Work in District 03, 07, and 08 (Signs & markings St. Landry & St. Martin)	\$91,506
ECM	CE&I/OV	Contract# 4400019872 H.013770..6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (LRSP Signing and Striping - Iberia)	\$82,969
ECM	CE&I/OV	Contract# 4400019872 H.009298.6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (Town of Oberlin Sidewalks – Allen Parish)	\$232,794
ECM	CE&I/OV	Contract# 4400019872 H.013083.6	IDIQ CE&I Inspection Services Statewide with Majority of Work in District 03 (Jefferson Island Sidewalk - Iberia Parish)	\$128,159
ECM	CE&I/OV	Contract# 4400019951 H.012863.6	IDIQ CE&I Inspection Services Statewide with Majority of Work In District 03 (Cypress Island Pavement Preservation)	\$58,374
ECM	CE&I/OV	Contract# 4400020842 Task Order 3	IDIQ Contract for Engineering & Inspection of State Regulated Dams with Majority of work in District 03,07,6 & 62 Statewide (State Regulated Dams Eng & Inspection)	\$81,717
ECM	CE&I/OV	Contract# 4400021680 H.008145.6	DOTD LA1 Leeville to Golden Meadow	\$7,028,342
ECM	CE&I/OV	Contract# 4400026101 H.011767	DOTD Contract for Engineering & Inspection District 61 (Bayou Crab Road Bridge)	\$20,000
ECM	CE&I/OV	Contract# 4400023838 H.013751.6	IDIQ CE&I Services for Safety Projects (Downtown Greenway La Connector BR East Baton Rouge Parish)	\$102,679
ECM	CE&I/OV	Contract# 4400025845 H.013025.6	CE&I Engineering & Inspection Univ AV PH1:100' S RR-500' S I-10 EB RMP (University Avenue/Lafayette Parish)	\$1,627,584
Volkert, Inc.	Road	Contract No.44-5267 S.P. No. H.003074 & H.009087	Route I-10: Williams Blvd. to Veterans Blvd. & Loyola Drive to Williams Blvd. – Sub-consultant, Jefferson	\$1,736 (Project on Hold)

Volkert, Inc.	Road	Contract No. 44-5142 S.P. No. H.001309.5	MacArthur Blvd. Phase II Final Plans – Sub-Consultant, Jefferson Parish, LA	\$77,678 (Project on Hold)
Volkert, Inc.	Bridge	Contract No. 44-4726 S.P. No. H.004113	I-12 to Bush LA 3241 (LA 435 to LA 40 / LA 41), - Sub Consultant, St. Tammany Parish, LA	\$41,755
Volkert, Inc.	Bridge	Contract No.44-8113 S.P. No. H.011152.5	I-12 Widening (US 190 to LA 59) Route I-12 – Sub Consultant, St. Tammany Parish, LA	\$20,052
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.01551.8	Ridge Road Over Castor Creek, Bienville Parish, LA	\$143,000
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015520	Collinsburg Creek over Collinsburg Creek, Bossier Parish, LA	\$126,775
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H. 015522	Barnette Road over Trib to Walnut Bayou, Caddo Parish, LA	\$116,600
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015524	Self Road Over Dooley Canal, Caddo Parish, LA	\$119,800
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015525	Bailey Town Rd Over Little Corney Bayou, Claiborne Parish, LA	\$149,750
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015527	Hinds Road Over Wallace Bayou, DeSoto Paish, LA	\$149,800
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015528	Courtney Road Over Dry Creek, Red River Parish, LA	\$123,750
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015529	Dorcheat Road Over Cow Branch, Webster Parish, LA	\$152,000
Volkert, Inc.	Bridge	Contract No. 44-25024 S. P. No. H.015336	Marathon Road over Gray Creek, Webster Parish, LA	\$152,000
Volkert, Inc.	Traffic	Contract No. 44-4787 S.P. No. H.009250	IMR I-10 Highland Road to LA 73, East Baton Rouge and Ascension Parishes, LA	\$1,186,690
Volkert, Inc.	Survey	Contract No. 44-17068	Louisiana Watershed Initiative (LWI) Modeling Contract Region 3, Sub Consultant -Work completed	\$139,109
Volkert, Inc.	Survey	Contract No. 44-17068	IDIQ Contract for Louisiana Watershed Initiative (LWI) Modeling Contract Region 2, Sub Consultant, Task Order 1, 2 and 3	\$211,808
Volkert, Inc.	Survey	Contract No. 44-17764 S.P. No. H.013284	IDIQ Contract for Engineering and Inspection Services of State Regulated Dams with Majority of Work in Districts 04,05.08 and 58, Statewide, Task Orders 4 & 7	\$184,644
Volkert, Inc.	Survey	Contact No. 44-19871	IDIQ Contract for Design of Safety Projects, Statewide with Majority of Work I Districts 04,05, and 58.Sub- Consultant	No Open Task Orders

Volkert, Inc.	Other - Procurement Services	Contract No. 44-17328 S.P. No.H.015372	IDIQ Contract for Innovative Procurement Support Services, Statewide - No open task orders	No Open Task Orders
Volkert, Inc.	CE&I/OV	Contract No. 44-16173 S.P. No. H.003370	I-220/I-20 Interchange Improvements & Barksdale AFB Access, Bossier Parish, LA	\$386,514
Volkert, Inc.	CE&I/OV	H.004791	LA 23: Belle Chasse Bridge and Tunnel Replacement (HBI) Plaquemines Parish, LA	\$4,552,606
Volkert, Inc.	CE&I/OV	Contract No. 44-16980 H.013897	College Drive Flyover Ramp. I-10/I-12 West-East Baton Rouge Parish, LA	\$264,995
Volkert, Inc.	CE&I/OV	Contract No. 44-21740 H.004100.6	Phase I W. of Washington Street to Essen Lane (CE&I) Phase I Segment 01. W. of Washington Street to Acadian Thruway, Route I-18. East & West Baton Rouge Parishes, LA	\$7,723,116
Volkert, Inc.	CE&I/OV	H.001234.6	LA 1 Port Allen Canal Bridge Replacement (Phase 1) (HBI) (CE&I), West Baton Rouge Parish, LA – Subconsultant	\$446,037
Volkert, Inc.	CE&I/OV	H.007811.6, H.000710.6, H.002273.6, and H.001352.6	Comite Diversion Canal CE&I and Utility Relocation, East Baton Rouge Parish, LA – Subconsultant	\$394,965
Volkert, Inc.	CE&I/OV	Contract No. 44-19950, H.002868.6	Retainer Contract 44-19950 IDIQ Contract for Construction Engineering and Inspection Services (CE&I) Statewide with Majority in District 03 Acadia, Lafayette, Evangeline, Iberia, St. Landry, St. Mart, St. Mary, and Vermilion Parishes – Task Order 4 – I-49 S Ambassador Caffery/US 90 Interchange, St. Martin & Lafayette Parishes – Sub- consultant	\$397,191
Volkert, Inc.	CE&I/OV	Contract No. 44-19950, H.013265.6	Retainer Contract 44-19950 IDIQ Contract for Construction Engineering and Inspection Services (CE&I) Statewide with Majority in District 03 Acadia, Lafayette, Evangeline, Iberia, St. Landry, St. Mart, St. Mary, and Vermilion Parishes – Task Order 5 – US 90 LA 14 - LA 83, Iberia Parish – Sub- consultant	\$130,256
Volkert, Inc.	CE&I/OV	H.008145.6	LA 1: Leeville to Golden Meadow Phase 2 (CE&I) SA 1 Fabrication Lafourche Parish (Subconsultant to ECM)	\$6,870,469
Volkert, Inc.	CE&I/OV	H.011965.6	LA 47: IWGO Bridge Replacement (HBI) (CE&I), Orleans Parish -Subconsultant	\$339,625
Volkert, Inc.	CE&I/OV	H.009498.6	Retainer Contract 44-26334 IDIQ Contract for Precast Prestress Concrete Fabrication Inspection, Task Order 1 LA	\$157,680

			121 Calcasieu River Bridge Fabrication, Rapides Parish	
Volkert, Inc.	CE&I/OV	H.013990.6	Retainer Contract 44-26334 IDIQ Contract for Precast Prestress Concrete Fabrication Inspection, Task Order 2 LA 132 Bridges Near Manghum Fabrication, Richland Parish	\$22,779
Volkert, Inc.	CE&I/OV	H.002868.6	Retainer Contract 44-26334 IDIQ Contract for Precast Prestress Concrete Fabrication Inspection, Task Order 3 Fabrication, I-49 S Ambassador Caffery US 90 Interchange, Lafayette Parish	\$209,190
A P S Engineering and Testing, LLC	Geotech	4400091011/ H.001271.5	Retainer Contract for Geotechnical Services- Cane River Bridge	\$133,758
A P S Engineering and Testing, LLC	Geotech	4400017262/ H.012027	I-20: Union Pacific RR Overpass	\$71,338
A P S Engineering and Testing, LLC	Geotech	4400017262/ H.012545	Wiggins Bayou Bridge	\$14,646
Vectura Consulting Services, LLC	Traffic	4400017293 H.010616	I-20: LA 544 Overpass Replacement	\$21,572
Vectura Consulting Services, LLC	Traffic	4400018271 H.011242.1	LA 384 (Big Lake Rd to McNeese St)	\$31,827
Vectura Consulting Services, LLC	Traffic	4400005484 H.005168.2	New Orleans Rail Gateway Avondale EA	\$119,308
Vectura Consulting Services, LLC	CE&I	4400020018 H.007160	EBR Computerized Traffic Signal, Ph VB	\$33,980
Vectura Consulting Services, LLC	Traffic	H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	\$14,740
Vectura Consulting Services, LLC	Traffic	4400021519 H.012030.5	KCS RR Overpasses HBI	\$1,430
Vectura Consulting Services, LLC	ITS	4400016364 H.011504.5	Alexandria ITS Phase 2	\$1,853
Vectura Consulting Services, LLC	ITS	4400017922 H.012845.1	Connected & Autonomous Vehicles (C/AV) Team and Working Group Support	\$14,666
Vectura Consulting Services, LLC	Traffic	4400024187 H.015504	CCC Decorative Lighting	\$1,245
Vectura Consulting Services, LLC	ITS	4400020058 H.011507.1	Monroe Phase 3 SEA	\$29,216
Vectura Consulting Services, LLC	Data Collection	4400023075 H.013522.5	S. Lewis Street Widening	\$7,500

(Add rows as needed)

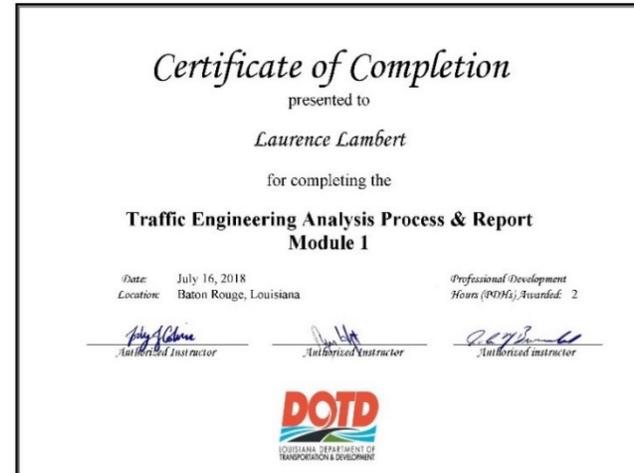
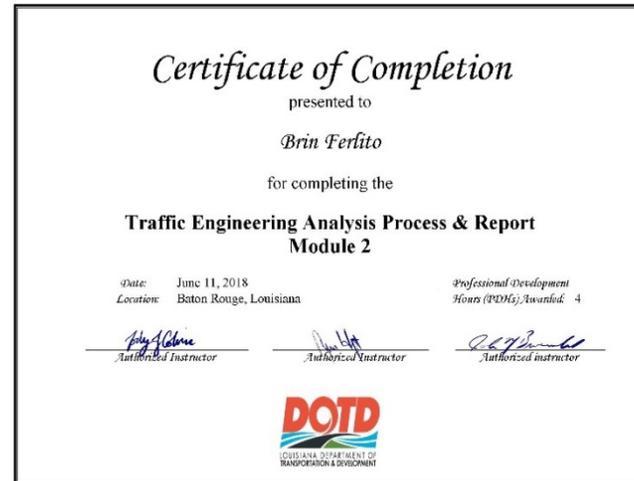
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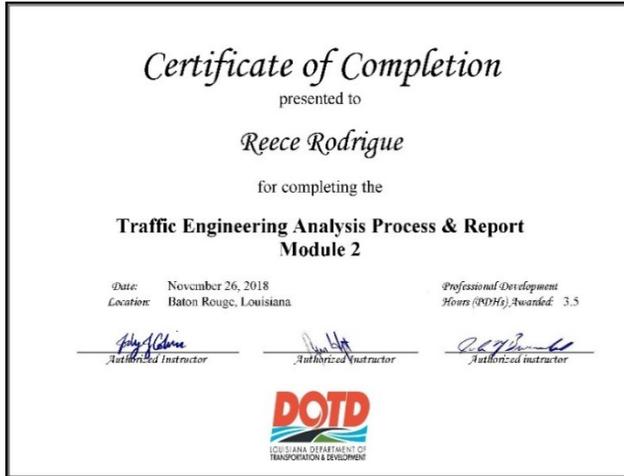
* The **only** past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other (please specify). If a firm has more than one past performance evaluation discipline for any single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

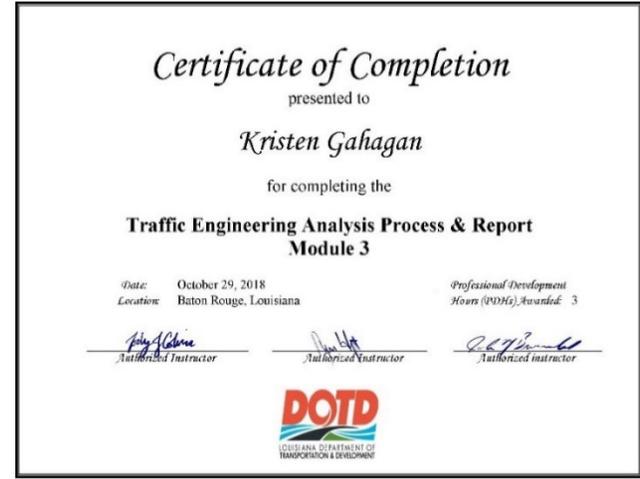
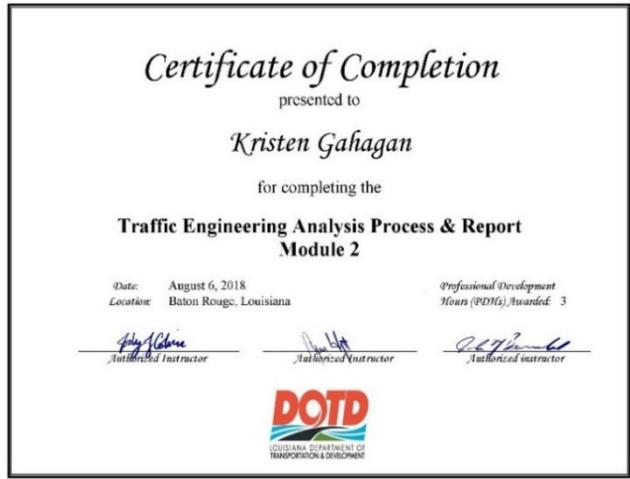
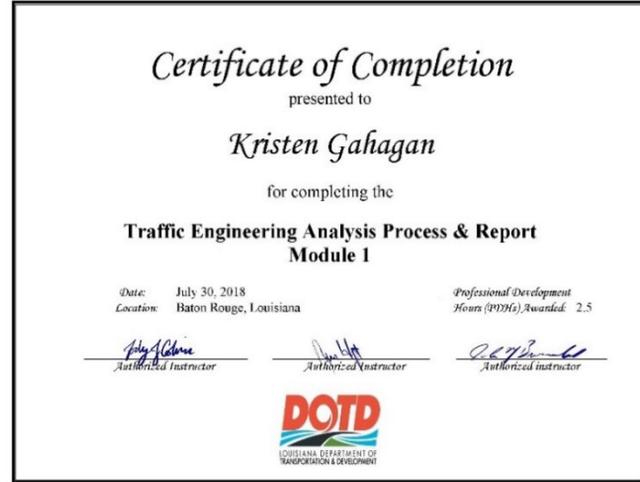
** Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, place N/A in the Remaining Unpaid Balance column. NOTE: ALL FIRMS MUST BE REPRESENTED IN THIS TABLE. LEAVING THE “REMAINING UNPAID BALANCE” COLUMN BLANK IS NOT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

20. Certifications/Licenses:

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







21. QA/QC Plan:

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

22. Sub-consultant information:

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

Firm Name (Name must match as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
ECM Consultants, Inc.	1301 Clearview Parkway Suite 200 Metairie, LA 70001	Ujjal Dasgupta, PE ujjal@ecmconsultants.com	504-231-7605 (cell) 504-885-4080 (work)
Volkert, Inc.	9448 Brookline Ave Baton Rouge, LA 70801	Janet L. Evans Jan.Evans@volkert.com	225-270-1454
APS Engineering and Testing, LLC	1645 Nicholson Drive, Baton Rouge LA 70802	Sergio Aviles, P.E. sergio@aps-testing.com	225-456-5714
Vectura Consulting Services, LLC	4467 Bluebonnet Blvd., Suite A, Baton Rouge, LA 70809-9639	Sheelagh Brin Ferlito, bferlito@vecturacs.com	225-223-6685

(Add rows as needed)

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. Any information included in this section will be redacted if not required by the advertisement.**