Louisiana Department of Transportation and Development

IDIQ CONTRACT FOR BRIDGE LOAD RATING SERVICES STATEWIDE

CONTRACT NOS. 4400025865

Request for Qualifications

January 11, 2023

MODJESKI and MASTERS

Original

DOTD FORM: 24-102

(Revised January 1, 2023)

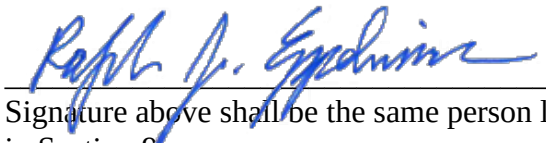
PROPOSAL TO PROVIDE CONSULTANT SERVICES

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 Bridge Load Rating Services**
2. Contract Number(s) as shown in the advertisement	**Contract No. 4400025865**
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	Cullen J. Ledet, PE, New Orleans Regional Director (504) 524-4344, cjledet@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.)

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: January 11, 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.	Firm(s): Urban Systems, Inc. (USI)	Firm(s)' %: 2.0%

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

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	M&M	USI	Firm C	Firm D	Firm E	Each Discipline must total to 100%
Bridge	100%	98%	2%				**100%**
Identify the percentage of work for the **<u>overall contract</u>** to be performed by the prime consultant and each sub-consultant.							
Percent of Contract	100%	98%	2%				

13. Firm Size:

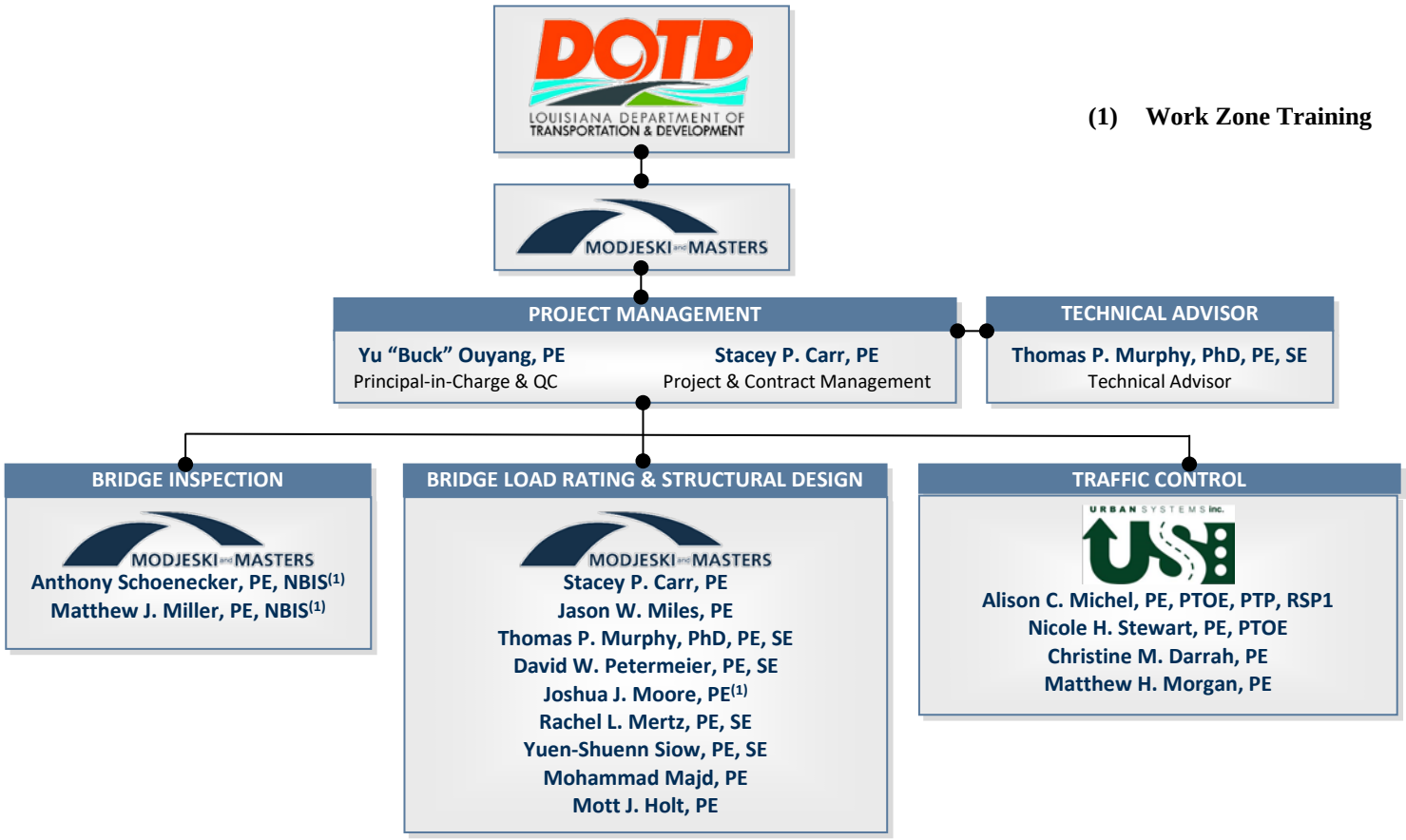
For all firms that are part of this team, indicate the approximate number of personnel to be committed to this contract, by DOTD Job Classification and the total number of personnel within the firm that could provide support, if needed. If a specialized job classification is required and not included on the DOTD job classification list, specify "Other (please specify)" and include the classification title inside the parentheses.
The DOTD Job Classification(s) to be used can be found at the following link:
http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

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	3	7
	Supervisor Engineer	3	15
	Supervisor-Other	0	11
	Engineer	4	6
	Engineer-Other	0	21
	Engineer Intern	4	19
	Professional	0	1
	Senior Technician	1	3
	Technician	2	2
	CADD Technician	1	9
	Clerical	0	3
Urban Systems, Inc.	Supervisor-Engineer	2	2
	Engineer	2	2
	Engineer Intern	1	2
	Senior Technician	1	1
	CAD Technician	1	1
	Inspector	0	1
	Engineering Aide	2	3

(Add rows as needed)

14. <u>Organizational Chart</u>:

Provide an organizational chart showing ALL **relevant** prime consultant and sub-consultant (if applicable) personnel assigned to the contract, area of project responsibility for each, and reporting lines for the purposes of this contract. An individual's role does not necessarily have to match their DOTD job classification identified in Section 13. **If applicable, identify all personnel performing traffic engineering analysis and/or QC of traffic engineering analysis by placing an asterisk next to their name. Include the certificates required by the Traffic Engineering Process and Report Training Requirements article of the Advertisement in Section 20.** It is acceptable to use an 11x17 format for Section 14.



(1) Work Zone Training

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	Yu "Buck" Ouyang, PE	Modjeski and Masters, Inc.	PE #26117 - Civil	LA	9/30/2023
	David W. Petermeier, PE, SE	Modjeski and Masters, Inc.	PE #34486 - Civil	LA	9/30/2023
2	Yu "Buck" Ouyang, PE	Modjeski and Masters, Inc.	PE #26117 - Civil	LA	9/30/2023
	David W. Petermeier, PE, SE	Modjeski and Masters, Inc.	PE #34486 - Civil	LA	9/30/2023
3	Yu "Buck" Ouyang, PE	Modjeski and Masters, Inc.	PE #26117 - Civil	LA	9/30/2023
	David W. Petermeier, PE, SE	Modjeski and Masters, Inc.	PE #34486 - Civil	LA	9/30/2023
4	Stacey P. Carr, PE	Modjeski and Masters, Inc.	PE #26796 - Civil	LA	9/30/2024
	Thomas P. Murphy, PhD, PE, SE	Modjeski and Masters, Inc.	PE #45353 - Civil	LA	9/30/2023
5	Rachel L. Mertz, PE, SE	Modjeski and Masters, Inc.	PE #39764 - Civil	LA	9/30/2023
	Joshua J. Moore, PE	Modjeski and Masters, Inc.	PE #36342 - Civil	LA	9/30/2023
	Jason W. Miles, PE	Modjeski and Masters, Inc.	PE #37773 - Civil	LA	9/30/2023
	Mohammad Majd, PE	Modjeski and Masters, Inc.	PE #46831 - Civil	LA	9/30/2024
	Yuen-Shuenn Siow, PE, SE	Modjeski and Masters, Inc.	PE #47144 - Civil	LA	3/31/2023
	Mott J. Holt, PE	Modjeski and Masters, Inc.	PE #45908 - Civil	LA	3/31/2024

(Add rows as needed)

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc**.				
Name	**Yu "Buck" Ouyang, PE**	Years of relevant experience with this employer	32	
Title	Vice President & Principal	Years of relevant experience with other employer(s)	2	
Degree(s) / Years / Specialization	MS / 1990 / Civil Engineering MS / 1985 / Structural Engineering BS / 1982 / Civil Engineering			
Active registration number / state / expiration date	26117 LA 9/30/2023			
Year registered	1994	Discipline	Civil	

Contract role(s) / brief description of responsibilities:
Mr. Ouyang has been with Modjeski and Masters, Inc. since 1991, and has vast bridge engineering experience, ranging from conventional designs to special projects of high complexity, and from feasibility studies to construction services. He specializes in the design of fixed and movable highway and railroad bridges, and the rating and rehabilitation of existing bridges. His expertise also extends to analysis of complex bridge structures, vessel collision risk assessment and protection systems, seismic design, analysis and retrofit, and fatigue evaluations. He brings extensive experience in managing engineering and design efforts of varying sizes and difficulties, and in leading, coordinating and managing technical teams and subconsultants. Mr. Ouyang fulfills MPR#1 – 3 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
09/17 - 01/19	**LA 16 over Tangipahoa River, Tangipahoa Parish, LA | LADOTD** M&M developed all necessary topographic surveys, preliminary and final plans for this bridge replacement project on LA 16, between LA 51 and LA 1054, in Amite City, LA. This project included reconstruction of the approach slabs and roadway on the east and west sides of the bridge. It was anticipated that traffic shall be maintained during construction with an on-site diversion roadway and bridge. The plans were prepared in accordance with AASHTO LRFD Bridge Design Specifications and the Bridge Design and Evaluation Manual (BDEM), DOTD 2017 Design Guidelines, DOTD 2016 Standard Specifications for Roads and Bridges, DOTD Road Design Manual, and DOTD Hydraulics Manual. QA/QC was provided in accordance with Part 1, Chapter 3 of BDEM. Construction Related Engineering Support was provided and is currently on-going. Mr. Ouyang served as the Project Manager for this project.
09/17 - 01/19	**US 61 at Thompson Creek, West Feliciana Parish, LA | LADOTD** M&M provided all necessary preliminary and final plans for the rehabilitation of the northbound bridge and replacement of the southbound bridge on US 61 over Thompson Creek, between LA 10 and LA 964, near St. Francisville, LA. It was anticipated that traffic would be maintained during the construction of the new southbound bridge with temporary two-way traffic on the rehabilitated northbound bridge. The project also included the design and detailing of adding a helper bent to the northbound bridge. The plans were prepared in accordance with AASHTO LRFD Bridge Design Specifications and the Bridge Design and Evaluation Manual (BDEM), DOTD 2017 Design Guidelines, DOTD 2016 Standard Specifications for Roads and Bridges, DOTD Road Design Manual, and DOTD Hydraulics Manual. QA/QC was provided in accordance with Part 1, Chapter 3 of BDEM. Construction Related Engineering Support was provided and is currently on-going. Mr. Ouyang served as the Project Manager for this project.

09/17 - 02/20	**LA 1064 at Little Natalbany River, Livingston Parish, LA | LADOTD** M&M developed all necessary topographic surveys, preliminary and final plans for this bridge replacement project on LA 1064, near LA 43 and Hoover Road, in Albany, LA. This project included reconstruction of the approach slabs and roadway on the east and west sides of the bridge. It was anticipated that the roadway would be closed during construction and a detour route was detailed. The plans were prepared in accordance with AASHTO LRFD Bridge Design Specifications and the Bridge Design and Evaluation Manual (BDEM), DOTD 2017 Design Guidelines, DOTD 2016 Standard Specifications for Roads and Bridges, DOTD Road Design Manual, DOTD Hydraulics Manual, and DOTD Location and Survey Manual. QA/QC was provided in accordance with Part 1, Chapter 3 of BDEM. Construction Related Engineering Support was also provided. Mr. Ouyang served as the Project Manager for this project.
03/17 - ongoing	**LA 1 – Port Allen Bridge Replacement, Port Allen, LA | LADOTD** The ongoing project consists of replacing the existing northbound and southbound bridge structures on LA 1 over the Intracoastal Canal Waterway (ICWW). The proposed LA 1 SB Bridge will consist of 3 - 12' travel lanes and 2 - 10' shoulders and will be approximately 2,680' long. The proposed LA 1 NB Bridge will consist of 2 - 12' travel lanes and 2 - 10' shoulders (LA 1 NB roadway), a permanent 2' wide median barrier and 1 - 12' travel lane with 2 - 6' shoulders (I-10 EB Exit Ramp roadway). The Exit Ramp and LA 1 NB roadway will be separated by a permanent 2' wide median barrier until the LA 1 NB Bridge will bifurcate where the LA 1 NB roadway and I-10 EB Exit Ramp roadway will be carried on separate bridge structures. The LA 1 NB Bridge and I-10 EB Exit Ramp Bridge will be approximately 2,700' and 354' long, respectively. Both LA 1 NB and LA 1 SB Bridges will consist of a 870' long haunched three span continuous steel plate girder main span unit over the ICWW and prestressed concrete LG girder approach spans. Mr. Ouyang serves as Project Manager for this project.
08/09 - 12/11	**S.P. 700-08-0109: LA 160 Bridges – Caney Creek and Bodcau Bayou | LADOTD** M&M developed final plans, permit drawings, construction cost estimate and special provisions for a new integral bridge design and analysis developed for the LADOTD. The two subject bridge sites that cross Caney Creek and Bodcau Bayou in Bossier Parish, LA were the first two fully integral bridges in the state. Strain gauge and other testing was conducted to follow the behavior of the bridge design over a period of time. The plans were prepared in accordance with AASHTO LRFD Bridge Design Specifications and the Bridge Design and Evaluation Manual (BDEM) and DOTD Standard Specifications for Roads and Bridges. QA/QC was provided in accordance with Part 1, Chapter 3 of BDEM. Mr. Ouyang served as the project manager and supervised a team of engineers that performed the LUSAS analysis, bridge design and detailing, and construction services.
02/01 - 08/14	**S.P. 700-18-0014 – Huey P. Long Bridge Widening, Jefferson Parish, LA | LADOTD** The widening project for the H.P. Long Bridge included new vehicular approaches on both sides of the Mississippi River consisting of three lanes plus shoulders and ramps. The project entailed replacing existing approaches while maintaining traffic through the corridor. Included elements: existing foundations, pile and drill-shaft supported piers, prestressed concrete girder spans and multiple-span steel continuous units. The plans were prepared in accordance with AASHTO LRFD Bridge Design Specifications and the Bridge Design and Evaluation Manual (BDEM) and DOTD Standard Specifications for Roads and Bridges. Mr. Ouyang served as a lead design engineer and technical advisor for this project.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**				
Name	**Stacey P. Carr, PE**	Years of relevant experience with this employer	31	
Title	Associate - Structures	Years of relevant experience with other employer(s)	1	
Degree(s) / Years / Specialization		MS 2004 Structural BS 1990 Civil		
Active registration number / state / expiration date		26796 LA 9/30/2024		
Year registered	1996	Discipline	Civil	

Contract role(s) / brief description of responsibilities: Ms. Carr has extensive experience in the rating, strengthening and design of highway, railroad, and combined highway/railroad structures, including large cantilever spans and movable bridges. Ms. Carr has overseen the gamut for rating bridges from small concrete slab spans to complex steel structures, movable bridges and gusset plates, as featured below. She is well experienced with AASHTOWare Bridge Rate (BrR) and is knowledgeable of both LFR and LRFR rating requirements. Special Training: NHI Course No. 130092, Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures. Ms. Carr fulfills MPR #4 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
03/21 - 05/22	**H.009859.5 I-210 Bridge over Prien Lake Structural Rating, Calcasieu Parish | LADOTD** Modjeski and Masters, Inc. performed the as-is/as-repaired LRFR of Prien Lake Eastbound & Westbound Main Bridge and Approaches for a total length of over 17,000 ft. Analysis included LUSAS FEM models, AASHTOWare BrR models of continuous span girders and ratable superstructure components, girder splices for rating and use of the AISC moment Gradient Modified Cb as needed. Design and legal load capacity ratings were calculated for the girders and link joint connections of the steel plate girder spans, and for the caps of the pile bents. Ratings for the superstructure and substructure were calculated using LRFR methodology. Ms. Carr is the Project Manager who oversees and performs primary QA/QC for the load rating and analysis of this structure.
09/21 - 08/22	**H.009859.5 Load Rating of Complex Bridges, Caddo and St. Tammany Parishes | LADOTD** Modjeski and Masters, Inc. performed the existing condition LRFR of two bridges, I-20 over Spring St./LA 1 and US 190 over Bayou Lacombe, including the use of AISC Moment Gradient Modifier (Cb) as needed. The I-20 bridge is divided into three units connected through pin and hanger style expansion joints. Design and legal load capacity ratings were calculated for the girders and link joint connections of the rolled and welded plate girder spans, as well as the steel straddle bent cap at Bent 2. The US 190 Bridge is an equal arm 130' swing span, consisting of a concrete deck supported by two non-prismatic built-up main girders and floorsystem. Existing condition load capacity ratings were calculated for superstructure elements of the swing span, as well as superstructure and substructure elements of the approach spans. AASHTOWare BrR Software and three dimensions structural models were used for dead and live load analyses. Influence lines and COMPSTIL2 input files were developed for the complex structures. Rating and contract services followed the "Bridge Load Rating, Posting, and Strengthening – Standard Operating Procedure" document. Ms. Carr is the Project Manager who oversees and performs primary QC/QA for the load rating & analysis of this structure.
07/02 - 08/14	**Huey P. Long Bridge Widening and Rating | LADOTD** The widening project for the HPL Bridge included new vehicular approaches on both sides of the Mississippi River consisting of three lanes plus shoulders and ramps. The project entailed replacing existing approaches while maintaining traffic through the corridor. Included elements: existing foundations, pile and drill-shaft supported piers, prestressed concrete girder spans and multiple-span steel continuous units. The plans were prepared in accordance with AASHTO LRFD Bridge Design Specifications, the BDEM and DOTD Standard Specifications for Roads and Bridges. Ms. Carr served as Superstructure Task Leader for the widening, which included coordinating the work of other engineers. She also performed work on the design and detailing for the main bridge truss widening. Ms. Carr was the project engineer during the initial phase of the superstructure construction. During the rating phase of the widened HPL Bridge, Ms. Carr managed and participated in the ratings of the approaches & main bridge floorsystem, coordinated the overall rating work, and performed overall QA/QC for the project and submittals.
10/18 - 05/21	**H.009859.5: Sunshine Bridge Load Rating After Collision Repair | LADOTD** The Louisiana Route 70 Sunshine Bridge is a steel cantilever through truss bridge that carries four lanes of traffic over the Mississippi River near Donaldsonville, LA. On October 12, 2018, a barge mounted crane was traveling upstream in the western most channel of the river. There was insufficient clearance as the barge passed underneath the bridge, and the back-stay of the crane impacted the downstream bottom chord of the truss. The impact caused significant damage to a bottom chord member, tearing off the bottom plate of the box member and inducing severe out of plane distortion. With the damage documented, work on repair concepts began. M&M performed a post repair load rating in accordance with the AASHTO Manual for Bridge Evaluation. This effort included developing an As-Is/As-Repaired AASHTOWare BrR model of the main span cantilever truss including the floor system and gussets. Load rating analysis was performed for strengthened, modified

	or repairs main span truss members or gussets as well as members with increased or decreased dead load stress resulting from the collision or repair work. Ms. Carr was the Project manager who oversaw and performed primary QA/QC for the load rating of this complex structure.
11/19 - Ongoing	**H.009859.1: Load Rating of Fourteen Complex Bridges | LADOTD** M&M. is performing plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation, and plan production for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M is generating a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software is being used. All load rating analysis will follow the AASHTO Manual for Bridge Evaluation, LADOTD BDEM and AASHTO LRFD Bridge Design Specifications. Ms. Carr is the PM who oversees & performs primary QA/QC for the load rating of the bridges.
07/19 - 05/21	**H.012485.1: Load Rating of 354 Off System Bridges | LADOTD** Modjeski and Masters, Inc. is performing plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 354 off system bridges including prestressed concrete, reinforced concrete and steel plate girder bridges. For the analysis and load rating task, M&M is generating a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software is being used. For the complex bridges, a three-dimensional structural model is needed. All load rating analysis will follow current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Ms. Carr is the Project Manager who oversees and performs primary QA/QC for the load rating of the bridges.
07/19 - 06/21	**H.000303.6: Danziger Bridge Repair and Rating | LADOTD** M&M performed repair and load rating services for the Danziger Bridge, a vertical lift structure with a steel girder superstructure supported by reinforced concrete piers, and the flanking prestressed concrete approach structures. AASHTOWare Bridge Rating BrR software was used to perform load rating based on the present condition, capacity and loading of the bridge. All load rating analysis followed the AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual & AASHTO LRFD Bridge Design Specs. Ms. Carr was the Project Manager who oversaw and performed primary QA/QC for the load rating.
01/17 - 08/18	**H.009859.5: Nineteen Complex Bridge Load Rating and Evaluation. Louisiana | LADOTD** M&M performed plan/document retrieval, bridge inspection and analysis, and LRFR rating of complex bridge structures, mainly movable bridges. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which followed the AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design & Evaluation Manual. Ms. Carr was the Project Manager who oversaw & performed primary QA/QC for the load rating of the bridges.
02/16 - 10/17	**H.009859.5: Ten Truss Bridges Load Rating and Evaluation. Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, including large cantilever trusses, vertical lifts and swing spans. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which follow the AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Ms. Carr was Project Manager who oversaw and performed primary QA/QC for the load rating of the bridges.
09/14 - 12/16	**H.009859.5 (A): Rating and Posting of On-System State Bridges. Louisiana | LADOTD** M&M performed load rating analyses for 110 existing bridge structures using the Load and Resistance Factor Rating Method. Elements to be rated include superstructure and substructure components. Provisions in the AASHTO Manual for Bridge Evaluation as well as LADOTD Policies and Guidelines for Bridge Rating and Evaluation were followed. Ms. Carr was group leader, oversaw, and performed primary QA/QC for the load rating of the structures which included reinforced concrete, prestressed concrete and steel plate girder bridges.
02/13 - 02/15	**H.009859.5: Crescent City Connection, Bridge No. 1, New Orleans, LA | LADOTD** M&M performed an inspection and LRFR load rating of the GNO #1, a 13,428-ft truss bridge with a main span of 1,575 feet. The rating included the superstructure, including gusset plates and deck, and selected substructure elements. Ms. Carr oversaw & performed primary QA/QC for the load rating of the bridge.
04/10 - 12/12	**T.O. 701-65-1460 & H.005710: US 190 Miss. River Bridge, Port Allen, LA | LADOTD** The US 190 Mississippi River Bridge was constructed circa 1947 as the first bridge across the Mississippi River in Port Allen. The bridge's features are similar to the 1936 Huey P. Long Bridge in New Orleans. The bridge is a steel cantilever, through truss bridge built on caissons with long approach trestles supported on piling. The bridge carries one railroad track to the interior of the trusses and 2 vehicular lanes bracketed from the exterior of the trusses. The main bridge is 3,326-ft long with the total vehicle length 5,877-ft long and the railroad 12,211-ft long. In 1989, M&M rated the bridge for a combined rail/auto loading, performed a fatigue analysis and in 1989 prepared plans and specifications for the widening of the original roadways to 24-ft. In 2011, Modjeski and Masters re-rated the entire bridge based on an "as-is" condition treating the railroad portion as dead load for the purpose of determining highway capacity. Hanger strain gauging and analyses was performed as well as review of gusset plates without documentation information. Ms. Carr was the primary engineer who analyzed and rated the structure.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**					
Name	**Thomas P. Murphy, PhD, PE, SE**		Years of relevant experience with this employer	22	
Title	Chairman and Senior Vice President		Years of relevant experience with other employer(s)	5	
Degree(s) / Years / Specialization			PhD 2000 Civil Engineering MS 1995 Civil Engineering BS 1994 Civil Engineering		
Active registration number / state / expiration date			45353 LA 9/30/2023		
Year registered	2021	Discipline	Civil		

Contract role(s) / brief description of responsibilities

Dr. Murphy's professional experience includes the analysis, design, detailing, and rehabilitation of a variety of bridges including cable-stayed, suspension, arch, truss, and girder bridges with special emphasis on seismic analysis and design. Dr. Murphy is involved in all aspects of bridge engineering, from the development of design specifications and leading research projects to the completion of conceptual studies for specific crossings, preliminary and final design, and construction stage issues. Dr. Murphy has led several major bridge design efforts, as well as collapse investigations, research projects, and peer reviews. Dr. Murphy fulfills MPR #4 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/11 - Ongoing	**I-476 Hawk Falls Bridge Replacement. Pennsylvania | Pennsylvania Turnpike Commission** Dr. Murphy is the Project Manager and is the technical advisor for the arch design for this $65M (estimated) project. Dr. Murphy's tasks included initial structural arrangement and span layout evaluations, preliminary stability and moment magnification studies, and constructability reviews. He is also facilitating coordination with multiple agencies and stakeholders. The existing Hawk Falls Bridge on the Pennsylvania Turnpike is a 738'-long, three-span deck truss bridge with a deck I-beam approach span. Another bridge located directly to the north of the Hawk Falls Bridge, is a 111'-long three-span overpass bridge crossing PA State Route 534. Both are located within Hickory Run State Park. The Turnpike desired to have both bridges widened and upgraded to allow for future widening to a six-lane mainline section. To accomplish this, M&M determined that replacing both structures was the most cost-effective and efficient option. A new three rib, 480'-long span steel arch and a new 151'-long, single span bridge is currently in Final Design, which will replace the existing structures. In addition to innovative structural details to simplify construction and future inspections, the project also involves significant efforts to convert state park land for the new alignment.
10/18 - 09/20	**Chirajara Cable-Stayed Bridge Replacement Peer Review. Colombia | Coviandes SAS** Dr. Murphy serves as M&M's Project Manager for the in-depth review of the Chirajara Cable-Stayed Bridge Replacement design. Tasks include the development of analytical models, verification of loadings, construction stage analysis, capacity calculations, review of construction alterations, load testing reviews, shop drawing reviews, evaluation of erection plans, and reviews of contractor QC reports for the 1000' span cable stayed structure.
08/09 - Ongoing	**I-74 Mississippi River Arch Bridge. Iowa | Iowa DOT** Dr. Murphy is the Engineer of Record for the arch superstructures and has been involved in all aspects of the design including stability evaluations, aerodynamic mitigation measures, security studies, erection analysis, and criteria development. The I-74

	corridor in the Quad Cities is approximately seven miles long and crosses the Mississippi River between Bettendorf, Iowa and Moline, Illinois. Twin, 800' span basket handle true arch bridges will be constructed to replace the existing crossing. M&M, as part of the project team, designed the twin arch superstructures.
11/04 - 07/16	**Monongahela River Bridge. Pennsylvania | Pennsylvania Turnpike Commission** Dr. Murphy, served as a Project Manager, led the management, design, and complex analysis for all structural aspects of the project (span layout studies, bridge type studies, TS&L preparation, and final design). His responsibilities also included monitoring of scope, schedule, budget, and subconsultant coordination. This new bridge design project is part of the 24-mile-long Mon/Fayette Allegheny Expressway. The Monongahela River Bridge is a mainline structure which will span the former U.S. Steel Duquesne Works, several railroad tracks, and the Monongahela River. The new $215M (estimated) bridge is expected to be a three-span, cable-stayed structure with a main span of approximately 1,100' and back spans of approximately 600.'
05/05 - 01/07	**St. Croix River Bridge Visual Quality Manual. Minnesota | Jacobs (formerly Edwards & Kelcey, Inc.)** Dr. Murphy, serving as senior engineer, was responsible for the preliminary analyses and design of a variety of extradosed cable bridge concepts. He participated in the public involvement process, representing the structural engineers at the stakeholder meetings. The new St. Croix River Bridge will be an extradosed bridge, consisting of 3,400 feet of bridge with maximum spans of 470 feet, located in the environmentally sensitive St. Croix River Valley. M&M participated in the bridge type study which led to a visual quality manual. Several extradosed bridge types were analyzed in the preliminary stages of the project. This will be the first extradosed bridge in the United States upon completion.
09/01 - 01/05	**I-70 Mississippi River Cable-Stayed Bridge. Missouri | Illinois DOT** Dr. Murphy's contributions included: performing the initial bridge type study, which involved conceptual design and cost analysis of a variety of bridge types; development of project-wide site-specific seismic design criteria; processing preliminary seismic analysis and design; and facilitation of the public involvement process. In final design, Dr. Murphy performed analyses of the global bridge structure for traffic and seismic loadings, as well as one of the first three-dimensional nonlinear construction stage analyses ever performed on a bridge of this size. He also performed detailed finite element modeling of various critical details including those details required for structural hardening to enhance bridge security. The proposed bridge consisted of a cable-stayed structure with three planes of cables and two single-pylon towers inclined nine degrees from the river and soaring 435' above the roadway. The structure would have carried relocated I-70 and I-64 and provided four traffic lanes plus two full shoulders in each direction, making it one of the widest bridges ever built across the Mississippi River at 222'. The overall length of the structure would have been 3,150', with a 2,000' main channel span (which would have completely spanned the river).

16. Staff Experience:

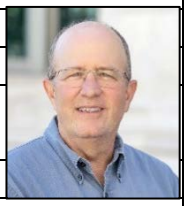
Firm employed by **Modjeski and Masters, Inc.**					
Name	**Jason W. Miles, PE**		Years of relevant experience with this employer	14	
Title	Associate - Structures		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			BS 2008 Civil		
Active registration number / state / expiration date			37773 LA 09/30/2023		
Year registered	2013	Discipline	Civil		

Contract role(s) / brief description of responsibilities:
Mr. Miles has been employed as a Design Engineer in the New Orleans office of Modjeski and Masters, Inc. since 2009. During this period, he has been engaged in multiple complex projects. The majority of his time has been spent in complex structural analysis, 3-D structural modeling, shop drawing review, assessment of steel fabricator quality control reports, performing finite element analysis using both the LUSAS and Florida Pier programs and complex load rating analysis. Mr. Miles attended the AASHTOWare Bridge Rate (BrR) meeting titled "AASHTOWare Bridge Design and Rating Software User Group Meeting" in August 2014, 2016, 2020 and 2022. He also completed NHI Course No. 130092, Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures and NHI Course No. 130081, LRFD for Highway Bridge Superstructures. Mr. Miles also has experience with finite element analysis, in particular through the use of Lusas software to check AASHTOWare BrR results. Mr. Miles fulfills MPR #5 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/19 - 08/20	**H.009859.5 US 90 Claiborne Bridge Load Capacity Rating, New Orleans, LA | LADOTD** Modjeski and Masters performed a load capacity rating for the US-90 Bridge over City Streets, known locally as "Elevated Claiborne." Bridge elements rated include reinforced slab spans, rolled stringer spans, girder-floorbeam stringer spans, and steel substructure consisting of cross girders and columns. Design and legal load capacity ratings were calculated for the current condition of the superstructure and substructure elements. The reinforced concrete slab spans, rolled steel stringer spans and girder-floorbeam-stringer spans were modeled using AASHTOWare's Bridge Rating (BrR) Version 6.8.3. The "Reinforced Concrete Slab System Superstructure" was used to model the slab spans, the "Girder System Superstructure" definition was used for the stringer spans, and the "Floor System Superstructure" definition was used to model the girder-floorbeam-stringer spans. Most spans in BrR utilized a line girder analysis, while some rolled stringer spans utilized 3D FEM analysis in BrR. Ratings for all applicable members were calculated using Load and Resistance Factor Rating (LRFR) methodology. Mr. Miles operated as a co-manager overseeing the technical aspects of the complex bridge ratings. Mr. Miles provided QA/QC, including calculation checking and report review.
03/21 - 10/21	**H.009859.5 I-210 Bridge over Prien Lake Structural Rating, Calcasieu Parish | LADOTD** Modjeski and Masters, Inc. performed the as-is/as-repaired Load and Resistance Factor Rating (LRFR) of Prien Lake Eastbound and Westbound Main Bridge and Approaches for a total length of over 17,000 feet. Analysis included LUSAS FEM models, AASHTOWare BrR models of continuous span girders and ratable superstructure components, analysis of girder splices for rating and use of the AISC moment Gradient Modified Cb as needed. The "Girder System Superstructure" definition was used for the girder spans, and the "Floor System Superstructure" definition was used to model the continuous stringer units and floorbeams without crossframes. The steel plate girders were modeled separately from the multi-span continuous stringer floor system because of the pin and hanger arrangements. All BrR-models utilized a line girder analysis. Design and legal load capacity ratings were calculated for the girders and link joint connections of the steel plate girder spans, and for the caps of the pile bents. Ratings for the superstructure and substructure were calculated using Load and Resistance Factor Rating (LRFR) methodology. Mr. Miles provided QA/QC, including calculation checking and report review.
11/19 - 05/21	**H.009859.5: Load Rating of Fourteen Complex Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/ instrumentation and non-destructive testing (as needed), and plan production (as needed) for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. M&M also developed influence lines and COMPSTIL2 input files for complex substructures

	including hammerheads and inverted-T pier caps. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Miles operated as a co-manager overseeing the technical aspects of the complex bridge ratings. Mr. Miles provided QA/QC, including calculation checking and report review.
07/19 - 05/21	**H.000303.6: Danziger Bridge Repair and Rating | LADOTD** Modjeski and Masters, Inc. is performed repair and load rating services for the Danziger Bridge, a steel vertical lift structure with a steel girder superstructure supported by reinforced concrete piers, and the flanking prestressed concrete approach structures. AASHTOWare Bridge Rating BrR software was used to perform load rating based on the present condition, capacity and loading of the bridge. All load rating analysis followed AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Miles performed analysis of the span using a 3D FEM model in LUSAS. Analysis included investigating thermal gradient effects, validating data from bridge monitoring systems, and an LRFR load rating.
07/19 - 04/21	**H.012485.1: Load Rating of 354 Off System Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/ instrumentation and non-destructive testing (as needed), and plan production (as needed) for 354 off system bridges including prestressed concrete, reinforced concrete and steel plate girder bridges. For the analysis and load rating task, M&M is generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Miles provided technical guidance to bridge raters involved in a variety of bridge types, including slab spans, prestressed girder spans, and grid deck on steel beam spans. Mr. Miles provided specific guidance on ratings of timber substructure elements. Ratings were performed using AASHTOWare BrR with refinements done in Excel when needed. Mr. Miles also performed general QA/QC and rating report review.
10/18 - 05/21	**H.009859.5: Sunshine Bridge Load Rating After Collision Repair | LADOTD** The Sunshine Bridge is a steel cantilever through truss bridge that carries four lanes of traffic over the Mississippi River near Donaldsonville, LA. The three main truss spans are each about 800 feet in length and provide up to 133 feet in vertical clearance above high water. On October 12, 2018, a barge mounted crane was traveling upstream in the western most channel of the river. There was insufficient clearance as the barge passed underneath the bridge, and the back-stay of the crane impacted the downstream bottom chord of the truss. The impact caused significant damage to a bottom chord member, tearing off the bottom plate of the box member and inducing severe out of plane distortion. The member in question was a primary load path compression member, designed to carry 1,700 kips of dead load. LADOTD closed the bridge to traffic directly after the incident and engaged Modjeski and Masters to perform an emergency hands-on inspection using technical rope access techniques. With the damage documented, work on repair concepts began. M&M performed a post repair load rating in accordance with the AASHTO Manual for Bridge Evaluation. This effort included developing an As-Is/As-Repaired AASHTOWare BrR model of the main span cantilever truss including the floor system and gussets. Load rating analysis was performed for strengthened, modified or repairs main span truss members or gussets as well as members with increased or decreased dead load stress resulting from the collision or repair work. Mr. Miles served as a lead engineer and structural analyst for this emergency project.
02/17-08/18	**H.009859.5: Nineteen Complex Bridge Load Rating and Evaluation. Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, mainly movable bridges. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which follow current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Miles participated in the load rating analysis and reporting for this project.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**					
Name	**David W. Petermeier, PE, SE**		Years of relevant experience with this employer	32	
Title	Senior Vice-President		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS 1991 Civil BS 1989 Civil		
Active registration number / state / expiration date			PE 34486 LA 9/30/2023		
Year registered	2009	Discipline	Civil		

Contract role(s) / brief description of responsibilities

Mr. Petermeier has experience in the design, analysis, and rehabilitation of highway and railroad structures of various sizes and complexity levels for many state, municipal, and private entities and has been a key participant on many award-winning structural projects. His experience includes complex bridge design/rating such as truss bridges, cable-stay bridges, segmental bridges, tied arch bridges, two-girder system bridges, as well as bascule, swing and vertical lift movable structures. Mr. Petermeier fulfills MPR #1 – 3 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
01/12 - 02/15	**Quincy Bayview Bridge Stay Cable Evaluation. Quincy, Illinois | Illinois DOT** The Quincy Bayview Bridge is a cable-stayed structure that carries two lanes of westbound US 24 traffic across the Mississippi River. M&M was retained by IDOT to conduct an investigation of the bridge's stay cable system, identifying and quantifying damage to the stay cables and anchorages, drawing conclusions from the evaluation, and providing recommendations for the future maintenance needs of the bridge. The bridge's 900-foot main span and two 440-foot back spans are supported by 56 stay cables anchored on two H-shaped towers that reach 182 feet above the roadway deck. M&M developed a comprehensive inspection/testing plan to determine the extent and location of damage to the stay cable system while minimizing intrusive testing and interruptions to the traveling public. This included a complete "hands-on" visual and tactile inspection of each cable, including anchorages, utilizing technical access inspection methods, non-destructive and vibration testing to the stay cables, and in-situ and laboratory testing of grout and water samples. Mr. Petermeier was the Project Manager and QA/QC reviewer for this project.
11/09 - 2/11	**Interstate 80 Mississippi River Bridge. LeClaire, Iowa | Illinois DOT, Bureau of Bridges and Structures** The main spans of this Mississippi River bridge consist of 16 continuous steel two-girder system spans with cantilevered floorbeams and stringers for a total length of 2,692 feet. The Illinois DOT discovered cracks in the top flanges of various cantilevered floorbeams during a routine inspection. M&M was contracted to perform emergency services to investigate, repair, and rehabilitate the cause of the cracking. Field testing included the installation and monitoring of strain gages and displacement sensors at critical cantilevered floorbeam locations. Finite element analysis, refined to simulate the actual behavior of the structure based on field testing results, was performed to determine the cause of the cracks, the susceptibility of the current details to future cracking, and the appropriate repair. Repair plans were prepared for the replacement of all cantilever floorbeams at expansion dams and stringer relief joints. Rehabilitation details were prepared to correct the fatigue prone details and prevent future cracking. Mr. Petermeier was the Project Manager for this work.

01/06 - 01/11	**Huey P. Long Widening. New Orleans, Louisiana | Louisiana DOT and Development** The Huey P. Long Bridge is an existing high-level combined railroad and highway bridge that crosses the Mississippi River near New Orleans, Louisiana. The main span cantilever through truss carried two railroad tracks within the truss and narrow 2-lane roadways bracketed off each side of the truss. M&M performed the preliminary and final design for widening each roadway from 18 feet to 43 feet with the addition of two new cantilever trusses attached to each side of the existing truss. This project also involved the strengthening of the existing river piers to support the widened truss and new highway approach spans. M&M provided extensive construction assistance during all phases of construction. Mr. Petermeier supervised the design of the approach span footings, the approach span cross girders at the approach/main span interfaces, and the development of jacking details for the cross girder erection during staged construction.
03/11 - 10/11	**Red River Bridge (LA 6). Grand Ecore, Louisiana | Louisiana DOT and Development** Phase II engineering services were provided for the replacement of the deteriorated bridge deck on this two-lane bridge while maintaining one-way traffic. The main bridge, a three-span continuous deck plate girder structure, is a two girder system. The approaches consist of 15 simple girder spans. A fourth stringer-line was added to the main bridge segment for staging purposes of the two girder system and all approach span steel beams were replaced and made composite with the new deck. M&M provided the following services: preliminary and final design, special provisions, traffic control plans, LRFR rating of the structure, and construction assistance. Mr. Petermeier was the Project Manager for this work.
07/08 - 10/11	**Well Road Bridge (LA 3249). West Monroe, Louisiana | Louisiana DOT and Development** Phase I and II engineering services were provided for the superstructure replacement and substructure widening of the Well Road Bridge over I-20. The superstructure replacement utilized accelerated construction methods. The new spans were pre-assembled complete with the deck and barriers within staging areas near the structure. Self-propelled modular transporters (SPMTs) removed the old spans and placed the new spans during a weekend closure. Accelerated construction provided minimal interruption to traffic on this heavily traveled structure. M&M provided the following services: preliminary and final design, traffic control plans, special provisions, LRFR rating of the structure, and construction assistance. Mr. Petermeier was the Project Manager for this work.
12/06 - 04/07	**Keokuk Municipal Bridge. Keokuk, Iowa | City of Keokuk** The Keokuk Municipal Bridge consists of a through truss swing span and 10 through truss fixed spans crossing the Mississippi River. It was evaluated for passage of standard wheelbase 286,000 lb. cars. M&M performed load capacity ratings and developed rehabilitation recommendations. Mr. Petermeier was the Project Manager.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc**.				
Name	**Joshua J. Moore, PE**		Years of relevant experience with this employer	16
Title	Senior Engineer & Field Inspector		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS 2006 Civil		
Active registration number / state / expiration date		36342 LA 09/30/2023 NBIS Certified Inspector / Sprat Level III Certified Work Zone Training Compliant		
Year registered	2011	Discipline	Civil	

Contract role(s) / brief description of responsibilities

Mr. Moore has been employed as a Engineer in the New Orleans office of Modjeski and Masters, Inc. since 2007 after having interned with the firm. He has been involved in a variety of bridge projects with a focus on evaluation, analysis, and rehabilitation of complex structures. Mr. Moore is also a trained and experienced bridge inspector and specializes in inspections of bridges and other structures requiring Technical Access. He is currently the firm's Technical Access Assistant Program Coordinator. Mr. Moore fulfills MPR#5 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
11/19 - 05/21	**H.009859.1: Load Rating of Fourteen Complex Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M is generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software was used. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Moore assisted in the management of the project and provided guidance to the rating team. Mr. Moore performed structural analysis, evaluation, and quality control.
07/19 - 05/21	**H.012485.1: Load Rating of 354 Off System Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 354 off system bridges including prestressed concrete, reinforced concrete and steel plate girder bridges. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software was being used. For the complex bridges, a three-dimensional structural model was needed. All load rating analysis will follow current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Moore assisted in the management of the project and provided guidance to the rating team. Mr. Moore performed structural analysis, evaluation, and quality control.

10/17 - 08/18	**H.009859.5: Nineteen Complex Bridge Load Rating and Evaluation. Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, mainly movable bridges. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which followed the AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Moore assisted in the management of the project and provided guidance to the rating team. Mr. Moore performed structural analysis, evaluation, and quality control. Mr. Moore also participated in several of the bridge inspections
02/16 - 10/17	**H.009859.5: Ten Truss Bridges Load Rating and Evaluation. Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, including large cantilever trusses, vertical lifts and swing spans. Gusset, truss, floorsystem and substructure components are being rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which follow current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Moore assisted in the management of the project and provided guidance to the rating team. Mr. Moore performed structural analysis, evaluation, and quality control. Mr. Moore also participated in several of the bridge inspections.
09/14 - 12/16	**H.009859.5 (A): Rating and Posting of On-System State Bridges. Louisiana | LADOTD** M&M performed load rating analyses for 110 existing bridge structures using the Load and Resistance Factor Rating Method. Elements to be rated include superstructure and substructure components. Provisions in the AASHTO Manual for Bridge Evaluation as well as LADOTD Policies and Guidelines for Bridge Rating and Evaluation were followed. Mr. Moore participated in the load rating of the bridges and performed structural analysis, evaluation, and quality control.
04/13 - 02/14	**H.009859: Crescent City Connection, Bridge No. 1, New Orleans, LA** This Task Order consists of inspection and LRFR load rating for the Greater New Orleans Bridge No. 1 – a complex steel cantilever through truss bridge. The rating included the superstructure, (including gusset plates and deck), selected substructure elements and piers. Mr. Moore developed and carried out photogrammetric methods to verify gusset plate geometry as part of the gusset plate evaluation. Mr. Moore also led the technical access inspection team.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**					
Name	**Rachel L. Mertz, PE, SE**		Years of relevant experience with this employer	25	
Title	Project Manager		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS 2004 Civil BS 1998 Civil		
Active registration number / state / expiration date			39765 LA 9/30/2023		
Year registered	2015	Discipline	Civil		

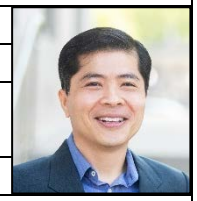
Contract role(s) / brief description of responsibilities

Ms. Mertz has experience in the inspection, analysis, load capacity rating, preliminary and final design, and rehabilitation for highway, railroad, and pedestrian bridges of various sizes and complexities. She has also served as Team Leader for routine bridge inspections and has directed the preparation of hydraulic reports for typical waterways. She is well experienced with AASHTOWare Bridge Rate (BrR) and LFR/LRFR. Ms. Mertz fulfills MPR #5 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
01/20 - 06/20	**Gateway Bridge over the Mississippi River Tower Evaluation. Clinton, Iowa | Illinois DOT** M&M performed a special inspection and evaluation of the tower legs of the Gateway Bridge. The 30-span structure consists of two units of three-span continuous beam spans and three units of three-span continuous two-girder system spans on the Iowa approach, a suspension span, and 15 continuous two-girder system spans with four hinges on the Illinois approach. IDOT requested a special inspection due to the significant deterioration at the base of the main span steel towers. The load capacity rating of each tower leg was then updated based on the measured section loss. The tower legs were rated for AASHTO HS loading at inventory and operating levels. When the HS20 inventory rating factor was less than 1.0 for a tower leg, that leg was also rated at operating level for the Illinois posting and routine permit vehicles and the FHWA emergency vehicles. Due to the rating results, repair recommendations were also provided. Ms. Mertz served as the Project Manager.
09/18 - 03/19	**Joe Page Bridge (IL 16/100) over the Illinois River. Hardin, Illinois | Illinois DOT** M&M was tasked with updating as-inspected load capacity ratings for the Joe Page. Load capacity ratings were updated for new/changed defects from the 2017 NBIS Inspection; only new/changed defects requiring a detail sketch in the NBIS report were rated. Load capacity ratings were also updated for several other members that did not have new/changed deterioration; these additional members are identified in the following sections. Load capacity ratings for the superstructure members (excluding gusset plates) were performed utilizing AASHTOWare Bridge Rating (BrR), Version 6.8.2. A pre-existing BrR model provided by IDOT was modified for detailed deterioration shown in the inspection report. Load capacity rating analyses were performed in accordance with the AASHTO Load Factor Rating Method. As directed by IDOT, truss member deterioration was modeled utilizing the capacity override feature in BrR which is a change in the way deterioration was previously input for truss members in the pre-existing BrR model. To be consistent within the model, previously entered truss deterioration was removed and modeled using the capacity override feature. The model was also updated for the rehabilitation project that was completed in 2017. Ms. Mertz was the Project Manager.
01/16 - 07/17	**Illinois DOT Legal Loads Parametric Evaluation. Statewide, Illinois | Illinois DOT** The Illinois DOT was notified by the FHWA that a parametric study was required to verify whether the State's load rating procedures were in compliance with FHWA mandates in order to continue the practice of assigning load ratings. M&M performed the parametric study, identified areas in load rating procedures that did not meet federal mandates, and recommended policy changes which included modifications to existing posting/permit vehicles and the introduction of new posting/permit vehicles. The implementation of these recommendations allowed IDOT to continue assigning load ratings and improved the accuracy of IDOT's rating evaluations. As part of

	this study, M&M analyzed 280 structure configurations and calculated over 2000 force effects for each study vehicle. Ms. Mertz was the Project Manager.
06/13 - 08/14	**Murray Baker Bridge Load Ratings. Peoria, Illinois | Illinois DOT** M&M calculated the as-inspected load capacity ratings for the Murray Baker Bridge over the Illinois River. The bridge consists of a three-span continuous girder unit on the north approach, a five-span cantilevered through truss with a suspended middle span, a four-span continuous girder unit and one simply supported girder span on the south approach. The superstructure, including notable deterioration, was modeled and rated using AASHTOWare Bridge Rating. The gusset plates, truss pins, and coped stringer ends were also rated as part of this project. An all-inclusive load ratings report was prepared and posting recommendations were provided. As part of this work, M&M also identified critically deteriorated members that need to be repaired ahead of a planned rehabilitation project and calculated ballpark cost estimates for these immediate repairs. Ms. Mertz was the Project Manager for this work.
09/11 - 2/12 and 11/12 - 06/13	**IL Route 18 Bridge over the Illinois River Load Ratings. Henry, Illinois | Illinois DOT** The Illinois Route 18 Bridge consists of a two-span continuous girder unit, six simple span through trusses, and two three-span continuous girder units. As-built and as-inspected load capacity ratings were developed for the approach spans and main spans (including gusset plates). The structure was modeled and rated using Virtis in accordance with the AASHTO Load Factor Rating Method. Members were rated for AASHTO HS loading, as well as Illinois' special rating and permit vehicles. The as-built and as-inspected load capacity ratings for the simple span through-truss gusset plates were performed in accordance with the 2009 FHWA Load Rating Guidance for Bolted and Riveted Gusset Plates in Truss Bridges, as supplemented by the IDOT BBS gusset plate rating guidelines. A proprietary M&M developed gusset plate analysis spreadsheet was utilized for rating typical top and bottom chord gusset plates. For both through-trusses, as-built load capacity ratings for the lower pin at L0 was performed in accordance with the AASHTO Load Factor Rating Method. Pin ratings were based on live load forces from the Virtis analyses. Ms. Mertz was the Project Manager for this work.
05/10 - 04/11	**Martin Luther King Bridge Load Ratings. East St. Louis, Illinois | Illinois DOT** The Martin Luther King Bridge carries three lanes of FAP Route 799 over the Mississippi River. The Illinois Approach, consisting of 21 spans, and the Missouri Approach, consisting of 10 spans, are composed of a variety of superstructure types, including continuous multi-beam spans, simple multi-beam spans, and deck truss spans. The main span is a three-span cantilevered through truss. The total length of the structure is approximately 4,010 feet. As-built and as-inspected load capacity ratings were performed for the superstructure elements of the approach and main spans, including the substructure elements of the steel bents. The superstructure was modeled and rated using AASHTOWare Bridge Rating, in accordance with the AASHTO Load Factor Rating Method (LFR). The substructure was rated using hand calculations which included p-delta effects due to the measured lean of the bents. Members were rated for AASHTO HS loading, as well as Illinois legal and permit vehicles. Ms. Mertz was the Project Engineer for the development of load capacity ratings.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**					
Name	**Yuen S. Siow, PE, SE**		Years of relevant experience with this employer	24	
Title	Senior Structural Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			MS 1998 Civil Engineering BS 1996 Civil Engineering		
Active registration number / state / expiration date			47144 LA 3/31/2023		
Year registered	2022	Discipline	Civil		

Contract role(s) / brief description of responsibilities

Mr. Siow is a talented structural engineer with 13 years of bridge design experience. He has assisted with the inspection, analysis, including finite element modeling, load capacity rating, design and rehabilitation of highway, railroad and pedestrian structures of various sizes and complexity levels. Mr. Siow filfills MPR#5 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
05/21 - 01/22	**Emergency Vehicle Parametric Study. Statewide, Illinois | Illinois DOT (2022)** The Illinois DOT was notified by the FHWA that IDOT's load rating procedures do not meet the requirements of 23 CFR 650.313(c), which require bridges on the Interstate System and within reasonable access to the Interstate System to be load rated for emergency vehicles. To assist with their Plan of Corrective Action, MM performed a parametric study and a culvert investigation and results were used to calculate load ratings for the emergency vehicles utilizing existing design load ratings for 2,703 bridges and 1,240 culverts. Mr. Siow was the Lead Structural Engineer for this work. [PN4150.13]
01/22 - 12/22	**Parametric Study for Load Ratings. Statewide, Tennessee | Tennessee DOT (2022)** M&M recently performed a parametric study for load ratings for the Tennessee DOT. An evaluation of TDOT's existing suite of rating and posting vehicles determined that they were not in conformance with Tennessee's statutes for legal and permitted vehicles and FHWA mandates. A parametric study was completed and a new suite of posting and permit vehicles were developed. Inferred ratings were calculated for most of their bridge inventory based on results from the parametric study for the new rating vehicles and existing design load ratings. The State's entire bridge inventory was then prioritized to identify structures that need immediate action. Mr. Siow was the Lead Structural Engineer for this work. [PN4660, 4513]
02/20 - 09/20	**Load Capacity Rating of Fourteen Complex Bridges | Louisiana DOTD (2019-2021)** M&M is performing plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/ instrumentation and non-destructive testing (as needed), and plan production (as needed) for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, MM is generating a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, the "Girder System" in AASHTOWare BrR software is being used. For the complex bridges, a three-dimensional structural model is needed. MM is also developing influence lines and COMPSTIL2 input files for complex substructures including hammerhead piers and inverted-T pier caps. All load rating analysis will follow current

	AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Siow was a Structural Engineer for this project and assisted in performing the analyses and load ratings.
01/20 – 02/21	**Load Capacity Rating of 354 Off System Bridges | Louisiana DOTD (2019-2021)** MM is performing plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 354 off system bridges. The bridge types include concrete slabs, concrete precast slab units, and lightweight precast slab units. For the analysis and load rating task, MM is generating a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, the "Girder System" in AASHTOWare BrR software is being used. All load rating analysis will follow current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Siow was a Structural Engineer for this project, assisted in performing the analyses and load ratings, and provided QA review for a portion of the bridge load rating reports.
08/08 – 10/11	**Red River Bridge (LA 6). Grand Ecore, Louisiana | Louisiana DOT and Development (2008-2010)** Phase II engineering services were provided for the replacement of the deteriorated bridge deck on this two-lane bridge while maintaining one-way traffic. The main bridge, a three-span continuous deck plate girder structure, is a two girder system. The approaches consist of 15 simple girder spans. A fourth stringer-line was added to the main bridge segment for staging purposes of the two girder system and all approach span steel beams were replaced and made composite with the new deck. MM provided the following services: preliminary and final design, special provisions, traffic control plans, LRFR rating of the structure, and construction assistance. Mr. Siow was the Structural Engineer for the design, analysis and ratings of the structure. [PN2777]
01/16 – 04/17	**Illinois DOT Legal Loads Parametric Evaluation. Statewide, Illinois | Illinois DOT (2012-2017)** The Illinois DOT was notified by the FHWA that a parametric study was required to verify whether the State's load rating procedures were in compliance with FHWA mandates in order to continue the practice of assigning load ratings. MM performed the parametric study, identified areas in load rating procedures that did not meet federal mandates, and recommended policy changes which included modifications to existing posting/permit vehicles and the introduction of new posting/permit vehicles. The implementation of these recommendations allowed IDOT to continue assigning load ratings and improved the accuracy of IDOT's rating evaluations. As part of this study, MM analyzed 280 structure configurations and calculated over 2000 force effects for each study vehicle. Mr. Siow analyzed and compared Illinois's existing posting vehicles to AASHTO design and legal vehicles, and vehicles defined in Illinois Statute. He developed new posting vehicles for various signage options. [PN3091.48, 3579.02]

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc**.					
Name	**Mohammad Majd, PE**		Years of relevant experience with this employer	5	
Title	Senior Engineering - Structures		Years of relevant experience with other employer(s)	7	
Degree(s) / Years / Specialization			MS 2010 Civil BS 2010 Civil		
Active registration number / state / expiration date			46831 LA 09/30/2024		
Year registered	2022	Discipline	Civil		

Bridge Design and Design & Constructability Review

Mr. Majd has approximately 12 years of experience in bridge design, analysis, and ratings. He has completed projects for multiple agencies such as LADOTD, PennDOT, the City of Philadelphia, NJDOT, and the Port Authority of New York and New Jersey. He has experience with complex structures such as curved and highly skewed bridges, as well as smaller structures such as simply supported steel girder bridges. Mr. Majd is proficient in multiple 3-D modeling programs such as LUSAS, RISA, and STAAD. He is a licensed Professional Engineer in the states of Pennsylvania, New Jersey, and Louisiana, and holds a Bachelor and Masters degree from Drexel University. Additionally, he is a Certified Bridge Safety Inspector (CBSI). Mr. Majd fulfills MPR #5 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
01/20 - 05/21	**Load Rating of Fourteen Complex Bridges, Statewide, Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 14 complex bridges. The bridge types included swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, the "Girder System" in AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. M&M also developed influence lines and COMPSTIL2 input files for complex substructures including hammerheads and inverted-T pier caps. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Majd's duties included performing the analysis and load rating of two steel pony-truss bridges and a double leaf bascule bridge with deck-truss approach spans. He also checked the rating of a pontoon bridge.
12/19 - 03/21	**Load Rating of 354 Off System Bridge, Statewide, Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 354 off system bridges including prestressed concrete bridges. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, the "Girder System" in AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. M&M also developed influence lines and COMPSTIL2 input files for complex substructures including hammerheads and inverted-T pier caps. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Majd's duties included performing ratings on multiple bridges using AASHTOWare BrR and LEAP Bridge. Bridge superstructure types included concrete T-beam, concrete slab, and prestressed girder. Substructure types included concrete and timber pile bents with concrete pier caps.
04/20 - 02/21	**Cline Avenue Bridge Review, Analysis and Construction Support, East Chicago, IN:** The Cline Avenue Bridge is 6,236-foot long precast segmental bridge that spans over several rail lines, Riley Road, and the Indiana Harbor Canal in East Chicago, IN. The new structure consists of 29 cast-in-place concrete columns that support 685 post-tensioned concrete single cell box girders segments which form the bridge's deck. Completion of this project restored entrance into the Northwest Indiana area. Modjeski and Masters, Inc. was contacted by United Bridge Partners to perform a fully independent review on the design, review of construction documents, and provide an on-site

	presence for completion of construction of the 1.7 mile long segmental bridge. Mr Majd's duties included performing the analysis of a 10-span unit of the bridge consisting of concrete post-tensioned box girders that utilized precast segments and balanced cantilever construction. He also performed the transverse analysis of the box girders using 3D analysis in LUSAS.
09/17 - 05/22	**City of Philadelphia., 15th Street Bridge Improvement Project, Philadelphia, PA:** Under this On-Call TED services agreement with the City, Mr. Majd was a Structural Engineer on the project and was responsible for: designing steel bolted connections for replacement girders that frame into a steel bent; designing fence connections and anchor bolts to resist wind; checking steel girder designs; determining proposed deck elevations; checking a concrete pier cap design; checking shear stud designs for existing and replacement girders; and overseeing CAD Technicians in the development of construction drawings.
12/18 - 09/22	**City of Philadelphia., MLK Drive Bridge Study & Design, Philadelphia, PA**: Under this On-Call TED services agreement with the City, Mr. Majd served as the Deputy Project Manager for all four project phases and acts on behalf of the Project Manager as needed. During Conceptual Design, he was responsible for performing bridge live load ratings using PennDOT's BAR7 program; additionally, he performed 3D FEM analysis on the curved portions of the bridge using LUSAS. During Preliminary Engineering, Mr. Majd performed deck and overhang design for the proposed widened deck, developed preliminary design drawings, and organized the TS&L package.
03/17 - 02/19	**GWB Upper Level Stage III Final Design Services for Replacement of the Main Span and Side Span Finger Joints and Deck Panels at the NY & NJ Towers, New York, New York**: The Port Authority requested that M&M perform Stage III Final Design services for the complete replacement of the upper level steel finger joints, including the supporting structural steel beneath the joints, of the George Washington Bridge at the NJ and NY towers. Additional items included in the design were replacement of portions of the orthotropic steel deck panels on each side of the finger joints; replacement of the drainage troughs and flushing system underneath the finger joints; relocation of all utility facilities in the finger joint repair areas; temporary support of the joints and deck panels during construction; and priority steel repairs to the existing structural steel that support the finger joints assemblies, including replacement of the main span stringer bearings. M&M prepared final design and contract documents, including contract drawings, cost estimate, specifications, and an estimated construction/staging schedule. Mr. Majd's duties included designing and developing drawings for the replacement finger joints, expansion dams, secondary floorbeam members, orthotropic deck panels, structural steel repairs, and stringer bearing replacement.
02/17 - 04/17	**Grays Ferry Bridge Rehabilitation, Philadelphia, PA:** As a Senior Engineer, Mr. Majd performed superstructure analysis and bearing design. Additionally, he evaluated different design alternatives of a retaining wall structure for the pedestrian walkway and determined their feasibility and cost effectiveness. The project involved the design of the bridge rehabilitation which included repairs to 22 existing steel pier caps and bolsters, bearings, and other structural components.
03/11 - 09/14	**City of Philadelphia., Tabor Road Bridge Rehabilitation, Philadelphia, PA:** Under this On-Call TED services agreement with the City, Mr. Majd is serving as a Senior Structural Engineer for this project. He participated in the foundation analysis, superstructure analysis, and the rehabilitation design plans. M&M was responsible for providing Final Design services for the Tabor Road Bridge Project over Tacony Creek. This included performing superstructure replacement and substructure rehabilitation services.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**					
Name	**Mott J. Holt, PE**		Years of relevant experience with this employer	5	
Title	Engineer - Structures		Years of relevant experience with other employer(s)	0	
Degree(s) / Years / Specialization			BS 2016 Civil		
Active registration number / state / expiration date			45908 LA 03/31/2024		
Year registered	2021	Discipline	Civil		

Contract role(s) / brief description of responsibilities: Mr. Holt has been employed in the New Orleans office of Modjeski and Masters, Inc. since January 2017. He is assigned to the firm's Structural Design Section and has been primarily involved in a variety of bridge rating projects, including large truss, movable, and cantilevered structures. He has also been involved in scour analysis projects to assess the structural stability of existing deep foundation caissons and piers located at large river crossings. Mr. Holt fulfills MPR #5 for this contract.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/19 - 05/21	**H.009859.5: Load Rating of Fourteen Complex Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. M&M is also developing influence lines and COMPSTIL2 input files for complex substructures including hammerheads and inverted-T pier caps. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Holt performed rating analysis of superstructure elements of a steel swing truss bridge. Elements rated included main truss members, floorbeams, stringers, gussets and chord splices. Mr. Holt utilized AASHTOWare, AutoCAD, Excel and LUSAS software in the ratings. Mr. Holt utilized LUSAS software to model 3D load distribution effects resulting from a missing wedge support at one of the rest piers of the swing truss.
07/19 - 05/21	**H.000303.6: Danziger Bridge Repair and Rating | LADOTD** Modjeski and Masters, Inc. performed repair and load rating services for the Danziger Bridge, a steel vertical lift structure with a steel girder superstructure supported by reinforced concrete piers, and the flanking prestressed concrete approach structures. AASHTOWare Bridge Rating BrR software was used to perform load rating based on the present condition, capacity and loading of the bridge. All load rating analysis followed AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Holt performed rating analysis of superstructure and substructure elements of the approach spans. Elements rated included slab spans, prestressed concrete girders, and concrete bent caps. Mr. Holt utilized AASHTOWare, AutoCAD, Excel and LEAP Bridge Concrete software in the ratings.
07/19 - 05/21	**H.012485.1: Load Rating of 354 Off System Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/ instrumentation and non-destructive testing (as needed), and plan production (as needed) for 354 off system bridges including prestressed concrete, reinforced concrete and steel plate girder bridges. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. All load rating analysis will follow current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Holt performed rating analysis of superstructure and substructure elements of various bridge

	types. Elements rated included cast-in-place concrete slabs, precast concrete panels, prestressed concrete girders, concrete bent caps, timber bent caps and timber piles. Mr. Holt utilized AASHTOWare, AutoCAD, Excel and LEAP Bridge Concrete software in the ratings. Mr. Holt assisted in project management and bridge assignments.
01/17 - 06/17	**H.009859.5: Nineteen Complex Bridge Load Rating and Evaluation. Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, mainly movable bridges. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which follow current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Elements rated included concrete slab spans, concrete girders, steel girders, floorbeams, stringers and concrete bent caps. Mr. Holt utilized AASHTOWare, AutoCAD, Excel and LEAP Bridge Concrete software in the ratings. Mr. Holt also assisted in the analyzing and rating of makeshift field supports, which had been installed outside of the originally designed bearing locations of a swing span.
03/17 - 06/17	**H.009859.5: Ten Truss Bridges Load Rating and Evaluation. Louisiana | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, including large cantilever trusses, vertical lifts and swing spans. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which followed the AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Mr. Holt performed rating analysis of superstructure elements of a steel cantilevered truss bridge and a steel vertical lift bridge. Elements rated included main truss members and floorbeams. Mr. Holt utilized AASHTOWare, AutoCAD and Excel software in the ratings.
04/19 - 05/21	**H.009859.5: Load Rating of Fourteen Complex Bridges | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and plan production (as needed) for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M generated a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software is being used. For the complex bridges, a three-dimensional structural model was needed. M&M also developed influence lines and COMPSTIL2 input files for complex substructures including hammerheads and inverted-T pier caps. All load rating analysis followed current AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications. Mr. Holt performed rating analysis of superstructure elements of a steel swing truss bridge. Elements rated included main truss members, floorbeams, stringers, gussets and chord splices. Mr. Holt utilized AASHTOWare, AutoCAD, Excel and LUSAS software in the ratings. Mr. Holt utilized LUSAS software to model 3D load distribution effects resulting from a missing wedge support at one of the rest piers of the swing truss.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**					
Name	**Anthony E. Schoenecker, PE**		Years of relevant experience with this employer	14	
Title	Senior Associate / New Orleans Field Services Manager		Years of relevant experience with other employer(s)	4	
Degree(s) / Years / Specialization			BS 2005 Civil		
Active registration number / state / expiration date			35786 LA 03/31/2023 NBIS Certified Inspector / SPRAT Level III Certified Workzone Compliant		
Year registered	2010	Discipline	Civil		

Contract role(s) / brief description of responsibilities:
Mr. Schoenecker is a Louisiana licensed Professional Engineer and will serve as Bridge Inspection Project Manager for this contract. He is the M&M New Orleans office Field Services Manager and is an NBIS Inspection Team Leader responsible for the coordination and execution of inspections and condition reporting. He is trained in Technical and Rope Access techniques and has numerous inspection certifications including: NHI 130055 - Safety Inspection of In-Service Bridges (and NHI 130053 Refresher Course), NHI 130078 - Fracture Critical Inspection Techniques for Steel Bridges; Level I and II Liquid Penetrant and Magnetic Particle Inspection; SPRAT Level III Rope Access Technician, and UAV Remote Pilot (Drone) Operator Permit.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
12/19 - 12/20	**Alaska Bridges Inspections – Statewide, AK | Alaska Railroad** Modjeski and Masters performed the in-depth inspection, pin ultrasonic testing, structural capacity assessment and rating, pin and gusset evaluations and fatigue analysis for three bridges in Alaska. The Hurricane Gulch Bridge is a 910' ft deck arch bridge over the Hurricane Creek carrying a single railroad track. The main arch span is 388 feet long and flanking deck truss is 120'. The approach includes DPG spans on steel towers. The Mears Bridge is a 1300 ft bridge over the Tanana River carrying a single railroad track. The main through truss span is 700 feet long and the approach includes 118' deck truss and several DPG span on steel towers. The Gold Creek Bridge is a 704 ft bridge over the Susitna River carrying a single railroad track. The main through truss span is 504 feet long and the approach includes several TPG span on concrete piers. Mr. Schoenecker was an inspection team leader for this project.
03/17 - 01/18 09/16 - 11/16 12/14 - 08/15 11/13 - 02/14	**44-2687 In-Depth Inspection of Complex Structures Retainer – Various Bridges, Statewide | LADOTD** 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 list of bridges in this contract included the Gramercy Bridge over the Mississippi River, the I-210 Bridge over Prien Lake, Louisa Bridge over the Intracoastal Canal, and the LA 47 Bridge over the Mississippi River Gulf Outlet. 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. Schoenecker participated as Team Leader in the inspection of five bridges and was Project Manager for two bridges under this contract. Mr. Schoenecker additionally served as office support for two bridges under this contract.

09/19 - 05/21 10/17 - 04/18 10/16 - 03/17 11/15 - 03/16 10/14 - 01/15 10/13 - 02/14	**Huey P. Long Bridge Annual Inspection | New Orleans Public Belt Railroad** The Huey P. Long Bridge is a steel cantilever through-truss railroad and highway bridge across the Mississippi River, with a main bridge crossing of 3,525 feet and several miles of steel plate girder approaches. The main bridge features four deck truss spans, two anchor spans of 529 feet and 532 feet, two cantilever spans of 144 feet, a simple span of 531 feet, and a suspended span of 503 feet. Mr. Schoenecker was an inspection team member from 2009-2012 and inspection team leader from 2013-2018 for this annual inspection which included a 100% hands-on visual inspection of all structural elements, including fatigue-sensitive and fracture-critical members, comprising the main bridge structure and approaches, for both the railroad and highway.
06/13 - 9/13	**Crescent City Connection No. 1 & 2 Rating and Inspection. New Orleans, LA | LADOTD** Mr. Schoenecker was the inspection team leader and rope access supervisor for this project and was responsible for the coordination of the inspection and with the rating analysis team. M&M performed an inspection and LRFR load rating of both of these 13,428-foot truss bridges with main spans of apx 1,575 feet. The in-depth inspection focused on each member and the gusset plates, using technical rope access methods for access.
02/17 - 7/18	**Nineteen Complex Bridges Load Rating and Evaluation, Statewide, LA | LADOTD** Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection and analysis, and load and resistance factor rating of complex bridge structures, mainly movable bridges. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which followed the AASHTO *Manual for Bridge Evaluation*, the LADOTD *Policies and Guidelines for Bridge Rating and Evaluation*, and LADOTD *Bridge Design and Evaluation Manual*. Mr. Schoenecker served as an inspection team leader for the Gramercy and Crescent City Connection #2 Bridges, both Mississippi River Crossings.
03/15 - 10/15 04/14 - 06/14 04/13 - 11/13 10/12 - 11/12 05/11 - 11/11	**NYSBA Multiple Bridge Inspections. Statewide, New York | New York State Bridge Authority** Mr. Schoenecker participated as a Team Member and a Team Leader over multiple years for the inspection of seven bridges (Bear Mountain, Newburgh-Beacon North and South, Rip Van Winkle, Mid-Hudson, and Kingston-Rhinecliff, and Popoloped Creek) operated by the NYSBA over the Hudson River. Bridge types include suspension, deck truss, cantilevered through truss, and combinations thereof. (3 truss bridges and 2 suspension bridges).
09/11 - 10/11	**I-80 Bridge (LeClaire). Quad Cities Illinois. | Illinois DOT** Mr. Schoenecker participated as team leader for this week-long inspection of a Multi Span Deck Girder Bridge over the Mississippi River. This bridge had recent roadway bracket repairs. Inspection using I-DOT standard reporting and PONTIS systems. Inspection was performed from snooper truck required solo climbing techniques.

16. Staff Experience:

Firm employed by **Modjeski and Masters, Inc.**				
Name	**Matthew J. Miller, PE**		Years of relevant experience with this employer	12
Title	Associate – Field Services		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS 2010 Civil Engineering		
Active registration number / state / expiration date		39534 LA 09/30/2023 NBIS Certified Inspector Work Zone Training Compliant		
Year registered	2015	Discipline	Civil	

Contract role(s) / brief description of responsibilities

Mr. Miller is a registered professional engineer with 12 years of experience in the Field Services Section in the New Orleans Office. During his time at M&M, Mr. Miller has been primarily involved with CE&I inspection services on bridge repair and construction projects, and with the detailed, interim and special inspections of numerous railroad bridges. He has been involved in numerous emergency inspections and troubleshooting. Mr. Miller is certified in a variety of Bridge Inspection industry standard training, including FHWA-NHI Bridge Inspection Refresher and FHWA-NHI Safety of In-Service Bridges courses, e-Railsafe Safety Training, M&M's Technical and Rope Access program.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
08/19 - 04/20 12/18 - 02/19 11/15 - 01/16 10/14 - 01/15 10/13 - 11/13	**Huey P. Long Bridge Annual Inspection | New Orleans Public Belt Railroad** The Huey P. Long Bridge is a steel cantilever through-truss railroad and highway bridge across the Mississippi River, with a main bridge crossing of 3,525 feet and several miles of steel plate girder approaches. The main bridge features four deck truss spans, two anchor spans of 529 feet and 532 feet, two cantilever spans of 144 feet, a simple span of 531 feet, and a suspended span of 503 feet. Mr. Miller served as a bridge inspector and team leader for the inspection of this bridge.
10/18 - 12/18	**Sunshine Bridge Emergency Inspection and Repairs. Donaldsonville, LA | LADOTD** In 2018, a barge mounted crane was traveling upstream in the western most channel of the river. The crane's height exceeded the vertical clearance of the span, and the back-stay of the crane impacted the downstream bottom chord of the truss. The impact caused significant damage to a bottom chord member, tearing off the bottom plate of the box member and inducing severe out of plane distortion. The member in question was a primary load path compression member, designed to carry 1,700 kips of dead load. LADOTD closed the bridge immediately and began the task of investigation and repair. Modjeski and Masters, Inc. (M&M) was selected as the lead consultant for bridge repairs. After closing the bridge directly after the incident, LADOTD engaged M&M to perform an emergency hands-on inspection using technical rope access techniques. The inspection team documented the primary damaged member as well as a host of other damaged elements, including bottom laterals, stringer bearings, and gusset plates. Technical rope access was critical in locating and documenting all damaged bridge elements. M&M also provided construction engineering and inspection of the repair efforts. Mr. Miller provided emergency inspection and CE&I services.

11/13 - 01/14	**44-2687 In-Depth Inspection of Complex Structures Retainer – Various Bridges, Statewide | LADOTD** 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 list of bridges in this contract included the Gramercy Bridge over the Mississippi River, the I-210 Bridge over Prien Lake, Louisa Bridge over the Intracoastal Canal, and the LA 47 Bridge over the Mississippi River Gulf Outlet. 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. Miller was an inspection team member for this project, responsible for coordination assistance with subconsultants, and preparing the inspection report.
04/16 - 01/18	**Union Pacific Railroad System Wide Inspections | UPRR Systemwide** Modjeski and Masters performed a system-wide inspection of steel bridges for Union Pacific Railroad (UPRR). A total of 1,280 bridges were inspected. The types of bridges inspected include through trusses, deck trusses, through plate girders, and deck plate girders on steel towers. Also included were movable structures such as bascule, swing and vertical lift bridges. Modjeski and Masters provided uniformity throughout the entire system by identifying inconsistencies in describing levels of severity noted with deficiencies and assisted the UPRR inspectors in identifying problem areas and the causes associated with them. Mr. Miller was the inspection team leader for this project.
07/14 - 09/14	**Belle Chasse Lift Bridge Inspection. Belle Chasse, Louisiana | New Orleans & Gulf Coast Railway** The New Orleans & Gulf Coast Railway selected M&M to perform an in-depth structural, mechanical and electrical inspection of the Belle Chasse Bridge over the Intracoastal Waterway. All structural members were observed at close range along with a close visual inspection of the electrical and mechanical systems. The inspection team took measurements of metalwork losses that could possibly result in reduced load carrying capacity of the structure. Mr. Miller served as inspection team leader for this bridge.

16. Staff Experience:

Firm employed by **Urban Systems, Inc.**

Alison C. Michel, P.E., PTOE, PTP, RSP1
President / Transportation Engineer

Years of relevant experience with this employer	21
Years of relevant experience with other employer(s)	3

Degree(s) / Years / Specialization			BS / 1997 / Civil Engineering
Active registration number / state / expiration date			30261 / Louisiana / 03/31/2023
Year registered	2002	Discipline	Professional Engineer: Civil Engineering
Active registration number / state / expiration date			1023 / Louisiana / 11/06/2023
Year registered	2002	Discipline	Professional Traffic Operations Engineer
Active registration number / state / expiration date			626 / Louisiana / 11/20/2023
Year registered	2017	Discipline	Professional Transportation Planner
Active registration number / state / expiration date			115 / Louisiana / 12/21/2024
Year registered	2018	Discipline	Road Safety Professional
Contract role(s) / brief description of responsibilities			**Professional In Charge of Traffic Engineering Tasks**

Ms. Michel has over twenty-four years experience in Traffic Engineering and Transportation Planning. Ms. Michel has extensive design experience that includes permanent and temporary traffic signals, traffic control devices for work zones, intelligent transportation systems, signage and striping. She has a wide array of experience with transportation studies including traffic impact, safety, corridor, feasibility/Stage 0, environmental/Stage 1, multi-modal and transit facilities. She has experience in the timing of coordinated systems and analyses. She is proficient in microscopic simulation modeling using VISSIM and CORSIM and also in analysis programs such as Highway Capacity Software (HCS), Tru-Traffic and SIDRA. She is familiar with preparing Transportation Management Plans for all levels. Ms. Michel has designed Traffic Control Devices Plans for many different types of projects including interstates, urban downtown grid systems, small town rural roads and everything in between.

02/10-08/10	**LPV 16.2 Bonnabel Boulevard Floodgate** Ms. Michel designed the traffic control devices plans for construction of the LPV 16.2 Bonnabel Blvd. Floodgate in Jefferson Parish, LA. Plans included: haul routes, bypass for the ramp tie in to Bonnabel; diverting Bonnabel southbound traffic to the temporary bypass ramp; and diverting northbound traffic to Bonnabel southbound travel lanes. Plan changes due to unforeseen conditions included details for floodwall construction diverting Bonnabel northbound and southbound traffic to the temporary roadway and closing Bonnabel Boulevard. The plans met US Army Corps of Engineers, Jefferson Parish and MUTCD standards. Inspections were conducted after any changes to the traffic control plan and/or at thirty (30) day intervals.
01/14-09/19	**US 90 (I-49 South) Albertson's Parkway to Ambassador Caffery Design-Build Project (Lafayette Parish, LA)** As the traffic engineer, Ms. Michel updated US 90 to a controlled access facility by converting at-grade intersections to an interchange. The bridge structure had to span the intersection and a railroad. She supervised the design and analysis and performed QA-QC for

	temporary and permanent signal plans, permanent signage plans, temporary traffic control plans and the transportation management plan. Traffic signal plans were prepared using the DOTDs latest TSI format. Analysis included developing design hour volumes for the design year and modeling signals in Synchro. Phasing and timing were developed for both permanent and temporary signal operation.
03/11-03/13	**Huey P. Long Bridge Widening - (Westbank and Eastbank Approaches and Main Bridge Deck Widening), Jefferson Parish, LA** The contractor for the Huey P. Long Widening in Jefferson Parish, LA brought-on USI about half-way into construction to improve the flow of traffic during required closures. Ms. Michel prepared traffic control devices plans (TCDP) for multiple phases of construction. The TCDPs also included the design of a traffic signal plan for the installation of temporary signal heads to control lane shifts.
03/09-09/11	**City of D'Iberville Sangani Boulevard Widening** Ms. Michel prepared traffic signal design/modification plans, striping and signage plans, traffic control devices plan for the sequence of construction and prepared a construction cost estimate for the Sangani Boulevard Widening project in D'Iberville, MS. Ms. Michel assisted with coordination between multiple stakeholders which included the city, MDOT and the business owners. Special attention was given to maintain access to businesses during the various phases of construction.
01/17-06/19	**France Road - North Widening** Over time, France Rd between Gentilly Blvd and Hayne Blvd had deteriorated pavement and was in need of widening and drainage repairs. Adjacent to the west side of the roadway was a concrete floodwall that limited Right Of Way and the ability to maintain two-way traffic throughout construction. Ms. Michel was the Principal In Charge for the project to develop site specific traffic control plans implementing a one-way system and detouring traffic that would normally traverse in the opposite direction of the allowed movement. The plans were designed in accordance with the latest version of the MUTCD and the City of New Orleans traffic control standards.
04/10-07/11	**Lakefront Airport T-Walls Reach LPV 105.01** Following Hurricane Katrina, USACE let a series of projects to reconstruct the T-walls and to strengthen and raise the levee system adjacent to the Lakefront Airport in Eastern New Orleans. Ms. Michel was the Principal In Charge for the traffic control devices plans to ensure that the contractor could safely work adjacent to motorists while maintaining twenty-four-hour daily access to the Lakefront Airport. The traffic control devices were inspected monthly, and the contractor was notified of any deficiencies requiring a corrective action.

16. Staff Experience:

Firm employed by **Urban Systems, Inc.**			
 **Nicole H. Stewart, P.E., PTOE** Vice President / Transportation Engineer		Years of relevant experience with this employer	17
		Years of relevant experience with other employer(s)	1.5
Degree(s) / Years / Specialization			BS / 2004 / Civil Engineering and BS / 2004 / Physics
Active registration number / state / expiration date			34750 / Louisiana / 09/30/2023
Year registered	2009	Discipline	Professional Engineer: Civil Engineering
Active registration number / state / expiration date			2923 / Louisiana / 08/2023
Year registered	2012	Discipline	Professional Traffic Operation Engineer
Contract role(s) / brief description of responsibilities			**Traffic Engineering/ Design Analysis, and TMPs**

Ms. Stewart has seventeen (17) years of experience in Traffic and Transportation Engineering and is a certified Traffic Control Design Specialist. Ms. Stewart has extensive experience in preparing Transportation Management Plans and site-specific traffic control devices plans for every possible environment. This includes closing downtown streets with bike lanes and sidewalks, suburban road closures on multilane highways, and rural road closures requiring extensive detours as well as ramp and interstate closures, both intermittent and long term. She has experience in signal design and timing of coordinated systems for LADOTD which included developing a system engineering analysis for a new fiber optic communication network. She has experience using Highway Capacity Software (HCS), Synchro, and SIDRA.

02/15-08/16	**Bridge Preventative Maintenance District 61 and Port Allen** Ms. Stewart was the principal in charge for Traffic Management Plans (TMP) for bridge replacement and repairs for various locations in Louisiana. The level of each TMP was based on LADOTD EDSM guidelines. A Level 3 TMP was prepared for the reconstruction of the LA 1 bridge over the Intracoastal Waterway. For this TMP, detailed work zone impact management strategies were developed to help minimize the project's impact on mobility.
05/18- 04/19	**US 90 Bridge Maintenance over I-10 Ramps at LockMoor** Ms. Stewart used the LADOTD EDSM guidelines to prepare key components of the traffic management plan (TMP) for proposed bridge repairs on US 90 from PPG Rd to the I-10 entrance ramp in Lake Charles, LA. Tasks include the preparation of collision diagrams, conducting safety analysis, detour analysis and developing proposed mitigations where applicable.
12/09-09/10	**Williams Boulevard Floodgate, Jefferson Parish, LA** The design of Traffic Control Devices Plans and associated haul routes were prepared for the two (2) phased closure of Williams Boulevard at the Lake Pontchartrain Levee Floodgate by Ms. Stewart. The plans were prepared in accordance with Jefferson Parish and MUTCD Standards. Once the plan was implemented MS. Stewart conducted inspections.
05/18-04/19	**TMP for I-10: West of 108 to I-210 Interchange: Rubblize and Overlay** As the lead engineer for this Traffic Management Plan, Ms. Stewart was responsible for the preparation of the safety analysis. She conducted queue analysis to identify when lane closures would be permitted, identified the construction impact area and reviewed crash

	data for more than 350 collisions. She conducted the safety analysis per the guidelines set forth by LADOTD in *Guidelines for Crash Data Analysis.* Ms. Stewart identified trends and calculated crash rates and determined that the section of I-10 that was going to be rubblized had a crash rate that was higher than the statewide average.
02/18-03/20	**Severn Ave: Veterans to W. Esplanade** Ms. Stewart was the traffic engineering project manager of this Jefferson Parish roadway reconstruction project. Severn Ave is a heavily travelled multi-lane boulevard requiring complex construction sequencing. Design plans were developed for temporary signals during construction and the permanent signal configurations with pedestrian accommodations. Signal plans were developed using the latest LADOTD TSI format. Ms. Stewart also managed the temporary traffic control plan development for multiple phases of construction, and she performed QA-QC. Another element of this project was coordination with Jefferson Parish and LADOTD to obtain approval of the Parish's equipment and specifications for use in the LADOTD bidding process.
10/15- Current	**MacArthur Interchange Completion Phase II TMP** The design team was led by Ms. Stewart for the preliminary traffic signal design and the Traffic Management Plan (TMP) for proposed interchange modifications on US 90 (Westbank Expressway). Tasks for this work include conducting capacity analysis, safety analysis, detour analysis and developing proposed mitigations where applicable. Ms. Stewart was responsible for the QA/QC for this stage of the project. Final design for this project began in September 2019.
06/11-10/12	**Southeast Louisiana Urban Flood Control Project Improvements to Two-Mile Canal (Patriot Street Canal), Phase I, Barataria Blvd to First Avenue Canal, Jefferson Parish, LA** Ms. Stewart designed the Traffic Control Devices Plans for the improvements to the Two Mile Canal. These plans included traffic closure details, signage, flagmen, and haul routes. Ms. Stewart conducted inspections throughout construction to confirm compliance with the plans that been approved by Jefferson Parish.
06/09-12/10	**Clearview Parkway at West Esplanade** For the Clearview Parkway and West Esplanade Avenue Intersection Improvement project, Ms. Stewart prepared permanent traffic signal plans including locations for controller, mast arms, signal heads, power source, signs and vehicle detection and interconnect. She also prepared the Traffic Control Devices and Detour Plans to facilitate traffic through the phases of construction.

16. Staff Experience:

Firm employed by **Urban Systems, Inc.**			
 **Christine M. Darrah, P.E.** Transportation Engineer		Years of relevant experience with this employer	8
		Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization		BS / 1994 / Civil Engineering	
Active registration number / state / expiration date		25828 / Louisiana / 09/30/2023	
Year registered	1999 Discipline	Professional Engineer: Civil Engineering	
Contract role(s) / brief description of responsibilities		**Transportation Engineer/ Design Analysis, and QA/QC**	

Mrs. Darrah has experience in Transportation/Civil Engineering including maintenance of traffic, roadway design plan and specification preparation, construction management and quality control. She is proficient in the use of AutoCAD, Adobe Illustrator, and Highway Capacity Software (HCS). She also has experience using MicroStation and TransCAD. She has experience developing temporary striping and signage plans for various conditions including lane closures, road closures, flagging operations and full detour plans. Ms. Darrah also has experience in preparing traffic signal design plans in LADOTD format. This has included timing/phasing analysis, wiring diagrams, interconnect layouts, construction quantities, specifications and cost estimates. Her many years and wide variety of experiences are valuable during studies, design development and especially QA/QC.

03/14- Current	**Entergy New Orleans, Transmission Line Reconductoring Projects** Ms. Darrah designed numerous Traffic Control Devices Plans for over 50 miles of transmission line replacement to meet US Army Corps of Engineers, LADOTD, parish and MUTCD standards. The plans and specifications included, but were not limited to, the proper placement of temporary Traffic Control Devices (signs, barricades, and drums, etc.) for city street, highway and interstate closures to facilitate traffic and oversized equipment safely and efficiently through the traffic control zones. Interstate projects included lane closures, intermittent full closures and rolling closures of the interstate system. Ms. Darrah assisted Entergy with permit preparation for work on state routes.
10/09-04/15	**Engineering Services for Pakenham Dr. and Jackson Avenue** Ms. Darrah conducted QA/QC for the final plans submitted in April 2015 for the federally funded reconstruction of Jackson Avenue and Pakenham Drive. The plans included complete roadway reconstruction of Pakenham Drive and Jackson Avenue, Tyler Street and Courthouse Square. Ms. Darrah conducted a thorough review of the horizontal and vertical alignments, the drainage system design, water and sewer replacement etc. for conformance with LADOTD plan requirements. She also conducted QA/QC of the construction cost estimates that were prepared based on LADOTD pay items.
09/15-Current	**Picardy-Perkins Traffic Signal** Ms. Darrah was the design engineer for two (2) traffic signals for the Picardy-Perkins Connector Project. In this role she worked closely with the prime consultant, DOTD, and East Baton Rouge Parish to determine the traffic signal operation and locations for signal equipment to develop permanent signal plans. Signal requirements included video detection, pedestrian accommodations, and advanced warning for limited sight distance at the railroad underpass. The 98% plans are currently under review by Baton Rouge City-Parish and DOTD.

12/14-09/15	**SELA 26 Widening of Florida Ave. Canal Phase II and III** Ms. Darrah designed Traffic Control Devices Plans for the widening of the Florida Ave. Canal and several surrounding streets. The design met US Army Corps of Engineers, LADOTD and MUTCD standards. The plans included multiple traffic control zones along Florida Ave and in the surrounding neighborhood. Detour routes were selected, and signage installed to direct motorists on Florida Ave in a single direction and around the associated closures. Haul routes were also designated.
03/17-10/17	**Milan St Terminal** Ms. Darrah was the Designer and Project Manager of the Construction Sequencing and Permanent Striping Layouts and Signage plans. Construction sequencing includes maintaining port tenants fully operational through each phase of construction. All plans were prepared in accordance with Port of New Orleans and MUTCD guidelines.
11/09-11/13	**City Park Parking Lot Improvements** Ms. Darrah lent her expertise to design roadway and parking lot improvements in City Park, New Orleans, LA. Ms. Darrah provided QA-QC of the construction drawings and specifications to ensure accordance with all MUTCD, ADA, and New Orleans DPW requirements. To incorporate green infrastructure in the project, permeable asphalt pavement was used in the parking lot. The work consisted of geometric layout, grading, drainage, utility adjustments, striping and signage. Construction Management Services for this project were performed.
07/19-04/20	**Citrus Boulevard Turn Lane** Ms. Darrah was the lead engineer and project manager for the new left turn lane on Citrus Boulevard for the Amazon Distribution Facility in Harahan, Louisiana. The purpose of the project was to provide an eastbound left turn lane in the existing median at the facility main entrance. Plans and specifications included typical sections, geometric layout, grading, and required signage and striping. Tasks included design, auto-turn analysis, construction administration, and coordination with Jefferson Parish, utility companies, surveyors, and geotechnical engineers.
03/13-07/17	**North Terminal Louis Armstrong New Orleans International Airport** Ms. Darrah led the design of the Maintenance of Traffic plans for the landside access roadways. The plans were designed in accordance with the Manual of Uniform Traffic Control Devices and LADOTD standards. Ms. Darrah also prepared specifications for the maintenance of traffic items.
04/18-01/22	**N. Peters Sidewalk Expansion** The Project Manager for the N. Peters sidewalk expansion project was Ms. Darrah. She prepared construction drawings and specifications for the reconstruction of the sidewalk adjacent to Canal Place Shopping Center in the Downtown Development District (DDD). The plans included the geometric layout, grading, drainage, street lighting, striping and traffic control. The plans followed all DDD, MUTCD, ADA, New Orleans DPW and S&WB requirements. Ms. Darrah also provided Construction Management Services.

16. Staff Experience:

<table>
<tr><td colspan="5">Firm employed by Urban Systems, Inc.</td></tr>
<tr><td colspan="3" rowspan="2"> 
Matthew H. Morgan, P.E.
Transportation Engineer</td><td>Years of relevant experience with this employer</td><td>9</td></tr>
<tr><td>Years of relevant experience with other employer(s)</td><td>0</td></tr>
<tr><td colspan="3">Degree(s) / Years / Specialization</td><td colspan="2">BS / 2009 / Civil Engineering</td></tr>
<tr><td colspan="3">Active registration number / state / expiration date</td><td colspan="2">47060 / Louisiana / 08/11/2023</td></tr>
<tr><td>Year registered</td><td>2022</td><td>Discipline</td><td colspan="2">Professional Engineer: Civil Engineering</td></tr>
<tr><td colspan="3">Contract role(s) / brief description of responsibilities</td><td colspan="2">Transportation Engineer</td></tr>
<tr><td colspan="5">Mr. Morgan has (11) eleven years’ experience that ranges from starting as a Data Collection Manager while in college to becoming an Engineer Intern and now a Professional Engineer for Traffic Engineering/ Transportation Planning projects. He has collected and delivered volume, class, and speed data to project managers using road tube equipment and camera systems. Mr. Morgan has been a team member for many projects that involved intersection, freeway, and highway analysis. He has assisted with Traffic Impact Studies, Traffic Control Device Plans, Interchange Modification/Justification Reports, Stage 0 Traffic Studies, Stage 1 Traffic Studies Transportation Management Plans, and a variety of others. He is proficient in the following software: PetraPro, TraxPro, MetroCount, Excel, AutoCAD, SIDRA, HCS Software, VISSIM, CORSIM, and Adobe Suite.</td></tr>
<tr><td>03/22-09/22</td><td colspan="4"><u>Hundred Oaks Broussard Bridges TCDP</u>
The objective of the Traffic Control Devices Plan (TCDP) was to provide adequate advanced notice and signage to drivers for the closure of two local roadway bridges. Mr. Morgan led the design of the TCDP for each bridge closure which incorporated local municipalities’ standards, as well as the Manual on Uniform Traffic Control Devices (MUTCD) standards. Mr. Morgan used aerial photography and the Google Earth mapping program to designate placement of detour and advanced warning signage. He oversaw the creation of the plans in AutoCAD, a CAD-type software oriented to drawing and modeling. He used quality assurance and control with other licensed engineers in the firm to verify the plans before delivering electronic versions of preliminary plans to the client using Adobe PDF format.</td></tr>
<tr><td>12/18-10/22</td><td colspan="4"><u>LA 46- St. Claude Bridge Bicycle Accommodation</u>
Mr. Morgan developed short term and long-term alternatives for safely accommodating bicyclists across the raised portion of LA 46 at the St. Claude Bridge and over the Inner Harbor Navigational Canal lift span. To accomplish this task, he conducted field observations which included sight distance evaluations, identifying existing equipment to be modified/removed, collecting classification data for pedestrians, vehicles, and bicycles using the roadway/lift span, and collecting vehicular speed data. Mr. Morgan assisted with the cost estimate, and the preparation of a technical memorandum to implement these alternatives for the Port of New Orleans.</td></tr>
<tr><td>03/18-03/21</td><td colspan="4"><u>Morial Convention Center Lanier Park TCDP</u>
Mr. Morgan assisted in the preparation of traffic control device plans for preliminary and active construction phases. He assisted in efforts to ensure all plans were prepared to meet the city of New Orleans and MUTCD standards. He also assisted in the</td></tr>
</table>

	preparing of the electronic media, AutoCAD drawings and PDF's for documentation.
03/16-08/18	**Future I-49 South Study (Raceland to Westbank Expressway), Stage 1** The study area spanned US 90 from the Westbank Expressway in Jefferson Parish to Lafourche Parish. Mr. Morgan led the data collection effort which included traffic volume collection, speed studies, and vehicle classification. He performed site investigations and assisted project engineers with development of figures and tables to present the data. He utilized LADOTD's resources and tools during the study phase for analysis of existing conditions.
03-16-12/19	**I-10/Loyola Interchange Improvement IMR New Orleans, LA (LADOTD)** Mr. Morgan led data collection efforts on I-10 and surrounding roadways for the I-10/Loyola Interchange improvements. He organized counting roadways and turning movements using video camera and pneumatic tubes. He also assisted in the collection of speed data using hand-held radar devices. Mr. Morgan helped review crashes associated with the project, analyze crash characteristics, and examine trends in crashes for the study years. He assisted with capacity analysis for existing and future alternative conditions using HCS, Synchro, and Vissim analysis software. Mr. Morgan helped write the reports and prepare appendixes documenting the results.
02/22-04/22	**Walker LA 447 Counts** Urban Systems Inc provided Professional Traffic Engineering Services for a traffic study conducted on the LA 447 corridor to re-evaluate proposed access management changes along the corridor. Mr. Morgan coordinated with National Data and Surveying Services (NDS) to obtain the traffic data per the LADOTD Traffic Engineering Process and Report (TEPR) requirements. Mr. Morgan reviewed 7-day data and compiled an "Appendix A" which included peak period determinations, graphical representation of the data collected over the 7-day period, and raw count data in PDF format. Mr. Morgan used Microsoft Excel along with Adobe programs to identify and submit peak periods to LADOTD for approval. Mr. Morgan also reviewed 48-hour, turning movement counts (TMC), and 15-minute driveway counts for completion and reliability, to incorporate them into the traffic study.
05/21-09/22	**Violet Terminal Traffic Study** The objective of the Violet Terminal Traffic Study was to assess how long the existing traffic network of LA state highways could sustain the additional traffic generated by a new Port terminal located in Violet, LA. Mr. Morgan led in the data collection effort for numerous intersections and roadways using video cameras. Mr. Morgan identified peak hours for the associated traffic network. He also helped in estimating vehicular traffic volumes for years 2028 through 2050. He analyzed signalized intersections with and without improvements, where needed, to mitigate the impacts. Mr. Morgan assisted with report preparation that summarized the objective, methodologies, and findings of the project.

17. Firm Experience:

Firm name	**Modjeski and Masters, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**Load Rating of 354 Off System Bridges**		Firm responsibility (prime or sub?)	Prime	
Project number	H.012485	Owner's name	LADOTD		
Project location	Statewide, Louisiana		Owner's Project Manager	Ms. Dana Feng	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA (225) 379-1060, dana.feng@la.gov				
Services commenced by this firm (mm/yy)	07/2019	Total consultant contract cost ($1,000's)		$2,244	
Services completed by this firm (mm/yy)	05/2021	Cost of consultant services provided by this firm ($1,000's)		$2,167	

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

Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed) and retrofit design plan production (as needed) for 354 off system bridges. The bridge types included concrete slabs, precast slab units, precast girders, precast channel units, continuous steel beam and railroad flatcars with concrete and timber substructures. For the analysis and load rating task, M&M generated a system structural model and performed an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, the "Girder System" in AASHTOWare BrR software was used. For the complex bridges, a three-dimensional structural model was needed. M&M also developed influence lines and COMPSTIL2 input files for complex substructures including hammerheads and inverted-T pier caps. All load rating analysis followed AASHTO Manual for Bridge Evaluation, LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications.

Personnel involved: Stacey P. Carr, PE, Jason W. Miles, PE, Joshua J. Moore, PE, Lindsey A. Woolverton, PE, Hendri Koop, PE, Mott J. Holt, PE, Veronique Mucino-Sanchez, EI

17. **Firm Experience:**

Firm name	**Modjeski and Masters, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**Load Rating of Fourteen Complex Bridges**		Firm responsibility (prime or sub?)	Prime	
Project number	H.009859.5	Owner's name	LADOTD		
Project location	Statewide, Louisiana		Owner's Project Manager	Ms. Dana Feng	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA (225) 379-1060, dana.feng@la.gov				
Services commenced by this firm (mm/yy)	11/2019	Total consultant contract cost ($1,000's)		$1,827	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$1,827	

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

Modjeski and Masters, Inc. is performing plan and document retrieval, bridge inspection (as needed), analysis and load rating, sampling/instrumentation and non-destructive testing (as needed), and retrofit design plan production (as needed) for 14 complex bridges. The bridge types include swing spans, bascule spans, truss spans and curved steel spans. For the analysis and load rating task, M&M is generating a system structural model and performing an analysis of each bridge to determine dead and live load forces in the members. For the bridge superstructures, AASHTOWare BrR software is being used. For the complex bridges, a three-dimensional structural model is needed. M&M is also developing influence lines and COMPSTIL2 input files for complex substructures including hammerheads and inverted-T pier caps. All load rating analysis will follow current AASHTO Manual for Bridge Evaluation, the LADOTD Bridge Design and Evaluation Manual and AASHTO LRFD Bridge Design Specifications.

Personnel involved: Stacey P. Carr, PE, Jason W. Miles, PE, Joshua J. Moore, PE, Lindsey A. Woolverton, PE, Hendri Koop, PE, Mott J. Holt, PE, Veronique Mucino-Sanchez, EI

17. **Firm Experience:**

Firm name	**Modjeski and Masters, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**Nineteen Complex Bridge Load Rating and Evaluation**		Firm responsibility (prime or sub?)	Prime	
Project number	H.009859.5	Owner's name	LADOTD		
Project location	Statewide, Louisiana		Owner's Project Manager	Ms. Dana Feng	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA (225) 379-1060, dana.feng@la.gov				
Services commenced by this firm (mm/yy)	12/2016	Total consultant contract cost ($1,000's)		$2,283	
Services completed by this firm (mm/yy)	12/2018	Cost of consultant services provided by this firm ($1,000's)		$2,283	

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

Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection for load rating purposes, analysis and load and resistance factor rating of nineteen complex bridge structures, mainly movable bridges. Gusset, truss, floorsystem and substructure components were rated. Bridge inspections focused on gusset plates and existing member conditions for rating. System structural modeling was performed to determine dead load and live load effects in the members. 3-D structural models were generated as needed for complex bridges. AASHTOWare BrR was used for the ratings, which follow current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. M&M performed QA/QC for structural load ratings per LADOTD requirements. M&M also developed repair schemes and strengthening plans to remove posting for four of the bridges and update rating reports.

Personnel involved: Stacey P. Carr, PE, Jason W. Miles, PE, Joshua J. Moore, PE, Anthony E. Schoenecker, PE, Jim W.H. Costigan, PE, Mott J. Holt, PE

17. **Firm Experience:**

Firm name	**Modjeski and Masters, Inc.**		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	**Ten Truss Bridges Load Rating and Evaluation**		Firm responsibility (prime or sub?)	Prime	
Project number	H.009859.5-2	Owner's name	LADOTD		
Project location	Statewide, Louisiana		Owner's Project Manager	Ms. Dana Feng, PE	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA (225) 379-1060, dana.feng@la.gov				
Services commenced by this firm (mm/yy)	02/2016	Total consultant contract cost ($1,000's)		2,698	
Services completed by this firm (mm/yy)	05/2021	Cost of consultant services provided by this firm ($1,000's)		1,557	

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

Modjeski and Masters, Inc. performed plan and document retrieval, bridge inspection for load rating purposes, and analysis and load and resistance factor rating of complex bridge structures, including large cantilever trusses, vertical lifts and swing spans. Gusset, truss, floorsystem and substructure components were being rated. Bridge inspections were focused on gusset plates and existing member conditions for rating. AASHTOWare BrR was used for the ratings, which follow current AASHTO Manual for Bridge Evaluation, the LADOTD Policies and Guidelines for Bridge Rating and Evaluation, and LADOTD Bridge Design and Evaluation Manual. Three-dimensional structural models were developed as needed.

Personnel involved: Stacey P. Carr, PE, Jason W. Miles, PE, Joshua J. Moore, PE, Anthony E. Schoenecker, PE, Jim W.H. Costigan, PE, Mott J. Holt, PE

17. Firm Experience:

Firm name	**Modjeski and Masters, Inc.**	Past Performance Evaluation Discipline(s)*	Bridge
Project name	**Huey P. Long Bridge Widening and Rating**	Firm responsibility (prime or sub?)	Prime
Project number	700-18-0014	Owner's name	LADOTD
Project location	New Orleans, Louisiana	Owner's Project Manager	Ms. Jenny Fu, PE
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA (225) 379-1321, ZhengZheng.Fu@la.gov		
Services commenced by this firm (mm/yy)	04/2013	Total consultant contract cost ($1,000's)	1,085
Services completed by this firm (mm/yy)	10/2014	Cost of consultant services provided by this firm ($1,000's)	1,085

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)
The Huey P. Long Bridge is a high-level, combination highway and railroad bridge which crosses the Mississippi River in New Orleans, Louisiana. The total structure length, including approaches, is approximately 23,000 ft. Modjeski and Masters was called upon to oversee the ambitious project, providing engineering services for the widening of the main bridge, new approaches, and improved interchanges at each end of the crossing. Modjeski and Masters performed structural load rating of the new/modified superstructure and select substructure components which included:

Highway Rating

- West approach highway superstructures; main line and ramps
- East approach highway structures; main line and ramps
- Main bridge superstructure and steel substructure

Railroad Rating

- Main bridge superstructure and steel substructure
- Westbank railroad modification
- Westbank towers with removed highway brackets
- Eastbank railroad modification
- Eastbank towers with removed highway brackets
- Railroad truss spans (267 and 330 ft.) with removed highway brackets.

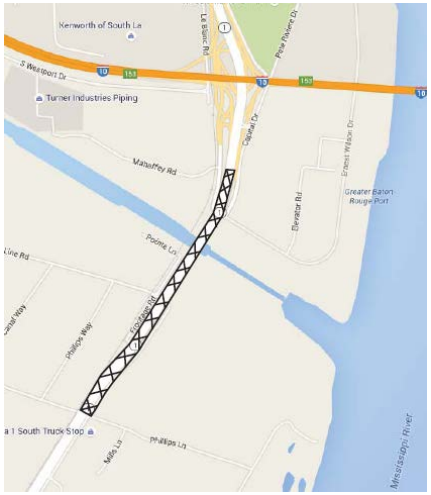
Where superstructure configurations contain a large number of variations in span length and girders spacing, only specific representative spans required rating.

Personnel involved: Stacey P. Carr, PE, Jason W. Miles, PE, Lindsey A. Woolverton, PE, Joshua J. Moore, PE

17. Firm Experience:

Firm name	**Urban Systems, Inc.**		Past Performance Evaluation Discipline(s)*	Traffic	
Project name	**Bridge Preventative Maintenance Port Allen Bridge**		Firm responsibility (prime or sub?)	Sub	
Project number	H.001234.4	Owner's name	LADOTD		
Project location	Port Allen, LA		Owner's Project Manager	Brian Delatte	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804, (225) 379.1823, Brian.Delatte@LA.GOV				
Services commenced by this firm (mm/yy)	11/12	Total consultant contract cost ($1,000's)	Unknown		
Services completed by this firm (mm/yy)	06/16	Cost of consultant services provided by this firm ($1,000's)	$62.6K		

The objective was to conduct a Level 3 Transportation Management Plan (TMP) based on LADOTD EDSM VI.1.1.8 for reconstruction of two (2) bridge structures over the Intracoastal Waterway (ICWW) in Port Allen, Louisiana. A TMP was critical for this location as the LA 1 bridge serves as the major crossing of the ICWW and serves up to 45,000 vehicles per day. An important aspect of this project was how to minimize construction impacts on an already congested roadway section. Peak intersection turning movements and seven-day hourly volume counts with classification were collected within the study area. Peak intersection capacity analysis was conducted using Synchro software to determine the impact the different phases on construction would have on the subject intersections. A unique part of the capacity analysis was to analyze a non-typical stop-controlled intersection with different gap acceptance values to match field conditions.



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

An important strategy to minimize work zone impacts was an evacuation plan as LA 1 is a critical artery during a hurricane evacuation.

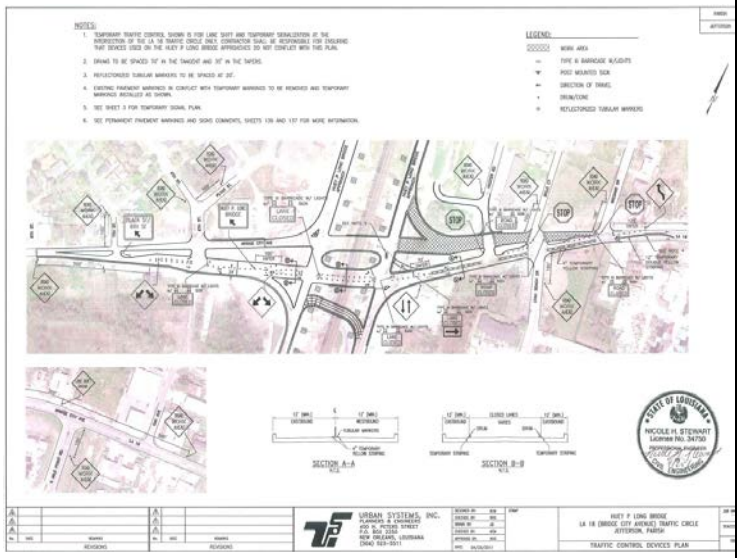
A list of potential stakeholders was developed for a future stakeholder's meeting. The list was crucial for this project as many port related and industrial businesses are located in the project area and should be informed about the project.

Members Utilized in this Project Submittal: A. Michel, M. Morgan, N. Stewart

17. Firm Experience:

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

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



A few of the phases that were addressed were:

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

Plans for these phases included the following:

- **Traffic Control Devices Plans** for the redirection and protection of traffic in the active area of construction.
- **Traffic Signal Plans** for the installation of temporary traffic signal heads. The temporary signals were utilized in conjunction with the permanent signal plan. The plans included the temporary striping and signage that were required in addition to the permanent installation.
- **Permanent Pavement Markings and Signs Plans** which were used to identify which signs should be covered and which striping should not be installed during each phase of construction.

Members Utilized in this Project Submittal: A. Michel, N. Stewart

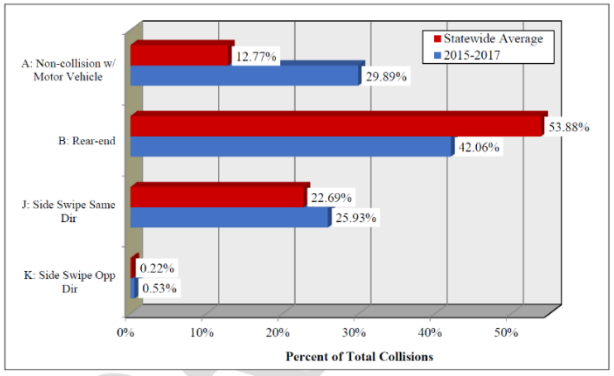
17. Firm Experience:

Firm name	**Urban Systems, Inc.**		Past Performance Evaluation Discipline(s)*	Traffic	
Project name	**TMP for I-10 West of LA 108 and I-210 Interchange**		Firm responsibility (prime or sub?)	Sub	
Project number	H.009620.5-1	Owner's name	LADOTD		
Project location	Calcasieu Parish, LA		Owner's Project Manager	Hadi Shirazi	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804, (225)379.1929, Hadi.Shirazi@la.gov				
Services commenced by this firm (mm/yy)	05/18	Total consultant contract cost ($1,000's)		Unknown	
Services completed by this firm (mm/yy)	04/19	Cost of consultant services provided by this firm ($1,000's)		$70K	

The objective of this project was to assist with conducting a Level 4 Transportation Management Plan (TMP) based on LADOTD EDSM VI.1.1.8 for rubblize and overlay work on the US 90 bridge over I-10 in Calcasieu Parish, Louisiana. The objective of the TMP was to identify the challenges and to address strategies to minimize the traffic delays associated with the lane closures, demand volumes and incidents within the construction limits and primary detour roadways on I-10 and I-210 within the Lake Charles Metropolitan Area. This TMP for the I-210 Prien Lake Bridge Re-Decking and Safety Improvement Project (H.010916.5) dated January 2016 was also updated.

Traffic data was reviewed within the study area and a field visit was conducted to verify information on roadway geometrics and traffic conditions. A traffic data report was developed and submitted for inclusion in the TMP document.

A safety analysis was conducted based on LADOTD guidelines. Crash rates were calculated for each location and compared to LADOTD's statewide averages and to LADOTD's High Potential for Safety Improvements (formerly the Abnormally High Crash) List. Charts were developed at each location and compared to statewide averages based on various categories. Crash diagrams were also developed to document the number, location and type of crashes. Each crash report was reviewed for accuracy.



An alternative route analysis was conducted for an assessment of the proposed detour routes. The analysis also included a safety and mobility plan to gather and address concerns for the detour routes.

Members Utilized in this Project Submittal: N. Stewart , M. Morgan, C. Darrah

18. <u>Approach and Methodology:</u>

Provide a description of how the work will be performed and provide the proposed project schedule. Include any additional information or description of unique resources that are planned to be used to produce the deliverables. Include any proprietary technologies, methods or approaches that will be used on this project to improve quality or efficiency. If the proposal is for an IDIQ contract, the consultant should review the scope of services in Attachment A to the advertisement to obtain a general understanding of what a typical task order would entail. Based upon that understanding, the consultant should provide a sample schedule that identifies the major milestones, deliverables, tasks, etc., to demonstrate sufficient understanding of a typical task order. The duration of the task order is not required. This section shall be limited to four pages. **If more than four pages are included, all pages after the fourth page will not be evaluated**.

If the consultant has information it believes is proprietary, label it accordingly.

Modjeski and Masters has extensive experience in LADOTD Bridge Load Rating projects and is well versed in the tasks required for contract management, design/load rating analysis and construction related engineering services. Therefore, M&M is familiar with the policies and procedures of the LADOTD Load Rating Section as well as AASHTO standards and rating criteria set forth by that section. M&M has also been instrumental in identifying particular issues with the AASHTOWare BrR software and developing work-arounds for these problems. All task orders will be completed by the termination date of the IDIQ contract which is to be in effect for five years.

The New Orleans office has successfully administered previous LADOTD Bridge Load Rating IDIQ Contracts with the most recent having task orders that included the following:

- Ten Truss Bridge Load Ratings
- Nineteen Complex Bridge Load Ratings
- Gramercy Bridge Load Rating
- Sunshine Bridge Collision Load Rating
- 354 Off-System Bridge Load Ratings
- Fourteen Complex Bridge Load Ratings

The scope of services for the above listed projects were similar to the services called for in this IDIQ Contract. In addition, M&M currently has staff on board at all levels ranging from project management to load rating engineers and pre-professionals with extensive experience with these projects. Therefore, once a priority schedule is provided by the DOTD, M&M's highly qualified staff can immediately begin working on any task order using the internal tools and procedures already established to provide high quality results and deliverables.

Ms. Stacey P. Carr, PE will serve as M&M's Contract Manager and will handle all contract administration for the duration of this IDIQ contract. In addition to project management, she has extensive experience in the rating, strengthening and design of highway, railroad, and combined highway/ railroad structures, including large cantilever spans and movable bridges. Ms. Carr has overseen the gamut for rating bridges from small concrete slab spans to complex steel structures, movable bridges and gusset plates. She is well experienced with AASHTOWare Bridge Rate (BrR) and is knowledgeable of both LFR and LRFR rating requirements. Special Training: NHI Course No. 130092, Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures.

Mr. Jason W. Miles, PE will serve as M&M's Deputy Project Manager for this Contract. He has been employed in the New Orleans office of Modjeski and Masters, Inc. since 2009. During this period, he has been engaged in multiple complex projects. The majority of his time has been spent in complex structural analysis, 3-D structural modeling, shop drawing review, assessment of steel fabricator quality control reports, performing finite element analysis using both the LUSAS and Florida Pier programs and complex load rating analysis. Mr. Miles attended the AASHTOWare Bridge Rate (BrR) meeting titled "AASHTOWare Bridge Design and Rating Software User Group Meeting" in August 2014, 2016, 2020 and 2022. He also completed NHI Course No. 130092, Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures and NHI Course No. 130081, LRFD for Highway Bridge Superstructures. Mr. Miles also has experience with finite element analysis, in particular through the use of Lusas software to check AASHTOWare BrR results.

Modjeski and Masters understands the importance of maintaining schedule by assuming responsibility for project issues and progress. A typical load rating schedule is shown in the tables below.

Contract Management Task List
(Duration of Each Task Dependent on Scope)

- Contract Administration
- Task Order Development
- Sub-Consultant Coordination (if needed)
- Other Consultant Coordination (if needed)
- Meeting Minutes
- Monthly Invoicing (using latest format)
- Written Monthly Reporting
- Budget Monitoring
- Contract Time Monitoring

Load Rating Project Task List
(Duration of Each Task Dependent on Scope)

- Notice To Proceed (NTP) Issued
- Design Kick Off Meeting
- Plan and Document Retrieval
- Perform Site Visit (if needed)
- Analysis and Load Rating
- Submit Load Rating Report
- Project Closeout

Modjeski and Masters will provide our QA/QC Plan to the LADOTD within ten (10) business days of award notification. M&M's QA/QC plan relates to both the technical and administrative aspects during the complete duration of the contract. This plan will also address the review of our sub-consultant's work and deliverables. Checklists and forms will be developed to monitor special needs of the LADOTD and/or a specific engineering activity.

Modjeski and Masters will respond to any initial requests from the LADOTD Bridge Rating Unit with a proposal within two weeks. The proposal will consist of a listing of bridges (with location, type, material, complexity, etc.) and a scope of work document for each bridge as well as proposed hours to complete the tasks in the scope of work. A standard hours spreadsheet consisting of standard tasks has been used successfully on previous proposals and will continue to be used to develop hours.

A kickoff meeting will be initiated and led by Modjeski and Masters after the NTP has been received from the LADOTD Project Manager. Members of M&M's team will participate in this meeting, along with LADOTD's relevant personnel. M&M shall prepare the meeting agenda and topics of discussion which will include project scope and understanding, proposed schedule, rating criteria, communication protocol and any existing available project data. M&M will provide meeting minutes to all meeting attendees.

Prior to scheduling any site visits and/or bridge inspection efforts, M&M will retrieve and download all current and previous reports, as-built drawings, as-designed plans, repair/rehab details and any other project related documents using its access to AssetWise, DOTD Plan Rooms and ProjectWise. If no information is available through the asset management software, then M&M will contact General Files, Content Manager, DOTD Section 51 & 25 as well as DOTD District Offices and local entities to collect and retrieve any documents that may exist for the listing of bridges in the task order. All retrieved information will be delivered to the bridge rating unit of DOTD through Project Wise or AssetWise. Site Inspection Invitations will be sent to all project stakeholders which typically consist of LADOTD Headquarters and District personnel, representatives from the affected Parish/Local Government, utility company representatives, as well as any required subconsultants. Using our experienced certified bridge inspectors, M&M will perform bridge inspections for load rating purposes to gather field measurements and current structure conditions to assist with load rating and record recovery, as needed. M&M will provide Louisiana licensed engineers for the inspections and will arrange and submit all inspection equipment for approval by the DOTD. Technical access will be utilized where possible in order to reduce or eliminate the need for traffic control devices and/or lane closures. If traffic control plans are required for any site visits, M&M will engage the services of Urban Systems, Inc. in order to provide a safe and effective work zone for our inspectors and safe passageways for the traveling public. Upon completion of field inspection and measurement activities, our inspectors will develop bridge inspection reports and field measurement forms that will contain an evaluation of the overall condition of the components supported by photographs, sketches and diagrams. This information will be electronically submitted in PDF format to the DOTD through Projectwise or Assetwise.

Figure 1 - Inspection Using Technical Access Techniques

For all analysis and load rating efforts, M&M will strictly follow the policies and procedures set forth in the LADOTD Bridge Design and Evaluation Manual, AASHTO Manual for Bridge Evaluation and BDTM.96, Publication of Load Rating, Posting and Strengthening Standard Operating Procedure (including the Flowchart and 16 Detailed Steps). For each bridge, M&M will build a system structural model using the DOTD's preapproved list of software and will perform an analysis of the bridge to determine dead and live load effects in the members. For complex bridges, a 3-D structural model will be generated using 3-D analysis software such as LUSAS. The load rating will be based on present condition capacity and loading of the bridge and all bridges will be modeled using AASHTOWare BrR bridge rating software. For any bridges or structural elements

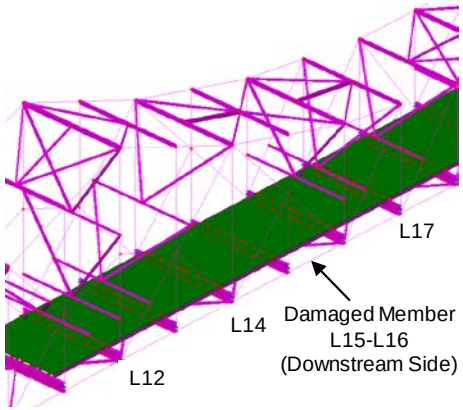


Figure 2 - LUSAS 3D Model

that cannot be rated using AASHTOWare BrR, M&M will generate influence lines for critical members, including substructures, and the COMPSTIL2 input file submitted. Should any AASHTOWare BrR rating result in a load posting, M&M will perform a refined analysis for further investigation. As part of all load rating efforts and refined analysis (if needed), M&M will perform the highest level of quality assurance and quality control of our work through strict adherence to the QA/QC requirements set forth in the LADOTD Bridge Design and Evaluation Manual as well as M&M's QA/QC document which shall be submitted to LADOTD's Project Manager within 10 business days of award notification. M&M will review and update any and all existing AASHTOWare BrR and related rating files provided by the LADOTD with current structure conditions. If any of the provided rating files present any problems or issues, M&M will draw upon its extensive knowledge of the software to troubleshoot these problem files and make necessary corrections, changes or overrides.

A Final Rating Report package will be submitted to the DOTD Project Manager or Task Manager and will consist of the following:

- An electronic copy (PDF file format) of all the retrieved information used for the load rating
- When applicable, an inspection report for each bridge consisting of a summary of the current condition of primary load-carrying members, critical findings, photographs of defects that affect the load rating, and documentation of any field measurements taken, etc.
- A Rating Report that includes documentation of the current condition of all deteriorated or rehabilitated structural members as well as photos and assumptions influencing the rating. Electronic copy of Final plans and existing plans will be submitted.
- An electronic copy of bridge models generated and all calculations (AASHTO BrR, LUSAS, spreadsheets, hand calculations, etc.) in editable form.
- QA/QC checklist document that shows the required steps were taken during the load rating process.

For any bridges where load posting is required after refined analysis is performed, M&M will evaluate options and provide schematic recommendations to improve/eliminate the load posting as part of the "Options Form" provided in BDTM.96. In close communication with the DOTD Load Rating Task Manager, the "Options Form" will be developed and submitted to the Load Posting and Chief Engineer's Order (CEO) Notification Coordinators. The Options Form will summarize options for eliminating and/or improving the need for Load Posting (through Load Testing, Repair or rehabilitation, or replacement of partial or entire bridge structure). The appropriate DOTD District Office will be notified of the intended posting and will be provided with the Options Form for review. The District will fill out the District Response Form and return the completed form within seven (7) days of the notification. At this point, the Chief Engineer's Order will proceed.

M&M will coordinate with the LADOTD Load Rating to ensure all tasks and rating activities are complete, address any outstanding items in the appropriate manner and then move toward Project Closeout.

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**
Modjeski and Masters, Inc.		**S.P. 700-66-0486**	**Engineering Services for Bridge Preservation Retainer 440000668 - Statewide**	
	Bridge	H.009479	West Larose Vertical Lift Bridge Rehabilitation - Supplement No. 2	$0
	Bridge	JN 3144	Expert witness services in bridge design, construction, repair and forensic analysis	$275,422
		Retainer Contract 4400002538	**Engineering Services for Bridge Preservation Retainer - Statewide**	
	Bridge	H.010882.5	LA 18: 4th Street Bridge Rehabilitation (Supplement No. 2) Construction Services Jefferson Parish	$0
	Bridge	H.010882.6	4th Street Bridge Rehabilitation Paint (Supplement No. 3) Route LA 18	$3,484
	Other (Roadway Lighting)	H.003014.6	I-10: LA 347 to Atchafalaya Fldwy Bridge (Const. Svcs.)	$14,566
		Retainer Contract 4400005395	**Construction Engineering and Inspection with Painting - Statewide**	
	CE&I/OV	H.011705.6	US 11 Lake Pontchartrain Bridge Rehabilitation - Ph2, Sup1	$132,454
	CE&I/OV	H.011494.6	US 90 Atchafalaya River Bridge Rehabilitation	$0
		Retainer Contract 4400004921	**Complex Bridge Rating (on-system trusses and other complex bridges) - Statewide**	
	Bridge	H.009859.5	Sunshine Bridge Load Rating after Collision Repair - Task Order 4	$13,605

Modjeski and Masters, Inc.	Bridge	H.012485.1	Load Rating of 354 Off-System Bridges - Task Order 6	$0
	Bridge	H.009859.5	Load Rating of 14 Complex Bridges	$257,663
		Retainer Contract 4400005774	**Retainer Contract for Bridge Preservation Statewide**	
	Bridge	H.001234.5	Port Allen Canal Bridge	$64,231
	Other (Roadway Lighting)	H.010601.6	I-10: LA 328 to LA 347 - CRES	$44,879
	Other (Roadway Lighting)	H.011137.5	I-12: LA 1077 to US 10 Roadway and Navigation Lighting	$35,452
		IDIQ Contract 4400012382	**ID/IQ for Bridge Preservation Statewide**	
	Bridge	H.011705.6	US 11: Lake Pontchartrain Bridge Rehab Phase 2 (HBI) Sup1	$0
	Bridge	H.012343.6-1	LA 70: Mississippi River Bridge Phase III	$12,854
	Bridge	H.013179.6	LA 1064: Little Natalbany River Bridge Replacement - Construction Svcs.	$14,727
	Bridge	H.013183.6	LA 16: Tangipahoa River Bridge Replacement - Construction Svcs.	$33,963
	Bridge	H.013193.6	US 61: Thompson Creek Bridge - Construction Svcs. Rehabilitation and Replacement	$804
	Bridge	H.013829.5	I-10 and LA 47: Overhead Sign Upgrade	$0
	Bridge	Task Order No. 2	LG Bridge Design Example and Parametric Studies	$74,644
	Bridge	H.012343.6	LA 70: Mississippi River Bridge Phase III - Legal	$13,534
	Bridge	H.000303.6	Danzinger Bridge Rating and Repair	$54,259
	Bridge	H.009859.5	Strengthening of US 90 Bridge 201810	$16,182
	Bridge	H.003144	Luling Bridge - Defect Remediations	$2,785
	Bridge	H.003144.6-2	Luling Bridge Cable Stay Replacement Project	$429,605
	Other (Roadway Lighting)	H.011235	Subconsultant: I-49 South at Verot School Road - Lighting	$32,989
	Other (Roadway Lighting)	H.004791	Subconsultant: Belle Chasse B7T Replacement P3 - Electrical and Structural	$25,614
		IDIQ Contract 4400017263	**ID/IQ for Bridge Preservation Statewide**	
	Bridge	H.010603.6	I-20 Mississippi River Bridge at Vicksburg - Monitoring	$0
	Other (Roadway Lighting)	H.013866.6	I-12: LA 21 to US 190 Navigation Lighting & Roadway Lighting	$67,664

Modjeski and Masters, Inc.	Other (Roadway Lighting)	H.003184.6	I-10: Texas State Line - E. of Coone Gully - CRES	$54,731
	Bridge	H.011485.6	LA336-1: Bayou Teche Bridge Rehabilitation	$85,056
	Other (Roadway Lighting)	H.012889.5	I-20 Rehabilitation - Roadway Lighting (Pines Road to I-220)	$109,386
	Bridge	H.000263.5	Chef Menteur Pass Bridge & Approach	$27,466
	Bridge	H.011965.5	LA 47: IWGO Bridge Rehabilitation (HBI) LA 47: Over the Intercoastal Waterway Gulf Outlet	$15
	Bridge	H.009859.5	Prien Lake Bridge Structural Rating	$18,259
	Bridge	H.004420.5	Barataria Preliminary Fender Design	$2,120
	Bridge	H.014280.5	Bayou Ramos Bridge Girder Study	$41,442
	Bridge	H.014673.5	I-49 US 165 Debonded PPC Girder Rehab	$2,240
	Bridge	H.014587	LA 302: Kerner Ferry Bridge Repairs PH 2 - Construction Support	$70,682
	Bridge	H.013946.6	Sunshine Bridge Fender Construction - 2021	$41,803
	Bridge	H.009859.5-2	Load Rating of two existing bridges	$152,416
	Bridge	H.004420.5	Bayou Barataria Bridge at Jean Lafitte - Supp 1 and 2	$11,034
	Bridge	H.014406.6	Houma Navigation Canal Swing Bridge - Electrical Repair CRED	$24,796
	Bridge	H.014673.5-2	NSFRP Specification Review	$1,336
	Bridge	H.014465.5	Perry Bridge Rehabilitation - Final Design	$817,038
	Bridge	H.004647.6 (T.O. 1)	I-20 MS River Bridge at Vicksburg, - Monitoring	$172,611
	Bridge	H.009479.6	West Larose Lift Bridge Rehabilitation - Construction Support	$60,163
	Bridge	H.010882.6	LA18: 4th Street Bridge Rehabilitation - Construction Support	$77,160
	Bridge	H.015217.5	I-10 Atchafalaya Basin Speed Enforcement PH2	$49,148
	Bridge	H.004100	Subconsultant: LA 415 to Essen Lane on I-10 and I-12 CMAR RCP Plans	$1,003,671
	Bridge	H.001234.6	LA 1: Port Allen Canal Bridge Replacement - Phase 1 CRES	$65,281
		IDIQ Contract 4400020063	**ID/IQ for Electrical Services Statewide**	
	Bridge	H.014212.6	I-10 Atchafalaya Bridge Navigational Lights Repl	$53,433
	Bridge	H.014646	I-20: US 165 to Garrett Road Lighting	$251,183

Urban Systems, Inc.	Traffic	No. 440005142 H.011309.5	Mac Arthur Final Design	$30,687
	Traffic	No. 4400017007 H.012812	US 190: Northshore and Camp Villere	$5,507
	Traffic	No. PSLC-STJ-Supp-2 H.004891	Reserve to I-10 Connector	$21,561

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

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

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

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

22. <u>Sub-consultant information:</u>

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**
Urban Systems, Inc.	2000 Tulane Ave. Suite 200 New Orleans, LA 70112	Alison C. Michel, PE, PTOE acmichel@urbansystems.com	(504) 569-3958

(Add rows as needed)

23. <u>Location:</u>

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**.