DOTD FORM: 24-102

(Revised March 1, 2022)

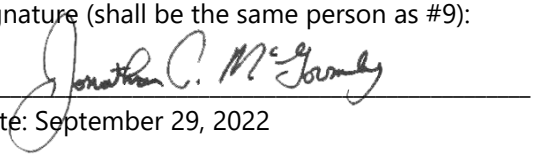
PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

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

1. Contract title as shown in the advertisement	IDIQ CONTRACTS FOR NON-DESTRUCTIVE TESTING/EVALUATION OF STRUCTURES STATEWIDE
2. Contract number(s) as shown in the advertisement	4400025002 AND 4400025003
3. State Project Number(s), if shown in the advertisement	
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Wiss, Janney, Elstner Associates, 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.0002573
6. Prime consultant mailing address	330 Pfingsten Road Northbrook, IL 60062
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Jonathan C. McGormley, Principal, 847-753-7234, jmcgormley@wje.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Jonathan C. McGormley, Principal, 847-753-7234, jmcgormley@wje.com
10. This is to certify that all information contained herein is accurate and true, and that the team presently has	

sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature (shall be the same person as #9):  Date: September 29, 2022
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s): Firm(s)' %:

12. Past Performance Evaluation Discipline Table:

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

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

	Sub-consultants are allowed to be used for this proposal. Fill in the table by identifying only those evaluation disciplines consistent with the approach and methodology proposed in Section 19 of the DOTD Form 24-102*, the name of each firm that is part of the proposal, and the percentage of work in each past performance evaluation discipline to be performed by that firm. The percentage estimated for each evaluation discipline is for evaluation purposes only and will not control the actual performance or payment of the work. 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.					
Evaluation Discipline(s)	% of Overall Contract	Wiss, Janney, Elstner Associates, Inc.	Forte and Tablada, Inc.	Infratek Solutions, Inc.	ThermalStare.	Each Discipline (must total 100%)
Bridge	100%	80%	10%	7.5%	2.5%	100%
	Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.					
Percent of Contract	100%	80%	10%	7.5%	2.5%	100%

 Prime consultant name: **Wiss, Janney, Elstner Associates, Inc.**

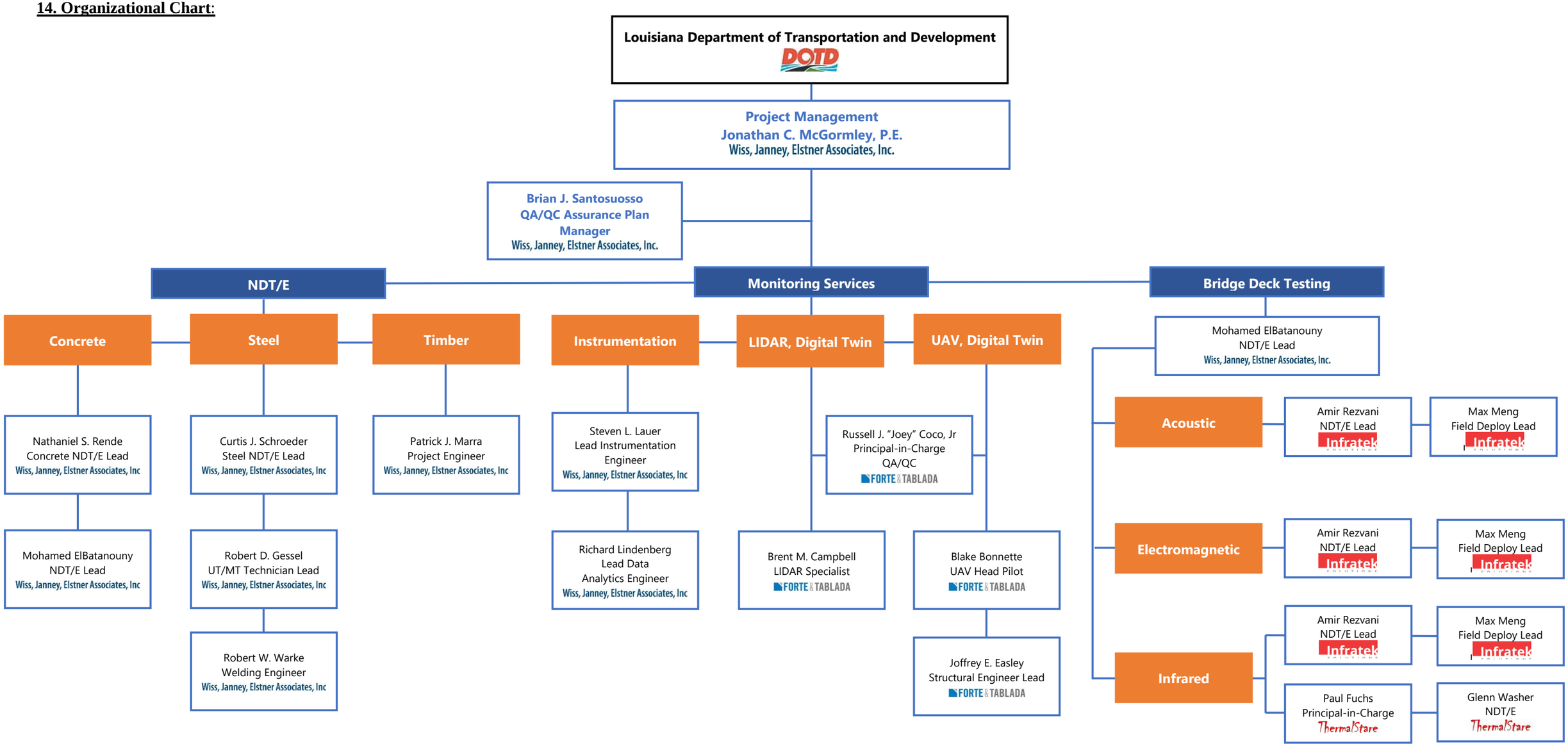
13. Firm Size:

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 (xxxx)" 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)
Wiss, Janney, Elstner Associates, Inc.	CADD TECHNICIAN	1	4
Wiss, Janney, Elstner Associates, Inc.	CLERICAL	1	5
Wiss, Janney, Elstner Associates, Inc.	ENGINEER	1	1
Wiss, Janney, Elstner Associates, Inc.	ENGINEER INTERN	2	24
Wiss, Janney, Elstner Associates, Inc.	ENGINEER-OTHER	4	19
Wiss, Janney, Elstner Associates, Inc.	GEOLOGIST	1	2
Wiss, Janney, Elstner Associates, Inc.	INSPECTOR-BRIDGE	2	6
Wiss, Janney, Elstner Associates, Inc.	PRINCIPAL	5	45
Wiss, Janney, Elstner Associates, Inc.	PROFESSIONAL	4	47
Wiss, Janney, Elstner Associates, Inc.	SENIOR-TECHNICIAN	4	24
Wiss, Janney, Elstner Associates, Inc.	SUPERVISOR-ENG	2	19
Wiss, Janney, Elstner Associates, Inc.	SUPERVISOR-OTHER	5	123

Wiss, Janney, Elstner Associates, Inc.	TECHNICIAN	2	8
Forte & Tablada, Inc. ( )	Other (Advanced Measurements and Modeling)	2	2
Infratek Solutions Inc. ( )	Principal	1	2
	Administrative	1	1
	Other (NDE DAQ Engineer)	2	3
	Other (NDE Data Engineer)	2	3
	Other (NDE Data Analyst)	2	3
	Other (Quality Assurance)	1	1
ThermalStare ( )	Principal	2	2

14. Organizational Chart:



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.

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license / certification & number	State of license	License / certification expiration date
1	Jonathan C. McGormley	Wiss, Janney, Elstner Associates, Inc.	PE.0043912	LA	3/31/2024
2	Jonathan C. McGormley	Wiss, Janney, Elstner Associates, Inc.	PE.0043912	LA	3/31/2024
3	Jonathan C. McGormley	Wiss, Janney, Elstner Associates, Inc.	PE.0043912	LA	3/31/2024

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.			
Name	Jonathan C. McGormley		Years of relevant experience with this employer	28
Title	Principal		Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization			BS, 1992, Civil Engineering, University of Cincinnati MS, 1994, Civil Engineering, Purdue University	
Active registration number / state / expiration date			***In addition to LA, Mr. McGormley is a licensed PE in 7 other states and a licensed SE in IL.***	
Year registered	2019	Discipline	**PE LA,** License No. 43912 / expires 3/31/2024	
			NBIS Certified Team Leader and Program Manager	
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges	
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)	
			ATSSA Traffic Control Technician Training/ TC Supervisor Training	
Contract role(s) / brief description of responsibilities			Mr. McGormley will fulfill MPR1, 2, and 3, leading WJE's structural engineering as well as task order development and execution.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/19–08/19; 08/20–ongoing	**I-255 Jefferson Barracks Bridge over the Mississippi River, Mehlville, MO:** Project Manager responsible for emergency repairs and subsequent rehabilitation repair design. Following the discovery of a six-foot-long crack in the steel tie girder during a fracture critical inspection, performed an in-depth inspection of similar details, obtained material samples for laboratory testing, coordinated emergency repairs, oversaw repair installation including PAUT and MT, and prepared investigation report. Completed bridge rehabilitation plans for the twin, tied-arch structures with construction ongoing.
03/21–ongoing	**Luling Bridge Deck Overlay Repair Consultation, St. Charles Parish, LA:** Project Manager responsible for revising the project specifications and providing quality control assistance for the repair of an orthotropic deck overlay system comprising an epoxy underlayment with a steel fiber reinforced concrete overlay on the cable-stayed spans. Installed a long-term monitoring system to evaluate the performance of the overlay repairs.
02/19–ongoing	**US 90 over Bayou Ramos, St. Mary Parish, LA:** Project Manager leading the investigation of delayed end cracking of precast, prestressed concrete (PPC) girders. The project includes the evaluation of previously collected monitoring data, development of a detailed finite element model to examine crack initiation and repair options, inspection of existing retrofits, laboratory testing of CFRP repairs, and development of a trial retrofit program.
07/19–07/22	**Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA:** Project Manager responsible for overseeing the inspection of portions of the lift span contributing to reported operational issues, an in-depth inspection of the lift bridge machinery and electrical systems, and development of repairs to restore the bridge's long-term functionality

	and reliability. Oversaw the development of a unique monitoring and sensor installation plan, the installation of instrumentation and monitoring equipment, and the creation of a web-accessible reporting platform to evaluate the bridge's operations over an extended period. Assisted with development of plans and specifications to address emergency repairs including the installation of polyester polymer concrete lift span orthotropic deck overlay repairs, replacement of failed pinion bearings, elimination of lift span-to-approach span contact issues, and the improvement of the lift span seating by counterweight movements and air buffer repairs. Bridge monitoring is ongoing.
05/21–10/21	**I-40 Hernando Desoto Bridge, Emergency Repairs - Memphis, TN:** Project Engineer assisting contractor in the tie girder fracture repairs for the I-40 Bridge, which was closed due to a partial section fracture. Developed an emergency instrumentation plan and oversaw the plan's implementation, mobilizing personnel and equipment to have a working web-accessible system with over 25 sensors functional in a week. Oversaw the development of UT and PAUT procedures to identify hydrogen cracks at CJP butt welds. Participated in development of measurement and reporting procedures to be used during tensioning and de-tensioning of the temporary shoring system throughout the tie girder repairs.
10/18–01/19	**Sunshine Bridge over the Mississippi River, St. James Parish, LA:** Project Manager responsible for the development and implementation of a monitoring plan to provide information regarding redistribution of loads during the installation of repairs to the truss bottom compression chord damaged by impact. Responsible for the design of the jacking system, review of member repair design, site observations, preparation of shop and jacking procedure drawings, field technical assistance, and chord jacking operations oversight.
10/17–12/17	**Materials Testing for LADOTD Bridges, Metairie, Port Allen, and Baton Rouge, LA:** Project Manager for materials testing projects including the removal of steel samples to determine material strength properties and chemical composition from the Causeway Boulevard Bridge over Earhart Expressway in Metairie and the removal of forty-five concrete cores from various bridge substructures from I-10 in Baton Rouge for testing and petrographic evaluation.
7/17-6/21	**Timber Pile Testing Study, Northbrook IL:** Project Manager overseeing the laboratory testing and development of a timber pile load rating application for the Mississippi Department of Transportation. The testing included the evaluation of timber piles with decay consistent with inspection procedures used in the field, compression testing of the piles to failure, followed by a post-test autopsy of the pile to assess the appropriateness of the inspection findings.
03/15–06/17	**IH-345 Inspection, Analysis, and Retrofit Design, Dallas, TX:** Project Manager for a fracture critical inspection of the 1.6-mile-long steel two-girder structure connecting I-35, I-45, and US 75 with local city streets, visual examination of substructure elements, and a visual and exploratory study of the PT deck. Oversaw instrumentation and load testing for finite element method model calibration and trial retrofit installations. Supervised the UT of plate girder butt welds.
03/15–012/15	**CTA Yellow Line Embankment Failure, Chicago, IL:** Project Manager responsible for the investigation of a braced excavation collapse that resulted in the failure of an adjacent earth embankment supporting an active mass transit rail line. Installed instrumentation to monitor potential rotations of bridge abutments at the end of the embankment in addition to the installation of embankment slope inclinometers to monitor for subsurface movements as restoration work progressed.

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.			
Name	Brian J. Santosuosso		Years of relevant experience with this employer	20
Title	Principal		Years of relevant experience with other employer(s)	n/a
Degree(s) / Years / Specialization			BS, 2001, Civil Engineering, Lehigh University MS, 2003, Civil Engineering, Lehigh University	
Active registration number / state / expiration date				
Year registered	2006	Discipline	SE IL, License No.: 081-006388/expires 11/2022	
Year registered	2014	Discipline	PE MS, License No.: 25345/expires 12/2022; also licensed PE in 4 other states	
			AWS Certified Welding Inspector	
			NBIS Certified Team Leader/Program Manager	
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges	
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)	
Contract role(s) / brief description of responsibilities			Mr. Santosuosso will serve as Quality Control and Quality Assurance Plan Manager as well as assist with the execution of instrumentation task orders.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
08/13–ongoing	**On-Call Bridge Inspections – Indiana:** Project Manager for various inspection and testing on complex bridges. Among the assignments have been rehabilitation design for steel welding, steel cracking, and grouted stay cable void problems; visual and NDE inspections; evaluation of design, inspection, serviceability, and construction problems; design and direction of counterweight adjustments and construction observation for rolling lift bascule bridge; special inspection including post-tensioning tendon grout void evaluation; special Inspection including NDE of steel cross frame connections for multi-girder curved weathering steel bridges; and special inspection including evaluation of cast-in-place post tensioned concrete pier cap beam and a unique application for high load multi-rotational bridge bearings.
05/21–10/21	**I-40 Hernando Desoto Bridge, Emergency Repairs - Memphis, TN:** Project Manager assisting contractor in the tie girder fracture repairs for the I-40 Bridge, which was closed due to a partial section fracture. Oversaw development of an emergency instrumentation plan and oversaw the plan's implementation, mobilizing personnel and equipment to have a working web-accessible system with over 25 sensors functional in a week. Assisted in the development of procedures necessary to remove the fractures for future fractographic study by WJE.
10/18–01/19	**Sunshine Bridge over the Mississippi River, St. James Parish, LA:** Project Engineer assisting with the development and implementation of a monitoring plan regarding the redistribution of loads during the installation of repairs to the truss bottom chord damaged by impact. The monitoring system was expanded to incorporate a remotely accessible jacking

	system. Participated in the design of the jacking system, review of member repair design, site observations, preparation of shop and jacking procedure drawings, field technical assistance, and chord jacking operations oversight.
03/15–06/17	**IH-345 Inspection, Analysis, and Retrofit Design, Dallas, TX**: Project Engineer for a fracture critical inspection of the 1.6-mile long steel structure connecting I-35, I-45, and US 75 with local city streets, visual examination of substructure elements, and a visual and exploratory study of the PT deck. Performed data acquisition system design, sensor selection, instrumentation program development, sensor layout, strain gage and displacement transducer installation, data acquisition system programming, system troubleshooting; data acquisition during live load testing, data reduction and reporting.
06/16–02/17	**Attenuating Bridge Deck Overlay Cracking, Structure 056-0016, Algonquin, IL:** Project Engineer assisting with sensor and data acquisition system selection and troubleshooting.
10/15–08/16	**BNSF Railroad Bridges at Hell Canyon Railroad Bridge and over Lake Pend Oreille - AZ and ID:** Project Manager to provide data acquisition system selection guidance, data reduction, and bridge reopening review.
5/11–12/15	**Transport of Long Pre-Stressed Concrete Girders - LA:** Project Engineer for the dynamic monitoring of two long prestressed girders during transport from the precast yard to their final installation at the bridge site. Participated in the development of instrumentation plans and performed field instrumentation to monitor dynamic strain and inertial motion, which provided acceleration and rotational orientation of girder with wireless communication. Evaluated data using dynamic 3D model with sensor mapping and interactive geolocation to correlate significant strain events with position and transport activity. Prepared report and presentation to the LADOTD and LTRC. Provided sensor and data acquisition system selection assistance, sensor installation, data acquisition system selection and programming, system troubleshooting, assistance with system communications via wi-fi and cellular networks, data reduction, and report writing
01/14 –11/14	**Cedar Street Bridge over the Illinois River - Peoria, IL:** Project Engineer responsible for providing data acquisition system programming and troubleshooting, data reduction, and report writing.
11/1–11/13	**Wells Street Bascule- Chicago, IL:** Project Manager overseeing the sensor layout design, installation of strain gages and span position sensors, installation of data acquisition components, span testing operations, data reduction, span imbalance calculations, and report writing.
02/12–01/13	**Martin Olav Sabo Pedestrian Bridge, Minneapolis, MN:** Project Manager responsible for designing a data acquisition and sensor system layout to aid in the investigation, installation of sensors, programming and installation of the data acquisition system for long term monitoring due to environmental loading, providing system troubleshooting, and data reduction.
10/11 –6/12	**I-20/55 Pearl River - Jackson, MS:** Project Engineer for strain gage installation, data acquisition system programming for live load testing, data acquisition, data reduction, and report writing for the first phase of the project.
07/09 –11/10	**West Jackson Boulevard Bascule - Chicago, IL**: Project manager responsible for designing the sensor layout, installing strain gages and span position sensors, installing data acquisition components, performing span testing operations, performing data reduction, completing span imbalance calculations, and writing report.

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.				
Name	Patrick J. Marra			Years of relevant experience with this employer	6
Title	Supervisor-Other			Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			BS, 2012, Civil Engineering, University of Delaware MS, 2013, Civil Engineering, University of Delaware		
Active registration number / state / expiration date					
Year registered	2019	Discipline	SE IL, License No.: 081-008336/expires 11/2022		
Year registered	2016	Discipline	PE MD, License No.: 50271/expires 2/2023; also licensed PE in 4 other states		
			NBIS Certified Team Leader/Program Manager		
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges		
			NHI 130055 - Safety Inspection of In-Service Bridges		
			ATSSA Traffic Control Technician Training		
			ATSSA Traffic Control Supervisor Training		
Contract role(s) / brief description of responsibilities			Mr. Marra will serve as Project Engineer providing assistance with NDE, specifically leading timber NDE, and assisting with instrumentation task orders.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/19 – ongoing	**Jefferson Barracks Bridge over the Mississippi River, Mehlville, MO:** Project Engineer for emergency repairs and subsequent rehabilitation repair design of the twin tied-arch structures and multi-girder approach spans. Following the discovery of a six-foot crack in the steel tie girder, performed an in-depth inspection of similar details, obtained material samples for laboratory testing, and coordinated emergency repairs. The main 910-ft long navigational span is a tied-arch structure with a steel box arch and a 12-foot deep steel I-shaped tie girder. Rehabilitation construction is ongoing.
07/19 –07/22	**Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA:** Project Engineer for the inspection of portions of the lift span contributing to reported operational issues, an in-depth inspection of the lift bridge machinery and electrical systems, and development of repairs to restore the bridge's long-term functionality and reliability. Assisted in the installation of instrumentation and monitoring equipment to evaluate the bridge's operations over an extended period. Assisted with development of plans and specifications to address emergency repairs including the installation of polyester polymer concrete lift span orthotropic deck overlay repairs, and improving the lift span seating by counterweight movements and air buffer repairs. Bridge monitoring is ongoing.
05/21–10/21	**I-40 Hernando Desoto Bridge, Emergency Repairs - Memphis, TN:** Project Engineer assisting contractor in the tie girder fracture repairs for the I-40 Bridge, which was closed due to a partial section fracture. Installed emergency instrumentation, mobilizing personnel and equipment to have a working web-accessible system with over 25 sensors functional in a week.

	Participated in the development of measurement and reporting procedures to be used during tensioning and de-tensioning of the temporary shoring system throughout the tie girder repairs.
08/18–12/20	**Timber Pile Testing –Northbrook, IL:** Project Engineer assisting with the experimental program funded by the Mississippi Department of Transportation to inspect and test deteriorated timber piles recovered from bridges in Mississippi and develop load rating procedures for timber bridge piles based on analysis of the test results.
02/19 – 07/19	**Lake Shore Drive Bridge over the Chicago River, Girder Fracture Investigation, Chicago, IL:** Project Engineer for the girder fracture investigation, bridge stabilization, and repair installation after a corner of the bridge deck dropped about 7 inches resulting in closure of the bridge. Assisted with temporary shoring and hydraulic jacking operations to restore the deck profile for traffic the next morning. Assisted with development of procedures for the removal of the two fractured girder ends, the collection and evaluation of section loss and crack growth measurements at the failed girders as well as at other similar girder ends throughout the structure. Assisted with the removal of samples for materials testing, the analysis of stresses in fracture regions, metallographic examination and fracture assessment, preparation of jacking procedures, jacking and repair installation of 76 girder ends, and preparation of an investigation report.
10/18 – 01/19	**Sunshine Bridge over the Mississippi River, St. James Parish, LA:** Project Engineer for the development and implementation of a monitoring plan to provide information about the redistribution of loads during the installation of repairs to the truss bottom chord damaged by impact. The monitoring system was expanded to incorporate a jacking system that was accessible remotely. Assisted with the design of the jacking system, review of member repair design, site observations, preparation of shop and jacking procedure drawings, field technical assistance, and chord jacking operations oversight.
08/18 – 07/19	**106th Street Bascule Bridge, Chicago, IL:** Project Engineer for an emergency repair of the racks and pinions of the west leaf of the 106th Street Bridge over the Calumet River. Work included visual examination, core sample extraction, laboratory analysis, and nondestructive testing to develop cost effective and constructible options to correct existing rack and pinion wear and misalignment.
05/17 – 10/17	**I-64 Sherman Minton Bridge over the Ohio River, New Albany, IN:** Project Engineer for the in-depth and fracture critical inspections of the tied arch truss bridge and approach span trusses, load rating of deteriorated members, and preparation of summary inspection report with recommendations. The truss spans have a total bridge length of 2,053 feet and support a double-deck roadway. The inspection was performed using a combination of lifts positioned on the bridge deck, an underbridge inspection vehicle, and industrial rope access techniques. The work was typically performed during non-peak hours to minimize the disruption to traffic. A comprehensive deck assessment was also included as part of the inspection work that included GPR, chain drag, overlay bond testing, and crack mapping.

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.			
Name	Steven L. Lauer		Years of relevant experience with this employer	11
Title	Supervisor-Other		Years of relevant experience with other employer(s)	
Degree(s) / Years / Specialization			BS, 2009, Civil Engineering, Purdue University MS, 2010, Civil Engineering, Purdue University	
Active registration number / state / expiration date				
Year registered	2016	Discipline	SE IL, License No.: 081-007838 / expires 11/30/2022	
Year registered	2015	Discipline	PE IL, License No.: 062-068057 / expires 11/30/2023; also PE in 2 other states	
			NBIS Certified Team Leader/Program Manager	
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges	
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)	
			Society of Professional Rope Technicians/ Level I	
			Transportation Worker Identification Credential (TWIC)	
			Indiana Bridge Load Rating Engineer, IN000551-2022-ATL-F-LRE	
Contract role(s) / brief description of responsibilities			Mr. Lauer will serve as Lead Instrumentation Engineer and will participate in NDE task orders.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/22–ongoing	**Iowa 92 Bridge over the Mississippi River, Muscatine, IA:** Project Manager responsible for strain gage instrumentation of the fracture critical T-1 steel girders. Instrumentation will remain in place to capture vehicular induced stress ranges and be used to determine stresses caused during load tests. for load testing.
02/22–ongoing	**Luling Bridge Deck Overlay Repair Consultation, St. Charles Parish, LA:** Project Engineer assisting with the development of a long-term monitoring system to evaluate the performance of the repairs to the orthotropic deck overlay system comprising an epoxy underlayment with a steel fiber reinforced concrete overlay on the cable-stayed spans.
01/21-ongoing	**Washington Ave Bridge over the Mississippi River, Minneapolis, MN:** Project Engineer responsible for finite element modeling of the bridge structure, load rating, and the design and installation of the instrumentation system capable of recording strain, displacement, rotation, and temperature. Various scan rates record structure behavior during daily and long-term thermal cycles and live load events. The double-deck bridge has a pedestrian level, and the vehicular level was retrofitted to include light rail transit by adding trusses between the original girders and now has bearing seat distress.
08/21-ongoing	**Blackhawk Bridge carrying Iowa 9 over the Mississippi River, Lansing, IA:** Project Manager responsible for the wireless pier monitoring instrumentation system. Data is remotely accessed and presented on a website for the owner. This work

	followed inspections that included ultrasonic testing (UT) of pins for the three truss spans and approach spans. An inspection report and repair recommendations were developed.
07/19–07/22	**Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA:** Project Engineer assisting in the development of a unique monitoring and sensor installation plan, the installation of instrumentation and monitoring equipment, and the creation of a web-accessible reporting platform to evaluate the bridge's operations over time. The monitoring was designed to assess bridge span lift operations and included laser distance devices, linear potentiometers, strain gages, temperature measurements, ultrasonic distance measurements, and Wi-Fi cameras.
06/21-04/22	**SR 62 over Pigeon Creek, Evansville, IN:** Project Engineer responsible for bearing pad inspection and corresponding instrumentation system designed to aid in determining the cause of walking elastomeric bearings.
10/19–11/21	**Sherman Minton Bridge - I-64 over the Ohio River, New Albany, IN:** Project Engineer for instrumentation and monitoring, crack arrest hole retrofit installation, and Team Leader of fracture critical and routine inspections of truss members using rope-access and structure climbing techniques of the double-deck bridge having tied arch trusses as the main spans and an approach span combination of deck/through trusses.
05/21–10/21	**I-40 Hernando Desoto Bridge, Emergency Repairs, Memphis, TN:** Project Engineer assisting the contractor in the tie girder fracture repairs for the I-40 Bridge, which was closed due to a partial section fracture. Installed emergency instrumentation utilizing rope-access techniques, mobilizing personnel and equipment to have a working web-accessible system with over 25 sensors functional in a week. Participated in the development of measurement and reporting procedures to be used during tensioning and de-tensioning of the temporary jacking system used for the tie girder repairs.
06/21	**I-294 under St. Charles Road, Berkley, IL:** Project Manager for the evaluation of steel multi-beam structure directly exposed to vehicular fire to determine its fitness to return to service. Performed limited inspection, field hardness testing, and steel core extraction for benchtop hardness testing at WJE's Northbrook, IL laboratory and unilateral static tensile tests.
10/18–01/19	**Sunshine Bridge over the Mississippi River, St. James Parish, LA:** Project Engineer for the development and implementation of monitoring plan to provide redistribution of loads information during installation of repairs to the truss bottom compression chord damaged by impact. Assisted with jacking system design, member repair design review, site observations, shop and jacking procedure drawings preparation, field technical assistance, and chord jacking oversight.
08/16-08/17	**Michigan Avenue Bascule Bridge over the Chicago River, Chicago, IL:** Project Manager for construction project balance calculations and dynamic strain gage balance testing of this double deck, quadruple-leaf, bascule truss bridge with single-unit, side-by-side leaf pairs.
05/11–12/15	**Transport of Long Prestressed Concrete Girders, LA:** Project Engineer for the dynamic monitoring of two long prestressed girders during transport from the precast yard to their final installation at the bridge site. Performed field instrumentation to monitor dynamic strain and inertial motion, which provided acceleration and rotational orientation of the girder with wireless communication. Evaluated data using dynamic 3D model with sensor mapping and interactive geolocation to correlate significant strain events with position and transport activity. Assisted in preparation of report to LADOTD and LTRC. Monitoring included wireless data collection from video, strain gages, thermocouples and gyroscopes.

16. **Staff Experience:**

Firm employed by	Wiss, Janney, Elstner Associates, Inc.			
Name	Richard E. Lindenberg		Years of relevant experience with this employer	20
Title	Supervisor-Other		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			BS, 1995, Civil Engineering, Structures, Georgia Institute of Technology MS, 2005, Structural Engineering, University of Illinois	
Active registration number / state / expiration date				
Year registered	2006	Discipline	SE IL, License No.: 081-006444/expires 11/2022	
Year registered	2016	Discipline	PE MD, License No.: 48156/expires 12/2023; also licensed PE in 3 other states	
			NHI 130055 - Safety Inspection of In-Service Bridges	
Contract role(s) / brief description of responsibilities			Mr. Lindenberg will serve as Lead Data Analytics Engineer and will assess instrumentation needs and lead the development of instrumentation plans, including the development of data acquisition and communication solutions.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
07/19–07/22	**Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA:** Project Engineer for the inspection of portions of the lift span contributing to reported operational issues, an in-depth inspection of the lift bridge machinery and electrical systems, and development of repairs to restore the bridge's long-term functionality and reliability. Assisted in the development of a unique monitoring and sensor installation plan, the installation of instrumentation and monitoring equipment, and led the creation of a web-accessible reporting platform to evaluate the bridge's operations over an extended period. Responsible for installation, monitoring, and maintenance of instrumentation equipment.
05/21–10/21	**I-40 Hernando Desoto Bridge, Emergency Repairs - Memphis, TN:** Project Engineer assisting contractor in the tie girder fracture repairs for the I-40 Bridge, which was closed due to a partial section fracture. Participated in the plan's implementation, mobilizing personnel and equipment to have a working web-accessible system with over 25 sensors functional in a week. Developed web-based reporting system. Participated in the development of measurement and reporting procedures to be used during tensioning and de-tensioning of the temporary shoring system throughout the tie girder repairs.
10/18–01/19	**Sunshine Bridge over the Mississippi River, St. James Parish, LA:** Project Engineer for the development and implementation of a monitoring plan to provide information about the redistribution of loads during the installation of repairs to the truss bottom chord damaged by impact. The monitoring system was expanded to incorporate a jacking system that was accessible remotely. Work included design of field instrumentation system and website, field technical

	assistance, chord jacking operations oversight, and instrumentation installation and monitoring of truss members and jacks during jacking and chord replacement.
05/11–12/15	**Transport of Long Prestressed Concrete Girders, LA:** Co-Investigator for the dynamic monitoring of two long prestressed girders during transport from the precast yard to their final installation at the bridge site. Assisted with the development of instrumentation plans and performed field instrumentation to monitor dynamic strain and inertial motion, which provided acceleration and rotational orientation of girder with wireless communication. Oversaw the evaluation of data using dynamic 3D model with sensor mapping and interactive geolocation to correlate significant strain events with position and transport activity. Oversaw the preparation of the report and presentation to the LADOTD and LTRC.
01/14–06/17	**I-43 Leo Frigo Bridge, Green Bay, WI:** As Project Engineer, oversaw, assessed, developed, and installed multiple life-safety dynamic acceleration and tilt monitoring systems on multiple piers within 36 hours of notification of sudden settlement of interstate. The remotely programmable system consisted of energy harvesting solar panels, audible alert in field, as well as digital notification systems.
03/15–06/17	**IH-345 Inspection, Analysis, and Retrofit Design, Dallas, TX:** Project Engineer for a fracture critical inspection of the 1.6-mile long steel structure connecting I-35, I-45, and US 75 with local city streets, visual examination of substructure elements, and a visual and exploratory study of the PT deck. Responsible for the instrumentation and field load testing for finite element method model calibration and trial retrofit installations. Developed instrumentation plans and performed installation of rapid mounted wireless strain and remote video monitoring system for the collection of structural response of bridges for multiple FEM model calibration studies. Performed the installation of twelve different bridge units to monitor dynamic strain at over six girder cross sections for each set-up. Installed over 200 strain gages and performed over 100 rolling load tests on a major interstate in downtown Dallas.
04/14–04/15	**Cedar Street, Peoria, IL**: Project Engineer responsible for the development and strain instrumentation installation of spatially distributed wireless instrumentation on a steel truss bridge to collect response of live load distribution during load testing.
01/14–06/18	**OKDOT Concrete Girder Cracking, OK:** Project Engineer for the development of a dynamic strain instrumentation plan based on the initial finite element method (FEM) modeling of end support cracking. Programmed wired strain monitoring system to collect dynamic strain response data during strand release. Researched and guided calibration of instrumentation initial finite element model utilizing nonlinear concrete Abaqus FEM model.
02/12–03/13	**Martin Olav Sabo Pedestrian Bridge, Minneapolis, MN:** Project Engineer providing development support and prototype testing of cable vibration monitoring instrumentation to monitor stay cable vibrations as part of an investigation into the failure of a stay cable connection.

16. Staff Experience:

Firm employed by Wiss, Janney, Elstner Associates, Inc.					
Name	Mohamed K. ElBatanouny		Years of relevant experience with this employer	7	
Title	Supervisor-Other		Years of relevant experience with other employer(s)	5	
Degree(s) / Years / Specialization			BS, 2008, Civil Engineering, Helwan University MS, 2010, Civil Engineering, University of South Carolina PhD, 2012, Civil Engineering, University of South Carolina		
Active registration number / state / expiration date					
Year registered	2018	Discipline	SE IL, License No.: 081.008166/expires 11/2022		
Year registered	2018	Discipline	PE IA, License No. P24910/expires 12/2023		
Year registered	2020	Discipline	PE UT, License No. 11805073-2202/expires 3/2023		
Year registered	2021	Discipline	PE WI, License No. 48217 - 6/expires 7/2024		
Contract role(s) / brief description of responsibilities			Dr. ElBatanouny will lead the NDT/E of bridge decks. He will also serve as an Instrumentation Engineer for structural monitoring task orders.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
04/19-ongoing	**Performance Evaluation of Polyester Polymer Concrete Overlays, IowaDOT, various locations:** Project Manager responsible for inspection and condition documentation of bridge decks to detect deficiency location/size (delamination and voids), rebar cover, and corrosion potential. Applied NDT/E technologies such as visual inspection, GPR, half-cell potential, impact echo, sounding, and material testing. The project included construction support, construction documentation, and acceptance testing (rebound hammer and pull-off testing) during installation of the first polyester polymer overlays on Iowa bridges. Follow-up inspections, every 2 years, and service life analysis are also being completed.
04/22-ongoing	**Tilt Monitoring of Scour Critical Bridge Piers Montana DOT, Hamilton, MT:** Project Supervisor/Engineer responsible for design and installation of wireless tilt monitoring system for scour critical bridge piers.
01/21–ongoing	**Condition Assessment of Approach Slabs, South Dakota DOT, various location:** Project Manager responsible for inspection and condition documentation of 15 bridge approach slabs using visual inspection, GPR, and elevation surveys. Also included is an assessment of differential settlement at the approach slabs.
03/21–ongoing	**Luling Bridge Deck Overlay Repair Consultation, St. Charles Parish, LA**: Project Engineer responsible for providing quality control assistance for the repair of an orthotropic deck overlay system comprising and epoxy underlayment with a FRP overlay on the cable-stayed spans. Developed and installed a long-term monitoring system, including strain and temperature measurements, to evaluate the performance of the overlay repairs.
07/19–07/22	**Danziger Lift Span Bridge, US 90, over the Industrial Canal, New Orleans, LA:** Project Engineer assisting in the development of a unique monitoring and sensor installation plan, the installation of instrumentation and monitoring

	equipment, and the creation of a web-accessible reporting platform to evaluate the bridge's operations over time. The monitoring was designed to assess bridge span lift operations and included laser distance devices, linear potentiometers, temperature measurements, ultrasonic distance measurements, WiFi cameras, tilt, wind speed, acceleration/vibration, and GPS-based displacement measurements. Assisted with the development of specifications and construction oversight for the installation of polyester polymer concrete lift span orthotropic deck overlay repairs.
06/21 – 08/21	**Nondestructive Evaluation of Industrial Equipment Foundation, Indiana, multiple facilities:** Project Manager responsible for inspection and condition documentation of industrial equipment foundations to detect voiding condition using NDT methods including ultrasonic pulse velocity (UPV) and ultrasonic shear-wave tomography.
09/16 –12/21	**James K. Polk Building, Nashville, TN**: Project Manager responsible for the long-term acoustic emission and vibration monitoring of post-tension roof structural system.
05/18–10/20	**Ship Channel Bridge, Houston, TX**: Project Engineer responsible for design of a remote monitoring system to monitor girder movement in existing bridge.
12/18–02/19	**Chicago Public School District, Chicago, IL:** Project Engineer participating in the structural condition assessment; instrumentation and load testing of reinforced concrete roofs (several schools, date for one load test is included).
10/18–01/19	**Sunshine Bridge, St. James Parish, LA:** Project Engineer assisted in the development and implementation of a monitoring plan to provide information regarding redistribution of loads during the installation of repairs to the truss bottom compression chord damaged by impact. Assisted with field technical assistance and chord jacking operations oversight.
05/18–09/18	**High-Rise Building, Chicago, IL:** Project Engineer completing the condition assessment of post-tensioned slabs and concrete façade using multiple NDT techniques including GPR, rebound hammer, ultrasonic pulse velocity (UPV) and ultrasonic shear-wave tomography to detect voiding conditions within the concrete slabs.
03/15–06/17	**IH-345 Inspection, Analysis, and Retrofit Design, Dallas, TX:** Project Engineer for instrumentation, field load testing (for finite element model calibration), and trial retrofit installations of a 1.6-mile-long steel structure connecting I-35, I-45, and US 75 with local city streets. Instrumented bridge units using wireless instrumentation, reusable strain transducers, and string pots. Oversaw rolling load tests to collect in-plane live load and fatigue response stringer and girder cross section.
04/16–10/16	**TTC Steeles West Subway Station, Ontario, Canada:** Project Engineer performing condition assessment of subway concrete walls using GPR, impulse response (cross-sectional stiffness), and ultrasonic shear-wave tomography.
05/15–12/15	**CTA Yellow Line Embankment Investigation, Skokie, IL**: Project Engineer responsible for installing emergency tilt monitoring of temporary slope protection system after sudden collapse of an earthen embankment below an active mass transit rail line. Assisted in installing an in-place inclinometer system to monitor movement of soil (slope stability).
05/11–12/15	**Transport of Long Prestressed Concrete Girders, LA:** Project Engineer for the dynamic monitoring of two long prestressed girders during transport from the precast yard to their final installation at the bridge site. Worked on data evaluation of collected dynamic strain and inertial motion data. Evaluated data using dynamic 3D model with sensor mapping and interactive geolocation to correlate significant strain events with position and transport activity.

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.				
Name	Nathaniel S. Rende			Years of relevant experience with this employer	18
Title	Supervisor-Other			Years of relevant experience with other employer(s)	N/A
Degree(s) / Years / Specialization			BS, 2004, Civil Engineering, University of Illinois, Urbana-Champaign MS, 2005, Structural Engineering, University of Illinois, Urbana-Champaign		
Active registration number / state / expiration date					
Year registered	2012	Discipline	SE IL, License No.: 081-007243 / expires 11/2022		
Year registered	2014	Discipline	PE IA, License No.: 22184 / expires 12/2023		
Year registered	2016	Discipline	PE MO, License No. 2016022884 /expires 12/2022		
Year registered	2020	Discipline	PE FL, License No. 89268 / expires 2/2023		
Contract role(s) / brief description of responsibilities			Mr. Rende will serve as Lead Concrete NDT/E Engineer for structural concrete elements and lead the NDT QA/QC program. Mr. Rende is experienced in the use of GPR, ultrasonic methods (UPV, impact-echo, shearwave tomography), impulse-response, infrared thermography, steel UT, corrosion potential, and structural instrumentation and monitoring.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/11–ongoing	**Prequalified monitoring consultant for Iowa DOT:** Completed over 60 projects involving the development and implementation of instrumentation/monitoring plans designed to protect buildings, culverts, sewers, and bridges adjacent to major bridge and road demolition and reconstruction projects. Instrumentation includes vibration, displacement, strain, subsurface displacement (inclinometer), and tilt monitoring. Provided blast demolition consulting services, including vibration attenuation analysis, on several recent projects, including the upcoming I-74 Mississippi River Bridge demolition.
03/20–ongoing	**O'Hare Airport United Baggage Handling Post-Tensioned Roof Structure, Chicago, IL:** Project Manager for the evaluation of a post-tensioned (PT) roof structure supporting aircraft loading of active taxiway and gate areas. The evaluation consisted of visual inspection; non-destructive testing to determine as-built reinforcing and PT system details using ground-penetrating radar; grout void detection using shearwave tomography (MIRA); corrosion evaluation using half-cell potential mapping; inspection openings of bonded and grouted PT systems; and material sampling and laboratory testing. Evaluated equivalent in-situ compressive strength of concrete columns using ultrasonic pulse velocity (UPV), core sampling and statistical analysis of compressive strength test results per ACI 214. Condition evaluation data being used to analyze the roof structure per both building and bridge codes and to design retrofit repairs for increased aircraft loading.
02/18–11/18	**Completed research project for Iowa DOT titled Performance Evaluation of Recent Improvements of Bridge Abutments and Approach Backfill:** This research evaluated the effectiveness of the current approach to slab design

	standards in mitigating deterioration and settlement of bridge approaches. Fieldwork consisted of visual condition assessment of approach slabs and abutments and investigation of approach slab settlement using nondestructive testing and surveying methods. Voiding beneath approach slab systems and as-built reinforcing were evaluated using GPR. Recommended improvements to bridge approach design and construction to prevent observed deterioration mechanisms.
03/18–10/18	**Henry Hudson Bridge Deck Assessment, New York, NY:** Project Manager for field investigation of upper level composite deck system (stay-in-place steel forms with steel grid and concrete overfill). The evaluation included visual assessment; material sampling for laboratory testing (chloride profile determination, carbonation, and petrographic evaluation); ground-penetrating radar testing to map reinforcing cover depths and concrete thicknesses; and half-cell corrosion potential mapping. Developed conceptual repair options to extend the deck service life and reduce future maintenance.
09/17–04/18	**Bridge Condition Assessment for I-10: LA 415 to Essen (LaDOTD Task Order H.004100.2-1, PO No. 2-306790):** Led field and laboratory efforts involving nondestructive testing using eddy-current-based covermeters and GPR, concrete core sampling, and petrographic evaluation and laboratory testing of concrete samples to identify potential long-term degradation issues.
10/17–12/17	**Materials Testing for LADOTD Bridges, Port Allen and Baton Rouge, LA:** Project Engineer for materials testing of forty-five concrete cores from the substructure elements of select bridges along I-10 in Port Allen and Baton Rouge, LA for testing and petrographic evaluation.
01/16–07/16	**Ramp Structures A and D of I-55/64 Poplar Street Complex, East St. Louis, IL:** Completed condition assessment of structures, which include 16 framing units consisting of two, three, four, and five span, two-girder systems and single span, multi-girder systems. Inspection and analysis of the deck, superstructure, and substructure of the structures were performed. Performed concrete assessment, corrosion testing, and ground-penetrating radar testing of deck and substructure elements. Performed reflective ultrasonic testing of deck elements using impact-echo and ultrasonic tomography to determine accurate thicknesses for design of bridge expansion finger joint systems.
05/13–07/14	**Slip Formed Bridge Parapet Research and Design Improvements, Various locations, IA and IL:** Completed research study on the applicability of using NDT methods for the assessment of construction-related defects and corrosion of doweled connections within slip formed bridge parapets for the Iowa and Illinois Departments of Transportation. Recommended methods and testing procedures for use during quality assurance and acceptance processes during construction and for future parapet condition surveys. WJE developed testing procedures and performed trial-testing of slip formed and cast-in-place barriers on several in-service bridges and barriers. Led the research and laboratory and field testing specific to evaluation of the applicable NDT methods that included infrared thermography, impact echo, GPR, and shearwave tomography.

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.			
Name	Curtis J. Schroeder		Years of relevant experience with this employer	3
Title	Engineer-Other		Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization			BS, 2009, Civil Engineering, Michigan Technological University MS, 2011, Civil Engineering, Purdue University PhD, 2018, Civil Engineering, Purdue University	
Active registration number / state / expiration date				
Year registered	2021	Discipline	SE IL, License No.: 081.008638 / expires 11/2022	
Year registered	2015	Discipline	PE WI, License No.: 44013 / expires 7/2024; also licensed PE in 2 other states	
			NHI 130078 - Fracture Critical Inspection Techniques of Steel Bridges	
			NHI 130055 - Safety Inspection of In-Service Bridges (& Refresher 130053)	
			AWS Certified Welding Inspector	
			NDT Ultrasonic Technician - Level II	
			NDT Magnetic Particle Testing - Level II	
Contract role(s) / brief description of responsibilities			Dr. Schroeder will serve as Lead Steel NDT/E Engineer for structural steel elements with a focus on UT, phased array UT (PAUT), and MT.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/21–ongoing 06/19–07/20	**Purdue-Fort Wayne Pedestrian Bridge, Fort Wayne, IN:** Project Engineer assisting with UT and PAUT inspection of CJP welds, review of repair design calculations, load rating, and visual, MT, and UT inspection of repairs for this cable stay bridge.
01/21–ongoing	**Chicago Skyway Bridge, Chicago, IL:** Project Engineer assisting with visual inspection and load rating of primary members and gusset plates on steel deck truss bridge and steel piers.
11/21–02/22	**Susquehanna River Railroad Bridge, Havre de Grace, MD:** Project Engineer assisting with UT and PAUT inspection of 45 pinned connections of deck truss railroad bridge with known defect indications.
05/21–01/22	**SR 66 over I-64, Carefree, IN:** Team leader for special inspection of bridge containing 18 pinned hinge connections, including visual inspection, ultrasonic testing (UT), and magnetic particle testing (MT). Assisted with development and implementation of repairs for cracked pin plate fillet welds.
09/21–12/21	**Water Street Bridge, Pittston, PA:** Project Engineer for the UT of ten transfer pins in steel through-truss bridge.
08/21–10/21	**Black Hawk Bridge, Lansing, IA:** Project Engineer responsible for UT and PAUT of 21 pinned connections in a steel through truss and suspended spans. Assisted with fracture critical inspection of steel through-truss spans.

07/21–08/21	**Hernando de Soto Bridge, Memphis, TN:** Project Engineer for the fracture investigation of a tie girder fabricated using T-1 steel in one of two tied arches. Performed UT, PAUT, and wet fluorescent MT of removed fracture specimen and steel cores. Performed QA verification of PAUT inspection procedure and developed additional inspection protocols to further characterize hydrogen assisted cracks.
03/21–08/21 05/19–09/19	**Jefferson Barracks Bridge, St. Louis, MO:** Project Engineer for the fracture critical inspection of the twin tied-arch bridges over the Mississippi River. Performed PAUT and MT inspection of tie girder welds during emergency repair work to estimate extent and size of cracking. Performed inspection of welded repairs as a certified welding inspector (CWI), assisted with follow-up MT inspection of tie girder welds, and reviewed weld repair design for rehabilitation project.
05/21–08/21 09/19–11/19	**Burlington-Bristol Bridge Sheave Inspections, Burlington, NJ:** Project Engineer performing PAUT of surface indications on thrust face of vertical lift bridge cast sheave and wet fluorescent MT inspection of cast sheaves. Assisted with development of repair recommendations.
04/21–06/21	**Hawthorne Bridge, Portland, OR:** Project Engineer assisting with UT and wet fluorescent MT inspection of vertical lift bridge trunnions, including through-bore examinations.
01/21–05/21	**US 136 over Wabash River, Covington, IN:** Team Leader for special inspection of a post-tensioned, concrete trapezoidal box girder bridge that included visual inspection of epoxy-injected cracks in the web wall, ground penetrating radar (GPR) inspection to locate vertical shear reinforcement, and concrete core removal for testing of concrete strength.
01/21–04/21	**Franklin Street Bridge, Michigan City, IN:** Project Engineer assisting with the development of tread casting crack repairs and performing visual and MT inspection of field-welded repairs.
09/20–01/21	**North Dakota DOT Pin and Link Inspections, ND:** Project Manager for PAUT of 344 bridge pins on 17 bridges with both pin and hanger and pinned hinge connections.
10/20–11/20	**Eagle's Nest Bridge, Hebron, ND:** Project Manager for repair of cracked pin plates at bridge pinned hinges. Developed weld repair solution and performed MT and CWI inspection of welded repairs.
08/20–11/20	**Charles Berry Bridge, Lorain, OH:** Project Engineer assisting with UT inspection of bascule bridge trunnions, including through-bore examinations.
04/20–06/20	**US 6 over SR 331, Bremen, IN:** Team Leader for special inspection of bridge containing 14 pinned hinge connections, including visual inspection, UT, and MT. Assisted with development of repair recommendations for cracked pin plate fillet welds.
05/19–08/19 01/17–03/17	**Delaware River Bridge, Bristol, PA:** Project Engineer to develop PAUT inspection plan to locate weld-filled holes in truss members within a gusset plate connection. Assisted with PAUT technician performance testing. (2017) Project Engineer to develop UT inspection plan to locate weld-filled holes in truss members. Assisted with investigation of bridge member fracture.

16. Staff Experience:

Firm employed by Wiss, Janney, Elstner Associates, Inc.			
Name	Robert D. Gessel	Years of relevant experience with this employer	35
Title	Senior-Technician	Years of relevant experience with other employer(s)	9

Degree(s) / Years / Specialization	
Active registration number / state / expiration date	
Year registered / Discipline	**ASNT NDT Level III Inspector, MT, UT**/expires 11/2026
	AWS Certified Welding Inspector/expires 6/2025
	AWS Certified Radiographic Interpreter/expires 5/2025
	Certified Concrete Technologist
	Safety Inspection/In-Service Bridges (NHI 130055) (& Refresher 130053)
	Fracture Critical Insp/Steel Bridges (NHI 130078)
Contract role(s) / brief description of responsibilities	Mr. Gessel will serve as Lead UT/MT Technician for inspections and investigations requiring nondestructive testing.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/17–9/18 & 11/21–02/22	**WMATA Aerial Structures, Falls Church, VA:** Lead Nondestructive Testing Technician for UT examinations of anchor rods and MT inspections of in-service welds.
11/21–2/22	**Susquehanna River Bridge, Perryville/Havre deGrace, MD:** PAUT and conventional ultrasonic evaluation of selected transfer-pins in 115 year old truss supported structure
04/21 – 06/21	**Indiana DOT SR 66 Bridge over I-64, Carefree, IN:** Lead Nondestructive Testing Technician for pinned hinge joints in the bridge. Included MT and visual examinations of welded pin plates, and UT examinations of transfer pins.
04/21 – 06/21	**Hawthorne Bridge Sheave Trunnion Examination, Portland, OR**: Project Manager for examinations of sheave trunnions in a vertical lift bridge after cracks in several trunnion journals were reported by others. Assessments were based on wet fluorescent magnetic particle and ultrasonic examinations, including thru-bore scans of critical regions.
03/21 – 06/21	**Hood River Bridge Sheave Trunnion Examination, Hood River, OR**: Lead Nondestructive Testing Technician for UT and MT inspections for retrofit of trunnions in vertical lift bridge. for examinations of sheave trunnions in a vertical lift bridge after cracks in several trunnion journals were reported by others. Assessments were based on wet fluorescent magnetic particle and ultrasonic examinations, including thru-bore scans of critical regions.
05/19 – 6/21	**Burlington Bristol Bridge Sheave Examinations, Burlington, NJ, Bristol, PA**: Lead Nondestructive Testing Technician for MT inspections of the rope track in sheaves of the vertical lift bridge.

04/19–12/19	**Jefferson Barracks Bridge over the Mississippi River, Mehlville, MO:** Following the discovery of a six-foot crack in a steel tie girder, performed MT and UT to define the length and depth of cracks. Oversaw field welding during the emergency repairs. The main span is a tied-arch structure with steel box arch and 12-foot deep steel I-shaped tie girder.
05/19 – 08/19	**Whirlpool Rapids Bridge, Niagara Falls, ON:** Project Manager for the inspection of pinned truss connections using conventional and phased array ultrasonic testing to investigate ultrasonic indications in select pins. The bridge was constructed in 1897 as a railroad bridge with a lower deck for non-rail traffic. The bridge spans the Niagara River between Niagara Falls, New York and Niagara Falls, Ontario. Nine of the transfer pins in side-span trusses were examined after indications produced in ultrasonic examinations by another firm exceeded an established threshold of the test procedure. Evaluations of the pins were based on studies of the ultrasonic response and visual inspections of the connections.
02/19 – 07/19	**Lake Shore Drive Bridge over the Chicago River, Chicago, IL:** Lead Nondestructive Testing Technician for girder fracture investigation that included stabilization and repair installation after the southeast corner of the bridge deck dropped approximately 7 inches resulting in closure of the bridge. Lead the collection of ultrasonic thickness measurements for similar girder ends to determine remaining cross sections.
08/17 – 12/18	**Complex and Timber Bridges, MS**: Bridge inspection Team Leader responsible for multiple fracture critical bridge inspections and report preparations. The structures include multi-girder steel bridges with steel, concrete, or timber decks; multi-girder precast concrete with concrete decks; concrete slab bridges, and complex steel structures including pony trusses, steel girder and floor beam, and railroad flat car bridges.
11/17 – 06/18	**I-20 Valley Street Bridge, Jackson, MS:** CWI responsible for weld repair inspection and nondestructive testing during the fatigue repairs of curved parallel structures with the eastbound structure consisting of 17 spans for a total length of 1,110 feet and a westbound structure containing 20 spans for a total length of 1,285 feet.
11/14 – 01/18	**Burlington Bristol Bridge Trunnion Examination and Retrofit, Burlington, NJ, Bristol, PA**: Lead Nondestructive Testing Technician for UT and MT inspections for retrofit of trunnions in vertical lift bridge. Grinding and polishing operations completed within the fillet region of eight trunnion journals for the bridge eliminated all trunnion cracks, as well as many potential stress risers.
10/17–12/17	**Materials Testing for LADOTD Bridges, Metairie, LA:** Technician responsible for the removal of steel samples from the Causeway Boulevard Bridge over Earhart Expressway in Metairie, LA, to determine material strength properties and chemical composition.
03/17 – 12/17	**Iowa 136 Bridges over the Mississippi River, Clinton, IA:** Bridge inspector for routine, in-depth, element-level, fracture critical, and UT of pins for the three truss spans and approach spans.
05/17 – 10/17	**I-64 Sherman Minton Bridge over the Ohio River, New Albany, IN:** Bridge inspector for fracture critical inspection of tied arch truss bridge and approach span trusses. The truss spans have a total bridge length of 2,053 feet and support a double-deck roadway. The work was typically performed during non-peak hours to minimize the disruption to traffic. A comprehensive deck assessment was also included as part of the inspection work.

16. Staff Experience:

Firm employed by	Wiss, Janney, Elstner Associates, Inc.		
Name	Robert W. Warke	Years of relevant experience with this employer	5
Title	SUPERVISOR-OTHER (METALLURGIST, WELDING ENGINEER)	Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization		BS, 1986, Welding Engineering, LeTourneau University MS, 1994, Metallurgical and Materials Engineering, Illinois Institute of Technology	
Active registration number / state / expiration date			
Year registered	7/27/2016 Discipline	PE 97710 / TX / 6/30/2023	
Contract role(s) / brief description of responsibilities		Mr. Warke will serve as Welding Engineer overseeing issues associated with installed welds, metallurgical examinations, and development of weld repair procedures.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
11/21–present	**Confidential Client, Bridge in New England Region of US:** Managing ongoing project to deliver both remote and on-site welding and metallurgical engineering support to the fabricator of a tub-girder bridge exhibiting weld-related cracking. Providing SME-level root cause analysis, code interpretation, technical support for development of crack repair and post-weld tempering procedures, and review/critique of state DOT experts' opinions.
10/20–present	**Stantec, CTA Red and Purple Modernization Program, Chicago, IL:** Ongoing project delivering technical support to ensure construction quality for station replacement and capacity expansion of elevated commuter rail system. Role as SME is to review and approve all welding-related construction submittals for code conformance, including welding procedure specifications, welding procedure qualification records, and welder performance qualification records.
05/21–10/21	**Michael Baker International, Tennessee DOT, I-40 Hernando Desoto Bridge, Memphis, TN:** Overall project to determine cause and time sequence of weld-related fracture in tie girder. Bridge closure required rapid-response investigation and oversight of inspection and repair/reinforcement. As SME role was to determine mechanism and cause of failure and subcritical cracking found in other girder connections, coordinate metallurgical evaluation and mechanical testing, and contribute to written report.
04/19–02/20	**Honolulu Authority for Rapid Transportation, Commuter Rail Station Canopy Structure, Honolulu, HI:** Overall project was to investigate cause of weld-related cracking in structural members after hot-dip galvanizing, and to support remediation process. Role as SME was to assist in determining mechanism(s) and cause(s) of cracking; provide on-site metallurgical and welding engineering/QA support; develop detailed procedure for and supervision of weld repairs; and contribute to written report.

05/19–09/19	**Missouri DOT, I-255, Jefferson Barracks Bridge, Mehlville, MO:** Original project was to perform fracture-critical inspection of bridge. Detection of weld-related cracking at tie girder to arch connections required bridge closure, rapid-response investigation, and repair. Role as SME was to determine mechanism(s) and cause(s) of cracking, coordinate metallurgical evaluation and mechanical testing, provide detailed procedure for weld repair, and contribute to written report.
02/19–07/19	**Chicago DOT, Lake Shore Drive Bridge, Chicago, IL:** Project was to investigate cause and time sequence of girder failure, inspect adjacent girders, design, and monitor repairs. Role as SME was to determine mechanism and cause of failure, coordinate metallurgical evaluation and mechanical testing, interface with structural stress and fracture mechanics analyses, and contribute to written report.

16. Staff Experience:

Firm employed by FORTE & TABLADA				
Name	Russell J. "Joey" Coco, Jr., P.E., MBA		Years of relevant experience with this employer	9
Title	President/CEO		Years of relevant experience with other employer(s)	13
Degree(s) / Years / Specialization			BSCE, 2000, Civil Engineering;; MBA, 2006, Business Administration Coastal Engineering Certificate, 2008, Old Dominion University	
Active registration number / state / expiration date			31337 / LA / 09/30/2022	
Year registered	2004	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Coco will serve as Principal-in-Charge and as a registered civil engineer, will ensure that QA/QC procedures are followed and that the task order is delivered per the contract requirements.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/19-09/19	**H.000303.6-Danziger Bridge Rehabilitation -Orleans Parish, LA:** Principal overseeing survey investigation of Danziger Bridge. Included laser scanning and comparison of actual conditions to original plans.
10/18-12/18	**400010587-Sunshine Bridge Repair-St. James Parish, LA-LADOTD:** Principal overseeing topographic surveying and terrestrial LIDAR services for the LA DOTD Sunshine Bridge Emergency Repair project following the severe impact of a barge mounted crane with the lowest horizontal bridge chord.
11/19-11/20	**S.P. No. H.012083.5-Calcasieu River Bridge Investigation-Calcasieu Parish, LA-LADOTD:** Principal overseeing laser scanning services for the I-10/Lake Calcasieu bridge in Lake Charles, LA.
05/17-10/17	**S.P. No. H.013052-LA 442 Tangipahoa River Bridge Replacement-Tangipahoa Parish, LA-LADOTD:** Principal overseeing topographic surveying for the LA 442 bridge over the Tangipahoa River. The survey included numerous cross-section surveys upstream and downstream of the bridge, as well as the along the bridge fascia. The work was performed utilizing shallow, flat-bottomed boats as a result of the shallow and sandy river bottom and was provided to engineers for the purpose of hydraulic analysis and bridge preservation and replacement considerations.
08/19-1/20	**H.011670-I-10/Loyola Interchange Improvements -Kenner, LA:** Principal-in-Charge overseeing Topographic Survey, Right-of- Way Survey, and Drainage Survey. The project stretches from the levee in Kenner to the Williams Blvd. off ramp, as well as Loyola Avenue and portions of Veterans Blvd.
11/18-04/19	**H.011684.5-LA 327 Spur: Staring Lane Extension –East Baton Rouge Parish:** Principal-in-Charge for comprehensive topographic surveying services and developing a drainage map for the Staring Lane Extension project for LA DOTD. Included in this work was a survey performed utilizing traditional methods and terrestrial laser scanning of roadway surfaces.

09/17-12/19	**S.P. No. H.011808.5- Palmetto Co. Canal Bridge - St. Landry Parish, LA:** Principal-in-Charge to provide property surveys, title take-offs, and right-of-way map services for the removal and replacement of a timber trestle bridge that spans Bayou Des Glaises, located along La. Hwy. 10 in St. Landry Parish near the town of Palmetto, La.
06/18-12/19	**LA 98: Roundabout at Mills St - Lafayette Parish, LA:** Principal-in-Charge for right of way surveys for this project that requires construction of new roundabout at the intersection of Mills Street and W. Gloria Switch Road (LA Hwy 98) in Lafayette Parish, Louisiana.
05/17-10/18	**H.004791.5-Belle Chasse Bridge and Tunnel Replacement Survey- Plaquemines Parish, LA:** Principal-in-charge for comprehensive topographic surveying services for the Belle Chase Bridge and Tunnel Replacement project for LA DOTD. Included in this work was a survey performed utilizing traditional methods, terrestrial laser scanning of roadway surfaces, and multi-beam 3-D hydrographic surveying.
06/17-02/19	**Amite River Basin Model- Hydrographic Survey - Livingston Parish, LA:** Principal-in-Charge to provide hydrographic surveying of the Amite River and Comite River. Tasks included typical cross-sections of these rivers, as well as detailed 3-D bathymetric data collected with sonar equipment, ground control for LIDAR of the Amite River Basin, and a high- resolution survey of the Amite River Diversion Weir utilizing a variety of techniques including multi-beam sonar and traditional survey methods.
10/18-7/21	**East Baton Rouge Stormwater Masterplan - East Baton Rouge Parish, LA:** Principal-in-Charge for hydrographic surveying of bayous and creeks located within East Baton Rouge Parish for the EBR Stormwater Masterplan. The work consists of establishing cross-sections and stream bed profiles along their length.
02/17-03/18	**H.010753.5 – US 90 / I-310 Interchange – St. Charles Parish, LA – LA DOTD:** Principal-in-Charge responsible for topographic surveying and 3-D laser scanning at the intersection of US90 and I-310 in St. Charles Parish. This project will allow improvements for safety and efficiency. The complete topographic survey includes all utilities with depths and all drainage required along with finish floor elevations of all buildings that fall within the survey limits.
08/14-Ongoing	**H.004273.5 – I-49 Connector – Lafayette Parish, LA – LA DOTD:** Principal-in-Charge responsible for providing topographic surveying services for the I-49 Connector. The project is in a dense urban area and is approximately 5 miles long. Forte and Tablada, Inc. completed laser scanning services for much of the congested corridor as a means to obtaining topographic data without endangering surveyors.
05/13-Ongoing	**Old Hammond Highway – Segment 1- East Baton Rouge Parish, LA:** Principal-in-Charge for an environmental study and engineering services to design and construct a four-lane boulevard with a raised median and turn lanes and includes several roundabouts. The project will also include traffic signalizations, utility relocations, testing, lighting, landscaping, right-of-ways, and environmental mitigation. This project is part of the Green Light Plan.
05/17-Ongoing	**S.P. No. H. 009859.5- Load Rating of Bridges – Statewide, LA – LA DOTD:** Served as a review engineer for load rating of statewide bridges.
01/10-12/12	**S.P. No. 450-10-0159- I-10: Siegen Lane to Highland Road Design Build ITR — East Baton Rouge Parish, LA, LA DOTD:** Served as leader of Independent Technical Review of all bridge structures.

16. Staff Experience:

Firm employed by FORTE & TABLADA				
Name	Joffrey E. Easley, P.E., M.S.		Years of relevant experience with this employer	14
Title	Supervisor Engineer		Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization			BSCE, 2000, Civil Engineering MSCE, 2003, Civil Engineering	
Active registration number / state / expiration date			31542 / LA / 03/31/2023	
Year registered	2004	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities			Mr. Easley will serve as Lead Structural Engineer for structural monitoring projects involving data collection using UAV and LIDAR.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/16-01/21	**Whittington Road Bridge Replacement – Livingston Parish, LA:** Design engineer for replacement of existing timber bridge over Grays Creek with new concrete slab span bridge through the LADOTD off-system bridge replacement program.
01/14-01/20	**Travis Street and George Mashon Road Bridge Replacement – Livingston Parish, LA:** Design engineer for the replacement of two (2) timber bridges with concrete box culverts (Travis Street) and a curved concrete slab span bridge (George Mashon Road) through the LADOTD off-system bridge replacement program.
12/12-01/22	**Cook Road Expansion:** Designed and produced plans for new bridges over Gray's Creek to provide additional access to the Juban Crossing shopping center by extending Cook Road off of Pete's Highway. Bridge includes special details to accommodate sidewalks for pedestrian use.
01/18-09/17	**Holly Drive Bridge Replacement- St. Tammany Parish, LA:** Developed plans for the replacement of an existing timber bridge in St. Tammany Parish, Louisiana. Provided a load rating for the new design of the bridge.
01/14-01/20	**Buddy Ellis Road Overlay and Bridge Replacement – Livingston Parish, LA:** Design engineer for the replacement of the existing timber bridge on Buddy Ellis Road near LA Highway 447 in Livingston Parish.
01/14-01/21	**Forrest Delatte Road Improvements and Bridge Replacement – Livingston Parish, LA:** Design engineer for the replacement of the existing timber bridge over Grays Creek on Forrest Delatte Road in Livingston Parish.
06/15-06/16	**East Baton Rouge Parish Bridge Replacements:** Provided design services and load rated multiple slab span bridges that incorporated sidewalks. Design services included determination of pile loads, superstructure and substructure design, and independent technical review of completed plans.
01/13-06/14	**Wax Road Bridge over Miller Canal, Livingston Parish, LA:** Bridge design engineer for the replacement of the Wax Road bridge over Greys Creek in Livingston Parish.

05/13-12/14	**Musson Lane Bridge Replacement, Iberville Parish, LA:** Performed a detailed structural inspection and load rating of the existing bridge constructed of precast concrete spans and timber caps and piles. Developed plans and specifications for the replacement of the existing bridge with a new precast concrete slab span bridge.
10/18-05/19	**H.000445.1-1- US 190 over UPRR and Little Teche Bayou, St. Landry Parish, LA:** Project Engineer for this project that developed a scoping document for the replacement or rehabilitation of the EB and WB US 190 bridges over the Union Pacific Railroad (UPRR) near I-49 and over Little Teche Bayou in St. Landy Parish, LA. Based on the findings, a Bridge Evaluation Report outlining the feasibility and preliminary cost estimates for several construction phasing alternatives, as well as a recommended scope of work, was developed.
03/18-Ongoing	**LA DOTD Retainer Contract for Off-System Bridge Load Rating – Statewide, LA:** Project Manager, Load Rating Engineer, and Team Leader for a retainer contract that includes multiple Task Orders to inspect and load rate off-system bridges and culverts. Task Order 1 – Inspection and load rating of 12 complex off-system bridges, including lift spans, swing spans, bascule spans, ferry landings, and truss bridges; Task Order 2 – Inspection and load rating of approximately 200 off-system bridges, consisting primarily of slab spans; Task Order 4 – Inspection and load rating of approximately 300 off-system bridges, consisting primarily of slab spans, but also including concrete and steel girder spans.
08-19-02/20	**LA DOTD Retainer for In-Depth Bridge Inspections – Simmesport, LA:** Inspection of the approach spans, consisting of rolled steel and plate girder spans supported by column bents, of the LA 1 bridge over the Atchafalaya River.
01/21-09/21	**Retainer for Bridge Preservation – US90Z: Westbank Expressway Rehab, Jefferson Parish, LA:** Project Manager to develop plans for the rehabilitation of the nearly 6-mile long Westbank Expressway in Jefferson Parish, LA.
105/1-04/19	**LA DOTD Retainer Contract for Bridge Preservation – Atchafalaya Floodway:** Project Manager to provide engineering services for the rehabilitation of multiple bridges along I-10 between Baton Rouge and Lafayette. Bridge types included PPC and steel girder spans, steel grid deck, and slab spans. Scope of work included performing a detailed inspection, documenting deficiencies, and preparing rehabilitation plans for all bridges.
05/16-10/19	**Retainer Contract for Complex Bridge Rating, Statewide, LA- LA DOTD:** Project Manager to perform a load rating for the US 90 West Middle River Bridge near the Louisiana/Mississippi border.
11/14-08/16	**Westdale Road over Bayou Pierre Repairs – DeSoto Parish, LA:** Inspected, laser scanned, developed plans, and provided construction administration services for the repairs of a timber bridge that had been closed due to its deteriorated condition. Provide a load rating following the completion of the repairs. Repairs allowed the bridge to be re-opened to vehicular traffic.
06/16-04/20	**St. Tammany Parish Off-System Bridge Load Ratings, St. Tammany Parish, LA:** Project Manager to collect all available bridge files from all available resources, including LADOTD and Parish records, for numerous slab span, girder, and railcar bridges in St. Tammany Parish and perform inspections and load ratings for the bridges.
11/16-10/20	**Livingston Parish Off-System Bridge Load Ratings – Livingston Parish, LA:** Inspection and load rating of numerous existing slab span bridges and culverts so that Livingston Parish would follow FHWA Metric 13, which requires all Off-System bridges to be load rated.

16. Staff Experience:

Firm employed by FORTE & TABLADA				
Name	Brent M. Campbell		Years of relevant experience with this employer	10
Title	Advanced Measurements and Modeling Technician		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS, 2013, Construction Management	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	Advanced Measurements and Modeling	
Contract role(s) / brief description of responsibilities			Mr. Campbell will serve as LIDAR Specialist responsible for collecting and assembling the data sets.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/19-09/19	**Danziger Bridge Rehabilitation - Orleans Parish, LA:** Laser scanning and project technician for survey investigation of Danziger Bridge. Included laser scanning and comparison of actual conditions to original plans.
02/22-08/22	**Merryville Aerial LiDAR - Beauregard Parish, LA:** Advanced Measurements technician for UAV based aerial LiDAR to quickly capture the site topography. The project included flying approximately 175 acres in Merryville, LA to provide a bare earth model to our engineers. The surface model was used for preliminary site design and drainage flow characteristics.
10/19-10/20	**Inspection of Metal Culverts - Statewide, LA:** Laser scanning technician to provide inspections and data acquisition for approximately 230 culvert locations statewide. Culvert measurements were acquired with a mixture of 3-D laser scanning, sonar, and LiDAR.
01/13-03/13	**I-10 (Highland to LA 73) – East Baton Rouge and Ascension Parishes, LA – LA DOTD:** Responsible for laser scanning of several bridges overpassing I-10, and extracting/coding survey coordinates and alignments. Also determined minimum horizontal and vertical clearances.
09/21-10/21	**Westbank Closure Complex Multi-Beam Hydrographic Survey - Belle Chasse, LA:** Served as Advanced Measurements technician for a comprehensive survey for a global depiction of scour. Scour results were presented in a color ramped elevation map, as well as imagery showing the presence of debris on an intake screen. Survey was performed using a shallow draft vessel equipped with advanced multi-beam equipment.
01/22-04/22	**Hat Creek Permit Survey - Bossier Parish, LA:** Advanced Measurements technician for UAV based aerial LiDAR and hydrographic surveys to provide plan and profile plans for permitting purposes. The project included flying approximately 200 acres on the Red River to provide a bare earth model to our engineers. This method allowed us to rapidly capture survey grade data versus traditional survey methods. A hydrographic survey of the Red River was performed using a sonarmite mounted on a shallow water vessel due to the low levels of the river. This hydrographic survey data was also provided to our engineers where it was integrated with the aerial LiDAR to provide the client with plan and profile plans for permit applications.

02/17-03/18	**US 90 / I-310 Interchange – St. Charles Parish, LA – LA DOTD:** Project Technician responsible for topographic surveying and 3-D laser scanning at the intersection of US90 and I-310 in St. Charles Parish. This project will allow improvements for safety and efficiency. The complete topographic survey includes all utilities with depths and all drainage required along with finish floor elevations of all buildings that fall within the survey limits.

16. Staff Experience:

Firm employed by FORTE & TABLADA				
Name	Blake Bonnette		Years of relevant experience with this employer	6
Title	Advanced Measurements and Modeling Senior Technician		Years of relevant experience with other employer(s)	1.5
Degree(s) / Years / Specialization			2015, South Louisiana Community College	
Active registration number / state / expiration date			N/A	
Year registered	N/A	Discipline	Advanced Measurements and Modeling	
Contract role(s) / brief description of responsibilities			Mr. Bonnette will serve as UAV Head Pilot and lead the use of UAVs for data collection and monitoring.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/19-09/19	**Danziger Bridge Rehabilitation - Orleans Parish, LA:** Laser scanning and project technician for survey investigation of Danziger Bridge. Included laser scanning and comparison of actual conditions to original plans.
10/19-10/20	**Inspection of Metal Culverts - Statewide, LA:** Laser scanning technician to provide inspections and data acquisition for approximately 230 culvert locations statewide. Culvert measurements were acquired with a mixture of 3-D laser scanning, sonar, and LiDAR.
01/16-02/18	**I-49 Connector – Lafayette, LA:** Laser scanning technician to develop the topographic survey of approximately 22 miles of roadway along this interstate to determine the existing conditions before finalizing the connection. Responsible for the data and leading the data extraction efforts using Faro Scene and MicroStation
08/22-09/22	**Leonard Road Farm and Cupples Port Aerial Lidar – Shreveport, LA:** Project Technician responsible for preforming aerial lidar on 700+ acres and processing the data to produce surfaces and calculate dirt fill amount to alleviate flooding.
10/18-05/19	**Sunshine Bridge Emergency Repair – Donaldsonville, LA:** Laser Technician to worked with a design team to formulate a practical solution for attaining advanced measurements that were compatible with traditional measuring practices which were required for the structural analysis and repair design for the bridge. My Responsibilities included My major role in this project was creating a set of plans to document the damage on this bridge. These plans contained detailed information on structural strain and inconsistencies from original plans. Additionally, I helped to scan for incremental bridge movement as well as monitoring bridge movement as LADOTD jacked on members to place new beams using Faro Scene and MicroStation.

16. Staff Experience:

Firm employed by Infratek SOLUTIONS			
Name	Amir Rezvani	Years of relevant experience with this employer	5
Title		Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		BSc, 2007, Computer Science, Amir Kabir University of Technology MSc, 2011, Systems Engineering, Rutgers, The State University of New Jersey MBA / 2014 / Strategy and Project Delivery, Georgetown University	
Active registration number / state / expiration date			
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Mr. Rzvani will serve as Lead Bridge Deck NDT/E Consultant, responsible for the collection of bridge deck condition assessment data.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
June 2022	**PANYNJ's LaGuardia Airport:** Managed all aspects of a project for the LaGuardia airport to utilize Insight's Automated Chain Drag system to find shallow and deep delaminations with absolute success using a proprietary data acquisition and processing technic
May 2022	**DelDOT:** Managed a bridge underside condition evaluation project for DelDOT utilizing point in time and time-lapse infrared thermography. The bridge was a viaduct and combined with its ramp had 84 piers.
February 2022	**DelDOT:** Managed field deployment for Insight's platforms (High Speed and High Definition) on several I-95 bridges in Delaware as part of DelDOT's flagship Restore the Corridor project
June 2021	**KDOT:** Managed field deployment project for high-speed NDE of K16 Highway Bridge in Kansas
March 2021	**LADOTD:** Managed project delivery for Insight's High-Speed NDE platform in Louisiana for US171 Bridge over the Calcasieu River conducted for LADOTD's Bridge Design Section
Nov 2020	**Iowa DOT:** Managed project delivery for NDE condition assessment of 15 bridges in Iowa
Oct 2019 – Nov 2019	**Oregon DOT:** Managed project delivery for NDE condition assessment of 21 bridge decks in Oregon
Aug 2018 – Oct 2019	**Internal:** Managed all the steps of product and service development of Infratek Insight High-Speed and High-Definition platforms for NDE inspection of concrete structures
Sep 2017 – Dec 2017	**FHWA:** Managed project delivery for condition assessment of bridge decks using automated NDE platforms in DE, PA, NJ, MD
Sep 2017 – Aug 2018	**FHWA**: Managed project delivery for design, build and service validation of 4 automated NDE deck inspection systems

16. Staff Experience:

Firm employed by Infratek SOLUTIONS			
Name	Max (Xiao) Meng	Years of relevant experience with this employer	6
Title	Field Deployment Lead	Years of relevant experience with other employer(s)	6
Degree(s) / Years / Specialization		B.Sc., 2015, Mechanical Engineering, Shanghai Jiao Tong University M.Sc., 2016, Mechanical Engineering, University of Pennsylvania	
Active registration number / state / expiration date			
Year registered		Discipline	
Contract role(s) / brief description of responsibilities		Mr. Meng will be the Field Deployment Lead and will be in charge of a successful deployment of necessary technologies in the field through pre-planning, scheduling and proper execution of the required tasks in the field.	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
June 2022	**PANYNJ's LaGuardia Airport:** Conducted High-Speed chain drag of the concrete runway slabs using the Insight system to find shallow and deep defects
May 2022	**DelDOT:** Assisted the field SMEs with imaging and infrared thermography of superstructure and piers of a viaduct and its ramps totaling 84 piers to find surface and subsurface defects
February 2022	**DelDOT:** Supervised field deployment of Insight's platforms (High Speed and High Definition) on several I-95 bridges in Delaware as part of DelDOT's flagship Restore the Corridor project
June 2021	**KDOT:** Supervised field deployment of Insight's high-speed NDE platform in Kansas for K16 Highway Bridge
March 2021	**LADOTD:** Supervised field deployment of Insight's High-Speed NDE platform in Louisiana for US171 Bridge over the Calcasieu River
Nov 2020	**Iowa DOT:** Supervised field deployment of Insight platforms (High Speed and High Definition) on 15 bridges in Iowa
Oct 2019 – Nov 2019	**Oregon DOT:** Supervised field deployment of Insight platforms (High Speed and High Definition) on 21 bridges in Oregon
Aug 2018 – Oct 2019	**Internal:** Designed and supervised build of two fully automated highs-peed NDE platforms for concrete structures called Insight
Sep 2017 – Dec 2017	**FHWA:** Conducted condition assessment of bridge decks using automated NDE platforms in DE, PA, NJ, MD

16. Staff Experience:

Firm employed by ThermalStare			
Name	Paul A. Fuchs, Jr.	Years of relevant experience with this employer	8
Title	Manager	Years of relevant experience with other employer(s)	>30

Degree(s) / Years / Specialization	Ph.D., 1995, Electrical Engineering, Nondestructive Evaluation, West Virginia University
Active registration number / state / expiration date	
Year registered / Discipline	
Contract role(s) / brief description of responsibilities	Dr. Fuchs will serve as Principal-in-Charge for the NDE of bridge decks, superstructure, substructure utilizing IR-UTD technology.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/14–9/22	**ThermalStare:** Manager and co-owner of, ThermalStare offers a unique infrared inspection equipment and services for highway bridges.
4/98–9/22	**Fuchs Consulting, Inc. (FCI):** President and owner of FCI, has been active in the highway bridge industry developing and applying nondestructive evaluation methods to assess structures.
4/96–4/08	**FHWA Turner-Fairbank Highway Research Center, McLean, VA.:** Provided consulting services to the FHWA NDE Center to develop and apply nondestructive evaluation methods to highway bridges.
2010–2013	**Instrumentation to Aid in Steel Bridge Fabrication, Leesburg, VA:** Project Manager for nation-wide Transportation Pooled-Fund study to develop an advanced measurement system to improve the fabrication of steel bridges.
2009–2018	**Portable Active Thermographic Coating Inspection System, Leesburg, VA:** Project Manager for USDOT Small Business Innovation Research (SBIR) project to develop a portable system to assess the condition of bridge coatings.

16. Staff Experience:

Firm employed by ThermalStare			
Name	Glenn Washer	Years of relevant experience with this employer	8
Title	Engineer	Years of relevant experience with other employer(s)	>30

Degree(s) / Years / Specialization	BS, 1990, Civil Engineering, Worcester Polytechnic Institute MS, 1996, Structural Engineering, University of Maryland Ph.D., 2001, Materials Science and Engineering, Nondestructive Evaluation, The Johns Hopkins University, Center for Nondestructive Evaluation
Active registration number / state / expiration date	
Year registered: 2011 / Discipline	PE MO, License No. 2011007362 / expires 12/31/23
Contract role(s) / brief description of responsibilities	Dr. Washer will serve as NDT/E Consultant for use of IR UTD technology.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
10/14–09/22	**ThermalStare**: Co-owner of ThermalStare, which offers unique infrared inspection equipment and services for highway bridges.
1/04–09/22	**University of Missouri, Columbia:** Professor and national expert on application of nondestructive evaluation methods for highway bridges.
01/90–01/04	**FHWA NDE Validation Center, Turner-Fairbank Highway Research Center**, **McLean, VA:** Program Manager for the NDE Validation Center from 1998 to 2004, Research Structural Engineer from 1992 to 1998, and Highway Engineer Training Program from 1990 to 1992.
01/17–12/17	*Use of Infrared Thermography for the Inspection of Welds in the Shop and Field,* University of Florida/Florida Department of Transportation, Principal Investigator
08/15–10/18	*Guideline to Improve the Quality of Element-Level Bridge Inspection*, NCHRP 12-104, Transportation Research Board, Principal Investigator
11/11–12/14	*Development of Hand-held Thermographic Inspection Technologies Phase II Field Testing, Validation and Implementation,* Missouri Department of Transportation, Principal Investigator
11/12–03/14	*Developing Reliability-Based Bridge Inspection Practices: Case Studies of the Methodology,* National Cooperative Highway Research Program, Transportation Research Board, NCHRP 12-82(1), Principal Investigator

05/09–10/11	*Developing Reliability-Based Bridge Inspection Practices,* National Cooperative Highway Research Program, Transportation Research Board, NCHRP 12-82, Principal Investigator
04/08–07/09	*Guidelines for Implementing Quality Control and Quality Assurance for Bridge Inspection,* National Cooperative Highway Research Program (NCHRP), Transportation Research Board, NCHRP 20-07(252), Principal Investigator
01/07–05/09	*Development of Hand-held Thermographic Inspection Technologies*, National Pooled-Fund Project, Lead State: Missouri, Missouri Transportation Institute, Principal Investigator

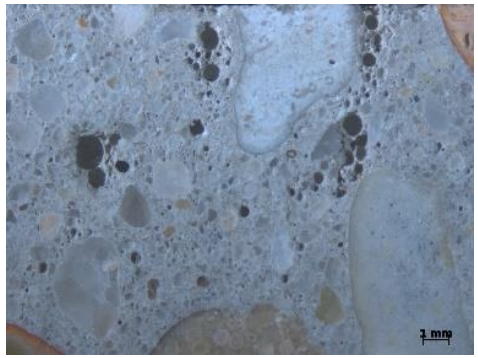
17. Firm Experience:

Firm name	Wiss, Janney, Elstner Associates, Inc.			Past Performance Evaluation Discipline(s)*	Bridge
Project name	Materials Testing			Firm responsibility (prime or sub?)	Prime
Project number	Contract No. 4400009424 H.002861.5-1	Owner's name	Louisiana Department of Transportation and Development		
Project location	Metairie, Port Allen, and Baton Rouge, LA		Owner's Project Manager	Qiming Chen	
Owner's address, phone, email	P.O. Box 94245, Baton Rouge, LA 70804, 225-379-1074, Qiming.Chen@LA.gov				
Services commenced by this firm (mm/yy)	10/17; 9/17	Total consultant contract cost ($1,000's)		$148	
Services completed by this firm (mm/yy)	12/17; 4/18	Cost of consultant services provided by this firm ($1,000's)		$148	

WJE was retained to perform materials testing under two task orders.

To determine material strength and chemical composition of existing steel girders in the Causeway Boulevard Bridge over Earhart Expressway in Metairie, a WJE technician removed a steel sample from the bottom flange of a girder. The sample was tested to determine the yield and tensile strengths. In addition, chemical analysis of the material was performed. The original structural steel framing plans identified the steel as being either Silicon Steel or Carbon Steel. However, the test results showed low silicon content and high carbon content indicating the steel was not silicon steel. The impact toughness of the material was found to be relatively poor. The testing also revealed that the steel's response to any subsequent supercritical heat treatments—such as an austenitize, quench and temper—would be unpredictable.

WJE was also retained to perform laboratory testing of concrete cores removed from substructures along I-10 in Port Allen and Baton Rouge. WJE personnel extracted and performed laboratory assessment of forty-five cores. At each core location, ground penetrating radar (GPR) testing was performed to identify embedded steel reinforcement. The spiral tie reinforcing within pier column elements (secondary steel reinforcing) was avoided where possible. The cores were then tested at WJE's laboratory in Northbrook, Illinois.

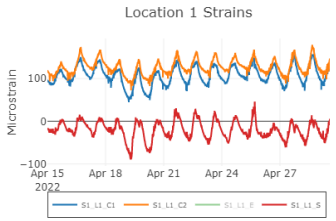


Laboratory assessment of the core samples consisted of petrographic examinations, density and absorption testing, and air void analyses of select samples to assess the composition and microstructure of the concrete materials, determine the entrained air content of the concrete, and investigate distress or potential long-term degradation issues. Findings of the petrographic examinations and additional laboratory testing were summarized in a report.

Members involved: J. McGormley (Project Manager), N. Rende, R. Gessel.

17. Firm Experience:

Firm name	Wiss, Janney, Elstner Associates, Inc.		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	Hale Boggs Memorial (Luling) Bridge Deck Overlay Repair Consultation and Instrumentation Services		Firm responsibility (prime or sub?)	Sub	
Project number	H.012617.6	Owner's name	Louisiana Department of Transportation and Development		
Project location	Luling, St. Charles Parish, LA		Owner's Project Manager	Chris Guidry	
Owner's address, phone, email	1201 Capitol Access Rd., 6th floor, Baton Rouge, LA 70802				
Services commenced by this firm (mm/yy)	03/21	Total consultant contract cost ($1,000's)	$499		
Services completed by this firm (mm/yy)	On-going	Cost of consultant services provided by this firm ($1,000's)	$339		



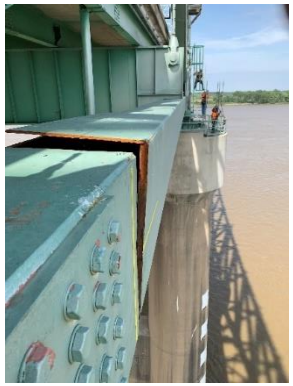
WJE is providing technical guidance and quality assurance assistance to the LADOTD and the contractor repairing the concrete overlay on the steel orthotropic bridge deck spans of this twin pylon, cable-stayed bridge over the Mississippi River. The overlay consists of an epoxy and fabric underlayment system with embedded granite chips overlain by steel fiber reinforced concrete (SFRC). WJE's scope of work included review and modifications to the original overlay specifications to promote better constructability and performance; development of different overly repair methods to accommodate contractor materials on-hand; location and marking of overlay repairs; QA/QC during placement of the overlay repairs; and development and implementation of a long-term monitoring plan to assess the performance of the various repair methods. For the monitoring system, WJE installed a series of strain gages at each layer of the overlay system in order to determine the stability and long-term integrity of each selected patch repair. A duplicate set of gages were installed at each repair location for redundancy and comparison. The instrumentation reports to a central datalogger which transmits the data via cellular modem to a web-based server where it is displayed on a webpage. Over the next two years, WJE will monitor the three study patch repairs with the objective of providing recommendations to the LADOTD for future overlay repair or replacement options.

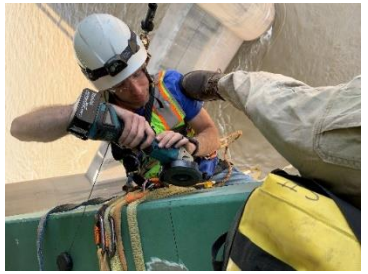
As part of its work, WJE was tasked with assessing the cause of the current overlay failures. This included visual examination of the failures, in-situ bond tests of the SFRC to the epoxy underlayment, and petrographic examination of the concrete to epoxy bond surfaces. During overlay repairs, WJE engineers were present to provide QA services and technical guidance to the contractor. This work included Schmidt rebound hammer testing of concrete surfaces and subsequent petrographic examination of concrete removed from repair patches damaged by rain during placement.

Members involved: J. McGormley (Project Manager), S. Lauer, M. ElBatanouny.

17. Firm Experience:

Firm name	Wiss, Janney, Elstner Associates, Inc.		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	I-40 Hernando Desoto Bridge, Emergency Repairs			Firm responsibility (prime or sub?)	Sub
Project number		Owner's name	Tennessee DOT and Arkansas DOT		
Project location	Memphis, TN		Owner's Project Manager	Ted A. Kniazewycz (TDOT) Steve Frisbee (ArDOT)	
Owner's address, ted.kniazewycz@tn.gov 615.741.3351		steve.frisbee@ardot.gov 501.569.2221			
Services commenced by this firm (mm/yy)	05/21	Total consultant contract cost ($1,000's)		Unknown	
Services completed by this firm (mm/yy)	01/21	Cost of consultant services provided by this firm ($1,000's)		$447	





WJE assisted in the tie girder fracture repairs for the I-40 Bridge, which was closed to traffic after discovery of a large partial fracture in one of the arch span ties. WJE engineers developed an emergency instrumentation plan and oversaw the plan's implementation, mobilizing personnel and equipment to have a working web-accessible system with over 25 sensors functional in a week. Sensors included strain gages, laser distance meters, LVDTs, and thermocouples. Some of the instrumentation installation required use of technical rope access techniques. The collected instrumentation data was incorporated into a web-based monitoring system, providing near real-time measurements and video and was accessible to all parties to study and monitor. Additional sensor data included the loads in the post-tensioned rods used to temporarily support the loads while repairs were implemented. Survey and pressure data collected by others were integrated into the web platform to provide single-source reporting.

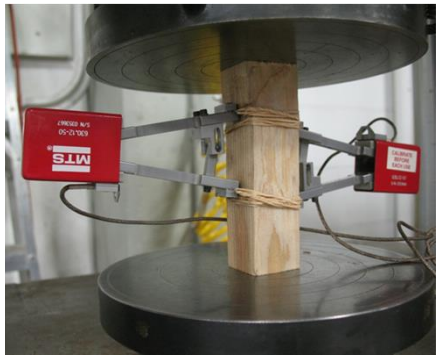
WJE assisted in the development of procedures to remove and preserve the tie girder fractures for future fractographic study by WJE. In addition to the fractured plates, ten 3-inch diameter core samples were removed by WJE at locations identified as having possible defects. Fractographic and metallographic examinations were carried out to determine the cause of failure and contributing factors. The materials testing overseen by WJE included optical and scanning electron fractography, optical metallography and microhardness testing, chemical composition testing, and mechanical testing (including tensile properties and Charpy V-Notch impact testing. UT, PAUT, and wet fluorescent MT was performed by WJE on the fractured specimen and steel cores. Portions of the fractured specimen were used to fabricate a PAUT calibration standard from the ASTM A514 base metal as well as a verification standard containing surface-breaking hydrogen cracks for use in refinement of the PAUT inspection procedures. This study confirmed that the fracture was the result of hydrogen cracking due to weld repairs from fabrication. The study also confirmed that PAUT indications from other similar welded thickness transitions throughout the bridge tie girders were consistent with shallow hydrogen cracks present on the inside surface of the tie girder box members.

Members involved: B. Santosuosso (Project Manager), M. ElBatanouny, S. Lauer, R. Lindenberg, P. Marra, J. McGormley, C. Schroeder, R. Warke.

17. Firm Experience:

Firm name	Wiss, Janney, Elstner Associates, Inc.			Past Performance Evaluation Discipline(s)*	Bridge
Project name	Timber Pile Testing			Firm responsibility (prime or sub?)	Prime
Project number	107655-101000	Owner's name	Mississippi Department of Transportation		
Project location	Various Mississippi and Northbrook, Illinois		Owner's Project Manager	Richard Withers, P.E.	
Owner's address, phone, email	401 North West St., Jackson, MS 39201				
Services commenced by this firm (mm/yy)	7/18	Total consultant contract cost ($1,000's)		$228	
Services completed by this firm (mm/yy)	6/21	Cost of consultant services provided by this firm ($1,000's)		$228	

WJE was retained to conduct an experimental program to inspect and test deteriorated timber piles recovered from bridges in Mississippi, and to develop load rating procedures for timber bridge piles based on analysis of the test results. WJE performed data analysis on the experimental results and determined a reliable correlation between pile strength and decay.



WJE received 94 pile segments in two different groups from MDOT. The pile segments ranged in length from 4 feet to nearly 20 feet and varied in diameter from 9 3/8 inches to 16 inches. After selection and preparation of the timber pile specimens, fifty-nine 42-inch long full-diameter pile specimens were tested in compression to failure in WJE's Northbrook, Illinois structural laboratory. Prior to testing, the conditions of the full-diameter specimens were assessed by two inspectors and the moisture contents measured. More than 130 small clear samples were cut from portions of the full-diameter piles and tested in compression parallel to grain. Additional samples were examined by a wood pathologist to verify the wood species and identify decay.

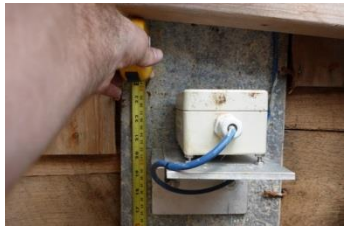
After a thorough review of different standards and design specifications, adjusted design values appropriate for Southern Yellow Pine round timber piles in compression parallel to the grain and modulus of elasticity were established after comparing the experimental results to ASTM test data. The results from testing the small clear and full-diameter specimens were analyzed, compared, and used to assess the influences of decay. Furthermore, a set of equations was proposed to predict the crushing and buckling capacities of decayed timber piles. A comprehensive data analysis was conducted to derive the proper decay soundness ratios and validate the accuracy and reliability of the proposed equations in predicting the capacity of timber piles under different failure mechanisms. This information was subsequently incorporated into a spreadsheet based timber pile rating tool for use by MDOT.

Members involved: J. McGormley (Project Manager), S. Lauer, P. Marra.

17. Firm Experience:

Firm name	Wiss, Janney, Elstner Associates, Inc.	Past Performance Evaluation Discipline(s)*	Bridge
Project name	CTA Yellow Line Embankment Investigation	Firm responsibility (prime or sub?)	Prime
Project number		Owner's name	Chicago Transit Authority
Project location	Chicago, IL	Owner's Project Manager	Jim Harper
Owner's address, phone, email	Chicago Transit Authority, 567 W. Lake St., Chicago, IL, 60661; 312-907-4969; JHarper@transitchicago.com		
Services commenced by this firm (mm/yy)	05/15	Total consultant contract cost ($1,000's)	
Services completed by this firm (mm/yy)	04/16	Cost of consultant services provided by this firm ($1,000's)	$535

A catastrophic failure of the earthen embankment supporting the CTA Yellow Line tracks occurred when approximately 200 feet of the south embankment slope and an adjacent earth retention structure failed as a result of ongoing construction activities at a treatment plant operated by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). WJE was retained by the CTA to lead an independent investigation into the cause of the embankment collapse, including a complete review of the shoring design and construction activities ongoing at the time of the collapse, as well as peer review of proposed remediation efforts to restore the embankment. To limit additional damage to the remaining embankment and adjacent bridge abutment while construction resumed, the CTA also requested that instrumentation be installed and continuously monitored.



WJE engineers observed the slope stabilization efforts immediately following the failure and photographically documented the quickly changing site conditions. In addition, due to concerns about the stability of the adjacent bridge, WJE installed tiltmeters on the abutment to provide warning of possible movements and later a series of inclinometers for subsurface soil monitoring. In addition, WJE installed tiltmeters on soldier piles of a separate braced excavation to monitor its performance during construction. The instrumentation was monitored remotely and was accessible via a website. Email warning notifications were established when tiltmeter and/or inclinometer measurements exceeded established thresholds. Power at the two installations was provided by 120 V AC and through a solar panel/12 V battery system. The instrumentation used included Tuff Tilt Model 801 Uniaxial Tiltmeter ±3° from Geomechanics; Model 6150 Biaxial Inclinometers from Geokon, Inc.; and Model CR1000 data logger with a Model AM16/32B Multiplexer from Campbell Scientific, Inc.

WJE also reviewed stabilization procedures, worked with the MWRD and contractor to develop a member identification system and salvage procedures, and established a laydown area where the removed members of the failed earth retention system were stored for additional examination. WJE reviewed soils information from post-incident soil borings, performed independent slope stability calculations for open-cut and braced excavation slopes, and initiated independent reviews of previously submitted earth retention systems calculations while considering new soils information.

Members involved: J. McGormley (Project Manager), S. Lauer, M. ElBatanouny.

17. Firm Experience:

Firm name	FORTE & TABLADA		Past Performance Evaluation Discipline(s)*	Survey	
Project name	IWGO Bridge Rehabilitation – Drone Flyover		Firm responsibility (prime or sub?)	Prime	
Project number	H.011965.6	Owner's name	LADOTD		
Project location	Orleans Parish		Owner's Project Manager	Hamed Babaizadeh	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1331				
Services commenced by this firm (mm/yy)	07/22	Total consultant contract cost ($1,000's)		$55.2	
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)		$55.2	

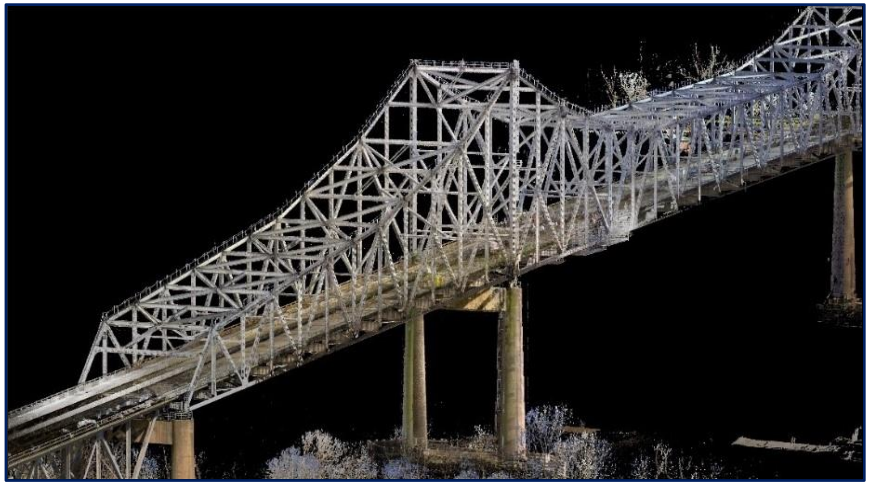
Forte & Tablada was tasked by Louisiana DOTD to conduct drone video and still photography for in-phase inspection during rehabilitation and painting of the Paris Rd bridge over the Intracoastal Waterway Gulf Outlet (IWGO), aka the "Green Bridge". Forte & Tablada is conducting pre-planned flight paths using state-of-the-art UAV within 3m accuracy of the agreed-upon flight path, the collection of photos and videos throughout the project, and processing of content for final production use.

Members involved: Russell "Joey" Coco, Jr., P.E., Brent Campbell, Blake Bonnette

17. Firm Experience:

Firm name	FORTE & TABLADA		Past Performance Evaluation Discipline(s)*	Survey	
Project name	Sunshine Bridge Emergency Repair		Firm responsibility (prime or sub?)	Sub	
Project number	4400010587	Owner's name	LADOTD		
Project location	St. James Parish, LA		Owner's Project Manager	Stanley Ard	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, 225-379-1292, Stanley.Ard@la.gov				
Services commenced by this firm (mm/yy)	10/18	Total consultant contract cost ($1,000's)		$618	
Services completed by this firm (mm/yy)	12/18	Cost of consultant services provided by this firm ($1,000's)		$618	

Forte and Tablada provided topographic surveying and terrestrial LIDAR services for the LADOTD Sunshine Bridge Emergency Repair project following the severe impact of a barge mounted crane with the bottom horizontal bridge chord. The severity of the structural damage forced the closure of the bridge resulting in disruption and re-routing of a large volume of industrial and general population motorists. Due to the elimination of this major corridor for commerce and its consequences, an expeditious and time efficient rehabilitation was paramount. Forte and Tablada worked with a design team to formulate a practical solution for obtaining advanced measurements that were unachievable with traditional measuring practices which were required for the structural analysis and repair design for the bridge. Forte and Tablada surmounted the challenges of the repair effort through the use of LIDAR techniques employing innovative applications to provide the necessary data for the bridge repair analysis and inventive construction of an apparatus needed to apply these techniques.



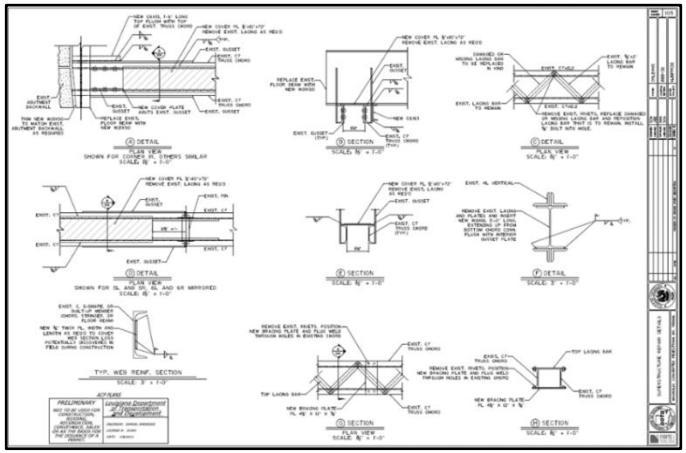
Laser Scan of Sunshine Bridge in Donaldsonville, LA

Members involved: Russell "Joey" Coco, Jr., P.E. (Principal-in-Charge), Brent Campbell (Senior Technician).

17. Firm Experience:

Firm name	FORTE & TABLADA		Past Performance Evaluation Discipline(s)*	Survey	
Project name	Magnolia Converted Pedestrian Bridge Rehabilitation		Firm responsibility (prime or sub?)	Sub	
Project number		Owner's name	City of New Orleans c/o Volkert & Associates		
Project location	Orleans Parish, LA		Owner's Project Manager	Jan Evans, P.E.	
Owner's address, phone, email	Volkert & Associates, 7967 Office Park Blvd #200, Baton Rouge, LA 70809, 225-218-9440				
Services commenced by this firm (mm/yy)	11/14	Total consultant contract cost ($1,000's)		$42	
Services completed by this firm (mm/yy)	06/16	Cost of consultant services provided by this firm ($1,000's)		$42	

Forte and Tablada worked with Volkert to determine the as-built geometry and member sizes of the existing Magnolia Street Pedestrian Bridge and develop rehabilitation plans. The historic structure has been modified from its original form and lacked existing plans, overall dimensions, and member sizes that were necessary for structural engineering analysis and rehabilitation plan development. Forte and Tablada performed a 3-D laser scan of the existing bridge and prepared a highly detailed 3-D model from the scan data so that engineers could better understand the structure. Unique structural details were required for the rehabilitation to maintain the existing historically significant details of this bridge.



Members involved: Russell J. "Joey" Coco, P.E., Joffrey Easley, P.E., Brent Campbell

17. Firm Experience:

Firm name	Infratek SOLUTIONS	Past Performance Evaluation Discipline(s)*	Bridge
Project name	High-Speed NDE Condition Evaluation of US171 Bridge Deck over Calcasieu River	Firm responsibility (prime or sub?)	Sub
Project number	H.010000.5-2	Owner's name	LADOTD
Project location	US0171, Moss Bluff, Louisiana 70601	Owner's Project Manager	Zhengzheng "Jenny" Fu
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, Tel: 225-379-1321,Email: zhengzheng.fu@la.gov		
Services commenced by this firm (mm/yy)	2/2021	Total consultant contract cost ($1,000's)	$51,000
Services completed by this firm (mm/yy)	3/2021	Cost of consultant services provided by this firm ($1,000's)	$51,000

LADOTD's complex bridge design team required a high-speed, multi-faceted condition evaluation of the bridge deck with minimal disruption to traffic. The results were intended to provide repair quantity estimates and validate the preservation and rehabilitation plans which included the application of an overlay. To provide maximum efficiency for this project and to respond to LADOTD's needs, Infratek's proposed solution was to use Infratek Insight's High Speed (HS) system to scan the entire bridge deck, which did not cause any traffic disruption. This work was intended to be followed by High Definition (HD) scanning on certain parts of the bridge if needed. However, the results of the High-Speed scanning were conclusive enough and gave the decision makers enough data and assurance to proceed without the need for more thorough investigation.

The high-speed sensor data provided an estimate of the clear cover to the top reinforcing steel, the approximate likelihood of moisture ingress in addition to high-resolution surface images, surface crack maps, and crack density plots. The high-speed chain drag component provided a map of shallow delaminations and the IR thermography method helped with validation of these results. Using the data from longitudinal surface profilers and crack maps, the team was also able to pinpoint the likelihood of settlement of the approach slab. LiDAR and 360-degre imaging also enabled the project team to "walk" on the bridge virtually and conduct any visual observation or inspection necessary for their work.

Following the high-speed data acquisition on the US171 Bridge Over the Calcasieu River, the Infratek team processed and analyzed the data within 10 days after which the analysis results were reported to the LADOTD team.

Members involved: Amir Rezvani (Project Manager), Max Meng (Field Deployment Lead).

17. Firm Experience:

Firm name	Infratek SOLUTIONS		Past Performance Evaluation Discipline(s)*	Bridge	
Project name	High-Speed and High-Definition Condition Evaluation of Several I-95 Bridge Decks		Firm responsibility (prime or sub?)	Sub	
Project number	1811F	Owner's name	Delaware DOT		
Project location	Newark, DE		Owner's Project Manager	Scott Walls	
Owner's address, phone, email	800 S Bay Rd, Dover, DE 19901, Tel: (302)760-2080, Email: scott.walls@delaware.gov				
Services commenced by this firm (2/22)	2/2021	Total consultant contract cost ($1,000's)		$86,000	
Services completed by this firm (6/22)	3/2021	Cost of consultant services provided by this firm ($1,000's)		$86,000	

Infratek was tasked by Delaware Department of Transportation to provide condition assessment of four bridge decks on the I-95 corridor in Newark, DE, including high-speed sounding, surface imaging, crack mapping, GPR, impact echo, ultrasonic surface wave, electrical resistivity assessment and 360-degree imaging. These bridges are part of DelDOT's "Restore the Corridor" initiative and are currently in the rehab design phase. The assessment results were used to ensure the rehab planning was conducted in a data-driven fashion using the real-time, most recent condition of the structures observed from several different damage and corrosion related perspectives.

Due to the high traffic of these bridges (AADT above 113,000) the team first deployed the Insight's High-Speed (HS) system to gain an understanding of the current condition of the bridge decks. The HS system conducted data acquisition at 40 mph with a TMA truck to increase safety due to the high speed limit of the bridges (65 mph). The team studied the high-speed results and it was observed that the subsurface defects on all four bridges were scattered around the deck surface and there was a high potential for full depth repairs. Having this information, the team deployed Insight's high definition system to provide a high-resolution image of the subsurface conditions and full-depth repair quantity estimates. The results were packaged and delivered to DelDOT using Infratek's online inspection and asset management portal as well as written PDF reports. The bridge design team and the external contractor utilized these results to finalize their rehab and preservation design plans.

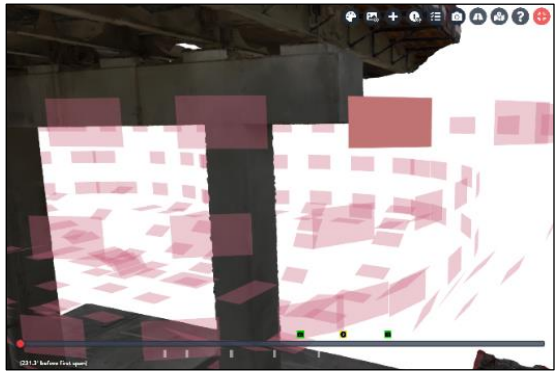
Members involved: Amir Rezvani (Project Manager), Max Meng (Field Deployment Lead).

17. Firm Experience:

Firm name	Infratek SOLUTIONS	Past Performance Evaluation Discipline(s)*	Bridge
Project name	Point-in-time and Time-lapse Infra-red Thermography of I-95 Wilmington Viaduct Piers and Ramps	Firm responsibility (prime or sub?)	Sub
Project number	1811F	Owner's name	Delaware DOT
Project location	Wilmington, DE	Owner's Project Manager	Percival McNeil
Owner's address, phone, email	800 S Bay Rd, Dover, DE 19901, Tel: (302)760-2080, Email: Percival.Mcneil@delaware.gov		
Services commenced by this firm (6/22)	6/2022	Total consultant contract cost ($1,000's)	$91,000
Services completed by this firm (9/22)	9/2022	Cost of consultant services provided by this firm ($1,000's)	$91,000

Infratek was asked by Delaware Department of Transportation if there is an alternative way other than manual sounding of 84 pier structures across 1.04 miles of a viaduct and its several ramps. DelDOT was looking for an innovative way which is faster, more visual, more cost effective with less amount of equipment and staff than manual sounding. Infratek proposed point-in-time and time-lapse infrared thermography in place of manual sounding. Our team conducted a pilot on 4 random piers and compared the results with manual sounding of the piers that were conducted in 2015. The degree of correlation was significant which gave DelDOT enough confidence to award Infratek the project.

The Infratek team conducted the field data collection without the need for access equipment or any additional staff, only using one or, at times, two technicians. The thermal images were processed, subsurface defects were marked and measured and the required sketches were updated accordingly. This method resulted in project savings when compared to chain drag and the results were supported by visual images that enabled maintenance staff to locate the exact shape and position of subsurface defects with high resolution and accuracy.

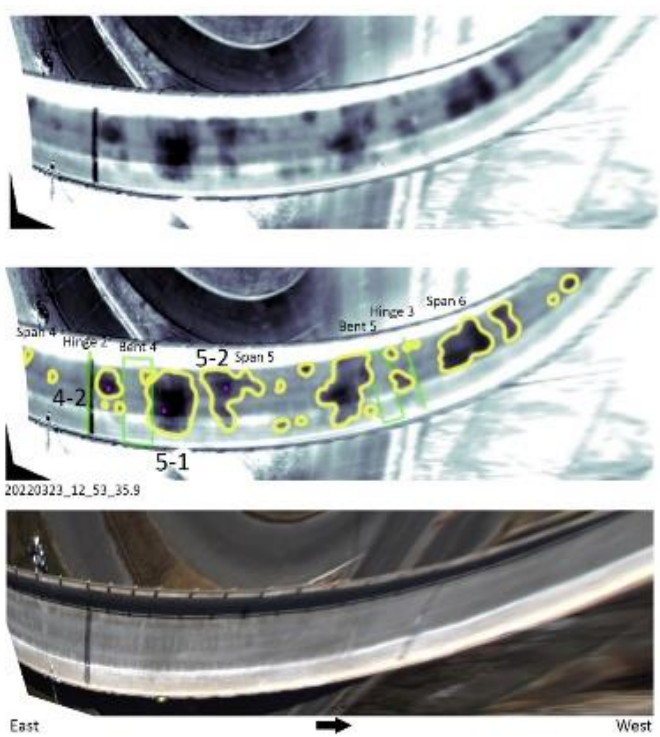


During this project, the Infratek team also conducted ad hoc inspection and imaging of the pier structures using UAS based on surface and subsurface conditions to produce more data sets for decision makers to review.

Members involved: Amir Rezvani (Project Manager)

17. Firm Experience:

Firm name	ThermalStare	Past Performance Evaluation Discipline(s)*	Bridge
Project name	Infrared Inspection of Bridges for District of Columbia DOT	Firm responsibility (prime or sub?)	Sub
Project number		Owner's name	District of Columbia DOT
Project location	District of Columbia	Owner's Project Manager	
Owner's address, phone, email	RK&K, Laura Magoon, 410-462-9368, lmagoon@rkk.com		
Services commenced by this firm (mm/yy)	4/22	Total consultant contract cost ($1,000's)	
Services completed by this firm (mm/yy)	6/22	Cost of consultant services provided by this firm ($1,000's)	$70k



ThermalStare, LLC, used Infrared Ultra Time Domain (IR-UTD) measurement systems to perform bridge deck evaluation on two structures in the District of Columbia for RK&K for the District of Columbia Department of Transportation (DDOT). IR-UTD is a unique infrared measurement method that is well-suited to very high traffic environment, such as these DDOT bridges. These DDOT bridges have a very thick concrete overlay and the IR-UTD measurements were able to successfully locate and quantify defects under the overlay. IR-UTD methods were used to identify suitable locations for performing other measurements on the structure (coring, half-cell potential measurements).

Figure shows IR-UTD example measurement showing defect indication image (top), encircled defect indications (middle), and visual image (bottom) of a bridge deck with a concrete box girder bridge with a concrete overlay.

Members involved: Paul Fuchs and Glenn Washer.

 Prime consultant name: **Wiss, Janney, Elstner Associates, Inc.**

17. Firm Experience:

Firm name	ThermalStare	Past Performance Evaluation Discipline(s)*	Bridge
Project name	Utah DOT I-80 Corridor Asset Management	Firm responsibility (prime or sub?)	Sub
Project number		Owner's name	Utah DOT
Project location	Salt Lake City, UT	Owner's Project Manager	
Owner's address, phone, email	WSP, Joshua Sletten, 801-633-6314, josh.sletten@wsp.com		
Services commenced by this firm (mm/yy)	3/21	Total consultant contract cost ($1,000's)	
Services completed by this firm (mm/yy)	4/22	Cost of consultant services provided by this firm ($1,000's)	$110

ThermalStare used Infrared Ultra Time Domain (IR-UTD) measurement systems to perform bridge top deck and deck underside evaluation of 20 structures along the I-80 corridor near Salt Lake City, Utah for WSP for the Utah Department of Transportation. These structures contained a thick asphalt overlay and IR-UTD measurements were able to assess the bridge deck and quantify defect internal defects.

Images show IR-UTD setup on bridge parapets in Salt Lake City, UT, measuring concrete decks with asphalt overlay.

Members involved: Paul Fuchs and Glenn Washer.

17. Firm Experience:

Firm name	ThermalStare	Past Performance Evaluation Discipline(s)*	Bridge
Project name	Triple Cantilever Design Joint Venture New York City DOT	Firm responsibility (prime or sub?)	Sub
Project number		Owner's name	New Yor City DOT
Project location	Brooklyn, NY	Owner's Project Manager	
Owner's address, phone, email	New York University, Shri Iyer, 646-997-3049, shri.iyer@nyu.edu		
Services commenced by this firm (mm/yy)	3/1/21	Total consultant contract cost ($1,000's)	
Services completed by this firm (mm/yy)	7/1/21	Cost of consultant services provided by this firm ($1,000's)	$37k

ThermalStare performed Infrared Ultra-Time Domain (IR-UTD) measurements on the triple cantilever design (TCD) section of the Brooklyn-Queens Expressway (BQE) for the New York City Department of Transportation (NYCDOT). The concrete deck driving surface and soffit were examined at multiple locations on the structure to assess internal defects. The IR-UTD method is very well-suited to this structure given the extremely high traffic that makes other inspection methods impractical or impossible.

Images at the top show IR-UTD soffit inspection of cantilever in Brooklyn, NY to detect spalling.

Images at the bottom show IR-UTD deck inspection of cantilever deck surface with asphalt overlay in Brooklyn, NY.

Members involved Paul Fuchs and Glenn Washer conducted this project for ThermalStare.

18. Approach and Methodology:

Project Approach

Personnel from WJE and our partner firms are routinely engaged to assess, evaluate, and monitor bridges to confirm their conditions and are intimately familiar with the challenges associated with managing and executing these types of projects. For this IDIQ contract, the WJE team offers the LADOTD recognized engineering firms experienced in the nondestructive testing and evaluation (NDT/E) of bridges, monitoring services, and bridge deck evaluations that minimize impacts to the motoring public. Our knowledge of structural behavior and materials performance is supported by technical expertise in condition assessment and non-destructive testing. With this experience, our team is uniquely qualified to provide engineering services for the assessment and evaluation of structures affected by deterioration or structural deficiencies. Our approach to this contract is to incorporate, where appropriate, the concepts of innovation, reliability, and value into each task order.

Innovation

The advancing pace of technology offers opportunities to measure and collect data more quickly and cost effectively. WJE is not limited to one particular system provider or solution instead **We Innovate** when appropriate. WJE aspires to consistently deliver practical, state-of-the-art, and technically sound solutions—solutions that are better than those provided by others, better than our clients expect, and better than we have delivered before. Technical mastery of our practice areas allows us to avoid the constraints and costs that often come from reliance on convention and conservatism. Our expert based, first principles approach helps clients identify value in their structures that other approaches would discount or overlook, which often results in the saving of substantial resources. This same spirit of innovation is seen in Forte & Tablada (F&T) through the application of state-of-the-art techniques in surveying and laser measurements. WJE will oversee the use of NDT/E while the engineers from F&T will execute UAV surveys for digital twin modeling and crack detection. Specialists from Infratek and ThermalStare will utilize their innovative NDT techniques to collect bridge deck data with minimal disruption to traffic.

Reliability

Results obtained from materials testing, instrumentation, and nondestructive testing are typically only as good as those performing the testing and interpreting the results. For that reason, WJE staff are trained and continue to train to provide informed assessment of test data and their applicability, and as a result, **We Are Experts** in these fields. WJE has industry-leading and globally recognized experts in nearly every building material, evaluation/testing approach, and design methodology. The individuals for this task have experience in the nondestructive testing areas of magnetic particle, ultrasonic, and phased array testing; ground penetrating radar; other acoustic-based tests, among others. WJE also routinely tests wood, concrete, and steel using a variety of technologies. Our JTC laboratory is equipped to carry out testing in accordance with recognized standards and procedures or specially designed procedures unique to the problem at hand. With this expertise, the LADOTD can expect consistent, reliable test results that can be used to make informed bridge maintenance decisions.

Value

The possibilities for collecting and viewing data are numerous; however, not every method will work for every project. Today's NDT/E techniques can be as simple as identifying a crack using magnetic particle test methods or much more complex such as locating an internal concrete crack using impact echo. By listening and innovating, our approaches have encompassed off-the-shelf solutions to customized turn-key results. **We Provide**

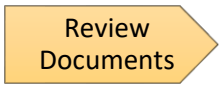
Value, we recognize that our clients must consider numerous non-engineering factors when making decisions about their structures. Therefore, we strive to inform our clients of all reasonable options and develop solutions that deliver value across a range of factors (e.g., cost, schedule, impact on operations).

Project Methodology

The above graphic outlines the seven tasks typically associated with an NDT/E IDIQ contract. Our approach to each task is described below.. Refer to the attached Organizational Chart for information on proposed staffing. Before starting the task order process, the WJE Project Manager would meet with the LADOTD Project Manager or designee to determine items such as the emergency nature of the request and any scheduling constraints; LADOTD resources that may be involved in the task execution; the critical scope of work; the availability of information from the field that resulted in the request; the availability of other important documents; and restrictions associated with potential disruptions to the travelling public or shipping lanes; etc. All work products will receive appropriate QA/QC reviews in accordance with our standard procedures prior to delivery.

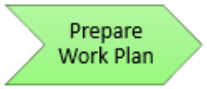
For a typical task order, we anticipate the following deliverables:

Task	Deliverable	Task	Deliverable
Task 1 – Review Documents	Problem summary and proposed approach	Task 5 – Interpret Data	Post-processed data, typically graphically enhanced; project websites
Task 2 – Develop Scope	Description of work, cost estimate, and schedule	Task 6 – Prepare Report	Summary of findings and recommendations to address issue(s)
Task 3 – Prepare Work Plan	Project Work Plan defining methodology, TTC Plan, and Safety Assessment	Task 7 – Administer Project	Invoices, meeting summaries, implementation of QC/QA Plan
Task 4 – Execute Work Plan	Collected data		



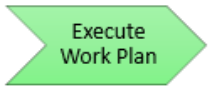
The available documentation for the subject bridge including original design drawings, bridge rehabilitation drawings, construction records, and previous inspection reports will be reviewed to better understand the existing conditions to be tested, evaluated, or monitored. This information will help focus the testing and assist with identifying missing information that should be collected during field activities. Through the document review process, we will identify the type(s) of equipment and expertise needed to support the investigation as well as the access methods and the need for maintenance of traffic.

WJE takes the time to discuss and understand each task order's unique characteristics and then customizes our methodology to best achieve the LADOTD's specific project goals. While WJE's technical capabilities are vast, not every project requires the full arsenal of what we can offer. We are motivated to solve our clients' problems in the most efficient and technically sound ways possible and are not interested in using techniques that are unnecessary for the task at hand. The individuals leading this task, each have more than 10 years of experience developing, implementing, and utilizing investigations that involve NDE and monitoring to solve problems in transportation structures. A cost estimate with supporting back-up is included in the Scoping deliverable.



When there are uncertainties surrounding a structural or materials issue, testing is a crucial step toward understanding its scope and source. Traditional testing methods, though often effective, can be physically intrusive, time-intensive, and costly. Alternately, nondestructive evaluation methods allow for the assessment of as-built conditions, material properties, and distress in a component or system without altering or damaging its form. Used in lieu of or in tandem with traditional testing, these methods can provide valuable information. We work together with our clients to resolve problems by identifying the correct solution. As a result, the project benefits from our years of problem solving experience. In addition to experienced WJE engineers, the project team includes engineers and surveyors from F&T and technical experts from Infratek and ThermalStare who understand the capabilities of their equipment and how those can be applied to the structure. The following table provides NDE techniques provided by the WJE team to address issues in concrete, timber, and steel materials. It also includes any specialized certifications typically required for that technique.

Material	Issue	NDE Technique	WJE	Sub	Certification
Concrete	Delaminations & Spalls	Visual, Acoustic sounding (chain drag, hammer), Infrared Thermography, Ultrasonic Tomography, Impact Echo, GPR, IR-UID, UAV, LiDAR, High Resolution Imaging	√	√	UAV Pilot
	Honeycomb & Voids	Infrared Thermography, Ultrasonic Tomography, Impact Echo, GPR	√		
	Integrity	Ultrasonic Pulse Velocity	√		
	Strength	Impact Hammer, Ultrasonic Pulse Velocity	√	√	
	Stiffness	Ultrasonic Pulse Velocity	√		
	Rebar Cover	GPR, Rebar Locators	√	√	
	Dimensions	Impact Echo, GPR, LiDAR	√	√	
	Corrosion	Electrical Resistivity, GPR, Half-Cell Potential, Galvanic Pulse Measurement	√	√	
Timber	Decay	Awl, Resistance Drilling	√		
	Moisture	Moisture Meter	√		
Steel	Corrosion	Physical Measurement, Ultrasonic Thickness Gage	√		
	Cracks/Weld Flaws	Ultrasonic Testing, Phased Array Ultrasonic Testing, Magnetic Particle Testing, Eddy Current Testing, Dye Penetrant Testing	√		ASNT Level II and III



WJE has pioneered the use of nondestructive evaluation methods—such as ground penetrating radar, impact echo testing, half-cell corrosion potential surveying, and infrared thermography—in transportation structure investigations. WJE's depth and breadth of experience evaluating thousands of structures and materials using nondestructive methods are unmatched. From identifying complex reinforcement placement and internal flaws in post-tensioned box girder structures to detecting hydrogen-assisted cracks in T-1 steel butt welds, WJE can offer a wide range of nondestructive evaluation options to efficiently diagnose issues that otherwise may require expensive and disruptive exploratory openings and testing to detect and correct. In addition to minimizing costs and time spent out of service, nondestructive evaluation techniques will allow WJE engineers to gain a broader understanding of a structure's condition and performance—information WJE will use to develop better targeted and more effective recommendations for the LADOTD.

Instrumentation and monitoring have been core services since our founding 65 years ago. WJE engineers have instrumented and measured thousands of structures in the Janney Technical Center laboratory and in the field with strain gages, displacement sensors, accelerometers, environmental monitors, slope inclinometers, and other sensors. WJE has developed, installed, and maintained large continuous monitoring systems, featuring wireless networks, interactive web and video feeds, database archival systems, and automated alarm systems. These techniques and tools provide WJE the detailed information needed to evaluate structural behavior and measure the performance of repairs and retrofits. As an example, WJE was able to use its instrumentation experience effectively in assisting the LADOTD with solving the movement issues of the Danziger Lift Bridge.

Through its extensive experience in collecting and processing large data sets, F&T has the resources to complete LiDAR surveys and high definition imaging using terrestrial based and unmanned aerial vehicle (UAV) equipped technologies for the purposes of creating digital twins or crack mapping. When traffic disruptions must be minimized during an investigation, the WJE team includes experts from Infratek with the capabilities of collecting electromagnetic, acoustic, infrared, and surface imaging data from bridge decks at 45 mph without lane closures. ThermalStare offers through its infrared ultra time domain (IR-UTD) testing, the ability to collect concrete delamination information in very high traffic environments.

The data will be stored and secured, then processed to meet the needs of the task order. Data preparation requires that raw data, often collected using proprietary systems, be filtered, cleaned, and converted into the proper units for interpretation. WJE understands the limitations of propriety systems and has developed in-house techniques to validate data—both in the field as part of instrument calibration and during data post-processing. This experience increases the reliability of the results. WJE also has the capabilities, as has been in projects for the Luling and Danziger Bridges, to create interactive webpages to present data.

Information collected from Tasks 1 through 6 will be complied into a report for each bridge. The report will include photos, measurements, and test results obtained during the field work. The report will describe and discuss the cause(s) of observed deterioration and its effect on the structure's service life. A draft report will be submitted to the LADOTD for review and comment. All deliverables will be subjected to review consistent with the approved QA/QC plan. A final report will be prepared that incorporates the review comments.

WJE will prepare monthly invoices, coordinate field investigations and facilitate project team and client meetings.

19. Workload:

Firm(s)	Past Performance Evaluation Discipline(s)	State project number	Project name	Remaining Unpaid Balance**
Wiss, Janney, Elstner Associates, Inc.	Bridge	Contract No. 4400017263, H.014280	Bayou Ramos Bridge Girder Study, US 90, St. Mary Parish 2019.5313.1	$49,534
Wiss, Janney, Elstner Associates, Inc.	Bridge	H.014673	I-49, US 165: Debonded PPC Girder Rehab, Rapides Parish	$24,498
Wiss, Janney, Elstner Associates, Inc.	Bridge	H.012617.6	I-310: I-10 to US 90, Hale Boggs Memorial (Luling) Bridge, Deck Overlay Repair Consultation, Instrumentation Services	$339,368
Wiss, Janney, Elstner Associates, Inc.	Bridge	Contract 4400001762, H.014899.6	I-10/310 Bonnet Carré Fire Damage Repair	$37,618
Wiss, Janney, Elstner Associates, Inc.	Bridge	Contract Number 4400021594, H.015228	Sunshine Bridge Hanger Fracture	To be determined
Wiss, Janney, Elstner Associates, Inc.	Bridge	Contract 4400021594	Load rating, load testing (Forte & Tablada)	$275,000
Wiss, Janney, Elstner Associates, Inc.	Bridge	H.000303.6	Danziger Construction Services	$62,498
FORTE & TABLADA	Survey	H.011965.6	IWGO Bridge Rehabilitation	$55,218
FORTE & TABLADA	Survey	H.011684	LA 327 Spur: Staring Lane Extension Route LA 327-S	$50,279
FORTE & TABLADA	Survey	H.012072	LA 60 Drain Bridge	$5,711
FORTE & TABLADA	Survey	H.014560	LA 94: Vermillion River Bridge	$4,553
FORTE & TABLADA	Survey	H.014416	LA 3125 at LA 3274 Roundabout	$60,543
FORTE & TABLADA	Survey	H.004273.5	DOTD I-49 Connector (Lafayette Regional Airport to I-10/US 167 Interchange	$149,183.69
FORTE & TABLADA	Survey		I-10/Loyola Additional Topo and ROW	$43,811
FORTE & TABLADA	Survey		I-10/Loyola Interchange Improvements	N/A
FORTE & TABLADA	Survey	H.003931.5	Calcasieu River Bridge Phase 3	$45,755
ThermalStare				N/A

20. Certifications/Licenses:

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

June 3, 2021

To Whom It May Concern,

This is to verify that the below listed employees of Wiss, Janney, Elstner Associates, Inc. have successfully completed LADOTD required ATSSA Traffic Control Training.

ATSSA Traffic Control Technician Training – May 11, 2021 – Jonathan McGormley and Patrick Marra

ATSSA Traffic Control Supervisor Training – May 12-13, 2021 – Jonathan McGormley and Patrick Marra

This letter will serve as temporary proof of training until above listed employee receives his official certificate from American Traffic Safety Services Association (ATSSA).

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

Best Regards,

Michael Demouy – LAGC Manager

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

Please see attached plan.

22. Sub-consultant information:

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

Firm Name (as registered with Louisiana's Secretary of State)	**Address**	**Point of Contact and email address**	**Phone Number**
Forte & Tablada, Inc.	9107 Interline Ave. Baton Rouge, LA 70809	Russell J. "Joey" Coco, Jr. jcoco@forteandtablada.com	225-927-9321
Infratek Solutions Inc.	6203 Lower York Road New Hope, PA	Amir Rezvani amir@infrateksolutions.com	732.881.1265
ThermalStare	75 Lawson Road SE, STE 204, Leesburg, VA 20175	Paul Fuchs paul.fuchs@fuchsconsultinginc.com	703-777-2115

23. Location:

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