LA 44: I-10 Roundabouts

Route: LA 44 & I-10 Ascension Parish

Contract No. 4400028432
State Project No. H.015569.5

February 7, 2024

With support from:

APS Engineering and Testing

BONTON ASSOCIATES

ARCADIS

Wednesday, February 7, 2024

Louisiana Department of Transportation and Development
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802-4438

10352 Plaza Americana Drive
Baton Rouge, Louisiana 70816
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Subject: **Contract No. 4400028432**
State Project No. H.015569.5
Federal Aid Project No. H015569
LA 44: I-10 Roundabouts
Route: LA 44 & I-10
Ascension Parish, LA

Dear Project Evaluation Team,

Arcadis and its teaming partners would like to express an interest in the above referenced advertisement. The Arcadis traffic and design teams have provided dedicated and dependable support to the Louisiana Department of Transportation and Development (LADOTD) through our intimate knowledge of of design policies and practices with extensive project experience. Arcadis has shown its commitment to LADOTD by continuing our organic growth of our roadway, drainage and bridge design teams to compliment our traffic services, who are a leader in the state.

Additionally, Arcadis is a national thought leader in multi-lane roundabout design, assisting FHWA in the development of the “turbo” roundabouts in the US, co-writing the TRB synthesis on Turbo Roundabout Design. Arcadis used their knowledge and experience to help the Georgia Department of Transportation (GDOT) in writing the GDOT Roundabout Design Guide, which takes the best portions of the turbo roundabout and blends them into standard US roadway design practice. Arcadis has extensive experience designing numerous roundabout projects worldwide. Our dedicated national roundabout experts at Arcadis will contribute their expertise in collaboration with the design team and LADOTD in selecting an optimal roundabout geometry and design that balances safety, efficiency, and functionality.

Arcadis has strategically added teaming partners that have the depth of staff to support the project’s drainage and geotechnical needs. Team members Bonton Associates and APS have worked together with Arcadis on multiple projects in the past and will continue these successful partnerships. The Arcadis team has extensive experience with bridge inspection and bridge design nationally as well as with LADOTD. With the combined understanding of the project, national expertise in roundabout design and experienced teaming relationship, the Arcadis team will provide unparalleled level of service on this project for the LADOTD.

Perhaps most importantly, the Arcadis Team lives, works, and travels through the communities that will be served by this important project. We are committed to **improving quality of life** for these communities and the Louisiana traveling public. We look forward to the opportunity to continue partnering with LADOTD to improve the safety, service, and reliability of Louisiana’s transportation system through sustainable solutions. Thank you for your time and consideration.

Sincerely,
Arcadis

Akhil Chauhan PE, PTOE, PTP, PMP
Senior Vice President, Transportation Services

Jose Rodriguez PE
Project Manager, Principal Roadway Manager

Sections 1-11

Arcadis has extensive experience designing numerous roundabout projects in the US and worldwide. Our dedicated roundabout experts will contribute their expertise to assist in selecting an optimal roundabout geometry that balances safety, efficiency, and functionality.

DOTD FORM: 24-102

(Revised January 1, 2023)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

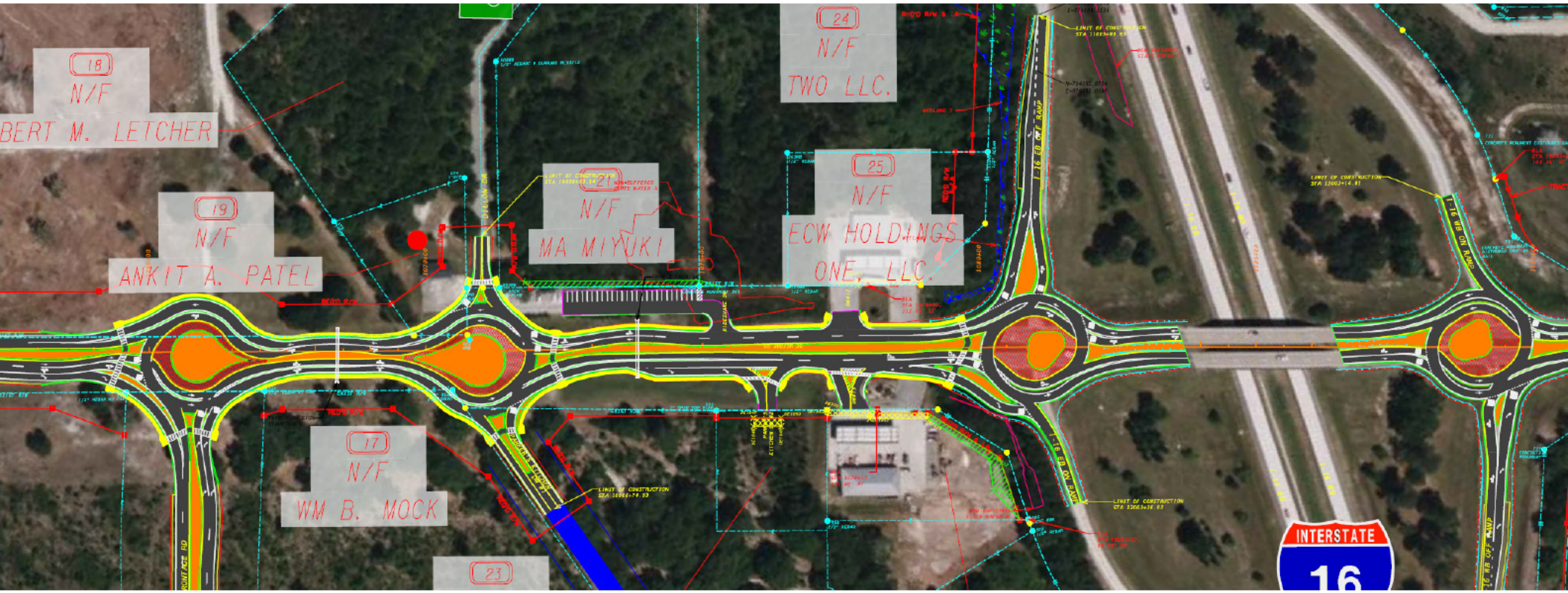
ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1. Contract Name as shown in the advertisement	LA 44: I-10 ROUNDABOUTS ROUTE: LA 44 & I-10 ASCENSION PARISH
2. Contract Number(s) as shown in the advertisement	CONTRACT NO. 4400028432
3. State Project Number(s), if shown in the advertisement	STATE PROJECT NO. H.015569.5 F.A.P. NO. H015569
4. Prime consultant name **(name must match as registered with the Louisiana Secretary of State where such registration is required by law**)	ARCADIS **ARCADIS U.S., 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.0002808 DUNS 057690414
6. Prime consultant mailing address	10352 Plaza Americana Drive Baton Rouge, LA 70816
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	10352 Plaza Americana Drive Baton Rouge, LA 70816
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Jose L. Rodriguez, PE Project Manager P. 504-648-3600 | E. Jose.L.Rodriguez@arcadis.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Akhil Chauhan, PE, PTOE, PTP, PMPs Senior Vice President P. 225 368 6563 | E. akhil.chauhan@arcadis.com

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

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	 Akhil Chauhan, PE, PTOE, PTP, PMP Date: February 7, 2024	
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): APS Bonton	Firm(s)' %: 5% 6%

Sections 12-14



Arcadis used their knowledge and experience to help the Georgia Department of Transportation writing of the GDOT Roundabout Design Guide, which takes the best portions of the turbo roundabout and blends them into standard US roadway design practice.

12. Past Performance Evaluation Discipline Table:

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

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

Past Performance Evaluation Discipline(s)	% of Overall Contract	ARCADIS	APS Engineering and Testing	BONTON ASSOCIATES	Each Discipline must total to 100%
Road	40%	85%	-	15%	100%
Traffic	15%	100%	-	-	100%
Bridge	40%	100%	-	-	100%
Geotech	5%	-	100%	-	100%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.					
Percent of Contract	**100%**	89%	5%	6%	100%

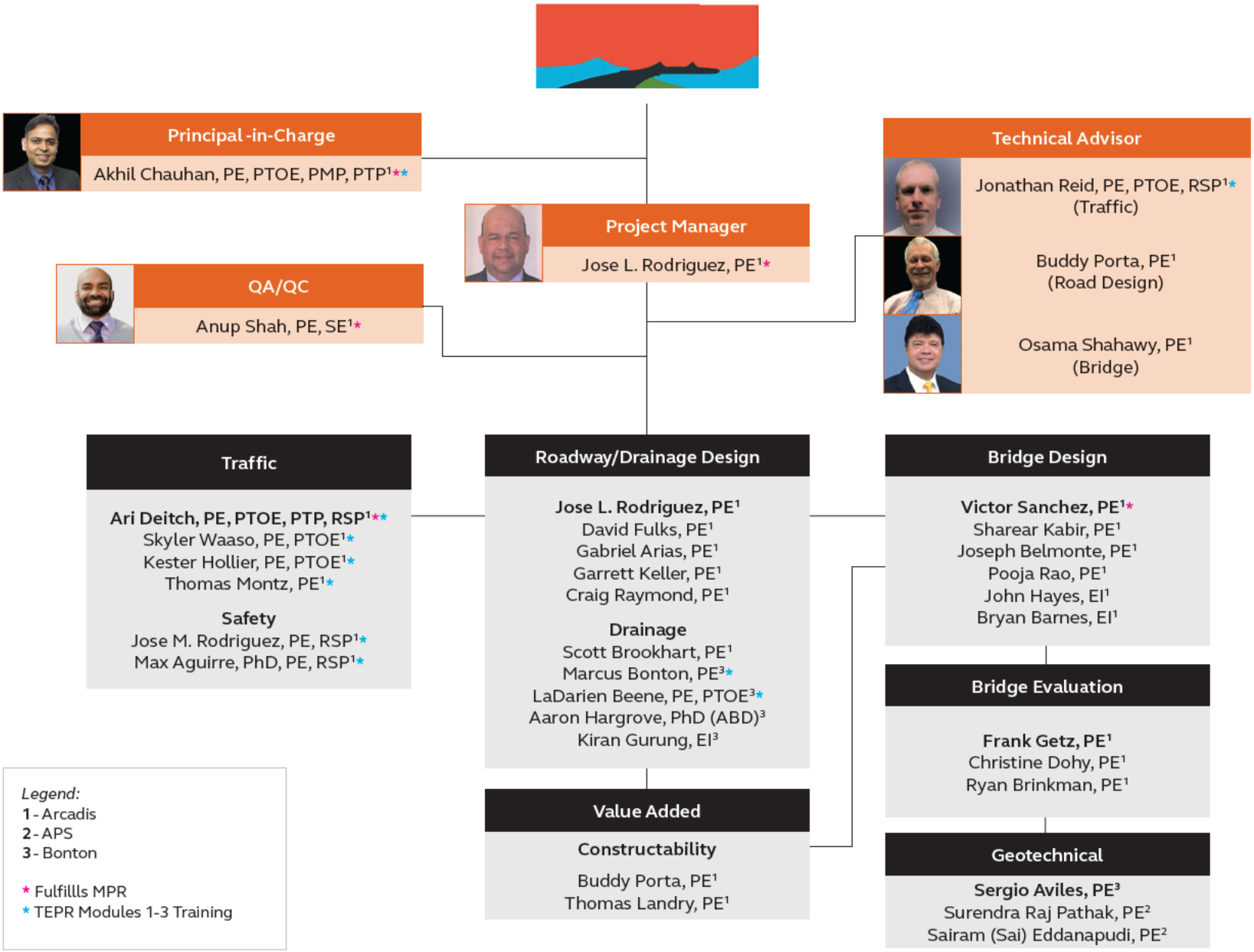
13. Firm Size:

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

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Job_Qualification/Job%20Classifications%20with%20Descriptions.pdf

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
ARCADIS	Principal	2	6
	Supervisor Engineer	3	7
	Engineer	17	22
	Engineer Intern	5	7
APS Engineering and Testing	Engineer	3	3
	Driller	5	5
	Engineer Intern	1	1
	Technician	12	12
	Administrative	2	2
BONTON ASSOCIATES	Principal	1	3
	Engineer	2	6
	Engineer Intern	1	3

14. Organizational Chart



ARCADIS

Sections 15-16

Arcadis is a national thought leader in multi-lane roundabout design, assisting FHWA in the development of the "turbo" roundabouts in the US, co-writing the TRB synthesis on Turbo Roundabout Design. The turbo roundabout incudes several design features that helps ensure lane pathing through the multi-lane roundabout by introducing low-profile raised dividers between lanes within the roundabout such that vehicles are signed to enter the roundabout are the correct lane for departure without the need to change lanes in the roundabout.

15. Minimum Personnel Requirements:

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

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)	State of license
1	Akhil Chauhan, PE, PTOE, PTP, PMP *(20 years' experience)*	ARCADIS	PE. 33703 / 09/30/2024 – Civil	LA
2	Anup Shah, PE, SE *(25 years' experience)*		PE. 46446 / 09/30/2024 – Civil	LA
3	Jose L. Rodriguez, PE *(25 years' experience)*		PE. 30492 / 03/31/2025 – Civil	LA
4	Osama Shahawy, PE *(33 years' experience)*		PE. 35652 / 09/30/2024 – Civil	LA
5	Victor Sanchez, PE *(21 years' experience)*		PE. 33976 / 09/30/2024 – Civil	LA
6	Ari Deitch, PE, PTOE, PTP, RSP *(20 years' experience)*		PE. 41842 / 03/31/2024 – Civil	LA

16. Staff Experience:

Firm employed by	ARCADIS			Meets MPR No. 1
Name	Akhil Chauhan, PE, PTOE, PTP, PMP	Years of relevant experience with this employer	15	
Title	Principal Traffic Engineer	Years of relevant experience with other employer(s)	6	
Degree(s) / Years / Specialization		MS / 2003 / Transportation Engineering, Massachusetts Institute of Technology BS / 2001 / Civil Engineering, Indian Institute of Technology		
Active registration number / state / expiration date		PE.033703 / LA / Exp. 09/2024; PTOE #2544 / USA / Exp. 11/2025 PTP #246 / USA / Exp. 12/2024; PMP #1444676 / USA / Exp. 08/2024		
Year registered	2008	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.		Principal-in-Charge		

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Chauhan is a Principal Traffic Engineer with over 20 years of applied research and industry experience in the fields of traffic engineering, traffic modeling and simulation, transportation planning, demand modeling/forecasting, intersection/corridor analysis, warrant analysis, signal design, safety studies, transportation management plans, and access management. Akhil has successfully led, managed, and mentored numerous projects and personnel related to transportation modeling, simulation, and planning for public agency clients located across the nation including several state Departments of Transportation. He is proficient in the use of many macro-, meso-, and microscopic traffic simulation software programs such as Highway Capacity Software, Vistro, Synchro, Sidra, Vissim, MITSIM, Dynameq, DynaMIT, TransCAD, Visum, and OREMS. **Has completed the LADOTD Traffic Engineering Process and Report Training.**
12/16 – 02/20	**Traffic Signal Engineering IDIQ, LADOTD, Statewide, LA.** *Contract/Project Manager.* Provided contract management and served as lead technical advisor for task orders issued under this IDIQ. Services provided included a range of traffic engineering services including traffic data collection, traffic modeling and analysis, signal timing optimization, traffic signal inventory, traffic signal design plans, construction cost estimates, and quantities.
11/20 – Ongoing	**I-10 CMAR – Traffic Engineering Services, LADOTD, East Baton Rouge Parish, LA.** *Contract/Project Manager.* Responsible for contract manager and technical advisory of all traffic engineering tasks including development of permanent signing plans, signal design and timing plans, Interchange Modification Reports, and Transportation Management Plans for the widening of Interstate-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. One critical component of the project is maintaining traffic during the construction of new bridge structures. Multiple scenarios are being evaluated using a calibrated mesoscopic model using Dynameq to determine the impacts during construction and mitigations that will be necessary to minimize delay.
05/19 – 11/22	**I-20/I-220 Interchange Improvements and BAFB Access Design-Build, LADOTD, Bossier Parish, LA.** *Principal Engineer.* Responsible for overseeing the development of addendum to Interchange Modification Report, Transportation Management Plan, **temporary** sign timing and design plans, **Temporary Traffic Control Plans, and Permanent Signing Plans to accommodate the design and construction of the project. The design-build pro**ject includes the modification of the existing interchange at I-20/I-220 with additional ramps and extension of I-220 to provide access to Barksdale Air Force Base.

06/19 – 12/19	EBR Signal Upgrades and Design, LADOTD, East Baton Rouge Parish, Louisiana. *Contract Manager.* Responsible for technical oversight and supervision of the development of design and timing plans for upgraded signal detection at 39 signalized intersections from video detection systems to wireless vehicle detection systems (magnetometers).
08/13 – 01/20	Traffic Engineering IDIQ Contracts, LADOTD, Statewide, LA. *Contract/Project Manager.* Provided contract management and served as lead technical advisor for task orders issued under two traffic engineering IDIQs. Services provided included a range of traffic engineering services including traffic data collection, intersection and corridor studies, traffic modeling, signal warrant analysis and timing optimization, alternative development and conceptual design, signal design, traffic signal inventory, and safety analysis / improvements. Arcadis developed the first mesoscopic models using Dynameq for the state of Louisiana.
01/18 – Ongoing	I-20 Mesoscopic Model and TMP Using Dynameq, LADOTD, Bossier Parish, LA. *Contract Manager.* Responsible for supervising development of mesoscopic traffic model using Dynameq to predict queueing, delay and alternate travel patterns due to planned construction on I-20 to replace pavement. The project scope includes development and calibration of mesoscopic model, analysis of alternative routes, safety analysis, operational analysis, assistance with public outreach, development of a Level 4 TMP, and development of work zone mitigation strategies.
04/13 – 12/13	LA 1 at Rondinaud Lane Signal Upgrades, City of Donaldsonville, Ascension Parish, LA. *Project Manager*. Produced traffic signal design and timing plans and traffic signal inventory (TSI) forms according to LADOTD standards. The signal modification was necessary as a new approach was added to the intersection of LA 1 at Rondinaud Lane. The updated signal required new timing parameters, intersection sketches, wiring diagrams, quantity estimates, and logging signal modifications.
08/14 – 03/21	Safety Studies IDIQ Contracts, LADOTD, Statewide, LA. *Contract/Project Manager.* Provided contract management and served as lead technical advisor for task orders issued under two safety studies IDIQs. Services provided included a range of engineering services including safety and traffic studies, historical crash analysis, collision diagram development, identification of safety deficiencies, traffic data collection, development of safety countermeasures, Highway Safety Manual predictive methods, Stage 0 feasibility studies and documentation, traffic modeling and analysis, intersection and corridor studies, and access management improvements.
01/14 – Ongoing	Pete's Highway Traffic Study and Environmental Assessment, LADOTD, Denham Springs, LA. *Principal Engineer.* Responsible for contract management and deliverables for the project which included traffic and safety analysis, signal timing and warrant analysis, alternative screening and analysis, preliminary roadway and bridge design, line and grade, Interchange Modification Report, and Environmental Assessment. Purpose of the project is to improving operations and safety along Range Avenue.
08/14 – 05/15	Highland-Burbank Connector, City of Baton Rouge - Green Light Program, East Baton Rouge Parish, LA. *Project Manager.* Responsible for design study to evaluate north-south connector and capacity and access management improvements. Alternatives considered restricted intersection types in addition to conventional treatments. Conducted signal warrant analysis and developed signal timings and design plans, including cycle lengths, green times, and clearance intervals.

16. Staff Experience

Firm employed by	ARCADIS			Meets MPR No. 2
Name	Jose L. Rodriguez, PE		Years of relevant experience with this employer	1
Title	Senior Civil Engineer		Years of relevant experience with other employer(s)	24
Degree(s) / Years / Specialization			BS / 1992 / Civil Engineering, University of New Orleans	
Active registration number / state / expiration date			PE.0030492 / LA / Exp. 03/31/2025	
Year registered	2003	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.			Project Manager	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Rodriguez has more than 25 years of experience with roles of progressive responsibility as a civil engineer performing roadway design, bridge design, project management, hydraulic analysis, utility coordination, construction supervision, estimating, and project implementation for various clients in Louisiana, Texas, Georgia, and North Carolina. Jose has worked in close relationship with the Federal Highway Administration (FHWA), U.S. Army Corps of Engineers (USACE), Louisiana Department of Transportation (LADOTD), local parish governments, and regional planning commissions. He has extensive experience with Bentley Inroads, Autodesk Civil 3d, and Leap Bridge for Concrete Bridge Design. Served on the American Concrete Institute (ACI) Louisiana Board, becoming president of the Louisiana Chapter in 2010 and remains active in the organization.
07/09 – 07/15	**Peters Road Expansion, Phases I-III, LADOTD, Plaquemines, LA.** *Project Designer.* Responsible for the geometric design, plan preparation and wetland delineation of Peters Road Phases I, II and III. The projects consisted of a new roadway, elevated crossing over the Intracoastal Waterway, approach roadways in Jefferson and Plaquemines Parishes to tie Peters Road to Louisiana 23 near Barrier Road. During the environmental phase of the project, Jose actively contributed to the preparation of plans and exhibits required for securing permits from the U.S. Coast Guard and the USACE. These projects were executed in close collaboration with Plaquemines Parish, the LADOTD, and the USACE.
01/08 – 05/08	**I-12 to Bush Corridor Study Phase III (EIS), LADOTD, St. Tammany Parish, LA.** *Project Designer.* Responsible for evaluating environmental issues and developing design alternatives in accordance with the National Environmental Policy Act (NEPA) for transportation improvements. Jose, working in coordination with the environmental team, helped produce plans and exhibits for the development of GIS data sets for the project.
03/19 – 05/20	**Eastern Federal Lands Highway Division (EFLHD), Puerto Rico.** *Assessment Roadway Lead:* Responsible for reviewing, preparing reports, and coordinating repairs at over 70 roadway sites damaged by Hurricane Maria. Provided technical assistance to local engineering firms to ensure the project adhered to the client's guidelines and strict schedules. Jose ensured that all fieldwork and plan development were aligned with Puerto Rico's horizontal and vertical datums for integration with GIS systems.
04/21 - Ongoing	**Lee Drive (Highland Road to Perkins) Final Design Study Report, MOVEBR Baton Rouge, LA.** *Project Designer*, Responsible for coordinating and developing concept drawings to evaluate the geometric feasibility of different roadway alternatives, proposed improvements, and anticipated right-of-way needs. Provided technical guidance to help identify green infrastructure opportunities along the project. Also assisted in the implementation of Complete Street regulations for the corridor. During the alternative's selection process, conducts cost estimates to evaluate and select the preferred alternative.

16. Staff Experience

01/06 – 09/09	New Orleans Submerged Roadway Program Management, LADOTD / New Orleans Regional Planning Commission, New Orleans, LA. *Project Designer and Quality Control Reviewer for* the program management team for the LADOTD and the FHWA. Jose helped develop design guidelines and processes for the standardization of engineering work for the repair of roadways damaged by Hurricane Katrina in the City of New Orleans and other parishes. Responsible for conducting quality control reviews on roadway plans prepared by other engineering firms for compliance with LADOTD and FHWA design standards.
02/10 – 06/11	I-10 from Veterans to Clearview, LADOTD, Metairie, LA. *Project Designer.* Responsible for roadway plan preparation for widening 1.2 miles of I-10 from three lanes to five lanes in each direction. The project also included bridge work to accommodate the interstate widening. Jose was also responsible for the alignment and design of concrete sound walls along the corridor. He helped implement an innovative two-sided concrete stamp process for the noise wall precast concrete panels.
05/12 – 12/15	Earhart Boulevard-Causeway Interchange, LADOTD, New Orleans, LA. *Project Designer.* Responsible for the geometric design and roadway plan preparation for the Earhart Boulevard-Causeway Interchange. The Earhart Boulevard Causeway Interchange purpose was to assist in traffic congestion relief for the east-west flow of traffic for the New Orleans Metro Area. It consisted of the development of roadway and bridge ramps for the creation of an elevated signal-controlled interchange. Responsible for development of all horizontal and vertical alignments for this project as well as roadway plan preparation, developing all roadway cross sections, drainage design, utility conflict resolution and cost estimating for the project.
06/04 – 01/11	Causeway Boulevard Interchange Improvements Phases I and II, LADOTD, Metairie, LA. *Project Designer.* This project consisted of widening Causeway Boulevard elevated structure at Veterans Boulevard and the construction of new at-grade and elevated ramps to provide better accesses, improve safety and ease congestion at this heavily traveled interchange. Responsible for evaluating existing girders, the design of new precast concrete girders and the roadway plan preparation for this project. Also, responsible for evaluating and design of new sewer and water lines for the project as well as coordinating the removal and replacement of all utilities affected by the new roadways and/or structure foundations.
01/20 – 05/20	NC Highway 73 (NC 73) Widening, North Carolina DOT, Mecklenburg County, North Carolina. *Project Engineer.* Responsible for the Temporary Traffic Control Plan preparation for the widening of NC 73. A principal arterial roadway, NC 73 was widened from a two-lane undivided roadway into a four-lane divided highway with a 30-foot wide median. The project presented many challenges due to the high traffic volumes, time restrictions for lane closures, and all NASCAR events at Charlotte Motor Speedway for the duration of the project. To mitigate traffic disruption and enhance roadway safety, assisted in preparing the Transportation Operation Plans and sequence of construction for the project. All design work was performed following NCDOT and the latest MUTCD standards.
04/18 – 09/20	Texas High-Speed Rail, Texas Central Railway, Dallas to Houston, Texas. *Project Designer.* Assisted with establishing flood elevations for the alignment of over 240 miles of rail tracts. Also responsible for the realignment of at-grade roadways impacted by the High-Speed rail.
10/17 – 03/18	Traffic Turn Lanes on Highway LA 3127, Yuhuang Chemical Inc., St. James, LA. *Quality Control (QC).* Review for the design of two turn lanes into the Yuhuang Chemical Methanol plant in St. James, Louisiana. During construction, Jose provided the owner with construction design services for the duration of the construction phase.
12/15 – 01/16	Magnolia Ridge Levee Project, City of New Orleans, St. Charles Parish, LA. *Quality Control (QC).* QC review and plan preparation for the Magnolia Ridge Levee project for St. Charles Parish.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Jonathan Reid, PE, PTOE, RSP-1	Years of relevant experience with this employer	8
Title	Principal Traffic and Safety Engineer	Years of relevant experience with other employer(s)	21
Degree(s) / Years / Specialization		MS / 1999 / Civil Engineering, North Carolina State University BS / 1994 / Civil Engineering, Lawrence Technological Institute	
Active registration number / state / expiration date		PE #027930/ NC / Exp. 12/31/2024; PTOE #1588 / USA / Exp. 03/2026; RSP #104 / USA / Exp. 12/2024	
Year registered	2008	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Technical Advisor (Traffic)	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Reid has more than 29 years of traffic and safety engineering experience. His background includes safety studies, traffic modeling, intersection design, feasibility studies, traffic impact studies, IMR/IJRs, Road Safety Assessments (RSAs), corridor and intersection studies, roundabout design, express and toll road projects, transit projects, sports/entertainment facility planning, highway signing/marking, signal warrants and design, and traffic calming studies. He has managed traffic operations and planning projects for state, federal and municipal clients and developers across the U.S. and abroad.
05/16 – Ongoing	**Traffic Safety Design Services, Region B, (Districts 3 & 6), GDOT, Georgia.** *Project Manager* of three-year, $12M project to provide safety analysis and design service support for GDOT Districts 3 and 6. Responsibilities are to advance safety projects through preliminary traffic engineering and Concept Report phases and complete preliminary and final design. Typical safety projects include Road Safety Audits, evaluation & recommendation of safety countermeasures, and project initiation and plan preparation for safety improvement projects. Projects have included intersection conversion to a roundabout, DDI or other safer intersection forms. As part of this project, developed Intersection Control Evaluation (ICE) tool to automate the evaluation and recommendation for the safest and most cost-effective intersection control type improvements.
01/18 – 05/18	**US 61 Corridor Feasibility Study (Airline Hwy), LADOTD, East Baton Rouge Parish, LA.** *Technical Advisor*. Responsible for supervisory and oversight for this feasibility study. The purpose of the study is to assess traffic operations and potential safety improvements for this urban, 4-lane divided highway. Scope of services included traffic data collection and analyses, safety data analyses, future traffic projections considering corridor growth rates, assessment of access management improvements (implementing "Superstreet" concept), and evaluation of concept using HCM and HSM methodologies.
03/17 – Ongoing	**I-49 South (Ricohoc to Berwick) Supplemental Environmental Impact Statement (SEIS), LADOTD, St. Mary Parish, LA.** *Technical Advisor*. Assisted with the development of Tier 1 Analysis and alternative concept analysis to identify a range of feasible alternatives and determine the impacts with respect to traffic operations, safety, and cost.
05/16 – Ongoing	**Traffic Safety Design Services, Region B, (Districts 3 & 6), GDOT, Georgia.** *Project Manager* of three-year, $12M project to provide safety analysis and design service support for GDOT Districts 3 and 6. Responsibilities are to advance safety projects through preliminary traffic engineering and Concept Report phases and complete preliminary and final design. Typical safety projects include Road Safety Audits, evaluation & recommendation of safety countermeasures, and project initiation and plan preparation for safety improvement projects. Projects have included intersection conversion to a roundabout, DDI or other safer intersection

16. Staff Experience

	forms. As part of this project, developed Intersection Control Evaluation (ICE) tool to automate the evaluation and recommendation for the safest and most cost-effective intersection control type improvements.
07/18 – Ongoing	Feasibility Studies Limited Services Contract for NCDOT. *Project Manager*. Responsible for managing team in providing array of services including traffic and *safety data collection* and forecasting, alternative development and analysis, project scoping, concept development layout and design, environmental, hydraulic, utility, and structural reviews, cost estimating and project programming and prioritization. Also performing express design services to expedite project delivery.
10/14 – 03/15	SR 141/State Bridge Road Innovative Intersection, City of Johns Creek, Georgia. *Project Manager.* Developed and modeled *innovative intersection concepts* to improve one of the worst intersections in North Fulton County. Provided concept design for both a dual-median U-turn (thru intersection) and median U-turn / Continuous Flow Hybrid alternatives. VISSM simulation model results showed a 75% reduction in travel delay and a 25% increase in intersection capacity without any substantial right-of-way requirements. Concept is awaiting funding.
07/07 – 10/08	I-75 NW Corridor Draft Environmental Impact Study, GDOT, Cobb and Cherokee Counties, Georgia. *Lead Task Manager.* Traffic analysis and IMR/IJR development to support EIS document for $834 million managed lane corridor to improve 26 miles on I-75 and I-575. Supervised the traffic forecasting using ARC 20-county model projections, traffic analysis of study area roadway and intersections (using Synchro / Vissim), and evaluation of impacts and proposed mobility and safety mitigation measures. Managed development of the largest IMR/IJR project ever undertaken in the state, which included microsimulation analysis of all new and modified managed-lane and general-purpose interchanges in the corridor. The IMR/JR was approved months ahead of schedule because FHWA had no comments to address from the first submittal package.
09/09 – 03/11	Roswell Historic Gateway Transportation Improvement Project City of Roswell, Roswell, Georgia. *Project Manager.* Study to perform public involvement, traffic analysis, design concept, environmental study and EA document preparation, and preparation of preliminary plans to improve Atlanta Street between SR 120 and the Chattahoochee River (1.5 miles) by removing a current reversible lane system. Study included innovative solutions to solve controversial project needs, including multi-lane roundabouts, non-traditional interchange concepts and context sensitive design to minimize impact to adjacent National Park Service and historic properties while enhancing business development opportunities in this important historic corridor. Project received the 2012 Georgia Partnership for Transportation Quality award for Best Context Sensitive Design and Public Participation.
01/19 – 03/20	NCDOT Congestion Management /Innovative Intersection Guide project. *Lead Author* in development of the Quadrant Roadway Intersection Informational Guide published by FHWA through a partnership with NCDOT. Guide is the 5th in a series on innovative intersection designs and highlight national experience with this emerging new intersection form, designed to reduce congestion at bottleneck intersections. There have been four Quadrant Roadways built in the US, and the Guide draws on experience and operational analysis of this new intersection form to encourage other DOT's to implement where appropriate.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Lloyd "Buddy" Porta, Jr., PE	Years of relevant experience with this employer	12
Title	Principal Engineer	Years of relevant experience with other employer(s)	37
Degree(s) / Years / Specialization		BS / 1973 / Civil Engineering, Louisiana State University	
Active registration number / state / expiration date		PE.016425 / LA / Exp. 09/2025	
Year registered	1977	Discipline	Civil Engineer, Environmental Engineer
Contract role(s) / brief description of responsibilities.		Technical Advisor (Road Design)	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Porta brings more than 49 years of experience in the transportation field. During his 37-year career at LADOTD, he practiced highway design for 11 years with 8 of those years in responsible charge of a design squad. He spent the next 21 years of his career in project/program management. He managed the Off-System Bridge Replacement Program and the Urban System Program. In 2001 he was tasked with being the LADOTD Transportation Infrastructure Model for Economic Development (TIMED) Program Manager. This $5 billion program was developed to multi-lane over 500 miles of state highways as well as construct three new bridges; two of these bridges cross the Mississippi River. He spent the last 5 years of his career at LADOTD as the State Road Design Engineer Administrator.
07/15 – 05/19	**US 190B at Jefferson Ave. Roundabouts, LADOTD, Covington, LA.** *QA/QC Reviewer.* Supported the construction of a new roundabout in Covington as a quality assurance/quality control reviewer. Plans reviewed included the construction of sidewalk for use by pedestrians.
06/84 – 07/10	**Off-System Bridge Program, LADOTD, Statewide, LA.** *Program Manager.* ***DOTD's First Program Manager for OSBRP.*** Replaced/rehabilitated existing bridges located on nonfederal routes in the cities and/or parishes in Louisiana. Provided the project and program management. Responsible for the selection of the qualifying sites, the distribution of the federal funds to the participating parishes, the selection of the design consultant, the coordination with the parishes and the consultants, the development of the scope of services and fee for each project, the technical review of the topographic surveys and construction plans and providing comments to the consultants and parishes, and the approval of all invoices.
10/16 – 02/18	**Off-System Highway Bridge Replacement Program, LADOTD, North Bayou Black Drive Bridge, Terrebonne Parish, LA.** *QA / QC Reviewer.* Reviewed plans for the replacement of an off-system highway bridge. Detailed design effort included field surveying, right of way adjustments, crash barrier selection, hydraulic analysis, preliminary and final plan preparation, and quantity estimation.
04/12 – 01/14	**US 11 Railroad Bridge Replacement and Corridor Improvements Environmental Assessment, LADOTD, Slidell, LA.** *QA / QC Reviewer.* Responsible for LADOTD guideline compliance for the replacement and widening of the US 11 roadway overpass of the Norfolk Southern Railroad. The project included evaluating partial and full-access intersection options and bridge alignment and type alternatives for the heavily skewed and long steel span bridge in this urban area of Slidell, Louisiana. Key issues included the bridge's imminent historic status, commercial parking impacts and adapting to the Norfolk Southern right-of-way and travel pattern changes following the construction.

16. Staff Experience

09/12 – Ongoing	US 165 Connector and Ouachita River Bridge - Environmental Impact Statement, Line and Grade and Toll Study, LADOTD, Monroe, LA. *QA/QC Reviewer.* Responsible for LADOTD guideline compliance. Three alternatives were developed and evaluated along with various tolling scenarios. All alternatives traverse substantial tracts of wooded wetlands associated with Chauvin Swamp near the Russell Sage Wildlife Management Area.
01/14 – Ongoing	Pete's Highway Environmental Assessment and Alternatives, LADOTD, Livingston Parish, LA. *QA/QC Reviewer.* Responsible for LADOTD guideline compliance for the high-priority project completing an Environmental Assessment and traffic engineering services related to improving congestion and operations along Range Avenue in the vicinity of I-12. Alternatives include two split diamond interchange options with roundabout, partial clover leafs, and c-d road components at both Range Avenue and the next existing, eastern overpass at Pete's Highway (LA 16) and a diverging diamond interchange alternative at Range Avenue.
04/12 – 01/14	LA 434 Corridor Stage 1 Environmental Assessment, New Orleans Regional Planning Commission, Lacombe, LA. *QA/QC Reviewer.* Responsible for LADOTD guideline compliance. Environmental Assessment for the widening and improvements of LA 434 between LA 36 and the anticipated new junction with LA 3241 near LaCombe, LA in St. Tammany Parish. The project involved stream permit application coordination.
10/90 – 10/10	Urban System Program, LADOTD, Statewide, LA. *Program Manager.* Responsible for consultant selection, coordinating with metropolitan planning organizations (MPOs) and city/parish officials, coordinating with LADOTD Planning Section, developing the scope of services and fee for the projects, reviewing construction plans and providing comments to the consultants and city/parish, and approving all invoices. Responsible for developing the Urban Systems Program Seminar, which provided information on the processes and procedures used in the program. Served as project manager for signal projects in St. Bernard, Orleans, St. Tammany, and Ouachita Parishes
09/01 – 05/06	Transportation Infrastructure Model for Economic Development (TIMED) Program, LADOTD, Statewide, LA. *LADOTD TIMED Program Manager*. Worked and coordinated on a daily basis with the TIMED Program Manager (LTM) to develop training, procedures, policies, and guidelines for this Louisiana Constitution mandated program. Monitored program progress and approved consultant invoices as a member of the TIMED Program Executive Committee, reporting directly to the Secretary of the LADOTD. There were 16 projects recognized throughout the state wit bonds sold to finance and accelerate the program.
05/06 – 07/10	Road Design Engineer Administrator, LADOTD, Statewide, LA. Responsible for transitioning section focus from project management to roadway design as desired by the Chief Engineer. To support this mandate, organized and coordinated training with FHWA and the Louisiana Transportation Training Education Center to assist with design staff development. Developed a legal seminar in collaboration with the state Attorney General's Office designed for Road Design and other LADOTD sections representing LADOTD in court depositions presented in several LADOTD offices. Responsible for the development of design criteria for Offset Left Turn Lanes and design guidelines for the replacement of bridges on state routes.

16. Staff Experience:

Firm employed by	ARCADIS		Meets MPR No. 4
Name	Osama Shahawy, PE	Years of relevant experience with this employer	3
Title	Bridge Practice Manager	Years of relevant experience with other employer(s)	30
Degree(s) / Years / Specialization		MS / 1991 / Civil (Structures), Florida State University BS/1983/Civil Engineering	
Active registration number / state / expiration date		PE.0035652 / LA / Exp. 09/30/2024	
Year registered	2001	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Technical Advisor (Bridge)	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Shahawy has over 33 years of structural bridge engineering experience working on various projects throughout Louisiana and the Southeast. He served as PM or TL on 100+ projects with extensive bridge plan, specification and estimate, rehabilitation and bridge replacement. His experience includes coordinating teams of engineers and other technical personnel on the preparation of bridge PS&E design/ management including on/off-system bridges in rural/urban areas with heavy utilities & complex TCP. Mr. Shahawy has a design background that provides for solid construction capabilities–a benefit that ensures constructible technical solutions and more complete construction documents. Leveraging his decades of experience, he will check accuracy, verify compliance to review comments, and will ensure that agency and stakeholder comments and concerns are addressed.
08/22 – Ongoing	**Cross Bayou Bridge Replacement, Shreveport, LA.** *Project Manager and Structure Task Lead*. Develop a Feasibility study to replace US71 bridges at Cross Bayou. An in-depth structural, roadway, and Traffic analysis was performed to develop the most effective cost for bridge replacement land roadway improvement. Alternatives were developed per the ASHTO LRFD Bridge Design Specifications Manual and LADOTD Bridge Design and Evaluation Manual (BDEM), and cost estimates for all alternatives were using average cost information per the LADOTD Project Delivery Manual. Provided the final recommendation for bridge replacement. Currently working on Stage 3 Preliminary and final plan development, followed by Stage 5 construction support.
10/20 – Ongoing	**I-10 CMAR Segment 1, LADOTD, Baton Rouge, LA.** *Structure Task Lead, Engineer of Record (EOR)* for CMAR project to improve I-10 through widening and reconstruction of the main line from three to four lanes in each direction, including bridge replacement and rehabilitation, interchange and ramp modification, shoulder widening, and auxiliary lane(s) from LA 415 to Essen Lane on I-10 and I-12. Responsibilities include designing the substructure for the Terrace- Washington bridges, including temporary and permanent bridge widening. Participates in task force meetings and works with the CMAR Contractor and DOTD to develop preferred bridge concepts. Responsible for QC/QA of all designs, plans, and estimated quantities per LADOTD guidelines.
05/20 – 11/20	**Alphonse Forbes Bridge Replacement, City of Baton Rouge/East Baton Rouge Parish, LA.** *Structure Manager* for replacing the Alphonse Forbes Road Bridge over Sandy Creek in Central Louisiana. The project will replace an existing bridge with a nine-span flat slab bridge on pile bents. The project was designed to fit within the existing right-of-way and meet the required hydraulic opening while minimizing roadway alignment and profile changes. I reviewed bridge plans and calculations, provided red lines, reviewed comments, and estimated quantities per LADOTD guidelines.

07/11 – 05/13	MacArthur Drive Bridge Interchange, Rapides Parish, LA. *Structure Manager, Engineer of Record*. Responsible for widening, revising, and redesigning the MacArthur Drive Interchange completing Phase 1. The design and plan production are related to the changes required for Ramps 7 and 8. Design deck slab for 18 spans, which include Trapezoidal girders & Bulb-T girders. Design Bearing Pads for all proposed Trapezoidal and Bulb-T girders. Designed inverted-T caps and special geometric columns for piers. Responsible for designing and producing geometric and span layout modifications, superstructures, and substructures. Review for accuracy and completeness of the plans and related designs prepared for the project. Ensures quality and adherence to established design policies, procedures, LADOTD BDEM, LSSRB, standards and guidelines in preparing and reviewing all design products for compliance and good engineering practice as directed by a Project Quality Control Plan.
07/11 – 05/13	LA 1 over I-19 Bridge Rehabilitation, Rapides Parish, LA. *Project Manager, Engineer of Record*. Provided professional inspection, rehabilitation design, and construction engineering services. The bridge is a four spans steel plate girder structure with uneven settlement and rotation at the abutments. It required rehabilitation to stabilize the movement and raise the bridge back to its original elevation as it was built. Responsibilities included directing the team and overall tasks involving preparing geometric layout plan development, bridge design, and final plans, specifications, and estimates for LA 1 Bridge over I-49, according to LADOTD BDEM. We performed QA/QC, prepared construction cost estimates, and reviewed/revised plans based on LADOTD comments.
08/20 – 03/22	I-10 New Orleans to Slidell Hard Shoulder Design and Feasibility, LADOTD, New Orleans, LA. S*tructure Manager.* Conducting bridge design evaluation using Active Transportation and Demand Management (ATDM) strategies on 1-10 in Orleans and St. Tammany Parishes. The Project is to determine improvements in implementing shoulder lanes on Interstate 10 in the New Orleans East area. Responsibilities include preliminary bridge design to determine construction cost for structure widening of EB & WB I-10 based on four scenarios utilizing existing shoulders on 1-10 as one of the scenarios.
07/11 – 05/13	Mississippi River Bridge at Vicksburg, Mississippi, LA. *Project Manager, Engineer of Record*. Responsible for the four-lane continuous main steel-truss through-deck bridge covers a total length of 1,716 ft. and a width of 60 ft. The central truss consists of two symmetrical 640.5 ft. cantilever spans and one 435 ft. drop span. The approach spans consist of 101 prestressed concrete spans and reinforced concrete pier caps. Responsible for review of as-built plans and all rehab projects plans; indexed and developed inspection forms; supervised and reviewed results from the 3D computer model; model calibration; performed QA/QC according to LADOTD BDEM and assisted in developing the final report.
07/11 – 06/12	I-10 over Calcasieu River - Lake Charles Bridge, Lake Charles, LA. *Project Manager, Engineer of Record.* Responsible for bridge inspection that includes four steel deck trusses and a cantilever steel through-truss for the central span portion of the bridge, covering a total length of 6,617 ft. with a width of 62.67 ft. The east and west approach spans of the bridge consist of two bridge systems: first, a longitudinal girder system supported on steel bents; second, a fracture-critical span system consisting of a two-girder, floor beam, and stringer system. Responsible for review of the as-built and rehab project plans and indexing; developed inspection forms; supervised and reviewed the results from the 3D computer model; model calibration; performed load rating based on the present condition, capacity, and loading of the bridge; rated the gusset plate and connection systems following the Federal Highway Administration (FHWA)-IF-09-014; performed QA/QC and assisted in developing the final report.

16. Staff Experience

Firm employed by	ARCADIS		Meets MPR No. 2
Name	Anup Shah, PE, SE	Years of relevant experience with this employer	5
Title	Principal Structural Engineer	Years of relevant experience with other employer(s)	20
Degree(s) / Years / Specialization		BS / 1998 / Civil Engineering, North Carolina State University MS / 2003 / Civil Engineering, North Carolina State University	
Active registration number / state / expiration date		PE. 0046446/ LA / Exp. 09/30/2024 (Also licensed in AL, DC, GA, MD, MS, NC, SC, TN, VA)	
Year registered	2022	Discipline	Civil Engineer
Contract role(s) / brief description of responsibilities.		QA/QC	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Shah brings over 25 years of experience as a structural and geotechnical designing successful design-build projects totaling over $1B in design and construction fees all along the East Coast and will bring this knowledge of accelerated engineer designing various types of prestressed concrete girders and cored slab beams, culverts, pile foundations, drilled piers, retaining walls, noise barriers, pedestrian bridges, and various other structural systems. Additionally, he has provided insight into projects for Departments of Transportation of various states including South Carolina, Virginia, Tennessee, Georgia, Ohio, Louisiana, Texas and Florida. While at the NCDOT, Anup Shah was the structural team leader for reviewing structural designs for various new products to be implemented into the state system and structural team leader for implementing a statewide standardization of the structural connections for dynamic message signs installed in the state. He was also a core team member for various statewide standardization initiatives by the Geotechnical Engineering and Structures Management Units. These experiences provide him with a unique understanding of the protocols and standards that DOTs around the country expects of their consultants.
09/19 – Ongoing	**US 90 Business Signing Upgrade, LADOTD, Jefferson & Orleans Parishes, LA.** *Senior Structural Engineer / Structural Design Task Lead.* Responsibilities included leading a team of structural engineers in the design and review of sign support structures that are ground and bridge/structure mounted on existing US90. The 4-segment project required the design of reinforced concrete or steel structures attached to the existing bridge at various locations. At the completion of the final signed and sealed structural design plan set, the design team supported post-design services for the client (DOTD). As the Structural Design Lead, reviewed the RFIs and shop drawing submittals related to the structural elements and confirmed overall conformance to the design plans and project specifications. Also led a team in the development of engineering alternatives and sketched proposed and approved by the contractor/DOTD/Arcadis team.
10/20 – Ongoing	**I-10 CMAR, LADOTD, East Baton Rouge Parish, LA.** *Senior Structural Engineer*. The scope of this CMAR project includes improvements to I-10 through widening and reconstruction of the main line from three to four lanes in each direction, bridge replacement and rehabilitation along the corridor, interchange and ramp modifications, shoulder widenings, and construction of auxiliary lane(s) from LA 415 to Essen Lane on I-10 and I-12. Responsibilities leading a team of structural engineers include designing and QC of the substructure for the Terrace-Washington bridges, including temporary and permanent bridge widenings. Anup participates in design team meetings. Ensured quality control of the milestone deliverables adhered to established design policies, procedures, standards and guidelines in the preparation and review of all design products for compliance and good engineering practice as directed by a Project Quality Control Plan.

16. Staff Experience

10/22 – 11/22	IIJA Off-System Bridge Replacements District 02 – Task Order 1, LADOTD, District 02. *Project Manager / QAQC Lead.* Responsibilities included leading a team of planners and engineers in the review of 25 bridge sites to determine eligibility into the IIJA Off-System Program, coordination with local stakeholders, provide an initial screening to identify structures appropriate for replacement based on cost as well as purpose and need and recommend structure types for each of the sites selected to the program. Led a team of planners and engineers through. Ensured quality control and quality assurance of all deliverables adhered to established design policies, procedures, standards and guidelines in the preparation and review of all design products for compliance and good engineering practice as directed by a Project Quality Control Plan.
10/19 – Ongoing	Bridge 87 over Richardson Creek (BR-0063), NCDOT Division 10, Anson County, NC. *Project Manager / QAQC Lead.* Responsibilities include leading a team of planners and engineers in the preliminary design to final design of a 254 foot long bridge replacement from the latest NCDOT Structures Management Unit's limited services contract. As Project Manager, responsibilities include project management duties such as: preparing the design schedule, developing the scope and fee for all in-house design tasks, working with subconsultants to prepare the scope and fee for their services to ensure they will be in compliance with the client's guidelines and expectations, communicating regularly with the design team, senior leadership at the NCDOT Structures Management Unit and Division 10 office.
12/21 – Ongoing	Bridge 23 on US 117 over Great Swamp Creek (BR-0150), NCDOT Division 4, Wilson County, NC. *Project Manager / QAQC Lead.* Responsibilities include leading a team of planners and engineers to provide planning to final design services of approximately 104 foot long existing bridge. Other responsibilities include providing overall QA on all deliverables, preparing the design schedule, developing the scope and fee for all in-house design tasks, working with subconsultants to prepare the scope and fee for their services to ensure compliance with the client's guidelines and expectations, communicating regularly with the design team, senior leadership at the NCDOT Structures Management Unit and Division 4 office.
10/18 – 05/23	Central Avenue Bridge Replacement, GDOT/City of Atlanta, Atlanta, GA. *Structure Design Task Lead / Senior Structural Engineer.* As the Structures Design Lead, responsibilities included leading a team of structural engineers in the design and plan preparation for the replacement of a 609 ft long bridge and 4 retaining wall structures in a highly urbanized location for the Renew Atlanta Bond program. The 11-span bridge will utilize multiple superstructure types including GDOT Modified Type I girders, AASHTO Type II girders, flat slab, steel beams and GDOT 54" Bulb Tee girders. The bridge spans across confidential railroad client and MARTA rail line, and were subject to reviews and coordination between all stakeholders. As a Senior Bridge Engineer, prepared the preliminary engineering and developed the preliminary plans for the bridge and special design retaining walls.
05/19 – 07/22	2016 GDOT Bridge Bundle #1, Contract 9. GDOT, Bulloch, Effingham, and Evans Counties, GA. *Senior Structural Engineer/QAQC.* Arcadis was contracted to replace functionally obsolete and structurally deficient structures on state routes under GDOT's Bridge Replacement Program. Project scope consists of five rural bridge replacements in southeast Georgia. As the Structures Design Lead, responsibilities included leading a team of structural engineers in the design and plan preparation for a 160 ft long bridge replacement (Bridge over Bull Creek) as well as providing QC on the plans and calculations. The 4-span bridge was designed with GDOT Modified Type I girders, AASHTO Type II girders. Reviewed all the plans for the bridge for quality assurance and meeting the expectations of the client. Other responsibilities on this contract included providing QAQC services on the structural design for the bridges over Ogeechee River.

Firm employed by	ARCADIS			Meets MPR No. 6
Name	Ari Deitch, PE, PTOE, PTP, RSP	Years of relevant experience with this employer	9	
Title	Senior Traffic Engineer	Years of relevant experience with other employer(s)	2	
Degree(s) / Years / Specialization		BS / 2012 / Biological Engineering, Louisiana State University		
Active registration number / state / expiration date		PE.0041842 / LA / Exp. 03/2024; PTOE #4346 / USA / Exp. 11/2026 PTP #690 / USA / Exp. 07/2025; RSP #37 / USA / Exp. 12/2024		
Year registered	2017	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.		Technical Advisor		

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Deitch is a Senior Traffic Engineer and Project Manager specializing in traffic engineering studies and design, traffic safety, transportation management, and conceptual roadway design. Mr. Deitch has experience managing and working on a wide range of transportation projects for LADOTD, and other DOTs and municipalities across the country, pertaining to intersection and corridor studies, signal warrant analysis, access management, pedestrian and bicycle improvements, complete streets, transportation management plans, Stage 0 feasibility studies, NEPA studies, signal design, and signing and marking design. He has experience with traffic analysis software's and methods and is proficient in Highway Capacity Software, Synchro, Vistro, Vissim, Sidra and MicroStation software. **Has completed the LADOTD Traffic Engineering Process and Report Training.**
12/16 – 02/20	**Traffic Signal Engineering IDIQ, LADOTD, Statewide, LA.** *Senior Traffic Engineer.* Provided a range of traffic engineering services including traffic data collection, traffic modeling and analysis, signal timing optimization, traffic signal inventory, traffic signal design plans, construction cost estimates, and quantities. Served as engineer of record for traffic signal plans developed under this IDIQ.
11/20 – Ongoing	**I-10 CMAR – Traffic Engineering Services, LADOTD, East Baton Rouge Parish, LA.** *Senior Traffic Engineer.* Providing QAQC for traffic engineering tasks including development of permanent signing plans, signal design and timing plans, Interchange Modification Reports, and Transportation Management Plans for the widening of Interstate-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. One critical component of the project is maintaining traffic during the construction of new bridge structures. Multiple scenarios are being evaluated using a calibrated mesoscopic model using Dynameq to determine the impacts during construction and mitigations that will be necessary to minimize delay.
05/19 – 11/22	**I-20/I-220 Interchange Improvements and BAFB Access Design-Build, LADOTD, Bossier Parish, LA.** *Senior Traffic Engineer.* Responsible for the development of addendum to Interchange Modification Report, Transportation Management Plan, temporary sign timing and design plans, Temporary Traffic Control Plans, and Permanent Signing Plans to accommodate the design and construction of the project. The design-build project includes the modification of the existing interchange at I-20/I-220 with additional ramps and extension of I-220 to provide access to Barksdale Air Force Base.
04/19 – 12/19	**EBR Signal Upgrades and Design Plans, LADOTD, East Baton Rouge Parish, LA.** *Senior Traffic Engineer.* Responsible for supervisory tasks and oversight of this project involving field signal inventory and the creation of updated signal design plans and quantities for 39 intersections in East Baton Rouge Parish.

04/19 – 06/19	US 90 Traffic Signal Timing Upgrades, LADOTD, Lafayette Parish, LA. *Traffic Engineer.* Project tasks involved traffic data collection and analysis, traffic signal inventory, peak period determination and observations, warrant analysis, travel time runs, traffic signal timing analysis using Synchro 10 software, and development of updated TSI forms following latest LADOTD standards
01/16 – 12/18	US 90 Business Signing Upgrades, LADOTD, Orleans Parish, LA. *Traffic Engineer.* Developed permanent signing plans and Transportation Management Plans for segments of US 90 Business and I-10 in the Central Business District of New Orleans. The project was divided into 4 separate plan packages. Separate Transportation Management Plans were developed and submitted for each segment.
02/15 – 09/18	US 71 Corridor - Phase II and III Traffic and Safety Corridor Study, LADOTD, Rapides Parish, LA. *Project Manager.* Responsible for overseeing and managing project tasks including traffic data collection, signal warrant analysis, traffic analysis, crash analysis, alternative and countermeasure development, predictive safety analysis, and conceptual drawings.
08/19 – 02/20	US 61 Access Management and Corridor Study, LADOTD, East Baton Rouge Parish, LA. *Senior Traffic Engineer.* Project purpose was to evaluate the effectiveness of proposed access management improvements along US 61 and identify feasible alternatives to maximize operational and safety benefits. Provided technical oversight for traffic analysis using Highway Capacity Software 7, signal warrant analysis, and predictive safety analysis. Assisted with the development of construction cost estimates and benefit-cost analysis.
02/15 – 01/18	LA 3105 (Green Acres to LA 72) Corridor Study, LADOTD, Bossier Parish, LA. *Traffic Engineer.* Responsible for development/evaluation of existing and future year conditions using a calibrated microsimulation model (Vissim). Designed alternatives for phased implementation based on identified needs and input from local stakeholders including medians, restricted intersections, roundabouts, roadway widening, and signal timing enhancements.
04/16 – 09/18	New Orleans Pedestrian Stage 0 Safety Feasibility Study, LADOTD, Orleans Parish, LA. *Project Manager.* Responsible for assessing existing and future safety deficiencies related to pedestrian and bicycle modes and selecting safety countermeasures for 20 high-risk locations. Developed design drawings for proposed short-term and long-term improvement phases and conducted benefit-cost analysis to inform project prioritization. Conducted signal warrant analysis and preliminary signal design and timing plans. Conducted safety analysis using Highway Safety Manual predictive methods. Organized and lead project stakeholder meetings to review alternatives, obtain feedback, and develop context sensitive solutions. Completed Stage 0 documentation including Preliminary Scope and Budget and Environmental Checklists for all 20 intersections.
07/14 – Ongoing	Pete's Highway Traffic Study and Environmental Assessment, LADOTD, Denham Springs, LA. *Traffic Engineer.* Responsible for traffic analysis of proposed alternatives using Vissim software. Played a key role in the development of preliminary roadway design drawings, incorporation LADOTD's Complete Streets Policy, and implementing enhanced pedestrian safety measures such as high visibility crosswalks. Work involves completing an Environmental Assessment and providing traffic engineering services related to improving operations and safety along Range Avenue at the I-12 interchange. Conducted signal warrant analysis and developed optimized timing plans for proposed improvements.

16. Staff Experience:

Firm employed by	ARCADIS		
Name	Skyler Waaso, PE, PTOE	Years of relevant experience with this employer	3
Title	Senior Traffic Engineer	Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		BS / 2009 / Civil Engineering, University of Louisiana at Lafayette	
Active registration number / state / expiration date		PE.0039070 / LA / Exp. 09/2024; PTOE #4600 / USA / Exp. 03/2025	
Year registered	2017 Discipline	Civil Engineer	
Contract role(s) / brief description of responsibilities.		Traffic Engineering	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Waaso is a Senior Traffic Engineer with 13 years of experience in traffic modeling and studies. He is experienced with a range of traffic modeling software including Highway Capacity Software, Vissim (microsimulation), Synchro, Vistro, and Sidra. Mr. Waaso has experience managing and delivering a wide range of traffic projects for LADOTD, and other DOTs across the country, pertaining to intersection and corridor studies, transportation management plans, access management studies, signal warrant studies, signing timing plans, Stage 0 feasibility studies, NEPA studies, and safety studies. **Has completed the LADOTD Traffic Engineering Process and Report Training.**
06/15 – 02/17	**LA 59 Roundabout Corridor Traffic Study, LADOTD, St. Tammany Parish, LA.** *Traffic Engineer*. Performed traffic analysis for a segment along the LA 59 corridor in Covington, Louisiana. Main tasks included analyzing the corridor's existing conditions and developing alternatives that would improve the safety and capacity needs of the corridor. Performed the traffic analysis in Synchro and Sidra as well as review crash reports and summary the crash history. Developed alternatives for the corridor and presented our concept to the DOTD district office and parish representatives. Completed a stamped and signed roundabout report.
01/18 – 06/19	**I-20 Transportation Management Plan, LADOTD, Bossier Parish, LA.** *Traffic Engineer.* Assisted with the development of mesoscopic traffic model using Dynameq to predict queueing, delay and alternate travel patterns due to planned construction on I-20 to replace pavement. The project is anticipated to disrupt traffic in this critical portion of I-20. The project scope includes development and calibration of mesoscopic model, analysis of alternative routes, safety analysis, operational analysis, assistance with public outreach, development of a Level 4 TMP, and development of work zone mitigation strategies.
04/19 – 06/19	**US 90 Traffic Signal Timing Upgrades/LADOTD, Lafayette Parish, LA.** *Senior Traffic Engineer.* Project tasks involved traffic data collection and analysis, traffic signal inventory, peak period determination and observations, warrant analysis, travel time runs, traffic signal timing analysis using Synchro 10 software, and development of updated TSI forms following latest LADOTD standards
11/20 – Ongoing	**I-10 CMAR – Traffic Engineering Services, LADOTD, East Baton Rouge Parish, LA.** *Senior Traffic Engineer.* Assisting with traffic engineering tasks including development of permanent signing plans, signal design and timing plans, Interchange Modification Reports, and Transportation Management Plans for the widening of Interstate-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. One critical component of the project is maintaining traffic during the construction of new bridge structures. Multiple scenarios are being evaluated using a calibrated mesoscopic model using Dynameq to determine the impacts during construction and mitigations that will be necessary to minimize delay.

16. Staff Experience:

02/17 – 09/18	US 71 Corridor - Phase III Traffic and Safety Corridor Study, LADOTD, Rapides Parish, LA. *Traffic Engineer.* Responsible for conducting traffic study tasks including traffic data collection, signal warrant analysis, traffic analysis, crash analysis, alternative and countermeasure development, predictive safety analysis, and conceptual drawings.
02/17 – 02/18	US 165 Traffic and Corridor Study, LADOTD, Ouachita Parish, LA. *Traffic Engineer.* Responsible for traffic study tasks including traffic data collection and volume development, microsimulation modeling (Vissim) of existing and future conditions, developing capacity, access management and safety improvements, and study documentation.
09/19 – Ongoing	Innovate Mound Project, MDOT, Macomb County, MI. *Senior Traffic Engineer.* Responsible for traffic engineering tasks including conducting a corridor traffic study of Mound Road from I-696 to M-59. Traffic modeling and analysis was performed to develop proposed improvements including capacity, access management, safety, multi-modal and traffic signal improvements. Developed traffic study documentation and provided transportation management plans during construction.
04/16 – 02/17	I-110 to Terrace Avenue Interchange Modification Report, LADOTD, East Baton Rouge Parish, LA. *Traffic Engineer*. Prepared an Interchange Modification Report for FHWA on a future connection along 1-110 SB in downtown Baton Rouge. Main tasks included modeling of the existing, no build, and build alternative in Vissim and completing the written Interchange Modification Report that was submitted to FHWA.
02/17 – 02/18	Safety Studies IDIQ - I-49 Interchange Stage 0 Traffic and Safety Feasibility Study, LADOTD, Lafayette Parish, LA. *Traffic Engineer.* Responsible for conducting traffic study and associated tasks including data collection and analysis, traffic and safety analysis, and conceptual design drawings. Purpose of the project was to identify feasible improvement alternatives to address historical safety issues along the I-49 corridor and at 3 interchanges. Participated with meetings with LADOTD HQ and District 03 team members to understand project needs and develop context sensitive solutions.
02/17 – 06/19	Pete's Highway Traffic Study and Environmental Assessment, LADOTD, Denham Springs, LA. *Traffic Engineer.* Responsible for traffic analysis of proposed alternatives using Vissim software. Work involves completing an Environmental Assessment and providing traffic engineering services related to improving operations and safety along Range Avenue at the I-12 interchange. Conducted signal warrant analysis and developed optimized timing plans for proposed improvements. An Interchange Modification Report was prepared to document results of the traffic study and proposed improvements.
02/20 – Ongoing	U-23 Flex Route Traffic Study, MDOT, Livingston County, MI. Senior *Traffic Engineer.* Responsible for traffic modeling and alternative analysis for US-23 between M-36 and I-96. Work includes analysis of build alternatives, including developing and calibrating existing Vissim models to FHWA/MDOT standards and using the models to compare the projected future traffic operations of build alternatives, including the extension of the existing US-23 Flex Route north of I-96. The US-23 Flex Route is a part-time dynamic hard shoulder use facility north of Ann Arbor. This study will evaluate if and how the Flex Route can be extended approximately five miles from 8 Mile Road to I-96. The study will include conducting traffic and geometric analyses, road and bridge scoping, conducting environmental surveys with appropriate reports and preparing National Environmental Policy Act (NEPA) documentation. The study will include traffic, road, bridge, ITS components, safety and drainage. There is also a public engagement aspect to the project that will involve two stakeholder meetings and two public meetings.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Kester Hollier, PE, PTOE	Years of relevant experience with this employer	3
Title	Senior Traffic Engineer	Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization		BS / 2004 / Civil Engineering, Louisiana Tech University	
Active registration number / state / expiration date		PE.034304 / LA / Exp. 03/2025; PTOE #3928 / USA / Exp. 11/2024	
Year registered	2009 Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.		Traffic Engineering	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Hollier possesses a wide breadth of experience in traffic engineering studies and design including feasibility studies, intersection and corridor traffic studies, signal timing and design, roadway design, complete street improvement projects, transportation management plans, traffic modeling and analysis, transportation safety, and construction management and inspection. Working on a wide variety of projects from the planning and conceptual phases to the design and construction phases, has given him the experience to help identify the needs and requirements for projects. This experience allows him to understand stakeholders ranging from local public agencies to state DOTs and helps provide expertise in achieving successful solutions for a variety of projects. **Has completed LADOTD Traffic Engineering Process and Report Training.**
11/20 – Ongoing	**I-10 CMAR – Traffic Engineering Services, LADOTD, East Baton Rouge Parish, LA.** *Project Manager/Senior Traffic Engineer.* Responsible for traffic engineering tasks including development of permanent signing plans, traffic signal plans, interchange modification reports, and transportation managemnet plans for the widening of I-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. Extensive historical crash and safety analysis is being performed in support of the IMR and TMP. One critical component of the project is maintaining traffic during the construction of new bridge structures. Multiple scenarios are being evaluated using a calibrated mesoscopic model to determine the impacts during construction and mitigations that will be necessary to minimize delay.
01/10 – 04/11, 07/13 – 01/14	**Stumberg Lane Extension, City of Baton Rouge Green Light Plan, East Baton Rouge Parish, LA.** *Traffic Engineer*. Responsible for the design of new traffic signals at US 61 (Airline Highway) and LA 73 (Jefferson Highway) for the extension of Stumberg Lane in Baton Rouge, LA. Also, responsible for the design and layout of the fiber optic interconnect along the proposed extension.
05/09 – 07/13	**LA 23 Widening (Lapalco Blvd. – Engineers Rd.), LADOTD, Jefferson and Plaquemines Parishes, LA.** *Traffic/Civil Engineer*. Responsible for the road design and geometrics for the widening of LA 23 in Jefferson and Plaquemines Parishes between Lapalco Blvd. (LA 428) and Engineers Rd. (LA 3017). Developed traffic analysis for the traffic signal timing and required turn bay lengths at intersections. Developed traffic signing plans, pavement marking layouts and temporary traffic control plans.
05/14 – 08/20	**Causeway Blvd. at Earhart Expwy. Interchange, LADOTD, Jefferson Parish, LA.** *Senior Traffic Engineer*. Responsible for the design of traffic control and construction sequencing, pavement marking layout, quantity analysis, cost estimates, and quality control for a new interchange at LA 3139 (Earhart Expwy.) and LA 3046 (Causeway Blvd.) in Jefferson Parish, LA. Provided review for the interchange traffic sign and traffic signal timings and design. Identified all necessary design waivers and design exceptions required for LADOTD approval. Provided geometric layout design, typical section design and review, and joint layout design for several interchange ramps and underpasses.

16. Staff Experience

10/18 – 01/19	LA 22 Traffic Circulation and Corridor Analysis, NORPC, St. Tammany Parish, LA. *Senior Traffic Engineer*. Responsible for the development of three future alternatives along Northshore Boulevard between I-12 and US 190 in Slidell, LA. Managed the data collection process and peak period observations to determine existing traffic patterns as well as the safety analysis along the corridor. Developed three alternatives that used a combination of traffic signal retiming, J-turns, and roundabouts to provide better access management along Northshore Boulevard as well as improve traffic flow in the corridor for current and proposed future conditions with consideration given to proposed future developments using trip generation and land use analysis.
09/12 – 02/16	Traffic Study and Stage 1 EA for Replacing Belle Chasse Tunnel and Bridge, LADOTD, Plaquemines Parish, LA. *Lead Traffic Engineer*. Responsible for the feasibility study and traffic analysis along LA 23 (Belle Chasse Highway) between LA 428 (Behrman Highway) and LA 406 (Woodland Highway) for multiple 6-lane bridge alternatives that will be proposed to replace the existing Belle Chasse Tunnel and lift bridge over the Intercoastal Waterway. These alternatives included 3%, 4%, and 5% bridge grades that modified roadway geometry and intersection location. Responsible for the review of the roadway portion and costs for the Line and Grade Study along with the review of the construction sequencing and traffic maintenance of the constructability review.
11/17 – 07/20	LA 466 (5th Street) Improvements Traffic Study, City of Gretna, Jefferson Parish, LA. *Project Manager / Senior Traffic Engineer*. Responsible for the traffic study and impacts for the proposed complete streets improvements along the LA 466 corridor between LA 23 and Richard St. in Gretna, Louisiana. Tasks included data collection along the corridor and at designated intersections, safety and crash analysis along the corridor, trip generation/land use and performing existing traffic analysis and future traffic analysis for proposed final alternative. The traffic study was prepared to follow the Louisiana Department of Transportation and Development's Traffic Engineering Process and Report Guidelines. The project also included a stand alone pedestrian study along the corridor at designated intersection and the design of traffic signals and accessible pedestrian signals at signalized intersections.
12/17 – 11/19	Causeway Boulevard Widening Traffic Study, Jefferson Parish, LA. *Project Manager / Senior Traffic Engineer*. Responsible for the traffic and safety study for the proposed widening of Causeway Boulevard between Metairie Rd. and West Esplanade Blvd. in Jefferson Parish, LA. Tasks included data collection, traffic volume redistribution, left-turn placement and turn bay storage length, and existing traffic analysis and future traffic analysis of a preferred alternative.
06/13– 04/14	US 190 Stage 0 Feasibility Study, LADOTD, St. Tammany, LA. *Traffic Engineer*. Responsible for *roundabout geometric design and pedestrian and bike path design along the US 190 corridor in the City of Slidell and St. Tammany* Parish to improve safety for motorized and non-motorized roadway users.
10/10 – 07/15	Barriere Road Traffic Study, US Department of Defense, Plaquemines Parish, LA. *Civil/Traffic Engineer*. Responsible for the geometric layout and design of the realignment alternatives of Barriere Rd. between LA 23 to the US Naval Air Station. Developed and reviewed traffic analysis for arrival and departure patterns for the South US Naval Air Station entrance gates.
09/12 – 02/16	Stage 0 Feasibility Study and Stage 1 EA for Replacing Belle Chasse Tunnel and Bridge, LADOTD, Plaquemines Parish, LA. *Traffic Engineer*. Responsible for the feasibility study and traffic analysis along LA 23 (Belle Chasse Highway) between LA 428 (Behrman Highway) and LA 406 (Woodland Highway) for multiple 6-lane bridge alternatives proposed to replace the existing Belle Chasse Tunnel and lift bridge over the Intercoastal Waterway. These alternatives included 3%, 4%, and 5% bridge grades that modified roadway geometry and intersection location. Responsible for the review of roadway design and costs for the Line and Grade Study along with the review of the construction sequencing and traffic maintenance of the constructability review.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Thomas Montz, PE	Years of relevant experience with this employer	9
Title	Senior Transportation Engineer	Years of relevant experience with other employer(s)	3
Degree(s) / Years / Specialization		MS / 2011 / Civil Engineering, Louisiana State University BS / 2009 / Civil Engineering, Louisiana State University	
Active registration number / state / expiration date		PE.0039128 / LA / Exp. 09/30/2024	
Year registered	2014	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Traffic Engineering	

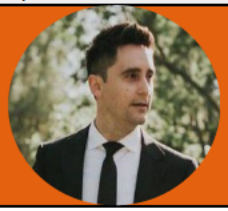
Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Montz is a Project Manager and Senior Transportation Engineer specializing in transportation planning / feasibility, modeling, safety, and design. He has over 12 years of experience leading a multitude of planning and engineering projects including Stage 0 feasibility studies, safety studies, NEPA studies, traffic signal timing and design, and transportation management during construction. He specializes in traffic analysis and operations including signal timing, signal design, ITS design, HCM analysis, and microsimulation analysis. **Has completed LADOTD Traffic Engineering Process and Report Training.**
04/16 – Ongoing	**Pete's Highway Interchange Alternatives and Environmental Assessment, LADOTD, Denham Springs, LA.** *Traffic Engineer.* Responsible for assisting with traffic signal timing analysis tasks including volume development / projections, origin-destination study, VISSIM model development and calibration, and noise analysis. Work involves completing an Environmental Assessment and providing traffic engineering services related to improving operations and safety along Range Avenue at the I-12 interchange.
04/13 – Ongoing	**US 11 Environmental Assessment, LADOTD, St. Tammany Parish, LA.** *Traffic Engineer.* Responsible for crash analysis, operating speed tabulations, intersection and corridor analysis, alternative development, and noise modeling for the proposed widening of US 11 between US 190 (Gause Blvd) and I-12 in Slidell, LA. The proposed improvements include replacing a bridge crossing the Norfolk Southern Railroad. This project includes analyzing several innovative alternatives for the proposed corridor, including "superstreets" and J-turn concepts.
04/19 – 12/19	**US 90 Traffic Signal Timing Upgrades/LADOTD, Lafayette Parish, LA.** Technical Lead of project tasks involving traffic data collection and analysis, signal inventory, peak period determination and observations, warrant analysis, travel time runs, traffic signal timing analysis using Synchro 10 software, and development of updated TSI forms following latest LADOTD standards
02/15 – 08/17	**US 71 Corridor - Phase II Stage 0 Feasibility Study, LADOTD; Rapides Parish, LA.** *Project Manager*. Responsible for the preparation of a corridor feasibility study for the purpose of enhancing mobility and safety on US 71 in Alexandria, LA. Main tasks included traffic data collection, signal warrant studies, traffic analysis, safety data analysis, alternative development, and public/stakeholder involvement. Completed Stage 0 documentation including Preliminary Scope and Budget and Environmental Checklists.

16. Staff Experience

04/16 – 09/18	New Orleans Pedestrian Stage 0 Safety Feasibility Study, LADOTD, Orleans Parish, LA. *Traffic Engineer*. Responsible for traffic data collection, volume development, traffic analysis, and alternative screening. Purpose of the project was to identify safety improvement alternatives at 20 high-priority intersections in New Orleans with a history of pedestrian and bicycle safety issues. Assisted with the development of safety countermeasures for short-term and long-term alternatives. Assisted with the completion of Stage 0 documentation including Preliminary Scope and Budget and Environmental Checklists.
04/16 – 10/19	I-12 Hard Shoulder Running Feasibility Study and Preliminary Design, LADOTD, East Baton Rouge and Livingston Parishes, LA. *Traffic Engineer.* Conducted traffic analysis using a calibrated microsimulation model to evaluate the operational performance of HSR and HOV lane alternatives along I-12 between the I-10/I-12 split and Walker, LA. Developed a range of alternatives and made recommendations based on the alternatives that produced the greatest operational benefits and relieved major bottlenecks. Presented results to LADOTD project team and administration to inform the decision-making process and subsequent project stages.
02/18 – 06/21	Baton Rouge Pedestrian and Bicycle Safety Action Plan and Road Safety Assessments LADOTD, East Baton Rouge Parish, LA. *Traffic Engineer.* Responsible for assessing existing and future safety deficiencies related to pedestrian and bicycle modes at identified high-risk intersections and segments in East Baton Rouge Parish. Assisted with the development of screening criteria to identify high priority locations with a history of pedestrian and/or bicycle crashes.
12/13 – 05/15	Joe Sevario / Roddy Road Stage 0 Safety Feasibility Study, LADOTD, Ascension Parish, LA. *Traffic Engineer*. Evaluation of roundabouts at 10 stop-controlled intersections along Joe Sevario / Roddy Road, from US 61 to LA 42, a length of approximately 7.2 miles. Main tasks included traffic data collection, traffic signal warrants, crash analysis, capacity analysis, safety analysis, review of existing pipelines and other municipal *utilities, alternatives analysis, design development, and cost estimates.*
11/12 – 4/13	LA 594 (Millhaven Rd.) Stage 0 Feasibility Study and Preliminary Design, I-20 Economic Development Corporation, Ouachita Parish, LA. *Traffic Engineer.* Responsible for traffic data collection and traffic and safety analysis tasks. The project proposed roadway improvements to maintain operations and safety along Millhaven Road while accommodating projected increases in traffic demand and commercial development.
12/13 – 06/15	LA 3235 Stage 0 Safety Feasibility Study, LADOTD, Lafourche Parish, LA. *Traffic Engineer.* Responsible for traffic and safety analysis as part of the Stage 0 feasibility study to develop improvement alternatives with the goal of enhancing mobility and safety on LA 3235. Main tasks included traffic data collection, signal warrant studies, traffic analysis, safety analysis, development of conceptual layouts, and public outreach. Intersections found to warrant signalization were also modeled in unconventional designs including U-turns, J-turns, and RCUTs. Purpose of the project was to address historical safety issues along the corridor resulting from high speeds and conflict points. Assisted with the completion of Stage 0 documentation including Preliminary Scope and Budget and Environmental Checklists.
11/20 – Ongoing	I-10 CMAR, LADOTD, East Baton Rouge Parish, LA. *Traffic Engineer.* Responsible for construction phasing modeling and evaluation to determine the impacts of various construction phasing scenarios and mitigation that will be required to minimize travel delays during construction. Construction phasing scenarios are being modeled using a calibrated mesoscopic model developed by Arcadis, which can estimate the effects of construction activities on the broader roadway network. Model results are being used to inform the Transportation Management Plan for the project.

16. Staff Experience

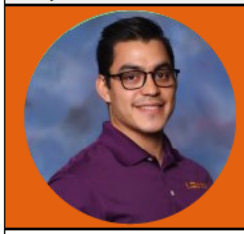
Firm employed by	ARCADIS		
Name	Jose M. Rodriguez, RSP	Years of relevant experience with this employer	4
Title	Safety Analyst	Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization		MS / 2014 / Civil Engineering, LSU BS / 2006 / Civil Engineering, Julio Garavito Colombian Engineering School	
Active registration number / state / expiration date		RSP # 12 / USA / Exp. 12/2025	
Year registered	2019	Discipline	Road Safety Professional
Contract role(s) / brief description of responsibilities.		Safety Analysis	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Rodriguez's experience includes safety & traffic analysis for corridor feasibility studies on major highways and interstates, as well as intersection feasibility studies including pedestrian and bicycle considerations. Mr. Rodriguez has extensive experience in crash analysis and highway safety analysis using the Highway Safety Manual, Crash Modification Factors, and Safety Performance Functions for local and nonlocal conditions. He has summarized crash and safety analysis results in dynamic web dashboards using the latest data visualization technology, including Power BI.
02/17 – 08/17	**LA 157 (US 80 to South of LA 614) Study, LADOTD, Bossier City, Louisiana.** *Traffic and Safety Analyst.* Performed benefit-cost analysis including both operations and safety. A traffic study to evaluate existing, no-build and proposed build alternatives for LA 157 (Booker Rd. to south of LA 614) for intermittent (five year) and 20-year plan using VISSIM and Synchro.
08/14 – 02/17	**Traffic Engineering Retainer - US 71 Corridor Traffic & Safety Study - Phase 1, LADOTD, Rapides Parish, Louisiana.** *Safety Analyst.* Assisted in the prediction of future safety performance along the corridor. Responsible for development of conceptual design of intersection and corridor build alternatives. Specific duties included determining applicability of various intersection and corridor mitigation, ensuring design features accommodate roadway attributes, and identifying extent of ROW impacts.
02/17 – 02/18	**I-49 Interchange Safety Improvement Studies, LADOTD, Lafayette Parish, Louisiana.** *Safety Analyst.* Responsible for the collection and evaluation of historical crash data, screening and selection of available safety improvement strategies that typically include alternative intersection configuration, roundabouts, corridor geometry and lane configuration, and driver awareness improvements. Safety analysis using HSM, IHSDM. Conceptual design of corridor/intersection safety improvements.
04/16 – 06/18	**Pete's Highway Interchange EA/IMR, LADOTD, Denham Springs, Louisiana.** *Traffic and Safety Analyst.* Responsible for methodology development and overview of traffic analyses for a high-priority project. Work involves completing an EA and providing traffic engineering services related to improving congestion and operations along Range Avenue at the I-12 interchange. Design alternatives included two split diamond interchange options with roundabout, cloverleafs, and collector distributor road components at both Range Avenue and the next existing, eastern overpass at Pete's Highway (LA 16); and a diverging diamond interchange alternative at Range Avenue.
04/16 – Ongoing	**1-12 Hard Shoulder Running (HSR) Safety Study - Safety Studies Retainer, LADOTD, East Baton Rouge, Livingston Parishes, Louisiana.** *Safety Analyst.* Reviewed and summarized the current best practices and safety research information on hard shoulder running experience in the U.S and Europe. Research included shoulder/median width and impacts to safety,

16. Staff Experience

	desirable lengths for effective hard shoulder running, and CMFs to predict impacts to safety by reducing lane and/or shoulder widths. Produce a high-level technical memorandum that will assess various options of utilizing existing I-12 shoulders, researching the best practices, analyzing the safety and operational benefits, and determining the likely costs. Evaluated safety based on crash analysis, the HSM predictive methods and the ISATe tool for Freeways. Estimated costs and benefits of operational and safety analysis for proposed alternatives.
04/15 – 09/18	New Orleans Pedestrian Stage 0 Safety Feasibility Study, LADOTD, Orleans Parish, Louisiana. *Safety Traffic Analyst*. Safety analyses performed utilizing the Highway Safety Manual 2010 guidelines and Crash Modification Factors (CMFs) from other sources. Analyses include developing two build alternatives that address safety and operational issues at each intersection for all road users and developing a Stage "0" Checklist.
05/18 – Ongoing	Baton Rouge Pedestrian Bicycle Safety Action Plan, LADOTD, Baton Rouge, Louisiana. *Safety Analyst.* Supported the development and delivery of a Pedestrian and Bicycle Safety Action Plan for the City of Baton Rouge. Responsibilities include completing a review of crash data, identification of priority locations, and creation of targeted countermeasures based on roadway type. Responsible for reviewing the crash data in both GIS and PowerBI to identify 10 focus areas/locations with the greatest need for pedestrian/bicycle safety improvement. The second phase of the project will develop detailed studies at the top 10 identified locations for safety countermeasures such as low-cost pedestrian and bicycle facility improvements.
2019 – Ongoing	District 8 Systemic Safety Project, Pedestrians, ODOT, Columbus, Ohio. *Safety Analysts.* Responsible for the review of data, including crash, roadway inventory, and demographics. The project required the development of a PowerBI dashboard and use of GIS analytics to review crash data to identify over-represented metrics to locate crash occurrences and areas where crashes may not be occurring, but have similar environmental characteristics (i.e., speed limit, lane width, driver or pedestrian age, presence of zero vehicle households, etc.). This will allow the project team to not only develop engineering solutions, but also target areas for enhanced education and enforcement.
08/18 – Ongoing	Local Road Systemic Safety Task Order Contract, ODOT, Statewide. *Safety Analyst.* Assisted with four concurrent task orders to perform data driven systemic safety analysis for ODOT's current SHP initiative to promote regional safety through systemic safety analysis. Each task order includes data collection/conflation/QAQC, database management, data evaluation, examining crash history, developing crash trees, identifying focus facilities, identifying risk factors, identifying segments of the network that may be at risk for crashes, identifying and prioritizing safety improvements, and developing online web applications to clearly convey results to stakeholders using ESRI ArcMap and Microsoft PowerBI.
01/20 – Ongoing	Local Road Safety Plan Task Order Contract, ODOT, Statewide. *Subconsultant Safety Analyst*. Assisting in the development and testing of ODOT's new SPAM Tool and completing a Local Road Safety Plan for the OMEGA MPO in east central Ohio. The SPAM Tool which is a VBA macro-enabled Microsoft Excel workbook that will use the same data import format as ODOT's Crash Analysis Module (CAM) Tool and process crashes for given areas selected by users in the current ODOT Traffic Information Mapping System (TIMS) interface. The OMEGA LRSP includes testing the SPAM Tool and leading stakeholder engagement to develop a regional local road safety plan and 8 counties specific LRSPs.

Firm employed by	ARCADIS		
Name	Max Aguirre, PhD, PE, RSP	Years of relevant experience with this employer	3
Title	Traffic and Safety Engineer	Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		PhD / 2018 / Engineering Science, LSU; MS / 2015 / Construction Management, LSU; BS / 2013 / Civil Engineering, LSU	
Active registration number / state / expiration date		PE. 0047579/ LA / Exp. 09/30/2025; RSP #636 / USA / Exp. 8/2024	
Year registered	2021	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Traffic Engineering	

Experience dates	Experience and qualifications relevant to the proposed contract
	Dr. Aguirre has experience working on projects for Louisiana Department of Transportation and Development (LADOTD) pertaining to traffic and safety studies, feasibility studies, pedestrian and bicycle improvements, permanent signing design, signal design, and NEPA studies. He is also familiar with the Highway Capacity Manual, Highway Safety Manual, MUTCD, and AASHTO "Green Book". Dr. Aguirre is also knowledgeable in the application of several software programs including IHSDM, Synchro, GuidSIGN, HCS and MicroStation software. **Has completed LADOTD Traffic Engineering Process and Report Training.**
08/19 – 02/20	**Traffic Engineering IDIQ - US 61 Access Management and Corridor Improvements (Airline Hwy) Feasibility Study, LADOTD, East Baton Rouge Parish, LA.** *Traffic Engineer.* Project purpose was to evaluate the effectiveness of proposed access management improvements along US 61 and identify feasible alternatives to maximize operational and safety benefits. Evaluated the need for pedestrian and bicycle accommodations based on historical crash data and adjacent land use. Assisted in conducting traffic analysis and the development of benefit-cost analysis to compare the effectiveness of the proposed alternatives.
09/19 – 06/21	**Safety Studies IDIQ - Baton Rouge Pedestrian and Bicycle Safety Action Plan and Road Safety Assessments, LADOTD, East Baton Rouge Parish, LA.** *Traffic and Safety Engineer.* Assisted with the assessment of existing and future safety deficiencies related to pedestrian and bicycle modes at identified high-risk intersections and segments in East Baton Rouge Parish. Assisted with the development of screening criteria to identify high priority locations with a history of pedestrian and/or bicycle crashes. Conducted Road Safety Assessments (RSAs) at 10 priority locations to identify and evaluate safety deficiencies and develop safety countermeasures to improve safety for pedestrians and bicyclists.
10/19 – 07/21	**I-10 New Orleans to Slidell Hard Shoulder Running Traffic and Safety Feasibility Study, LADOTD, Orleans Parish, LA.** *Traffic and Safety Engineer*. Purpose of the project was to evaluate the feasibility of implementing HSR lanes along I-10 to alleviate existing bottlenecks and congestion along critical segments of the corridor. Assisted in safety analysis and development of conceptual drawings and typical sections for proposed Hard Shoulder Running (HSR) alternatives on I-10 between New Orleans and Slidell.
11/20 – Ongoing	**I-10 CMAR Traffic Engineering Services, LADOTD, East Baton Rouge Parish, LA.** *Traffic and Safety Engineer.* Assisting in traffic engineering tasks including development of permanent signing plans, Interchange Modification Reports, and Transportation Management Plans for the widening of I-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. Assisted in the development of existing condition safety analysis including tasks such as crash data analysis, collision diagrams, and crash report documentation.

16. Staff Experience

Firm employed by	ARCADIS		
Name	David Fulks, PE	Years of relevant experience with this employer	15
Title	Roadway Design Engineer	Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		MS / 2020 / Engineering Management, The George Washington University BS / 1997 / Civil Engineering, Portland State University	
Active registration number / state / expiration date		PE.030151 / LA / Exp. 09/2024	
Year registered	2002	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Fulks has more than 27 years of experience in the design of roadways, flood protection systems, and airports. His experience encompasses analysis and design of geometric and pavement design of highways, streets, sidewalks, restrictive intersections, roundabouts, and interchanges; site hydrology and hydraulics; and traffic impact analysis. His responsibilities have included preparing engineering designs, reports, plans, and specifications; preparing and managing project schedules and cost estimates; and providing construction administration.
07/15 – 06/17	**US 190B at Jefferson Ave Roundabout Design, LADOTD, St. Tammany Parish, LA**. *Roadway Engineer.* Geometric and roadway design, preliminary plans preparation, and cost estimate for replacing an existing four-way signalized intersection with a single-lane elliptical roundabout.
04/13 – 07/14	**US 11 Railroad Bridge Replacement and Corridor Improvements Environmental Assessment, LADOTD, St. Tammany Parish, LA.** *Lead Engineer.* Geometry and roadway design, line and grade study development, and cost estimates for the replacement of an historic railroad overpass bridge and upgrading an existing two-lane rural highway to a four-lane divided highway with access control.
05/14 – 05/15	**Joe Sevario/Roddy Road Roundabouts Stage 0 Feasibility Study, LADOTD, Ascension Parish, LA.** *Task Manager and Lead Engineer*. Geometric and roadway design and cost estimates for the replacement of ten existing stop-controlled intersections with single-lane roundabouts.
01/14 – 03/17	**Pete's Highway Environmental Assessment, LADOTD, Livingston Parish, LA.** *Lead Roadway/Bridge Geometrics and Cost Engineer.* High-priority project completing an Environmental Assessment and traffic engineering services related to improving congestion and operations along Range Avenue in the vicinity of the I-12 interchange. Design alternatives included two split diamond interchange options with roundabout, partial clover leaves, and collector-distributor road components at both Range Avenue and the next existing, eastern overpass at Pete's Highway (LA 16) and a diverging diamond interchange alternative at Range Avenue.
11/14 – 10/15	**LA 44 and Loosemore Road Roundabout, LADOTD, Ascension Parish, LA.** *Deputy Project Manager and Lead Engineer.* Geometric and roadway design, preliminary subsurface utility investigation, and cost estimates for the replacement of an existing two-way stop-controlled intersection with either a single-lane roundabout or two single-lane roundabouts and right-in/right-out control at the existing intersection.

16. Staff Experience

12/13 – 06/15	Safety Studies Retainer - LA 3235 Stage 0 Safety Feasibility Study, LADOTD, Lafourche Parish, LA. *Lead Roadway Geometrics and Cost Engineer*. Designed geometric layout of safety improvements including access management, restrictive intersections, and added turn lanes. Developed construction cost estimates for proposed improvements to assess feasibility of proposed alternatives.
09/09 – 03/12	I-20 – Kansas Lane/Garrett Road Connector Interchange Improvements, LADOTD, Ouachita Parish, LA. *Lead Engineer.* Geometry and roadway design of the new KCS Railroad overpass and connector between Kansas Lane and Garrett Road, including interstate interchange modifications to include two-lane roundabouts at ramp intersections, and three two-lane roundabouts along the corridor outside of the interchange. Improvements to the pedestrian and bicycle facilities were included in accordance with the LADOTD Complete Streets Policy. The compact project area required a detailed layout to confirm feasibility.
08/11 – 09/13	Chef Menteur Bridge and Approaches Replacement Environmental Assessment and Line and Grade Study, LADOTD, Orleans Parish, LA. *Lead Roadway/Bridge Geometrics and Cost Engineer.* Responsible for preparing the proposed geometric configurations of a bridge replacement at Chef Menteur Pass. Investigated four alignments as well as both low-level moveable and high-level fixed span bridge configurations. Performed detailed geometric layouts of both the mainline highway, bridge, and adjacent collector roadways to mitigate impacts to environmentally sensitive resources and local residential, commercial, and historical interests.
09/12 – 09/13	US 165 Connector and Ouachita River Bridge Environmental Impact Statement, LADOTD, Ouachita Parish, LA. *Roadway Design Engineer.* Responsible for preparing roadway and bridge general plan designs, line and grade report development, and cost estimates for a new five-mile elevated highway through Chauvin Swamp north of Monroe, LA. An in-town corridor was also developed which entailed upgrading Louisville Avenue and Hudson Lane in Monroe, the Lea Joyner Bridge over the Ouachita River, and Stella Street in West Monroe to function as a one-way couplet.
06/00 – 12/00	Hesper and Helios Avenue Street Rehabilitation, Jefferson Parish Engineering Department,, Harvey, LA. *Roadway Engineer.* Completed inspections and rehabilitation recommendations for eight blocks of local streets. Rehabilitation required demolition and replacement of concrete road panels, milling and overlay of asphalt surfaces, and installation of drainage inlets and subsurface drainage, as well as replacement of damaged and under-performing subsurface drainage. Performed inspections, collaborated with Parish representatives and utility companies, identified appropriate rehabilitation measures, and produced plans illustrating the rehabilitation recommendations.
2/09 – 4/10	US 90 – WBV 73 Western Tie-In Crossing Lake Cataouatche Area, United States Army Corps of Engineers (USACE) – New Orleans District, Jefferson Parish & St. Charles Parish, LA. *Deputy Project Manager and Lead Roadway/Drainage Engineer.* Responsible for development of preliminary and final design P&S for a 2,540-foot PPC girder/column bent bridge, highway approaches, and frontage roadways.
2/01 – 8/01	US 190 (Gause Boulevard) from LA 433 to US 11, LADOTD, Slidell, LA. *Roadway/Drainage Designer.* Alignment modification and capacity increase for a 3.5-mile stretch of this state highway. The project included two bridges, a transition from a rural minor arterial to an urban principal arterial, dozens of minor intersections with side streets, a railway crossing, and numerous drainage culverts. The roadway geometric and drainage designs were completed, and design plans were produced. This project required applying many geometric elements, such as super-elevation and multiple closely spaced horizontal curves that required a delicate balance of occasional conflicting requirements.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Gabriel Arias, PE	Years of relevant experience with this employer	1
Title	Transportation Engineer	Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization		BS / 2013 / Civil Engineering, Auburn University	
Active registration number / state / expiration date		PE. 0042599 / LA / Exp. 09/30/2025	
Year registered	2018	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Arias has more than eight years' experience performing complex geometric design on roadway including horizontal and vertical (H&V) alignment, hydraulic design cross drain pipes (CDP's) and open ditches, turn lane design, striping/signage, structural design analysis and QC, traffic management plans, and roadway plan production.
06/16 – 02/17	**LA 435 to LA 40/LA 41, LADOTD, St. Tammany Parish, LA.** *Project Engineer*. The project calls for the construction of a new four-lane highway connecting I-12 to Bush, Louisiana, in St. Tammany Parish. The new roadway is approximately 19.8 miles in length and begins at LA 434, north of the existing LA 434 interchange with I-12, and traverses in a northeasterly direction until encountering an abandoned rail corridor. It then follows the rail corridor terminating at the LA 21/LA 41 intersections near Bush, Louisiana. Assisted with roadway geometric design including H&V alignment, hydraulic design for storm drains, CDP's and open ditches, structural design analysis and QC, Traffic management plans and roadway plan production for the new 5.5 mile 4-lane RA-3 roadway from LA 435 to Bush, LA.
07/13 – 06/16	**Bayou Mercier Road/Berard Canal Bayou, LADOTD, St. Martin Parish, LA.** *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridge timber structure with a quad-beam concrete structure.
07/13 – 02/17	**Derrick Road Bridge, LADOTD, Iberville Parish, LA.** *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridge timber structure with a slab span, concrete structure.
07/13 – 02/17	**Jude & Placide Road Bridges, LADOTD, Vermilion Parish, LA.** *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridges timber structures with slab span, concrete structures.
06/18 – 10/19	**Mid-Barataria Diversion Design, Plaquemines Parish, LA.** *Project Engineer*. Planning, engineering and design services for the creation of the Mid-Barataria sediment diversion basin to strategically reintroduce sediment and freshwater inputs into the Barataria Basin. Assisted with detour roadway alignment creation/selection, TTC planning, and plan preparation.

16. Staff Experience

07/13 – 10/16	City of Thibodaux Overlay Projects, LADOTD, Lafourche Parish, LA. *Project Engineer*. Project required chip sealing, joint & crack sealing, resurfacing and complete pavement replacement for four separate locations in the city of Thibodaux, LA. The goal was to prolong the life of the existing pavements by preventing future deterioration and/or rehabilitating the existing pavements. Assisted with roadway geometric design including horizontal alignments, selection of treatment type for pavements, hydraulic design for storm drains, CDP's and open ditches and roadway plan production.
09/13 – 02/17	Pecan Island Road Bridge Over The Chenal, LADOTD, Pointe Coupee Parish, LA. *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridge timber structure with a customized slab span, concrete structure.
07/13 – 02/17	Gracie Lane Bridge, LADOTD, Iberville Parish, LA. *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridge timber structure with a slab span, concrete structure.
04/14 – 02/17	Lajaunie Rd/Lateral 1 Bayou St. LADOTD, Clair, Lafayette Parish, LA. *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridge timber structure with a slab span, concrete structure.
11/15 – 02/17	Babin Rd./Bayou Narcisse, LADOTD, Ascension Parish, LA. *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis and roadway design for the replacement of the existing off-system bridge timber structure with a slab span, concrete structure.
09/13 – 02/17	West 15th Avenue/Mile Branch, City of Covington, St. Tammany Parish, LA. *Project Engineer*. Performed topographic field surveying and assisted with bridge design, hydraulic analysis, and roadway design for the replacement of the existing bridge timber structure with a customized slab span, concrete structure. Included an integral pedestrian/bicycle path and custom barrier to separate pedestrians and vehicles.
02/18 – 04/18	US 377 Cresson Relief Route, TXDOT, TX. *Project Engineer*. TXDOT will construct a three-mile relief route west of the city of Cresson. The relief route will be a new four-lane divided highway on US 377 beginning one mile south of the intersection of US 377 and SH 171 and ending one mile north of the same intersection. Assisted with plan creation including H&V alignment review, TTC plans, construction quantity estimation and roadway plan production for the realigned roadway.
06/17 –10/17	Hwy 270 Widening Connecting Arkansas Program (CAP), CA0607, Garland County, AR. *Project Engineer*. Contracted by AHTD, as part of their Connecting Arkansas Program (CAP), to assist with the design of widening approximately three miles of Hwy 270 in Garland County. The proposed roadway is 4 lanes with a painted median from Hwy 270 to Black Snake Road, then 5 lanes curb & gutter from Black Snake Road to Hwy 227. Responsibilities include the drainage design and plan production, wetland delineation and maintenance of traffic plans. Tasks include preliminary site visits, developing hydraulic and hydrologic models for the pipes, submittal of Hydraulic Report, drainage ditch design, maintenance of traffic plan submittals and wetlands report.

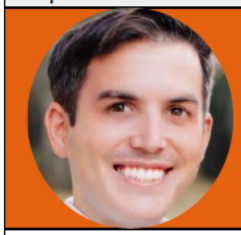
16. Staff Experience

Firm employed by	ARCADIS		
Name	Garret Keller, PE	Years of relevant experience with this employer	11
Title	Design Engineer	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		MS / 2011 / Transportation Engineering; Louisiana State University BS / 2003 / Civil Engineering; Louisiana State University	
Active registration number / state / expiration date		PE.040977 / LA / Exp. 03/31/2025	
Year registered	2012	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Keller began working with Arcadis as a Technical Intern in the company's Metairie and Baton Rouge offices, gaining experience in civil and structural detailing and design. Immediately after graduating, he began working as a designer with several Louisiana Department of Transportation and Development (LADOTD) projects. His responsibilities have included structural detailing, structural design, civil design, geometrics, and cost estimating. He also oversees implementation of CAD systems and standards for Louisiana including MicroStation, InRoads, and CAD conform for LADOTD work.
07/15 – 06/17	**US 190B at Jefferson Avenue Roundabout Design, LADOTD, St. Tammany Parish, LA.** *Roadway Engineer*: Responsible for geometric and roadway design for replacing an existing four-lane signalized intersection with a single-lane roundabout. The project also included a Context Sensitive Solutions study to optimize benefit to the adjacent real estate and community needs.
02/19 – Ongoing	**NDRC Ohio Creek Watershed Project, City of Norfolk, VA.** *Lead Civil Engineer:* Project consists of earthen berms, reinforced concrete floodwalls, and internal stormwater pump stations, as well as, upgraded existing transportation infrastructure to provide better mobility and safety for pedestrians and bicyclists. These features include elevated roadways, new shared use paths, upgraded culverts with stormwater closure structures, and various green infrastructure treatments.
09/12 – 04/14	**US 165 Connector and Ouachita River Bridge EIS, LADOTD, Ouachita Parish, LA.** *Roadway Designer:* Responsible for roadway design support on a project that provides needed transportation system linkage in the north Monroe region.
11/12 – 04/13	**LA 594 (Millhaven Rd.) Alternatives, I-20 Economic Development Corporation, Ouachita Parish, LA.** *Primary Designer:* Roadway intersection and roundabout improvement alternatives for a LADOTD Stage 0 study. Two roundabouts were evaluated in compliance with LADOTD EDSM V.1.1.5 (Analysis) and EDSM V.1.1.6 (Design).
08/11 – 09/13	**Chef Menteur Bridge and Approaches EA, LADOTD, Orleans Parish, LA.** *Roadway Designer:* Responsible for geometry and roadway design for a high-priority bridge replacement. Key issues included minimizing impacts to Bayou Sauvage National Wildlife Refuge, Fort McComb, the existing bridge that is eligible for the NRHP, and compliance with Complete Streets Policy.
02/09 – 02/13	**US 90 WBV 73- Western Tie-In Crossing Lake Cataouatche Area (Bridge/Roadway Approach/T-walls), USACE - New Orleans District, Jefferson & St. Charles Parishes, LA.** *Project Designer:* Preparation of Plans and Specifications for new floodwall and highway bridge in St. Charles Parish. Design of floodwalls, four-lane highway bridge, and detour roads to maintain traffic traveling on US Highway 90. The project involved improvement layout and quantity calculations in support of cost estimates.

16. Staff Experience

Firm employed by	ARCADIS			
Name	Craig Raymond, PE		Years of relevant experience with this employer	8
Title	Roadway Design Engineer		Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization			BS / 2013 / Civil Engineering, Louisiana State University	
Active registration number / state / expiration date			PE.0042715 / LA / Exp. 03/31/2025	
Year registered	2018	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.			Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Raymond's experience encompasses permitting application including sketches/drawings, geometric design of levees, highways, streets, roundabouts, and aprons. He was worked on a wide range of roadway and civil design projects including geometric design, line and grade, and typical sections to support LADOTD Stage 0 Feasibility Studies. Responsibilities have included preparing engineering designs, plans, and specifications. preparing cost estimates. coordinating with permitting agencies. and project oversight.
04/13 – 07/14	**US 11 Environmental Assessment, Bridge Replacement, and Roadway Improvements, LADOTD, St. Tammany Parish, LA.** *Roadway Engineer*. Environmental Assessment for replacement of the US-11 Bridge, which includes widening of US-11 from two lanes to four lanes from US-190 north to 1-12. Responsibilities include providing alternative development, geometric and roadway design, line and grade, and plan preparation for two alternatives.
12/13 – 06/15	**LA 3235 Stage 0 Safety Feasibility Study, LADOTD, Lafourche Parish, LA.** *Roadway Engineer*. Responsible for collection of roadway information and road design to preserve and enhance safety/mobility of the corridor. The project includes improvement considerations such as median opening channelization, turn lane storage, median closure, among others.
05/14 – 05/15	**Stage 0 Feasibility Study - Joe Sevario / Roddy Road Roundabouts, LADOTD, Ascension Parish, LA.** *Roadway Engineer*. Geometric and roadway design and cost estimates for the replacement of ten existing stop-controlled intersections with single-lane roundabouts.
11/14 – 11/15	**LA-44 and Loosemore Road Roundabout Feasibility Study, LADOTD, Ascension Parish, LA.** *Roadway Engineer*. Responsible for roadway design for the improvement of existing roadway infrastructure at the intersection of LA-44 and Loosemoore Road. The project includes design for incorporating modern roundabouts to the interchanges to enhance mobility and safety, collection of data from all existing utilities and cost estimate.
01/14 – 12/14	**Pete's Highway Interchange Alternative and Environmental Assessment, LADOTD, Livingston Parish, LA.** *Roadway Engineer*. Environmental Assessment for the improvement of I-12/South Range Avenue diamond interchange, as well as north and south of I-12 along South Range Avenue. Responsibilities include providing alternative development, typical sections, line and grade, and plan preparation consisting of existing/required right of way and existing utilities.
11/16 – 08/19	**LA 88 Roundabouts Prelim Plans, LADOTD, Iberia Parish, LA.** *Roadway Engineer*. Responsible developing roadway construction plans to install two single-lane roundabouts at the US 90 ramp terminals where it intersects LA 88. Plans include modifying service road intersections to J-Turn intersections and installing additional U-Turn locations to accommodate U-Turn movements.
07/15 – 06/17	**US 190B at Jefferson Avenue Roundabout Design, LADOTD, St. Tammany Parish, LA.** *Roadway Engineer.* Responsible for completing preliminary roadway design plans based on comments from the client. This involved the development of MicroStation files such typical pavement section and details, plan and profile sheets, and construction sequencing sheets.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Scott Brookhart, PE, CFM	Years of relevant experience with this employer	2
Title	Senior Hydraulics Design Leader	Years of relevant experience with other employer(s)	29
Degree(s) / Years / Specialization		BS / 1989 / Civil Engineering, North Carolina State University	
Active registration number / state / expiration date		PE.0046177 / LA / Exp. 03/31/2024	
Year registered	2021	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Brookhart is a Senior Hydraulic Design Manager with more than 31 years of experience providing Hydrologic & Hydraulic bridge design, stormwater management, erosion control, and floodplain management services for DOTs (NCDOT, GDOT, TDOT, SCDOT), FEMA, and municipal/private clients. He has managed multiple On-Call contracts and individual projects for various DOTs and municipalities. He has a thorough understanding of hydrologic and hydraulic design of culverts and bridges including HEC-RAS modeling (1D and 2D), deck drainage calculations, scour calculations and countermeasures, and FEMA processes. He is also familiar with current Federal Hydraulic Design Series (HDS) guidance. He is experienced in the use of HEC-2, HEC-RAS, HY-8, Flowmaster, FHWA Hydraulic Toolbox, SWMM, ArcGIS, StormCAD, MicroStation, Geopak Drainage, and Open Roads Designer.
06/20 – 12/20	**Bridge Replacement – I-40 over Buffalo River, TDOT, Humphreys County, TN.** *QA/QC Engineer.* Provided senior QA/QC review of the bridge replacements for the WB and EB bridges on I-40 over the Buffalo River. Review covered items such as the HEC-RAS modeling, deck drainage calculations on the proposed structure, scour calculations, and review of the Hydraulic Design File.
09/99 – 08/04	**On-call Hydraulic Design Services, SCDOT, Statewide, SC.** *Project Engineer.* Provided hydraulic/hydrologic design services for roadway projects throughout the state. Tasks included several bridge replacements and new location/widening projects. Complex *storm drainage design* and stream modelling (1D and 2D) were required. Some of the projects completed under this contract have included US 21 Widening, Beaufort County; Pisgah Church Road (S-204) over Twelve-Mile Creek, Lexington County; and S-40 Bridge Replacement over Turkey Creek, Edgefield County
01/20 – Ongoing	**SR 38 (US 84) over Little McMillan Creek, GDOT, Wayne County, Georgia** *Senior Hydraulic Engineer.* Responsible for QA/QC of the hydrologic and hydraulic design for this bridge replacement. The design consists of placing 250'+ dual bridges over Little McMillan Creek. Hydrologic design utilized USGS StreamStats and the hydraulic design utilized HEC-RAS. Deck drainage design, and a scour analysis were also completed, and the Hydraulic Report submitted to GDOT. With the location in a FEMA Zone AE without floodway, the HEC-RAS models were run for FEMA flows and USGS flows.
01/16 – 10/16	**R-5771 - SR 1690 (Broadpointe Road), Henderson County, NC.** *Senior Hydraulic Engineer*. Responsible for the hydraulic design to upgrade a portion of SR 1690 to a paved roadway on new alignment along with the replacement of bridge #107 over McDowell Creek. The project includes *storm drainage design, bridge hydraulic design, a FEMA no-rise study*, erosion and sediment control, and permit drawings.
08/22 – Ongoing	**Cross Bayou Bridge Replacement, Shreveport, LA.** *Senior Hydraulic Engineer.*. Develop a Feasibility study to replace US71 bridges at Cross Bayou. An in-depth structural, roadway, and Traffic analysis was performed to develop the most effective cost for bridge replacement land roadway improvement. Alternatives were developed per the ASHTO LRFD Bridge Design Specifications Manual and LADOTD Bridge Design and Evaluation Manual (BDEM), and cost estimates for all alternatives were using average cost information per the LADOTD Project Delivery Manual. Provided the final recommendation for bridge replacement. Currently working on Stage 3 Preliminary and final plan development, followed by Stage 5 construction support.

Firm employed by	BONTON ASSOCIATES		
Name	Marcus Bonton, PE	Years of relevant experience with this employer	3
Title	Transportation Principal	Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		BS / 2008 / Civil Engineering	
Active registration number / state / expiration date		PE. 40389 / LA / Exp. 9/30/2024	
Year registered	2016	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	As Transportation Principal, Marcus brings 15 years of experience developing, managing, and delivering transportation design and planning projects for state and municipal clients, including LADOTD. He has managed and supervised transportation projects for design studies, LADOTD Stage 0, roundabout design, roadway corridor design, pavement rehabilitation design, pedestrian facility design, complete street design, ADA compliance, and green infrastructure projects. Training Certifications: • NHI Course No. 142005: NEPA and the Transportation Decision-making Process • ATSSA Traffic Control Technician and Supervisor • Highway Safety Manual Training Certification • LADOTD Traffic Engineering Process & Report (Modules 1–3) • NE Roundabouts Level 1 and 2 Training • • CPTP SCS Cybersecurity WBT Training Course
08/21 – 12/22	**LADOTD, LA 73: US 61 (Airline) – Essen Lane, Baton Rouge, LA.** *Principal/Technical Lead.* Provides technical oversight and QC-QA of design plans for roadway rehabilitation, sidewalk repair, curb gutter repair/replacement, and installation of Americans with Disabilities Act (ADA) facilities in compliance with LADOTD design guidelines.
11/22 – Ongoing	**LADOTD, Downtown Thibodaux Sidewalks, Thibodaux, LA.** *Principal/Technical Advisor.* Provides technical oversight for the development of design plans to bring existing sidewalk facilities throughout downtown Thibodaux, LA up to ADA compliance.
01/21 – Ongoing	**City of Baton Rouge-MOVEBR, Ardenwood-Lobdell Connector Design Study and Final Design, Baton Rouge, LA.** *Principal/Technical Advisor.* Provided technical oversight and guidance for the preparation and completion of the project design study which included: proposed line & grade alternatives, intersection improvements, access management, roadway widening, pedestrian facility design, safety considerations, drainage, green infrastructure, pond site analysis, and exhibits. Provides technical leadership for the final design phase which includes finalizing design plans that include roadway corridor design/modeling, intersection design, signalization, drainage design, green infrastructure, and environmental.
05/21 – 09/22	**City of Baton Rouge-MOVEBR, S. Harrell's Ferry Rd. Multi-Use Path, Baton Rouge, LA.** *Principal/Technical Advisor.* Provided technical oversight for Design Study that included preparing Preliminary & Final Plans for a new multi-use path, ADA compliant facilities (curb ramps, crosswalks, etc.), drainage improvements, and green infrastructure. Currently providing technical oversight and QA/QC for the final design plans for the multi-use path, ADA compliant facility implementation, striping modifications to increase pedestrian and bicycle mobility along S. Harrell's Ferry Rd. and connectivity to existing sidewalks.
06/21 – 11/22	**City of Baton Rouge-MOVEBR, ADA Transition Projects, Baton Rouge, LA.** *Technical Advisor.* Technical advisor for the ADA barrier assessment/verification and development of design plans (Preliminary and Final) for proposed ADA barrier improvements

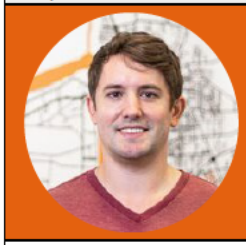
	(sidewalk repair/replacement, curb and gutter, handicap ramps, crosswalks, etc.), site plan details, special provisions, repair schedule, and cost estimates.
15/15 – 02/17	St. Tammany-LADOTD, LA 59 @ Lonesome Rd. Roundabout, Mandeville, LA. *Project Engineer.* Responsible for developing preliminary and final design plans for a single lane roundabout. Design scope includes typical section, line & grade, existing & design drainage, suggested sequence of construction, geometric details, graphical grades, joint layout details, striping cross sections.
01/19 – 11/20	St. Tammany Parish Government, Harrison Avenue Improvements Project, Abita Springs, LA. *Project Manager.* Managed the preparation and submittal of design plans for various roadway improvements including roadway widening, intersection design, roundabout design, access management, drainage design, context sensitive solutions along Harrison Avenue.
11/19–12/20	City of New Orleans, Marlyville-Fontainebleau Group E, New Orleans, LA. *Project Manager.* Managed the preparation and submittal of design plans and specifications for full-depth roadway replacement, sidewalk/curb ramps repair; subsurface drainage, water, and sanitary sewer design, driveways adjustments under the Joint Infrastructure Program (JIRR).
01/16 – 03/17	Ascension Parish-Move Ascension, Parish Rd. 929 @ Parker Road Roundabout, Prairieville, LA. *Project Manager.* Managed the preparation of Preliminary and Final design plan for a single lane roundabout. Project Design included drainage design, curb & gutter, utility relocation, asphalt pavement design, pavement markings, pavement widening, and temporary construction detour sequencing, access management.
01/10 – 01/11	City of Baton Rouge, Green Light Plan - Highland-Burbank Connector Design Study, Baton Rouge, LA. *Lead Designer.* Responsible for the design of a proposed roadway extension from Highland Rd. to Burbank Drive. Design included line & grade development, drainage design, intersection improvements, access management, turn lane design, required right-of- way, impact, roadway widening, typical sections, design calculations, quantity takeoffs.
03/13 – 01/21	LADOTD, US 84 Widening Environmental Assessment (EA), Winnfield, LA. *Lead Designer.* Developed the line and grade design for the proposed alternatives included in the environmental assessment document. Evaluated and developed horizontal/vertical alignments, roundabout, intersection improvements, access management, safety, context sensitive solutions into proposed alignments.

Firm employed by	BONTON ASSOCIATES		
Name	LaDarien Beene, PE, PTOE	Years of relevant experience with this employer	2
Title	Project Manager	Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization		BS / 2013 / Civil Engineering	
Active registration number / state / expiration date		PE. 45333 / LA / Exp. 9/30/2025 PTOE #500062 / LA	
Year registered	2021	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

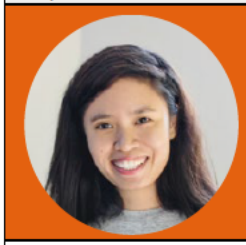
Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Beene specializes in managing and overseeing transportation projects, with an emphasis on road design, traffic analysis, and data collection. He is adept at applying AASHTO, ADA, PROWAG, MUTCD, LADOTD, and MOVEBR guidelines and compliance to all design projects. He also has extensive knowledge analyzing safety conditions to identify safety countermeasure recommendations for preliminary and final design plans, sidewalk design, multi-use path design, pedestrian facility design, roadway corridor design, and ADA compliance. He brings a unique understanding of LADOTD's processes and procedures from his 8 years as a traffic engineer with the Department. Training Certifications: • NHI Course No. 142005: NEPA and the Transportation Decision-making Process • LADOTD Traffic Engineering Process & Report (Modules 1–3) • ATSSA Traffic Control Technician and Supervisor • CPTP SCS Cybersecurity WBT Training Course
11/22 – Ongoing	**Downtown Thibodaux Sidewalks, LADOTD, Thibodaux, LA.** *Project Manager.* Manages team to perform all engineering services for the development of construction plans to improve existing sidewalks and pedestrian facilities throughout Downtown Thibodaux, LA. Final Plans will include the design and details for all grading, pavement, drainage, intersection improvements, ADA ramps, sidewalk replacement, pavement striping structures associated with the sidewalk and pedestrian improvements.
08/21 – 06/23	**LA 73: US 61 (Airline) – Essen Lane, LADOTD, Baton Rouge, LA.** *Project Manager.* Managed the preparation of design plans for roadway rehabilitation, sidewalk repair, curb gutter repair/replacement, and installation of Americans with Disabilities Act (ADA) facilities in compliance with LADOTD design guidelines.
11/22 – Ongoing	**Ardenwood-Lobdell Connector Final Design, City of Baton Rouge-MOVEBR, Baton Rouge, LA.** *Project Manager.* The design includes developing the final plans for the roadway connector between N. Ardenwood Drive and Lobdell Avenue. LaDarien is responsible for managing the project team through the development and delivery of the final design plans, which includes topographic survey, subsurface utility engineering, proposed line & grade alternatives, intersection improvements, access management, bicycle lanes and sidewalks, roadway widening, pedestrian facility design and safety measures, drainage, green infrastructure, landscaping, roadway lighting, and pond site analysis.
05/21 – 09/22	**S. Harrell's Ferry Rd. Multi-Use Path, City of Baton Rouge-MOVEBR, Baton Rouge, LA.** *Project Manager.* The project included conducting a Design Study and preparing Preliminary & Final Plans for a new multi-use path, ADA compliant facilities (curb ramps, crosswalks, etc.), drainage improvements, and green infrastructure. LaDarien is responsible for managing the

	preparation of preliminary and final design plans for a multi-use path, ADA compliant facilities, and striping modifications to increase pedestrian and bicycle mobility along S. Harrell's Ferry Rd. and connectivity to existing sidewalks.
03/21 – 11/21	Fuqua St./Gracie St. Area ADA Transition, City of Baton Rouge-MOVEBR, Baton Rouge, LA. *Project Manager.* LaDarien was responsible for managing the preparation and delivery of design plans (Preliminary and Final) that provide solutions to address existing non-ADA compliant features by proposing ADA barrier improvements (sidewalk repair/ replacement, curb, and gutter, handicap ramps, crosswalks, etc.), site plan details, special provisions, repair schedule, and cost estimates.
07/21 – 03/22	Fairfields Ave. Area ADA Transition, City of Baton Rouge-MOVEBR, Baton Rouge, LA. *Project Manager.* LaDarien is responsible for managing the project delivery team to develop design plans (Preliminary and Final) for proposed ADA barrier improvements (sidewalk repair/replacement, curb, and gutter, handicap ramps, crosswalks, etc.), site plan details, special provisions, repair schedule, and cost estimates.
01/22 – Ongoing	Evangeline St. (West) Area ADA Transition, City of Baton Rouge-MOVEBR, Baton Rouge, LA. *Project Manager.* LaDarien is responsible for managing the project delivery team to develop design plans (Preliminary and Final) for proposed ADA barrier improvements (sidewalk repair/replacement, curb, and gutter, handicap ramps, crosswalks, etc.), site plan details, special provisions, repair schedule, and cost estimates.
11/17 – 11/18	S. Range Avenue Proposed Safety Improvements, LADOTD, Denham Springs, LA. *Lead Engineer.* Conducted analysis study to identify and provide recommendations for access management/safety improvements along S. Range Avenue to be carried forward into preliminary and final design plans. Design plans developed to implement raised median and other low-cost safety and access management measures along LA 3002.

Firm employed by	BONTON ASSOCIATES		
Name	Aaron Hargrove, PhD (ABD)	Years of relevant experience with this employer	2
Title	Project Associate	Years of relevant experience with other employer(s)	4.5
Degree(s) / Years / Specialization		PhD (ABD) / 2021/ Biological Engineering BS / 2018 / Biological Engineering	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Aaron is a highly skilled professional with extensive knowledge in drainage and grading design, hydrologic analysis, field inspections, and data collection. He has honed his expertise as a research fellow at Louisiana State University, where he specialized in image processing methods using Python, CAD, and 3D visualization. Aaron plays a vital role in supporting drainage assessment and design initiatives, and he is actively involved in conducting comprehensive field data collection on existing infrastructure for both drainage and sewer collection systems. His blend of academic research and practical field experience makes him an invaluable asset in the field of drainage and grading design.
03/21 – 11/22	**Lee Drive (Highland Rd. to Perkins Rd.), City of Baton Rouge, Baton Rouge, LA.** *Project Associate.* Performs hydrologic and hydraulic analysis, pond siting analysis, drainage design, fill mitigation, evaluating survey data, and existing and proposed drainage mapping to support the proposed roadway improvements along Lee Drive.
01/22 – 12/22	**American Rescue Plan (ARP) Drainage Program Management Services, City of Baton Rouge, Baton Rouge, LA.** *Project Associate.* Supports the ARP Drainage Improvement Program, which aims to reduce flood risk and improve public safety by expediting the completion of stormwater maintenance projects and closing outstanding stormwater service requests in the City-Parish's Q-Alert/311 database. Focuses on the MS4 compliance component, which involves observing closed-circuit TV (CCTV) footage of culvert inspections to diagnose problems or damage, developing repair recommendations and cost estimates, performing roadside drainage inspections, traveling to 311 Requests for Service, inspecting the site, evaluating its connection to adjacent drainage structures, developing maintenance and repair recommendations, and annotating the ArcGIS map with recommended repairs.
03/23 – Ongoing	**Windrush Gardens and Environs Drainage Improvements, LSU, Baton Rouge, LA.** *Project Associate.* Led the field data collection and design efforts for a drainage redesign project. Aaron performed the hydrologic analysis, prepared the existing and proposed drainage mapping, and designed the Preliminary and Final Plan documents.
01/24 – Ongoing	**University Lakes Master Design Services, University Lakes, Baton Rouge, LA.** *Project Associate.* The project involved the implementation of the 2016 Master Plan for revitalization of the University Lakes System. To support the Conceptual Design Phase and help define the scope of the pending Schematic Design Phase, the Bonton team developed drainage maps, and plan/profile drawings for existing stormwater and drainage infrastructure using selective topo and open-sourced surface data. Responsible for supporting the Phase 2 which includes: two-way roadway design, pedestrian facility design (sidewalk/multi-use path), bicycle facility design, intersection improvements, and hydraulic analysis.

Firm employed by	BONTON ASSOCIATES		
Name	Kiran Gurung, EI	Years of relevant experience with this employer	5
Title	Engineer Intern	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		MS / 2017 / Environmental Engineering BS / 2013 / Civil Engineering	
Active registration number / state / expiration date		EI. 35140/ LA / Exp. 09/30/2024	
Year registered	2022	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Roadway/Drainage Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Ms. Gurung has extensive experience in hydrologic and hydraulic analysis of stormwater management, drainage analysis and design, roadway design, and pedestrian facility design. She is skilled in AutoCAD Civil3D, HYDRWN, hydrologic and hydraulic (H&H) modeling and design tools, such as InfoWorks Integrated Catchment Modeling, ArcGIS, ECGeoRAS, HEC-RAS, HEC-GeoHMS, and Civil3D. Training Certifications: • NRMCA Pervious Concrete Contractor Certification
11/22 – 11/23	**Ardenwood-Lobdell Connector Final Design, City of Baton Rouge-MOVEBR, Baton Rouge, LA.** *Engineer Intern/Design Lead.* The design includes developing the final plans for the roadway connector between N. Ardenwood Drive and Lobdell Avenue. Responsible for performing hydrologic and hydraulic analysis, pond siting analysis, drainage design, fill mitigation, evaluating survey data, and development of green infrastructure in support of the proposed Ardenwood-Lobdell Connector Roadway.
03/21 – Ongoing	**Nicholson Segment 2 (Ben Hur to Bluebonnet Blvd.), City of Baton Rouge-MOVEBR, Baton Rouge, LA.** *Engineer Intern/Design Lead.* The project consisted of a four-lane boulevard section with shoulders, converting the existing two-way travel lanes to the westbound travel lanes. A shared use path is proposed along the east side of the roadway corridor. Responsible for performing hydrologic and hydraulic analysis, pond siting analysis, fill mitigation, evaluating survey data, and development of green infrastructure in support of the proposed Nicholson Segment 2 roadway improvements.
02/21 – Ongoing	**Sherwood Forest Extension (Greenwell Springs Rd. – Joor Rd.), City of Baton Rouge-MOVEBR, Baton Rouge, LA.** *Engineer Intern/Design Lead.* The proposed project was a two-lane section with a paved shoulder and open drainage system, built within a right of way large enough to accommodate future widening. Responsible for providing support in drainage analysis and design, green infrastructure design, drainage maps, and cost estimates with respect to the preferred roadway alternative.
01/21 – Ongoing	**University Lakes Master Design Services, University Lakes, Baton Rouge, LA.** *Engineer Intern/Design Lead.* The project involved the implementation of the 2016 Master Plan for revitalization of the University Lakes System. To support the current Conceptual Design Phase and help define the scope of the pending Schematic Design Phase, the Bonton team developed drainage maps, and plan/profile drawings for existing stormwater and drainage infrastructure using selective topo and open-sourced surface data. Responsible for supporting the completion of Phase 1 (project discovery, due diligence, and schematic design) and design of drainage facilities for anticipated Phase 2 which includes: two-way roadway design, pedestrian facility design (sidewalk/multi-use path), bicycle facility design, intersection improvements, and hydraulic analysis.

03/21 – 01/22	Jones Creek Road (Jefferson Hwy. – Airline Hwy.), University Lakes, Baton Rouge, LA. *Engineer Intern/Design Lead.* The proposed project consisted of the construction of a four-lane boulevard, concrete curb and gutter roadway with sidewalks and subsurface drainage. Kiran was responsible for assisting in analyzing existing data (LIDAR, GIS data, etc.) for existing drainage analysis, identifying the proposed drainage design, developing drainage plan & profiles, and design drainage maps.
03/21 – 11/22	Lee Drive (Highland Rd. – Perkins Rd.), City of Baton Rouge-MOVEBR, Baton Rouge, LA. *Engineer Intern.* The project consisted of Engineering services for roadway drainage facilities in coordination with Lee Drive capacity improvements. Kiran was responsible for providing project support in performing hydrologic and hydraulic analysis, drainage and green infrastructure design, and existing and proposed drainage mapping.
01/14 – 01/15	N. Harrell's Ferry Rd. Pedestrian Improvements, City of Baton Rouge, Baton Rouge, LA. *Engineer Intern/Design Lead.* Kiran was responsible for project concept and design development for proposed pedestrian improvements. For the design milestones, the line and grade, typical sections, details, drainage analysis using the rational method new culverts and roadside ditches were developed. This project required the assessment of existing utility locations to confirm that no conflicts existed with the proposed improvements.
05/20 – 11/20	Claycut Road Pedestrian Improvements, City of Baton Rouge, Baton Rouge, LA. *Engineer Intern/Design Lead.* Kiran was responsible for developing the design alignment (horizontal and vertical), drainage improvements, and design plans for the proposed sidewalk in compliance with LADOTD and City of Baton Rouge design standards and guidelines. Developed vicinity maps, typical sections & details, project baseline alignment sheets, sidewalk plan sheets, and cross sections.
12/17 – 07/18	Harding Blvd. Pedestrian Improvements, City of Baton Rouge, Baton Rouge, LA. *Engineer Intern/Design Lead.* Kiran was responsible for developing design plans for new pedestrian facilities (5' sidewalks, curbs, and crosswalks). In addition, design scope included multimodal design elements, utility coordination, coordination with EBR Department of Transportation and Drainage.

16. Staff Experience

Firm employed by	ARCADIS			
Name	Thomas Landry, PE		Years of relevant experience with this employer	1
Title	Senior Transportation Engineer		Years of relevant experience with other employer(s)	33
Degree(s) / Years / Specialization			1985 / B. S. Civil Engineering / LSU Baton Rouge	
Active registration number / state / expiration date			PE.0023842 / LA / Exp. 09/30/2024	
Year registered	1990	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.			Value-Added (Constructability)	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Landry has eight years of experience as a Project Engineer with LADOTD District 61, 6 years of experience as the District Construction Engineer for LADOTD District 61, and 12 years of experience as an Area Engineer with LADOTD District 62. He has experience with contract administration on asphaltic concrete overlay projects, concrete pavement reconstruction projects, interstate widening projects, and bride replacement projects.
10/15 – 12/18	**LA 447 / I-12 Interchange LADOTD, Livingston Parish, LA.** *Area Engineer*. Provide construction management services for LADOTD on interchange improvement project that includes the construction of two roundabouts and ramp modifications. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
01/17 – 07/18	**LA 10 Beaver Creek Bridge, LADOTD, St. Helena Parish, LA.** *Area Engineer*. Provide construction management services for LADOTD on bridge replacement project. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
7/17 – 04/18	**LA 447, LA 1029 – Westcoll Road Turn Lanes, LADOTD, Livingston Parish, LA.** *Area Engineer*. Provide construction management services for LADOTD on project to add a left turn lane to LA 447 for Westcoll Road. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
7/14 – 12/17	**LA 16 @ LA 22, Install Roundabout, LADOTD, Livingston Parish, LA.** *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements and roundabout construction. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
06/16 – 07/17	**US 190, E. Baton Rouge Parish Line – W. Jct. LA 16, LADOTD, Livingston Parish, LA.** *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, full depth patching and asphaltic concrete overlay. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.

16. Staff Experience

07/15 – 06/17	LA 3002, LA 1034 – US 190, LADOTD, Livingston Parish, LA. *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, cold planning, asphaltic concrete overlay, and concrete patching. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
11/15 – 08/16	LA 1027, E. End W. Colyell Bridge – LA 447, LADOTD, Livingston Parish, LA. *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, cold planning, and asphaltic concrete overlay. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
11/13 – 01/16	I-12, Walker to 0.5 West of Satsuma, LADOTD, Livingston Parish, LA. *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, ramp modifications, interstate roadway & bridge widening, and median barrier. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
06/14 – 06/15	LA 444, Gum Swamp Road – LA 22, LADOTD, Livingston Parish, LA. *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, base stabilization, and asphaltic concrete overlay. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
04/13 – 12/14	US 190, W. Jct LA 63 – Tangipahoa Line, LADOTD, Livingston Parish, LA. *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, full depth patching, and asphaltic concrete overlay. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
10/11 – 02/14	I-12, LA 1026 – LA 447, LADOTD, Livingston Parish, LA. *Area Engineer*. Provide construction management services for LADOTD project including drainage improvements, ramp modifications, interstate roadway & bridge widening, and median barrier. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
08/10 – 02/14	Amite River Bridge @ Magnolia, Route LA 64, LADOTD, East Baton Rouge and Livingston Parishes, LA. *Area Engineer*, Provide construction management services for LADOTD bridge replacement project. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
06/12 – 01/14	LA 63, I-12 – US 190, LADOTD, Livingston Parish, LA. *Area Engineer.* Provide construction management services for LADOTD project including drainage improvements, full depth patching, base stabilization, and asphaltic concrete overlay. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.

16. Staff Experience

Firm employed by	ARCADIS		Meet MPR No. 5
Name	Victor Sanchez, PE, MSCE	Years of relevant experience with this employer	1
Title	Principal Bridge Engineer	Years of relevant experience with other employer(s)	20+
Degree(s) / Years / Specialization		MS / Civil Engineering-Structures BS / Civil Engineering with a major in Structures	
Active registration number/state/expiration date		PE.0033976 / LA / Exp. 09/30/2024	
Year Registered	2008	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Bridge Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Sanchez is the Lead Bridge Structural Engineer for the Arcadis office in Baton Rouge. Victor is highly skilled with the design and detailing of structures using AASHTO-LRFD, the Louisiana Department of Transportation Bridge Design Manual, and software applications such as OpenBridge for the modeling and planning of bridges. He applies sound structural knowledge to perform hand calculations for bridge structural design and possesses strong management skills and; a willingness to work collaboratively with different groups inside the organizational team including clients, other disciplines' engineers, and project managers within the project organization. His exceptional leadership skills, which combined with his knowledge of the LADOTD policies, standards, and manuals make him an ideal team builder to perform at its highest level of potential.
06/14 – 07/15	**I-10 Over Julia Street, Girder Rehabilitation Project, LADOTD, New Orleans, LA.** *Engineer of Record.* This project was initiated to correct a partial failure of the connecting plates that attach the girders to the straddle bents on one of the exit ramps to I-10 in New Orleans. The scope of work consisted of the replacement of one existing steel cap beam in straddle bent number 25w and the replacement of all connecting plate elements on the adjacent steel cap 26w. Both substructures are located over the same exit ramp on the I-10 in New Orleans. Analysis and rehabilitation design focused on a section of the ramp that included the damaged straddled bent and connection plates; this section is three-spans continuous structure (74'-132'-132') with steel plate girders as superstructure members that frame into a straddled bent (bent number 25) and a steel cap beam (bent number 26) which are the intermediate substructure elements, similarly to the rest of the ramp, these steel caps are supported on concrete columns. Coordinated the preparation of contract documents, including plans, calculations, and cost estimates, and provided QC/QA to work prepared by others in the team. Also, during the construction phase of the project, provided construction support reviewing and approving shop drawings and calculations submitted by the contractor.
05/16 – 05/17	**UP Railroad Overpass Near Tioga, LADOTD, Rapides Parish, LA.** *Lead Engineer and Engineer of Record*. The total bridge length is 950' and consists of a main span using steel plate girders as superstructure elements over three continuous spans (210'-275'-210'); the bridge approaches to the main spans consist of two-spans 85' AASHTO type III prestressed concrete continuous spans at the north side and one 85' AASHTO type III prestressed concrete span at the south side. The bridge substructure consists of concrete piers caps supported on columns which are supported on drilled shafts and spread footings on drilled shafts. Served as Lead Engineer and Engineer of Record (EOR), responsible for the contract document preparation including cost estimating, specifications, final plans preparation, structural calculations, load rating, and coordination for project delivery per Louisiana Department of Transportation policies.
04/16 – 12/16	**Indian Bayou Bridge and Approaches, LADOTD, Calcasieu Parish, LA.** *Lead Engineer and Engineer of Record*. The total bridge length is 675' and consists of 3 continuous span units with a length of 225' with each unit using precast prestressed concrete girders as superstructure elements over three continuous spans (75'-75'-75'). The bridge substructure consists of concrete

16. Staff Experience

	piers caps supported on precast prestressed concrete piles. Served as Lead Engineer and Engineer of Record (EOR), responsible for the contract document preparation including cost estimating, specifications, final plans preparation, structural calculations, load rating, and coordination or project delivery per Louisiana Department of Transportation policies.
04/15 – 03/16	UP Railroad Bridge at Sicard, LADOTD, Ouachita Parish, LA. (LADOTD) *Lead Engineer.* This bridge consists of a main span using steel plate girders as main superstructure elements over three continuous spans (102'-175'-102'); the bridge approaches consist of three 84' continuous spans at the north side and to the south side, three 84ft continuous spans for a total structure length of 883' located in a straight alignment and skew of 68 degrees concerning a line normal to the center line of the bridge. The main superstructure elements of the approaches are prestressed concrete AASHTO Type IV girders, and the bridge substructure consisted of multi-column bents on concrete footing supported on prestressed concrete piles. Completed plan quality reviews, prepared the bridge load rating report, and assisted the environmental section of the LADOTD in completing the environmental clearance for the project. In addition, I provided load rating, and construction support, reviewing the shop drawings submitted by the general contractor.
05/18 – 11/19	I-485 from I-77 to US 74; I-485/Weddington Rd Interchange; and I-485 /East John St. - Old Monroe Rd. Interchange (design-and-build), Mecklenburg County, North Carolina (WSP, 2019). Led structural design and project management for the replacement of two bridges in the project: STR#1 over Westinghouse Blvd. and widening of STR#12 over CSX railroads. STR#1 involves replacing the existing structure over I-485 with two prestressed concrete bridges of lengths 125ft and 132 ft, utilizing the 63" Florida-I Beam and integral end bents on steel piles. STR#12, over CSX railway, is a twin bridge on I-485 with a three-span continuous structure and a total length of 165ft. The substructure includes stub abutments on steel piles and multi-column bents on spread footings. Managed structural design, coordination, and local staff to ensure budget control and timely delivery to NCDOT.
11/19 – 11/20	Load Rating Project, South Carolina Department of Transportation, SC. *Load Rating Quality Control Engineer* (QC Engineer) for WSP which owned this project as part of a contract service for the South Carolina Department of Transportation. In this capacity, provided QC reviews to load rating deliverables for a variety of structures including prestressed concrete bridges, steel plate girder composite bridges, concrete box culverts, and concrete slab bridges. The project included approximately one thousand bridges scheduled for inspection and load rating. Reviewed an average of 200 bridges during that year.
04/22 – 06/22	Danville Bridge Repairs – Structure SN 092-6034, Load Rating (LFR)-Illinois Department of Transportation (IDOT), IL. *Lead Engineer.* The SN 092-6034 is a three-span bridge located on County Highway I (F.A.U. 7000) over the North Fork Vermilion River. The bridge has a total length of 266'-10 5/8"; its main span is a tied arch structure with a total length of 170'-0" and the approaches consist of two simple span structures of 46'-6". that use steel rolled beams as main superstructure elements. The purpose of the project was to prepare a load rating analysis of the structure including the approaches and the main span. Responsible for preparing the load rating of the main span structure which consists of a tied arch. He prepared the structural analysis of the structure modeling all the structural elements of the main span using RM Bridge which is a finite element analysis software; and generated the full range of rating trucks suggested in the IDOT Structural Services Manual, to obtain the controlling force effects (axial tension, flexure, and shears). In addition, calculated the capacities of the structural elements of the tied arch to be used in calculating the load rating (LFR) for the various components including the arches, hangers, and tie girders. The load rating followed the IDOT Bridge Design Manual, the IDOT Structures Services Manual, and the Manual for Bridge Evaluation.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Sharear Kabir, PE	Years of relevant experience with this employer	5
Title	Structural Engineer	Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization		MS / 2008 / Civil Engineering, Louisiana State University BS / 2000 / Civil Engineering / Khulna University of Engineering and Technology	
Active registration number / state / expiration date		PE.37169 / LA / Exp. 09/30/2024	
Year registered	2012	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Bridge Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Kabir is experienced in bridge design and analysis for LADOTD to construction management and field supervision for private industries. He possesses good understanding of Louisiana Department of Transportation and Development (LADOTD), American Association of State Highway and Transportation Officials (AASHTO), American Society of Civil Engineers, American Conference Institute, and American Institute of Steel Construction design standards and has a demonstrated proficiency in bridge design and load rating, structural design, calculation, and documentation.
07/16 – 04/18	**North Bayou Black Drive Bridge over Hanson Canal, LADOTD, Terrebonne Parish, LA.** *Project Structural Engineer*. Completed structural design and prepared CAD drawings for a 28 ft wide and 80 ft long slab span bridge to replace the structurally deficient North Bayou Black Drive Bridge under the Off-System Bridge Replacement program of LADOTD.
04/14 – 07/16	**LA 63 Pigeon Creek Bridge, LADOTD, St. Helena Parish, LA.** *Bridge Design Engineer.* Responsible for replacement of the existing A 63 bridge with a 32 ft wide and 140 ft long new precast slab bridge utilizing a phased construction technology to expedite construction. Served as LADOTD Bridge Design Representative and completed the 100% Final Plans that included the design of precast slab panels, approach slab panels, bent cap panels, foundation layout, and estimation of bridge quantities. Worked closely with the road design, environmental and survey sections of LADOTD to establish the final bridge alignment and final taking lines.
04/16 – 07/16	**LA 506 Castor, Castor Relief, & Drain Bridges, LADOTD, Caldwell Parish, LA.** LADOTD Bridge Design Representative. Responsible for replacing six existing bridges with new cast in place slab span bridges in accordance with the most current and applicable LADOTD and AASHTO bridge design specifications. Developed General Plans, foundation layouts and super elevation diagrams. Designed guard rails and conducted structural design and load ratings of various bridge components including slab spans, bent caps, and approach slabs.
04/14 – 10/15	**US 165 Bridges Near Fenton, LADOTD, Jefferson Parish, LA.** *Structural Engineer*. Four new bridges were proposed to be constructed on US-165 to replace the existing bridges. Among the four bridges, Bridge 1 and 2 were proposed to be precast slab span bridges. The concrete slab panels, approach slab panels, bent cap sections for slab panel bridges were fabricated off-site and brought to the site ready to be erected in-place to form the whole structure gradually. Conducted structural design and load rating of the precast slab panels, bents, and approach slab panels for Bridges 1 and 2 as an LADOTD bridge design engineer.
07/16 – Ongoing	**US 90 Signing Upgrades, LADOTD, Jefferson and Orleans Parishes, LA.** *Project Structural Engineer*. Participated in design of the overhead and roadside signing structures following LADOTD and AASHTO design standards for the US 90 Business corridor for a length of approximately 9.8 miles. Investigated the as-built plans for the types, sizes and clearances of existing bridge girders, barrier, parapets, and deck overhangs to specify the sign-support attachments.

16. Staff Experience:

Firm employed by	ARCADIS			
Name	Joseph Belmonte, PE		Years of relevant experience with this employer	1
Title	Structural Engineer		Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization			MS / 2020 / Civil Engineering BS / 2018 / Civil Engineering	
Active registration number / state / expiration date			24GE05867100 / NJ / Exp. 4/30/2024	
Year registered	2022	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.			Bridge Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Belmonte is a Structural Engineer for Arcadis in the Sewickley, PA office who has experience with rail and catenary structures. He has over 4 years of experience in the design and analysis of steel and concrete structures, bridge modeling and design, and catenary structure design. Joseph is proficient with several software platforms, such as STAAD, RISA 3D, and Microstation.
04/22 – 07/23	**I-35E Widening, Texas Department of Transportation (TxDOT), Dallas, TX.** *Structural Engineer.* The I-35E Phase 2 project will reconstruct and widen a 6.39-mile southern section of I-35E in Dallas County from I-635 to Denton County Line. In support of Lone Star Constructors under a design-build contract, work primarily involved the design of mounted connections between standard TxDOT trusses and non-standard reinforced concrete columns. There was a special focus on fatigue-sensitivity in the connections, as well as anchorage into the concrete columns. Was also heavily involved in the reinforced concrete column design, drilled shaft design, and the connection detailing.
01/21 – 11/21	**Atlantic City Expressway AET Updates, South Jersey Transportation Authority, Atlantic City NJ.** *Structural Engineer.* The project is part of a modernization effort to transition to cashless toll collection and required significant updates to existing but yet-unbuilt structural plans. Joseph was responsible for updating the structural design to be compliant with new 2022 AASHTO Standard Specifications for Highway Signs LRFD. Was the sole design engineer responsible for the member and connection design of various hollow structural section truss structures, including relevant detailed welding connections between box-type hollow structural section members for single and double gantries ranging in spans from 61ft to 150ft.
12/21 – 05/22	**Connecticut River Moveable Bridge Replacement, Amtrak, Old Lyme, CT.** *Structural Engineer.* The moveable bridge replacement project involved the replacement of a lift bridge along Amtrak's Northeast Corridor line. Modeled and checked the design of approximately half of the catenary support structures in the project area. Performed the design and modeling of two truss structures that carry significant dead-end loads of various wire types on each end of the replaced bridge.

16. Staff Experience:

10/19 – 12/20	Hudson Bergen Light Rail Extension, New Jersey Transit, Jersey City, NJ. *Structural Engineer.* The Hudson-Bergen Light Rail (HBLR) Extension is an extension of the HBLR from its current terminal station at West Side Avenue to a new station located at the Bayfront Development. The extension begins in a through-girder configuration but quickly changes to a deck girder configuration for the rest of the bridge spans. Responsible for the design, modeling, and detailing of the deck along the length of the entire viaduct extension. Worked on the design of the plate girders, diaphragms, pier caps, and piers located in the Bayfront Station Viaduct area of the project. Used STAAD.Pro software to analyze the bridge components.
06/18 – 09/19	Storage and Inspection Facility and County Yard Improvements, New Jersey Transit, New Brunswick, NJ. *Structural Engineer* responsible for the design of one retaining wall, two wingwalls, and a wall pier in the Mile Run area. The County Yard design consists of a complex rail bridge over Mile Run Stream. This unique multi-girder bridge will be supporting a maintenance facility, two rail tracks and two access roads. The yard will provide additional storage of rail cars during an extreme weather event, and the maintenance facility will serve as a main NJ Transit facility along the Northeast Corridor.

16. Staff Experience

Firm employed by	ARCADIS			
Name	Pooja Rao Madku, PE		Years of relevant experience with this employer	1
Title	Structural Transit Engineer		Years of relevant experience with other employer(s)	8+
Degree(s) / Years / Specialization			MS / 2015 / Civil Engineering BTech /2012 / Civil Engineering	
Active registration number / state / expiration date			PE. 24473 / DE / Exp. 06/30/2024	
Year registered	2021	Discipline	Civil Engineering	
Contract role(s) / brief description of responsibilities.			Bridge Design	
Experience dates	Experience and qualifications relevant to the proposed contract			
	Ms. Madku is the Structural Transit Engineer for the Arcadis office in East Windsor. Pooja's experience includes extensive design of new structures, concept development, the repair and rehabilitation of existing bridges, retaining walls, load rating of new and existing bridges, and construction support services including but not limited to shop drawing reviews and response to contractor's request for information (RFI), quality assurance and quality control of design and drawings. Ms. Madku has participated in the design for major rehabilitation projects with NJDOT, NJTA, NJT, DRJTBC, PANYNJ, and other local agencies. She is experienced in using SAP 2000, STAADPRO, LARS, AASHTOWare, MathCAD, AutoCAD and MicroStation, among other software applications. She applies sound structural knowledge to perform the analysis and design of various highway and railroad bridges, including steel, reinforced concrete, and prestressed concrete; willingness to work collaboratively with different groups inside the organizational team including clients, other disciplines' engineers, and project managers within the project organization.			
06/17 – 06/21)	**NYCEDC, Hudson Park Blvd. and Streetscape Improvements, Phase 2, Block 4 Between W36th and W37th Street, NY** *Structural Engineer.* Responsible for the design of the proposed bridge carrying Hudson Boulevard West over the existing Amtrak's track between W36th and W37th Street Bridges from Schematic, Preliminary to Final Design. The proposed bridge is a 2-span bridge with a total length of 143' and a width of 50'. The superstructure consists of one major structural steel girder with a series of steel stringers with concrete deck on top. The substructure consists of a 190' long abutment, two piers, and two 45' long retaining walls. The height of abutment wall is about 30' which will provide an adequate under-clearance for the Amtrak train below the bridge. Provided support in the development of contract drawings and addressing comments from various disciplines and agencies at different stages of the project. Provided specifications and performed quality assurance and quality control of design and drawings.			
08/15 – 07/22	**DRJTBC, Scudder Falls Bridge Replacement, NJ/PA.** *Structural Engineer*. The project tasks consisted of Preliminary and Final Design of two curved girder ramp bridges, 12,000 linear feet of noise walls, 3,000' of retaining walls and a 1,625' ADA-Compliant ramp and bridge from the mainline bridge to the tow path along the Delaware and Raritan Canal in New Jersey. Various concepts for this ramp were investigated including a constant slope ramp at 5% grade and an 8% sloped ramp with 5 feet horizontal landings at 30 feet intervals as required to achieve the ADA compliance. Final design of this ramp with the recommended alternative (5% constant grade) was approved. Primarily responsible to quantify engineer's estimate for different structures. Assisted in design and development of plans and elevations for retaining walls. Involved in design and			

16. Staff Experience

	estimate calculations for retaining walls. Assured compliance with codes and reviewed the shop drawings. Involved in construction support services including but not limited to shop drawing reviews and response to contractor's request for information (RFI), quality assurance and quality control of design and drawings.
03/16 – 04/23	NJ Transit, County Yard Improvement Program, 6-Mile Run Railway Bridge, NJT Contract No 13-041, NJ. *Structural Engineer*. Project intends improvement of County Yard by addition of Service & Inspection Facility and tracks, design of 200 ft long bridge at Six-mile Run Creek and 5 retaining walls. Responsible to develop structural plans and design of retaining walls. Prepared reports for the types of retaining walls that can be utilized. Responsible for design calculations for plate girders, floor beams and their connections, and load calculations for 6-Mile Run Railway Bridge in compliance with AREMA and NJ Transit manuals and guidelines.
05/15 – 03/21	NJDOT, Pulaski Skyway Rehabilitation, Contract #5 Rehabilitation of Broadway and Kearny Ramps, Essex/Hudson County, NJ. *Structural Engineer*. Responsible for evaluation, seismic analysis and load rating of bridge members. Responsibilities include design of steel and substructure repairs and design of new deck. Work is part of NJDOT's Pulaski Skyway rehabilitation capital program which includes re-decking and steel and substructure repairs of the entire viaduct carrying US 1/9 traffic between Newark and Jersey City.
04/15 – 08/21	PANYNJ, Raising the Roadway of the Bayonne Bridge, Hudson County, NJ. *Structural Engineer*. Primarily involved in construction support services including but not limited to shop drawing reviews and response to contractor's request for information (RFI), quality assurance and quality control of design and drawings, on this project to increase the navigational clearance from 151' to 215' above mean high water utilizing the existing arch superstructure. The New York and New Jersey approach substructures were replaced to support the new approach superstructures. The pedestrian access includes preliminary and final design of the sidewalk with an access hatch for maintenance, railings and anti-climbing fence.
09/19 – 04/23	NJDOT, River Road (CR 622) Bridge over NJ Route I-287, NJ. *Senior Structural Engineer.* Responsible for the preparation of supplementary specifications (Special Provisions) as per NJDOT Standard Specifications and providing bid support services for the final design of this four-span superstructure replacement and substructure rehabilitation project. The bridge spans are about 27'-3", 90'-6", 90'-6" and 27'-3", a total span length of 235.5' and an out-to-out deck width of 72.75'. The existing substructure with two abutments and three piers will be rehabilitated to achieve a Condition Rating of 7 and a 45-year service life. Also responsible for assisting in development of structural plans, and preparation and review of Engineer's cost estimate.

16. Staff Experience:

Firm employed by	ARCADIS				
Name	John Hayes, EI		Years of relevant experience with this employer	1	
Title	Structural Engineer		Years of relevant experience with other employer(s)	3	
Degree(s) / Years / Specialization			BS / 2019 / Civil Engineering		
Active registration number / state / expiration date			ET031494 / PA		
Year registered	2023	Discipline	Civil Engineering		
Contract role(s) / brief description of responsibilities.			Bridge Design		

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Hayes is a Structural Engineer for the Arcadis office in Philadelphia working as a member of the Bridge Team. He has a background in the analysis of existing structures through inspection and testing as well as experience with bridge Load Rating, quantity and cost estimates, and drafting. John is also proficient with design and modeling software including OpenBridge, Microstation, and STAAD.
07/23 – 01/24	**I-10 & US90 Traffic Sign Structural Support, LADOT, Orleans Parrish, LA**. *Structural Engineer.* The project consists of the replacement and/or installation of traffic signs along I-10 and US90 in Orleans Parrish, LA. Responsibilities included reviewing shop drawings for approval and providing engineering support in response to contractor RFIs. John also performed analysis and calculations for the anchor bolts for several overhead truss signs in response to proposed changes from the contractor.
06/21 – 07/22	**Cleveland-Cliffs Asset Evaluation, Cleveland-Cliffs, Coatesville, Conshohocken, and Steelton, PA.** *Lead Field Inspector.* Per client request, plant-wide structural inspections were performed at the Cleveland-Cliffs steel production facilities in Coatesville, PA, Conshohocken, PA, and Steelton, PA. Structures evaluated included bridges (rail, vehicle, and pedestrian), elevated walkways, crane runways and associated support structures, and buildings. Deficiencies and safety concerns were identified and quantified, then rated based on severity and danger to personnel safety and production using engineering judgement, under the guidance of a licensed Professional Engineer (PE). In instances where visual evaluations were not sufficient for condition assessment, Non-destructive testing including Ultrasonic Thickness Testing (UT) and Dye-Penetrance Testing (PT) were performed. Ultrasonic Thickness Testing was performed at Coatesville on two (2) rail bridges and one (1) vehicle bridge spanning the West Branch Brandywine Creek and at Conshohocken on one (1) rail bridge spanning the Schuylkill River when it was determined that the bridge girders exhibited severe deterioration at the bearing locations and along the interface between the bottom flanges and webs. This data was then modeled referencing AASHTO standards to determine the structural stability of the bridges and develop a repair plan. UT was also utilized sporadically throughout all three (3) plant locations on the overhead crane runway support structures where the severity of the deterioration warranted. This data was then evaluated mathematically to determine the structural stability of the assets and to develop a proper repair plan. Additionally, where physical access was limited by either location or personnel safety issues, Unmanned Aircraft Systems (UAS) were

16. Staff Experience:

	utilized to perform visual evaluations. Across the three (3) client locations, UAS evaluations were performed on more than 60 crane runways, buildings, and bridges.
09/23 – 01/24	MTA Culver Line Viaduct Wrap-Up, MTA, New York, NY. *Structural Engineer*. The project consists of general structural repairs to the structural supports and waterproofing system of the Culver Line rail viaduct in Brooklyn. The structure consists of an elevated four-track reinforced concrete viaduct supported by concrete-encased FRP wrapped structural steel support bents. Responsibilities include quantity estimation and drafting of project plans and details.
09/20 – 01/23	NRG OPO-217 Standard Inspections, NRG Energy, Dagsboro, DE, Dunkirk, NY, Tonawanda, NY, and Pekin, IL. *Lead Field Inspector.* Per the client's standards and specifications, developed based on ASCE-7 codes, plant-wide structural inspections were carried out at four (4) coal-fired power plant locations located in Dagsboro, DE, Dunkirk, NY, Tonawanda, NY, and Pekin, IL. The structures inspected included buildings, elevated walkways, crane runways, material handling equipment and supports, tanks, and piping. Detailed hands-on inspections were performed on all structures subject to deterioration from coal exposure, and Non-Destructive Testing in the form of both Ultrasonic Thickness Testing (UT) and Magnetic Particle Testing (MT) was performed on conveyor support trusses at the discretion of the inspector, based on sound engineering judgement. Deficiencies and safety concerns were identified and quantified, then rated based on severity and danger to personnel safety and production using engineering judgement, under the guidance of a licensed Professional Engineer (PE). Repair plans were then developed for each structure.
09/13 – 11/14	North American Stainless Asset Management System Implementation, NAS, Ghent, KY. *Lead Field Inspector.* Served as Engineering Support responsible for related functionality in the Department's Asset Management System (AMS). Responsibilities included cataloging more than 1500 on-site assets, performing general condition assessments, and performing a risk-based analysis to develop a program for standard inspections and maintenance across the facility.
07/23 – 09/23	Load Rating of Cooper Lake Road Bridge, Cobb County DOT, GA. *Structural Engineer*. The SN 067-5209-0-Z is a three-span bridge located on Cooper Lake Road. The bridge has a total length of 275', it's three spans consisting of pre-stressed concrete girders as main superstructure elements. The purpose of the project was to prepare a load rating analysis of the structure. John was responsible of preparing the load rating of the superstructure and substructure. He prepared the structural analysis of the structure modeling all the structural elements of the main span using OpenBridge and LEAP Concrete which is a finite element analysis software; and generated the full range of rating trucks suggested in the GADOT Structural Design Manual, to obtain the controlling force effects (axial tension, flexure, and shears). The load rating followed the GADOT Bridge Design Manual.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Bryan D. Barnes; EI	Years of relevant experience with this employer	1
Title	Structural Engineer	Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		BS / Civil Engineering	
Active registration number / state / expiration date		EI.0034967 / LA / Exp. 3/31/2024	
Year registered	2021	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Bridge Design	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Barnes is a Junior Bridge Engineer with experience in structural design of prestressed concrete and steel plate girders bridges as per AASHTO LRFD using OpenBridge Modeler and Civil3D; also, foundation design including prestressed concrete piles and drilled shafts. He is familiar with the LADOTD policies, standards, and Bridge Design Manual. Alongside using the design tools available, he also uses structural knowledge to perform hand calculations for bridge structural design. His responsibilities include plans preparation, structural design for bridges, as well as CAD drawing.
08/22 – Ongoing	**I-10 CMAR in Baton Rouge (H.004100.5) --East Baton Rouge Parish.** *Bridge Engineer.* Responsible for part of the substructure design for the west bound main lanes, permanent widening, and the east bound ramp, doing structural design calculations for substructure components, creating CAD drawings, and coordinating with the project management section of the Department for the delivery of the project, per the Louisiana Department of Transportation and Development project delivery policies. The complete bridge project has several separate components including the west bound main lanes, the east bound main lanes, as well as the east bound ramp, and the permanent widening portions of the bridge. The superstructure consists of either Prestressed Concrete Girders (LG54), steel plate girders, or rolled steel beams. The bridge substructure consists of concrete piers caps supported on columns which are supported on drilled shafts and spread footings on drilled shafts.

16. Staff Experience

Firm employed by	ARCADIS		
Name	Frank Getz, PE	Years of relevant experience with this employer	18
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	8
Degree(s) / Years / Specialization		BS / 1997 / Civil Engineering	
Active registration number / state / expiration date		PE #66992 / OH / Exp. 12/31/2024; PE #6201309066/ MI / Exp. 10/14/2024; PE #18174 / WY / Exp. 12/31/2025	
Year registered	2002	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Bridge Evaluation	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Getz has more than 26 years of experience in structural/bridge design, project engineering, and project management on bridge projects. He is bridge engineering experience includes cursory/in-depth/fracture critical bridge inspections, bridge superstructure and substructure analysis, bridge load rating, preparation of reports and studies, and design of rehabilitation and replacement structures and retaining walls. He has prepared structure type studies, preliminary and final contract plans, technical specifications, comprehensive bridge inspection and evaluation reports, and construction cost estimates for a variety of bridge types.
08/22 – Ongoing	**I-10 CMAR in Baton Rouge (H.004100.5) --East Baton Rouge Parish.** *Bridge Engineer.* Responsible for part of the substructure design for the west bound main lanes, permanent widening, and the east bound ramp, doing structural design calculations for substructure components, creating CAD drawings, and coordinating with the project management section of the Department for the delivery of the project, per the Louisiana Department of Transportation and Development project delivery policies. The complete bridge project has several separate components including the west bound main lanes, the east bound main lanes, as well as the east bound ramp, and the permanent widening portions of the bridge. The superstructure consists of either Prestressed Concrete Girders (LG54), steel plate girders, or rolled steel beams. The bridge substructure consists of concrete piers caps supported on columns which are supported on drilled shafts and spread footings on drilled shafts.
05/19 – Ongoing	**Bridge Inspection and Engineering Support, Cleveland Metroparks, OH.** *Project Bridge Engineer and Bridge Inspection Team Leader* on this 6-year bridge inspection and engineering support services contract with the Cleveland Metroparks. Arcadis performs inspection of 49 ODOT inventoried vehicular bridges that require annual or fractural critical bridges inspections. An additional 60+ pedestrian, golf cart and trail bridges are inspected on a 5-year recurring cycle. Each year an evaluation report is prepared that summarizes the inspection findings and includes recommendations for repair/rehabilitation for each structure. Arcadis prioritizes the repairs and develops a 5-year Bridge Repair/Rehabilitation/Replacement Program. Additional tasks have included bridge load ratings, emergency bridge visits, plan review, small project plan development, repair details, and training/coordination with reservation managers. Arcadis has held this contract numerous times over the last 25 years.
01/14 – 12/16	**Municipal Bridge Inspection Program, Ohio Department of Transportation, Districts 4, 11 & 12, OH.** *Project Bridge Engineer, Lead Load Rating Engineer, and Bridge Inspection Team Leader* on this 3-year bridge inspection project that includes various bridge related tasks for 300+ municipal owned bridges throughout ODOT Districts 4, 11 and 12. Coordination with over 60 different municipalities in the three ODOT Districts was required to obtain existing bridge data and to coordinate inspection activities. The various bridge tasks included: annual NBIS routine bridge inspections, element level bridge inspections, fracture critical bridge inspections, underwater bridge inspections, updates to bridge inventory information in ODOT's Structure

	Management System (SMS), scour critical assessments, development of scour plan of actions, development of Fracture Control Plans, and bridge load ratings. All inspection data, photographs, and other information gathered are uploaded to ODOT's online Structure Management System.
01/17 – 01/19	Multi-Year Bridge Load Ratings, MP151.1 to MP 240.4, Ohio Turnpike and Infrastructure Commission, OH. *Project Bridge Engineer, and Lead Load Rating Engineer* on this 3-year bridge load rating project. Arcadis inspected and load rated bridges for the Ohio Turnpike, from mile post 151.1 to 240.4 (eastern half) utilizing AASHTOWare BrR software. Arcadis' assignment comprised over 200 bridges including both mainline and overpass structures. Bridge types include steel beam (plate girders and rolled beam), curved girders, thru-girders, steel straddle bents, earth-filled concrete arches, and culverts. The OTIC selected Arcadis as one of two consultants to complete the load ratings of the above noted bridges and culverts over a four-year period from 2016 to 2019.
02/19 – 02/20	W. 140th St. Bridge 01.82 and W. 150th St. Bridge 01.94 – Bridge Inspection and Evaluation, Cuyahoga County, OH. *Project Bridge Engineer, and Bridge Inspection Team Leader.* Oversaw a thorough inspection and evaluation project for two bridges spanning Northfolk Southern Railroad, Greater Cleveland Regional Transit Authority, local streets, drives, and private properties. The W. 140th Street Bridge, an 853 ft-long, 12-span continuous welded steel plate girder structure, and the W. 150th Street Bridge, a 708 ft-long, 10-span continuous rolled steel beam structure, underwent meticulous inspection using a snooper, manlifts, and ladders. The findings were documented in accordance with ODOT and AASHTO standards, leading to a comprehensive report outlining inspection results, material testing outcomes, and a capital improvement plan with recommendations and costs for short, mid, and long-term maintenance repairs and improvements.
01/16 - 07/22	CUY-90-24.10/24.63, Ohio Department of Transportation, District 12, Cleveland, OH. *Project Manager and QA/QC Engineer* for this bridge rehabilitation project. This project consisted of the replacement of bridge decks of two mainline bridges carrying Interstate 90 over E. 140th and E. 152nd streets in the City of Cleveland. The first phase of this project consists of a Feasibility Study, Safety Study, Noise Analysis, and MOTAA. Items that will be investigated in the feasibility study include: retrofit of existing moment plates vs. superstructure replacement, semi-integral conversion, bridge deck drainage, addition of structure mounted noisewalls, etc. to Complex phase construction will be utilized in order to maintain 4 lanes of traffic in the peak direction during peak hours.
01/18 – 12/18	Greater Cleveland Regional Transit Authority, Cleveland, OH. *Project bridge engineer* for the inspection and evaluation of GCRTA's largest bridge. The GCRTA engaged the services of the Arcadis team's qualified engineers to provide an in-depth bridge inspection (including fracture critical inspection of truss spans, underwater inspection, and stray current testing) and evaluation of the largest bridge on GCRTA's inventory, the 3,400-foot-long Cuyahoga Viaduct Bridge. Originally constructed in 1920 and rehabilitated in 1999, the Cuyahoga Viaduct Bridge consists of a riveted steel deck truss, riveted steel three-panel thru-truss and 29 simple spans of riveted steel plate girders. The bridge carries two Red Line GCRTA heavy rail train tracks, as well as two siding tracks along the north approach spans. The bridge spans over the Cuyahoga River, Cleveland Metroparks, rail/transit lines, businesses, and numerous streets.
01/21 – 12/23	General Engineering & Right of Way Acquisition and Environmental Services, Summit County, OH. *Project Bridge Engineer, Lead Load Rating Engineer, and Bridge Inspection Team Leader* for this 3-Year General Engineering Services Contract. Arcadis completed general engineering services for 15 bridge and roadway task orders including bridge inspections and bridge load ratings, bridge inventory updates, bridge rehabilitation design, bridge plan/shop drawing review, structural support, structure hydraulics, development of design/ build scopes, resurfacing plans, ecological and wetland mitigation assistance, air quality permitting, asbestos surveys, and preparation of USACE 404 permits.

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16. Staff Experience

Firm employed by	ARCADIS		
Name	Christine Dohy	Years of relevant experience with this employer	30
Title	Senior Structural Engineer	Years of relevant experience with other employer(s)	26
Degree(s) / Years / Specialization		BS / 1994 / Civil Engineering University of Akron Main Campus	
Active registration number / state / expiration date		PE E-62819/ OH / Exp. 12/31/2025	
Year registered	1998	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Bridge Evaluation	

Experience dates	Experience and qualifications relevant to the proposed contract
	Ms. Dohy's bridge engineering experience includes both cursory and in-depth bridge condition inspections, load rating, preparation of reports and studies and the design of rehabilitation and replacement structures. She has prepared structure type studies, preliminary and final contract plans, technical specifications, and construction cost estimates for a variety of bridge types. Her superstructure design experience includes reinforced concrete slabs, prestressed concrete box beams, prestressed concrete I-beams, rolled steel beams, including horizontally curved steel beams. Her substructure design experience includes stub and spill through abutments, semi-integral abutments, wall-type abutments, wall-type piers, hammerhead piers and cap and column piers. Her foundation design experience includes spread footings and friction and end bearing piles. She has also designed three-and four-sided concrete boxes. Finally, she has conducted condition inspections and testing for structures as well as construction inspection and reviewed shop drawings to maintain design accuracy.
08/22 – Ongoing	**I-10 CMAR in Baton Rouge (H.004100.5) --East Baton Rouge Parish.** *Bridge Engineer.* Responsible for part of the substructure design for the west bound main lanes, permanent widening, and the east bound ramp, doing structural design calculations for substructure components, creating CAD drawings, and coordinating with the project management section of the Department for the delivery of the project, per the Louisiana Department of Transportation and Development project delivery policies. The complete bridge project has several separate components including the west bound main lanes, the east bound main lanes, as well as the east bound ramp, and the permanent widening portions of the bridge. The superstructure consists of either Prestressed Concrete Girders (LG54), steel plate girders, or rolled steel beams. The bridge substructure consists of concrete piers caps supported on columns which are supported on drilled shafts and spread footings on drilled shafts.
01/14 – 12/19	**Municipal Bridge Inspection Program, Ohio Department of Transportation, Districts 4, 11 & 12, OH.** *Bridge Engineer, Load Rating Engineer, and Bridge Inspection Team Leader* on this 6-year bridge inspection project that includes various bridge related tasks for 300+ municipal owned bridges throughout ODOT Districts 4, 11 and 12. Coordination with over 60 different municipalities in the three ODOT Districts was required to obtain existing bridge data and to coordinate inspection activities. The various bridge tasks included: annual NBIS routine bridge inspections, element level bridge inspections, fracture critical bridge inspections, underwater bridge inspections, updates to bridge inventory information in ODOT's Structure Management System (SMS), scour critical assessments, development of scour plan of actions, development of Fracture Control Plans, and bridge load ratings. All inspection data, photographs, and other information gathered are uploaded to ODOT's online Structure Management System.
02/19 – 02/20	**W. 140th St. Bridge 01.82 and W. 150th St. Bridge 01.94 – Bridge Inspection and Evaluation, Cuyahoga County, OH.**, *Bridge Inspection Team Leader and Bridge Engineer for* this bridge inspection and evaluation project. This project consisted of in-depth bridge inspection, material sampling and testing, load rating, and evaluation of two bridges over Northfolk Southern

	Railroad, Greater Cleveland Regional Transit Authority, local streets, drives, and private properties. The W. 140th Street Bridge is a 853 ft-long, 12-span (excluding cellular abutment approach spans), continuous welded steel plate girder structure. The W. 150th Street bridge is a 708 ft-long, 10-span, continuous rolled steel beam structure. An up-close, hands-on, in-depth bridge condition inspection was completed, for each structure, in accordance with the latest editions of the ODOT Manual of Bridge Inspection and American Association of State Highway and Transportation Officials' manual for Condition Evaluation of Bridges. The bridges were inspected using a snooper, manlifts, and ladders. Upon completion of the bridge inspections, a comprehensive bridge inspection and evaluation report was prepared. The report detailed the inspection access requirements and documented the inspection findings and inspection ratings for each bridge element as well as results from material testing. The evaluation portion of the report consisted of a capital improvement/asset management plan that included recommendations and costs (initial and lifecycle) for short-term (2 to10 years), mid-range (10 to 20 years), and long-range (more than 20 years) maintenance repairs and capital improvements necessary to extend the useful service life of each bridge.
01/18 – 12/18	Greater Cleveland Regional Transit Authority, Cleveland, OH. *Bridge Inspection Team Leader and provided QA/QC* for evaluation of GCRTA's largest bridge. The GCRTA engaged the services of the Arcadis team's qualified engineers to provide an in-depth bridge inspection (including fracture critical inspection of truss spans, underwater inspection, and stray current testing) and evaluation of the largest bridge on GCRTA's inventory, the 3,400-foot-long Cuyahoga Viaduct Bridge. Originally constructed in 1920 and rehabilitated in 1999, the Cuyahoga Viaduct Bridge consists of a riveted steel deck truss, riveted steel three-panel thru-truss and 29 simple spans of riveted steel plate girders. The bridge carries two Red Line GCRTA heavy rail train tracks, as well as two siding tracks along the north approach spans. The bridge spans over the Cuyahoga River, Cleveland Metroparks, rail/transit lines, businesses, and numerous streets.
07/18 – Ongoing	Bridge Inspections, City of Kent, Kent, OH. *Bridge Inspection Team Leader*. Arcadis provides annual inspection services to the City of Kent. There are nine bridges within the City that require annual inspections. The routine inspections require the completion of ODOT's BR-86 forms and include determination of items that require repair or maintenance.
05/19 – Ongoing	Cleveland Metroparks – Bridge Inspection and Engineering Support, Cleveland Metroparks, Northeast Ohio. *Bridge Inspection Team Leader and Load Rating Engineer*. Arcadis is providing periodic bridge design and annual bridge inspection services to Cleveland Metroparks during this five-year contract. There are 49 ODOT inventoried bridges throughout the Cleveland Metroparks that require annual or fractural critical bridges inspections to be in compliance with FHWA requirements. An additional 60+ pedestrian, golf cart and trail bridges are inspected on a 5-year recurring cycle. Along with entering and approving bridge inspections reports within ODOT's AssetWise structure management system, an annual inspection report is prepared that summarizes the condition of each bridge and includes recommendations for maintenance, rehabilitation, or replacement. The reports also included a summary of the entire inventory in a spreadsheet that can be sorted by condition, reservation location, structure type, etc. Arcadis will also perform bridge load rating updates as necessary to reflect changes in the bridge's condition or changes in loading. Arcadis will also provide bridge/roadway design services for bridges that are programmed for repair, rehabilitation, or replacement.
2021 – Ongoing	VAR-D-11 Element Level Bridge Inspections, Ohio Department of Transportation, District 11, Ohio. *Bridge Inspection Team Leader.* Arcadis led a 4-consultant team consisting of IBI, AECOM, and Collins Engineering to complete numerous routine element level and underwater inspections in 2021 and 2022. District 11 determined that additional inspections were needed and the contract extended into 2024. A total of approximately 407 bridges and 1 wall were inspected. These included 52

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16. Staff Experience

Firm employed by	ARCADIS		
Name	Ryan Brinkman, PE	Years of relevant experience with this employer	10
Title	Project Transportation Engineer	Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization		MS / 2012 / Civil and Environmental Engineering, University of Cincinnati BS / 2011 / Civil and Environmental Engineering, University of Cincinnati	
Active registration number / state / expiration date		PE. 81226/ OH / 12/31/2025	
Year registered	2016	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Bridge Evaluation	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Brinkman is a Design Structural Engineer with 10 years of experience focused on the bridge design, rehabilitation and inspection. Mr. Brinkman is a Registered Professional Engineer in and Ohio and a Certified Bridge Inspection Team Leader. PROFESSIONAL QUALIFICATIONS: • OSE Bridge Inspection Part 1 and 2, 2014 • ISI Envision, 2013 • CSX Annual Certification, 2014, 2015 • e-RAILSAFE, 2014 • OSHA Confined Space Entry Program - 2015
08/22 – Ongoing	**I-10 CMAR in Baton Rouge (H.004100.5) --East Baton Rouge Parish.** *Bridge Engineer.* Responsible for part of the substructure design for the west bound main lanes, permanent widening, and the east bound ramp, doing structural design calculations for substructure components, creating CAD drawings, and coordinating with the project management section of the Department for the delivery of the project, per the Louisiana Department of Transportation and Development project delivery policies. The complete bridge project has several separate components including the west bound main lanes, the east bound main lanes, as well as the east bound ramp, and the permanent widening portions of the bridge. The superstructure consists of either Prestressed Concrete Girders (LG54), steel plate girders, or rolled steel beams. The bridge substructure consists of concrete piers caps supported on columns which are supported on drilled shafts and spread footings on drilled shafts.
07/15 – 12/19	**Ohio Municipal Bridge Inspection, ODOT, OH.** *Structural Engineer.* Arcadis is responsible for inspecting a larger number of bridges in the northeastern part of the state through the end of this contract. The FHWA requires all bridges to comply with the 23 Metrics for oversight of the National Bridge Inspection Program (NBIS). Beyond routine bridge inspections including major, minor, and underwater inspections, work includes inspections for section loss and load ratings, fracture critical inspections and plans, scour assessments, and gusset plate ratings. The routine inspections require the completion of ODOT's BR-86 forms and determination of items requiring repair or maintenance. Additionally, as required by ODOT, revisions to BR-87 forms are necessary for the bridges that have had major rehabilitation or replacement. Ryan assisted the team leader in completing the bridge inspection. He also is the primary load rating engineer and has load rated 60+ bridges.
06/16 – 03/18	**Highway Sign Replacement, LADOTD, New Orleans, LA.** *Structural Engineer.* a total of 9.8 miles of highway and highway arteries needed to have signs replaced and new signs added. Arcadis was tasked with determining the sign type, sign location, and signs supports along the U.S. 90 and I-10 corridor. Ryan was a design engineer on this project. His responsibilities included the design of

16. Staff Experience

	every sign support which was attached to a bridge along the corridor. This included small mile marker signs attached to parapets and large exit signs attached to overhead truss structures. Approximately nine design categories were used to cover hundreds of signs.
06/14 – 01/16	12th Street NW Bridges Replacement Project, City of Canton and Stark County, OH. *Structural Engineer.* An existing concrete arch bridge needed replacement. In addition, the city wanted to improve safety by changing the alignment of a jogging path to go under the bridge rather than over it. The single span arch bridge was replaced with a 73'-11" two span bridge structure. The concrete arch span was replaced a newer 54'-9.25" span concrete arch, and the second span is a 17'-6.625" slab bridge which spans the jogging trail. Responsibilities included design of the arch ribs, deck, and abutments.
08/15 – 12/16 and 05/17 – 03/18	Jefferson 164 Bridge Replacement and Roadway Realignment, Ohio Department of Transportation (ODOT), **Bergholz**, OH. *Structural Engineer* for an existing multi-span prestressed box beam bridge needed replacement. The alignment of the bridge and existing roadway were to be modified to improve drivability as well. After the full design was completed, the alignment was changed to better accommodate the nearby railroad and at grade crossing and a second full design was completed. Arcadis recommended a single span rolled steel I-girders with a composite concrete deck bridge with two of the exterior girders splayed to improve roadway alignment. It was determined that staged construction was appropriate for this project. Ryan was a design engineer on this project. Responsibilities included the design of the temporary shoring, abutments, and bridge components and details. In addition, the bridge was also load rated.
10/13 – 04/14	Albany Division – Second Main, Coxsackie Phase 1 and 2, CSX Transportation, Coxsackie, NY. *Structural Engineer*. The design included replacement of two bridges (one 107' long and one 187' long), extension of multiple culverts and cattle crossings, wetland impact minimization, and EMPAs. The project required removing an existing turnout at both ends of the alignment. The design included a new universal interlocking in each of the two phases. Responsible for the design of the piers and abutments for the Hannacrois Creek Bridge and various calculations for Coxsackie Creek Bridge.
03/14 – 07/14	Lock 3 Wall Repair, City of Akron, OH *Structural Engineer.* During a large rainfall storm, a section of wall of the Ohio and Erie Canal collapsed. This section of wall was near a frequently used greenspace used by the City of Akron, and it was important to repair the section of the wall as well as strengthen the other portions of the existing wall. A new wall section was designed, and the existing wall was retrofitted with a deadman anchor system and steel HP section struts which span wall to wall of the canal underneath a pedestrian bridge. Responsible for the design of the new wall section, the struts, and the deadman anchor system.
05/13 – 10/13	Woo-75-12.94, ODOT, District 2, OH. *Structural Engineer.* Responsible for the design of the temporary bearing and the temporary supports for new bridge This bridge replacement project was part of the 3rd lane widening of I-75 from Perrysburg, OH to Findlay, OH. The existing twin four-span rolled steel beam superstructure bridges carry I-75 over US-6 and were replaced with two-span prestressed concrete I-beam superstructures supported on stub abutments behind MSE walls and a cap and column pier supported on drilled shafts. Each span is 99' in length and the roadway width was widened from 41' to 60'. To achieve the required vertical clearance below I-75, US-6 was lowered over two feet. ODOT decided to implement a pilot project utilizing Accelerated Bridge Construction techniques for this project. The superstructures were to be slid into position during a weekend closure, one weekend for each bridge. The substructures were constructed under the existing bridges utilizing low headroom foundation and compaction equipment. To construct the piers, the existing superstructure was temporarily supported in a different location than the original center pier. The superstructures, including approach slabs, were supported on temporary steel supports adjacent to the existing bridges. The superstructures were slid on temporary elastomeric bearings coated with PTFE (Teflon). Traffic on I-75 was not impacted during construction except for the weekend closures.

16. Staff Experience:

Firm employed by	APS Engineering and Testing		
Name	Sergio Aviles, PE	Years of relevant experience with this employer	12
Title	President	Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specialization		BS / 2001 / Civil Engineering, Louisiana State University	
Active registration number / state / expiration date		PE.0033571 / LA / Exp. 03/31/2024	
Year registered	2007	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Geotechnical / Materials Testing	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Aviles boasts over 20 years of expertise in geotechnical and civil engineering, including substantial experience at LADOTD involving slope stability analysis, embankment settlement calculations, mechanically stabilized earthen wall design, and sheet pile design. Additionally, he has a proven track record in pile testing. Having established A P S Engineering and Testing eleven years ago, Mr. Aviles has consistently collaborated with both government and private entities throughout Louisiana. His extensive background extends to the design and supervision of roadway projects in the region. Proficient in AutoCAD Civil 3D, he applies this skill in project design.
11/19 – 06/22	**Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19, Multiple Location, LA.** *Project Manager* for the Project Design team. A P S was selected with the winning team for the design of the diversion CMAR project. A P S performed the Geotechnical Design for the project.
09/19 – 05/23	**I-10 Widening LA 415 to Essen LN, LA.** *Project Manager* to the Geotechnical Investigations. A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU Lakes. A P S drilled a total of eight (8) over the waterborings and 44 land borings. Along with this drilling and sampling, A P S tested for strength and engineering characteristics of the soils with approximately 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits.
11/19 – 12/23	**US 190 over Bogue Falaya River, LA.** *Project Manager* for the Project Design team. A P S was selected with the winning team for the Geotechnical Investigation and Design for the proposed new overpass. A total of six (6) deep borings were drilled and tested for Geotechnical recommendation.
03/19 – 05/19	**US 90 Railroad Overpass SE of LA 85, LA.** A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundation recommendation. Mr. Aviles was the Project Manager for the Project Design Team.
08/16 – 10/19	**I-110 Interchange Modification at Terrace Ave, LA.** A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave Exit. A P S tested for strength and engineering characteristics of the soils with approximately 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits performed by A P S Laboratory. Mr. Aviles was the Project Manager to the Geotechnical Investigations
11/17 – 02/18	**US 61 Thompson Creek Bridge Replacement, LA.** A P S was tasked thru our DOTD geotechnicalretainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. A P S tested for strength and engineering characteristics of the soils. Mr. Aviles was the Project Manager to the Geotechnical Investigations and Analysis assigned for roads and bridges.
07/14 – 08/14	**US 90 elevated portion for the I-49 corridor, LA.** A P S performed all the preliminary drilling, testing, and CPTs for US 90 and

	Highway 318 Intersection. A total of 46 borings and 11 CPTs along with all the testing required by LADOTD was completed. Mr. Aviles was the Project Manager to the Geotechnical Investigations and Analysis assigned for roads and bridges design.
02/17 – 10/17	Earhart Expressway/Causeway Boulevard, LADOTD, Metairie, LA. *Project Manager*. Tasked A P S with developing the LRFD factors for both existing structures and the new elevated sections to connect to Causeway Blvd. Per the task order APS drill and tested 85 borings to 120 feet near the proposed and existing structures. APS engineering staff provided designer with pile tip elevations for five elevated ramps to connect Earhart to Causeway Blvd. Provided boring logs, information on site conditions, site preparation recommendations, and load- length curves. Project Manager to the Geotechnical investigations and analysis assigned to help calculating the resistance factors.
03/01 – 05/05	The following list consists of projects that Mr. Aviles did the design or assisted on the design while at LADOTD. These projects include pile design, slope stability, settlement analysis, and construction services (PDA, CAPWAP, and WEAP). ONSYSTEM PROJECT LIST: Mr. Aviles served as the staff geotechnical engineer while at the Pavement and Geotechnical Section for the following projects below. Projects include Embank Design, Pile Design, Drilled Shaft Design, MSE Wall Design, and Construction Supervision. Major project costs estimated over one million dollars: 015-04-0037 LA524-LA123 Route US165, 015-05-0035 LaSalle, 015-07-0044 (Route 165 Cadwell, 276-03-0016 Tangipahoa River Bridge, 3132 01-0029, 362-01-0009 Rat Bois, 452-01-0039 I-55 CrossOvers, 742-07- 0098 Susek Drive, Bayou Perrie and Sand Beach Bayou 103-01-0025, Broadway Ave.700-40-0127, Cameron Route La. 27 193-02-0042, Causeway Boulevard interchange Route I-10 450-15-0098,Clayton-Greenville 026-03-0025, Crescent City Connection 283-08-0143(46), Cross Bayou Bridge 090-01-0020, Flannery at Florida 742-17-0008.Innerloop 427

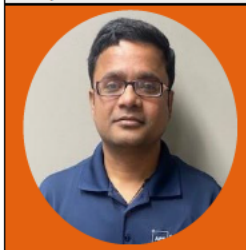
16. Staff Experience:

Firm employed by	APS Engineering and Testing		
Name	Surendra Raj Pathak, PE	Years of relevant experience with this employer	11
Title	Staff Engineer	Years of relevant experience with other employer(s)	10
Degree(s) / Years / Specializa2tion		MS / 2013 / Civil Engineering, MS / 2007 / Civil Engineering BS / 1998 / Civil Engineering University of Technology	
Active registration number / state / expiration date		PE. 43487/ LA / Exp. 09/30/2025	
Year registered	2019	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Geotechnical Engineer	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Pathak, a Staff Geotechnical Engineer at APS, brings over 10 years of experience in Geotechnical and Civil engineering. His expertise includes designing roadway, bridges, and levees, as well as shallow and deep foundations. He has extensive field experience in QC inspection of auger cast piles, drilled shafts, soils, and concrete. Mr. Pathak is proficient in various software, including Slope/w, Seep/w, Driven 1.2, MicroStation V8, CWALSHT, FS004, Swell Potential, Drilled Shaft Design, Auger cast pile design Analysis, AASHTO pavement, Slope analysis, and Differential Settlement Analysis.
11/19 – 06/22	**Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19, Multiple Location, LA.** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 12 deep borings for the new and replacement bridges at Highway 19, 67, and 964. A P S tested for strength and engineering characteristics of the soils. Mr. Surendra was a Design Engineer for the Project Desing team.
09/19 – 05/23	**I-10 Widening LA 415 to Essen LN, LA.** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU lakes. Along with this drilling and sampling A P S will also test for strength and engineering characteristics of the soils with. A total of eight (8) over the waterborings and 44 land borings with approximately 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Surendra was an engineer to the Geotechnical Investigations.
11/19 – 12/23	**US 190 over Bogue Falaya River, LA.** A P S was selected with the winning team for the Geotechnical Investigation and Design for the proposed new overpass. A total of six (6) deep borings were drilled and tested for Geotechnical recommendation. Mr. Surendra was an engineer for the Project Design team.
03/19 – 05/19	**US 90 Railroad Overpass SE of LA 85, LA.** A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundation recommendation. Mr. Surendra was a Design Engineer for the Project Design team.
08/6 – 10/19	**I-110 Interchange Modification at Terrace Ave, LA.** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave Exit. A P S tested for strength and engineering characteristics of the soils with approximately 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU)and Atterberg Limits performed by A P S Laboratory. Mr. Surendra was an engineer to the Geotechnical Investigations.
11/17 – 02/18	**US 61 Thompson Creek Bridge Replacement, LA**. A P S was tasked thru our DOTD geotechnicalretainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. A P S tested for strength and engineering characteristics of the soils. Mr. Surendra was an engineer to the Geotechnical Investigations.

16. Staff Experience:

Firm employed by	APS Engineering and Testing		
Name	Sairam Eddanapudi, PE	Years of relevant experience with this employer	12
Title	Chief Engineer	Years of relevant experience with other employer(s)	9
Degree(s) / Years / Specialization		MS / 2002 / Civil Engineering BS / 1999 / Civil Engineering	
Active registration number / state / expiration date		PE.0035129 / LA / Exp. 03/31/2024	
Year registered	2008	Discipline	Civil Engineering
Contract role(s) / brief description of responsibilities.		Geotechnical / Materials Testing	

Experience dates	Experience and qualifications relevant to the proposed contract
	Mr. Eddanapudi is the Senior Geotechnical Engineer for A P S. He has over 20 years of experience in the Geotechnical and Civil Engineering field. His professional experience consists of the design of roadways, bridges, levees, and T-walls as well as the design of shallow and deep foundations. His field experience includes QC inspection of auger cast piles, drill shafts, soil, and concrete. Mr. Sai has experience with the following software: Slope/w (2004 and 2007 versions) for slope stability analyses, Seep/w for seepage analysis, Driven 1.2 (for driven piles), MicroStation V8, CWALSHT and FS004 for slope stability analyses, Swell Potential (for expansive soils), Drilled Shaft Design software, Auger cast pile design Analysis, AASHTO pavement, Slope analysis, and Differential Settlement Analysis.
11/19 – 06/22	**Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19, Multiple Location, LA.** *Senior Design Engineer* for the Project Design team. Selected by the winning team for the diversion CMAR project, A P S performed the Geotechnical Design for the project.
09/19 – 05/23	**I-10 Widening LA 415 to Essen LN, LA.** *Project QA.* Responsible for Geotechnical Investigations. A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of 52 deep boring`s starting at the Washington Exit and ending at the LSU Lakes. A P S drilled a total of eight (8) over the water borings and 44 land borings. Along with this drilling and sampling, A P S tested for strength and engineering characteristics of the soils with approximately 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits.
11/19 – 12/23	**US 190 over Bogue Falaya River, LA.** *Senior Design Engineer* for the Project Design team. A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundation recommendation.
03/19-05/19	**US 90 Railroad Overpass SE of LA 85, LA.** *Chief Engineer* for the Project Design team. A P S was selected with the winning team for the Geotechnical Investigation and Design for the proposed new overpass. A total of six (6) deep borings were drilled and tested for Geotechnical recommendation.
08/6 – 10/19	**I-110 Interchange Modification at Terrace Ave, LA.** *QA* to the Geotechnical Investigations. A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave Exit. A P S tested for strength and engineering characteristics of the soils with approximately 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits per-formed by A P S Laboratory. Mr. Sai was QA to the Geotechnical Investigations.
11/17 – 02/18	**US 61 Thompson Creek Bridge Replacement, LA.** *QA* to the Geotechnical Investigations. A P S was tasked thru our DOTD Geotechnical retainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. A P S tested for strength and engineering characteristics of the soils.

Section 17

Arcadis developed rendering for roundabout in Town of Garner, North Carolina.

Town of Garner, NC

17. Firm Experience:

Firm name	ARCADIS	Past Performance Evaluation Discipline(s)*	Road, Traffic, Planning
Project name	US 90 Ramps at LA 88 Roundabouts	Firm responsibility (prime or sub?)	Sub
Project number	4400004401 (H.011495)	Owner's name	Louisiana Department of Transportation and Development (LADOTD)
Project location	Iberia Parish, LA	Owner's Project Manager	Brent Domingue
Owner's address, phone, email	428 Hugh Wallis Rd, Lafayette, LA 70508 / T: 337 262 6210 / E: christopher.domingue@la.gov		
Services commenced by this firm (mm/yy)	11/2016	Total consultant contract cost ($1,000's)	$549
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$505

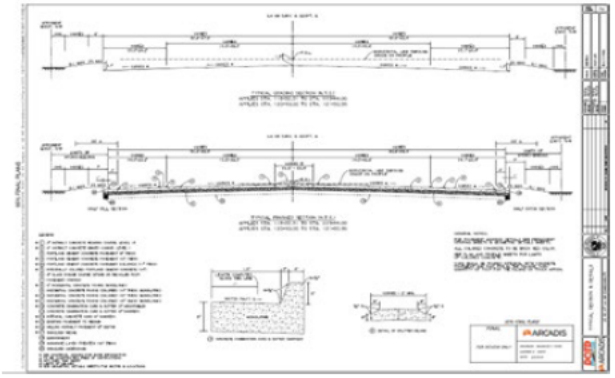
Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

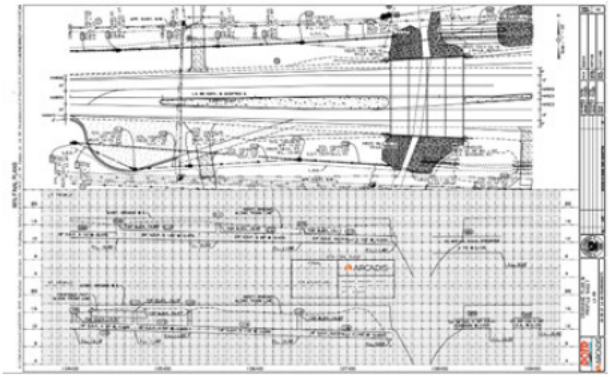
Firm's Role: Roundabout Geometric Design & Modeling; Pavement Marking and Signing; Preliminary and Final Plan Development; Drainage Design; Construction Sequencing and Signing; Construction Cost Estimate; Access Management Improvements, Engineer in Responsible Charge

Firm Members Involved: David Fulks; Buddy Porta

The LADOTD contracted Aucoin & Associates and its sub-consultant, Arcadis, to prepare preliminary and final roadway plans to install two single lane roundabouts at the US 90 ramp intersection with LA 88 in Iberia Parish. The project also includes modifying the LA 88 /Service Road intersections to J-turn intersections. The installation of the roundabouts is aimed at promoting mobility and safety along the corridor.

Arcadis is performing all engineering services for this task order to develop a full set of construction plans, including InRoads modeling of the roundabouts, as a pass-through from Aucoin & Associates under their safety design retainer contract. Arcadis has completed the 100% Preliminary plans and is currently developing the 95% Final Plan submittal.

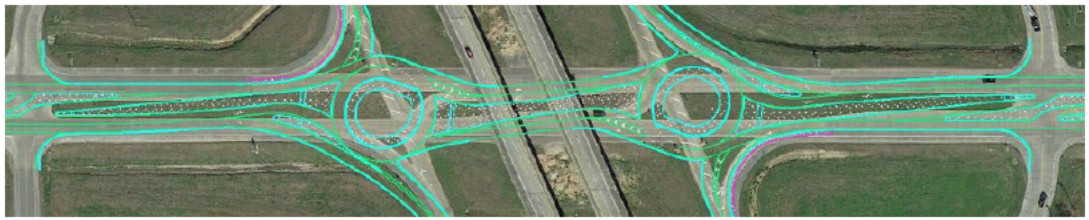




Relevant Services

- Roadway Geometric Design
- Typical Sections
- Drainage Design, Open channel and Sub-surface.
- Construction Signing and Sequencing
- Access Management
- Roadway Signing and Striping
- LADOTD Design Report (2017 Guidelines)
- LADOTD Plan Development and Review
- LADOTD Design Guidelines, EDSMs, and Roadway Design Manual.
- LADOTD Detailed Pay Item Construction Cost Estimate and Quantity Calculations.
- Coordination with LADOTD

The design is being prepared in accordance with the LADOTD Design Guidelines, Roadway Design Procedures and Details Manual and all applicable DOTD EDSMs, AASHTO and FHWA guidelines. The roundabouts are being designed to accommodate the WB-67 design vehicle. As a best practice, the project team held several design review meetings throughout preliminary plan and final plan development to more closely coordinate with LADOTD District 03 and headquarters personnel prior to proceeding into subsequent design phases. The goal of this team coordination was to ensure all project team members agreed with proposed geometry prior to spending significant time proceeding into the subsequent design phases.



17. Firm Experience:

Firm name	ARCADIS	Past Performance Evaluation Discipline(s)*	Road, Traffic
Project name	US 190B at Jefferson Avenue Roundabout Design	Firm responsibility (prime or sub?)	Sub
Project number	4400004401 (H.011260.5)	Owner's name	Louisiana Department of Transportation and Development (LADOTD)
Project location	St. Tammany Parish, LA	Owner's Project Manager	Jennifer Branton
Owner's address, phone, email	685 N Morrison Blvd, Hammond, LA 70401/ T: 985 375 0165 / E: jennifer.branton@la.gov		
Services commenced by this firm (mm/yy)	06/15	Total consultant contract cost ($1,000's)	$486
Services completed by this firm (mm/yy)	On-Hold	Cost of consultant services provided by this firm ($1,000's)	$392

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

Firm's Role: Roundabout Geometric Design; Urban Drainage Design; Pavement Marking and Signing; Construction Sequencing and Signing; Preliminary Plans Development; Construction Cost Estimate; Engineer in Responsible Charge; Independent Technical & Quality Reviews

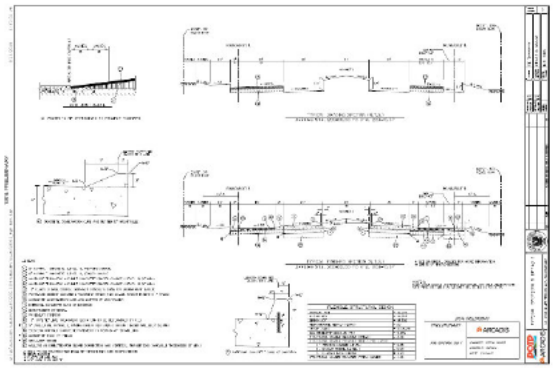
Firm Members Involved: David Fulks; Garret Keller; Craig Raymond; Buddy Porta

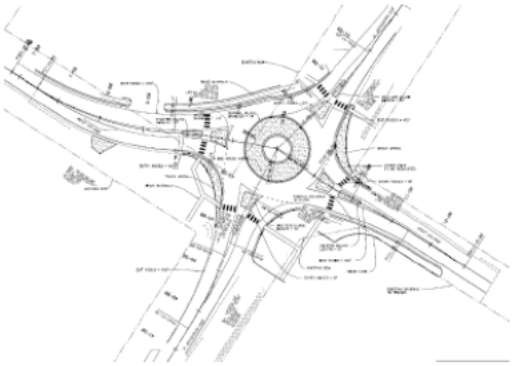
The LADOTD contracted Aucoin & Associates and its sub consultant, Arcadis, to prepare roadway construction plans for a single-lane roundabout to replace the existing traffic light at the intersection of US 190B and Jefferson Avenue located in the business district of Covington. The existing intersection includes an east-west urban two-lane highway (US 190B, locally named 21st Ave.) and a north-south local street (Jefferson Ave.). US 190B features a "dog-leg" at its intersection with Jefferson Ave. The installation of this roundabout is aimed at promoting mobility and safety along the corridor.

Arcadis performed all engineering services for this task order, including InRoads modeling of the roundabout, as a pass-through from Aucoin & Associates under their safety retainer contract.

The design was prepared in accordance with the LADOTD Design Guidelines and the Roadway Design Procedures and Details Manual. Although the route is signed to restrict through truck traffic, the roundabout was designed to accommodate the WB-67 design vehicle to allow for local deliveries. Also, the LADOTD Complete Streets policy was followed by including ADA-compliant ramps and crosswalks to incorporate the existing sidewalks and accommodate pedestrian traffic around the roundabout.

To arrive at the best Alternative, Arcadis performed a context sensitive solutions review of several different design layouts including both circular and oval shaped options for the roundabout. This exercised was aimed at carefully balancing right-of way and utility impacts to help the LADOTD determine the best suited layout for the project site. Arcadis completed 100% Preliminary Plans and 60% Final Plans. The project did not progress past the 60% Final Plan milestone, since LADOTD halted the project due to concerns over right-of-way.





Relevant Services

- Roadway Geometric Design
- Typical Sections
- Urban Drainage Design
- Construction Signing and Sequencing
- Limits of Construction and Required ROW
- Roadway Signing and Striping
- LADOTD Design Report (2017 Guidelines)
- LADOTD Plan Development and Review
- LADOTD Design Guidelines, EDSMs, and Roadway Design Manual.
- LADOTD Detailed Pay Item Construction Cost Estimate and Quantity Calculations.
- Coordination with LADOTD Design and Construction Staff.
- Pedestrian Accommodations.
- Signal Design for Temporary Signalization of Intersection

17. Firm Experience:

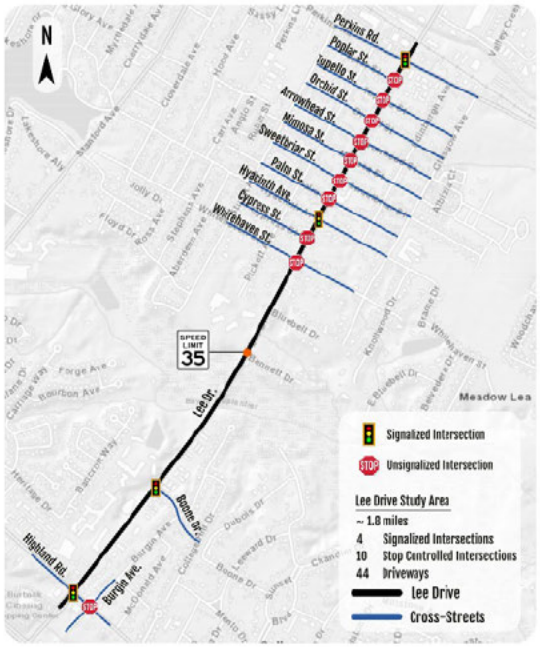
Firm name	ARCADIS	Past Performance Evaluation Discipline(s)*	Bridge, Road, Traffic, Env
Project name	Lee Drive (Highland Road-Perkins Road)	Firm responsibility (prime or sub?)	Prime
Project number	City-Parish Project No. 20-CP-HC-0044	Owner's name	City of Baton Rouge/Parish of East Baton Rouge
Project location	East Baton Rouge Parish, Louisiana	Owner's Project Manager	Justin Schexnayder
Owner's address, phone, email	8555 United Plaza Blvd., Baton Rouge, LA 70809, (225) 761-3628, justin.schexnayder@csrsinc.com		
Services commenced by this firm (mm/yy)	02/21	Total consultant contract cost ($1,000's)	$2,568
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$1,536

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

Firm's Role: The purpose of this project is to widen Lee Drive from a 2-lane to a 3-lane section between Highland Road and Perkins Road. Arcadis is responsible for design study and design services, which include traffic study and report, topographic survey, hydraulic and drainage analysis, preliminary and final plans preparation, signal design, bridge design, construction cost estimate, and right-of-way maps.

Relevant Services

- Traffic Studies
- Preliminary and Final Plans
- Roadway Design
- Traffic Signal Design
- Intersection Improvements
- Access Management
- Construction Cost Estimates



Firm Members Involved: Jose L. Rodriguez, Ari Deitch, and Gabriel Arias.

Design Study Report and Preliminary Design

Arcadis provided traffic engineering studies and preliminary roadway and drainage design and evaluated alignment alternatives. The work was prepared in coordination with the City of Baton Rouge and the MOVEBR Program. A preferred alternative was presented to the City of Baton Rouge based on findings from the traffic study, impacts to existing right-of-way, and a detailed ***construction cost analysis***. Arcadis also assisted the City of Baton Rouge in obtaining public input by participating in public meetings and preparing exhibits for public display.

Final Design Plans and Cost Estimate

For the Final Design Phase, Arcadis is tasked with preparing construction roadway plans, right-of-way maps, and construction cost estimates. The Lee Drive project involves the complete reconstruction of Lee Drive from Highland Road to Perkins Road. The proposed typical section extends approximately 1.7 miles and is a three-lane urban section with a left-turn center lane. The project goal was to improve vehicular traffic capacity and connectivity to all corridor users by delivering safe and efficient pedestrian/bicycle facilities while maintaining neighbourhood integrity. Improvements also include sidewalks and bike lanes, traffic signal upgrades, intersection capacity and safety improvements, and access management.

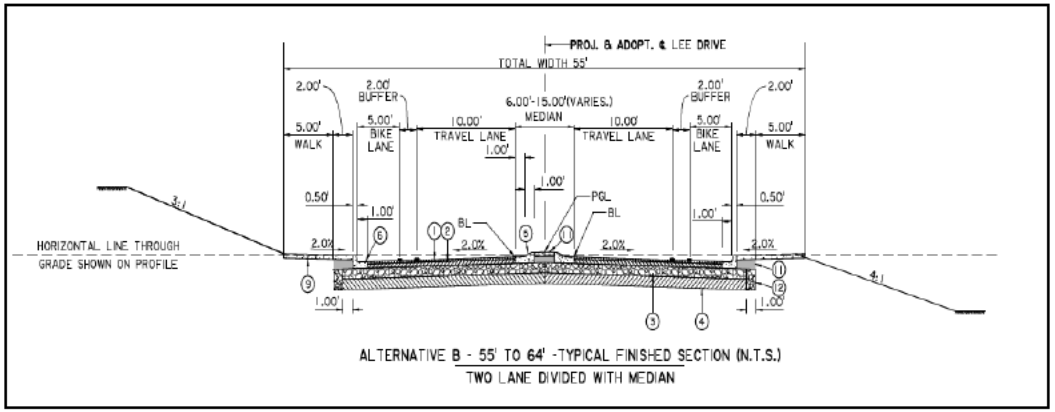


Figure: Proposed Typical Section Alternative on Lee Drive

The design team gave special considerations to traffic and access maintenance, constructability, utility coordination and right-of- way requirements. Ensuring proper drainage during construction and overall drainage improvements was another major factor considered for the project.

17. Firm Experience:

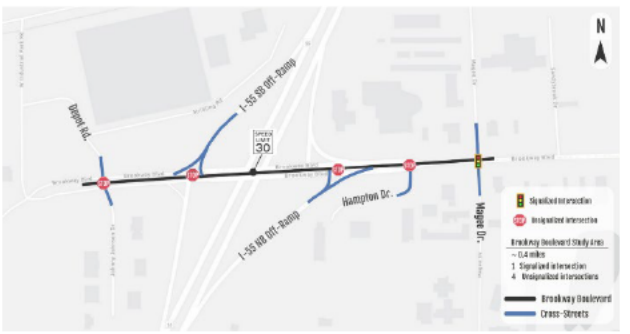
Firm name	ARCADIS	Past Performance Evaluation Category(ies)*	Traffic
Project name	I-55 at Brookway Blvd. Roundabout Interchange	Firm responsibility (prime or sub?)	Prime
Project number	HSIP-0055-01(125)/109120-101000	Owner's name	Mississippi Department of Transportation
Project location	McComb, MS – Lincoln County	Owner's Project Manager	Mark B. Thomas, P.E.
Owner's address, phone, email	PO Box 1850 Jackson, MS 39215-1850, 601 359 1427, mthomas@mdot.ms.gov		
Services commenced by this firm (mm/yy)	09/22	Total consultant contract cost ($1,000's)	$417
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	$417
Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)			

Firm members involved: Akhil Chauhan, Ari Deitch, Skyler Waaso, Max Aguirre, Jonathan Reid

This project included conducting a traffic study of the I-55 at Brookway Boulevard interchange ramps and neighboring signals and cross streets and developing Phase A Final Right-of-Way Roadway Construction Plans. Prior to developing the roadway plans the traffic study was performed to assess to analyze the existing configuration and inform the design of roundabouts and associated improvements. The limits of the study included Brookway Boulevard from Depot Road to Magee Drive, and I-55 from Halbert Heights Road to W. Industrial Park Lane. Single and double lane roundabout configurations were developed and analyzed as part of this effort.

In developing the traffic study, the team collected traffic data including turning movement counts, conducting speed studies and geometric field checks, collecting travel times, and performing peak period observations. Travel time runs for roadway segments were conducted to calibrate microsimulation (VISSIM) models, using the "Average Car Method". Existing volumes were balanced, and future volumes developed using annual growth rates. From this data the existing, no-build, and build network analysis was conducted using calibrated microsimulation (VISSIM) models. The analysis results including the measures of effectiveness for delay, level of service and queue length were presented to MDOT and included in the final traffic study report. The study also included analyzing the safety of the existing, no build and build alternatives. Crash data was collected, analyzed and summarized in the report and a high-level safety analysis was performed to estimate the benefits on the proposed improvements. The study showed that the build alternative for the single lane roundabout alternative would:

- Reduce crashes by 4 per year
- Reduce the number of conflict points
- Eliminate crossing conflicts, which have a higher potential to result in injury crashes
- Reduce the southbound approach delay from 172.30 seconds/vehicle to 15.28 seconds/vehicle in the P.M. peak hour
- Reduce crashes by 17.8% for all crash types and severities



Roadway plans for the proposed improvements were also developed for this project. This work included development of Conceptual Plans, Field Inspection Plans and Final Right-of-Way plans inclusive of the roadway design and roadway hydraulics for the interchange ramps, roundabouts at the ramp termini, and local roadway. These plans also include traffic control plans, lighting, signing, and pavement marking. The plans are currently in development using 3D design software.

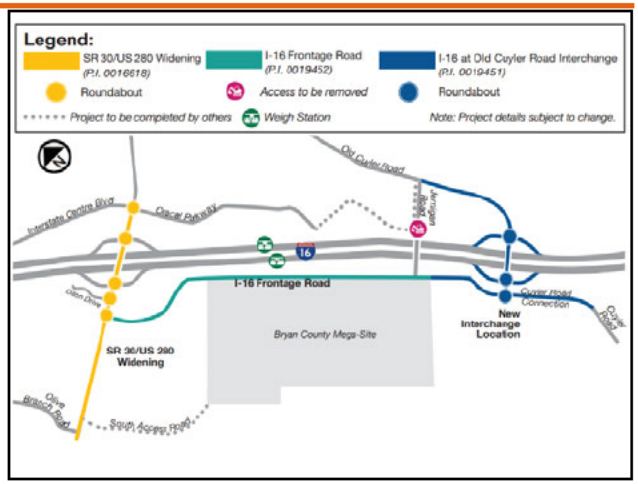
17. Firm Experience:

Firm name	ARCADIS	Past Performance Evaluation Discipline(s)*	Traffic, Bridge
Project name	I-16 @ Old Cuyler Road; Inc Cuyler Road Extension	Firm responsibility (prime or sub?)	Prime
Project number	0019451	Owner's name	Georgia Department of Transporation
Project location	Bryan County, GA	Owner's Project Manager	Trevor Brown
Owner's address, phone, email	600 West Peachtree NW, Atlanta, Georgia 30308, (404) 631-1703, trbrown@dot.ga.gov		
Services commenced by this firm (mm/yy)	06/22	Total consultant contract cost ($1,000's)	5,483
Services completed by this firm (mm/yy)	Ongoing	Cost of consultant services provided by this firm ($1,000's)	3,627

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

Firm Members Involved: Jaap Tigelaar, Jonathan Reid

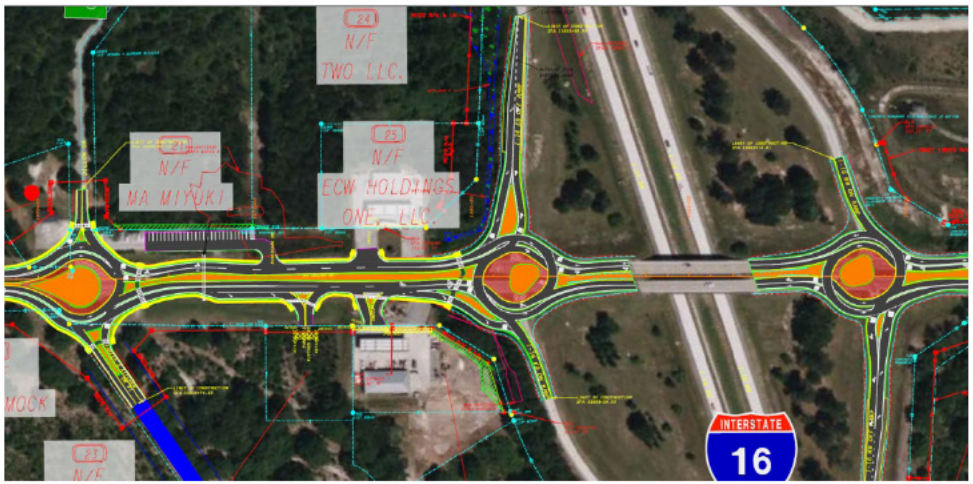
Arcadis is involved in three important projects in Bryan County, Georgia: the widening of US 280 (PI 0016618), a new I-16 Frontage Road (PI 0019452) and the new Old Cuyler Road Interchange (PI 0019451). These projects are crucial for facilitating access to a new economic development in the area. In consideration of safety benefits, the preferred alternative for the interchange terminal intersections is the implementation of roundabouts. Roundabouts have been chosen due to their proven track record in enhancing safety. Given the high percentage of trucks on these roadways, it is necessary to design roundabouts that meet the Case 3 Criteria: allowing WB 67 trucks to travel side by side. To facilitate this, the roundabouts will have an Inner Circle Diameter (ICD) of 180-200 feet. This design consideration ensures smooth and efficient traffic flow for both passenger vehicles and trucks at the interchange terminal intersections.



A normal modern case 3 multi-lane roundabouts would have two wide circulatory lanes. This configuration could potentially lead to regular cars overtracking both lanes at high speeds. To address this concern and enhance safety, the design of the turbo roundabouts includes raised elements to separate the lanes. The raised elements prevent cars from overtracking and ensure that they remain in their designated lane. The presence of raised lane separation in the turbo roundabout has significant safety benefits. It reduces the fastest paths that cars can take, limiting speeds to safer levels of around 20 mph, as opposed to potentially exceeding 30 mph. This reduction in speed greatly enhances the overall safety of the roundabout, minimizing the risk of accidents and improving the overall traffic flow.

For the US 280 project, two challenges are the presence:

- The existing bride at the interchange: The decision to retain the existing bridge and not make changes to the ramps would pose a challenge in conducting an Interchange Justification Report (IJR). The two roundabouts at both ramps were fitted within.
- Two new roundabouts within 200 feet: To provide full access to two nearby driveways connecting to US 280, a peanut-shaped multi-lane roundabout has been designed. This design allows for efficient and safe movement of traffic, accommodating the entry and exit points of both driveways. The peanut roundabout is also equipped with raised lane separation to further enhance traffic safety.



17. Firm Experience:

Firm name	BONTON ASSOCIATES	Past Performance Evaluation Discipline(s)*	Road
Project name	**Lee Drive (Highland Road-Perkins Road)**	Firm responsibility (prime or sub?)	Sub
Project number	City-Parish Project No. 20-CP-HC-0044	Owner's name	City of Baton Rouge/Parish of East Baton Rouge
Project location	East Baton Rouge Parish, Louisiana	Owner's Project Manager	Jose Rodriguez, P.E.
Owner's address, phone, email	8555 United Plaza Blvd., Baton Rouge, LA 70809, (504) 648-3600, justin.schexnayder@csrsinc.com		
Services commenced by this firm (mm/yy)	02/21	Total consultant contract cost ($1,000's)	$168.2
Services completed by this firm (mm/yy)	ongoing	Cost of consultant services provided by this firm ($1,000's)	$168.2

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

Firm's Role: Bonton Associates is responsible for conducting the existing drainage analysis, preparing existing drainage map(s), site investigations, develop proposed drainage network design, proposed drainage maps, and stormwater detention design associated with the preferred roadway alternative. Bonton Associates delineated existing and proposed watersheds resulting from proposed capacity improvements along Lee Drive. The Bonton team worked to accommodate proposed roadway improvements while minimizing upstream and downstream drainage impacts.

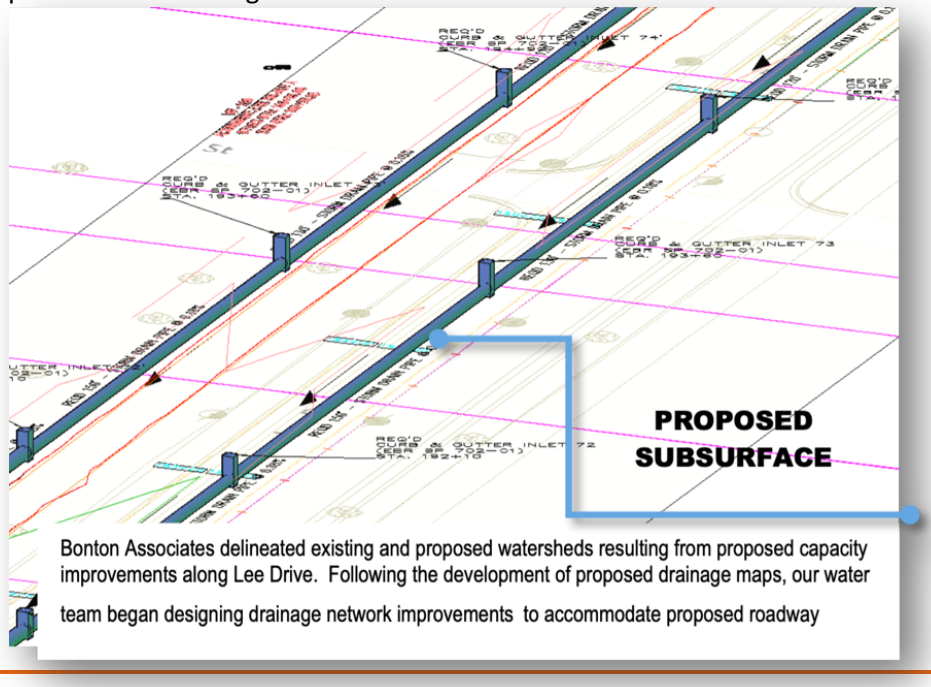
Firm Members Involved: LaDarien Beene, Kiran Gurung, Aaron Hargrove

The Bonton Team is conducting extensive coordination with Project Team to align the proposed roadway corridor improvements (and other design elements) with the proposed drainage network design and stormwater detention.

The Lee Drive (Highland Road-Perkins Road) project includes providing increased traffic capacity by widening the existing roadway to 3-lane section with two through lanes and a two-way left turn lane. Design components, such as sidewalk and ADA facilities, are incorporated to comply with the complete streets policy. All design components are developed in compliance with MOVEBR Consultant requirements and Design Guidelines.

Relevant Services

- Preliminary and Final Plans
- Stormwater Hydrologic/Hydraulic Analysis
- Drainage Network Design
- Watershed Delineation and Mapping
- Stormwater Detention
- Construction Cost Estimates



Bonton Associates delineated existing and proposed watersheds resulting from proposed capacity improvements along Lee Drive. Following the development of proposed drainage maps, our water team began designing drainage network improvements to accommodate proposed roadway

17. Firm Experience:

Firm name	BONTON ASSOCIATES	Past Performance Evaluation Discipline(s)*	Road
Project name	Ardenwood-Lobell Connector Final Design	Firm responsibility (prime or sub?)	Prime
Project number	City-Parish Project No. 20-CP-HC-0017	Owner's name	East Baton Rouge Parish of Department of Transportation and Drainage
Project location	East Baton Rouge Parish, Louisiana	Owner's Project Manager	Fred Raiford
Owner's address, phone, email	222 Saint Louis Street, 8th Floor, Baton Rouge, LA | 225-389-3159 | cohran@civilsolutionscgi.com		
Services commenced by this firm (mm/yy)	11/22	Total consultant contract cost ($1,000's)	$677.18
Services completed by this firm (mm/yy)	Q1 2024	Cost of consultant services provided by this firm ($1,000's)	$322.27

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

Firm's Role: As the Project Prime, Bonton Associates is responsible for all roadway design elements and supporting details including developing roadway geometry for the proposed roadway corridor, intersection design, access management, sidewalk design, bicycle lane design, hydrologic and hydraulic analysis/design, mill/overlay, green infrastructure analysis/design, corridor/earthwork modeling, and road diet improvements/design.

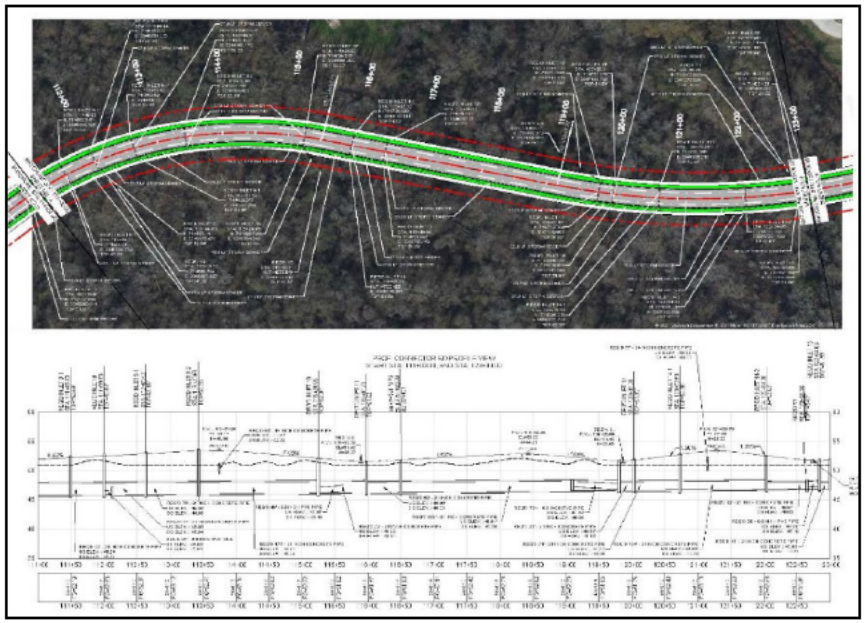
Firm Members Involved: Marcus Bonton, LaDarien Beene, Kiran Gurung

As part of the MOVEBR program, Bonton Associates is preparing the final design plans for a new two-lane connector roadway between Ardenwood Drive and Lobdell Boulevard in Baton Rouge, LA. This new roadway will be part of the proposed Ardendale development and will provide increased traf-fic capacity, pedestrian facilities/connectivity, drainage improvements, green infrastructure, and access management.

In conjunction with the proposed roadway connector, other supporting analysis/design disciplines are involved to complete the overall design, including topographic survey, subsurface utility engineering, lighting design, traffic, geotechnical analysis, environmental/permitting, and landscaping. Design reports, design calculations and reports, preliminary and final construction costs are submitted along with the design plans to the City of Baton Rouge and MOVEBR.

Relevant Services

- Preliminary and Final Plans
- Roadway Design
- Complete Streets Design
- ADA Design/Compliance
- Drainage Analysis & Design
- Green Infrastructure
- Access Management



17. Firm Experience:

Firm name	BONTON ASSOCIATES	Past Performance Evaluation Discipline(s)*	Planning, Road
Project name	Jones Creek Road (Jefferson Highway – Airline Highway)	Firm responsibility (prime or sub?)	Sub
Project number	City-Parish Project No. 19-CP-HC-0036	Owner's name	East Baton Rouge Parish of Department of Transportation and Drainage
Project location	East Baton Rouge Parish, Louisiana	Owner's Project Manager	Alex Farr, P.E.
Owner's address, phone, email	222 Saint Louis Street, 8th Floor, Baton Rouge, LA | (225) 298-0800 | tstephens@brgov.com		
Services commenced by this firm (mm/yy)	03/21	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	Q4 2024	Cost of consultant services provided by this firm ($1,000's)	$57.7

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

Firm's Role: Bonton Associates is responsible for developing the proposed drainage design, drainage plan and profiles sheets, and drainage map(s) in support of the design and construction of a new suburban four-lane roadway with complete streets facilities and green infrastructure elements. This work requires coordination and compliance with LADOTD and associated design guidelines for all design plan deliverables. Considerations for stormwater detention pond areas are also being developed.

In addition, extensive coordination is being conducted amongst the design team to align the proposed drainage the proposed roadway corridor and other elements design plans (plan & profiles, project quantities, quantity tables, details, specifications, cost estimates, etc.) over the course of the 30%, 50%, 60%, 90%, and 100% design milestones and submittals.

Firm Members Involved: LaDarien Beene, Kiran Gurung

Relevant Services

- Preliminary and Final Plans
- Stormwater Hydrologic/Hydraulic Analysis
- Drainage Network Design
- Watershed Delineation and Mapping
- Construction Cost Estimates

Jones Creek Road is a proposed greenfield project connecting Tiger Bend Road and Airline Highway, crossing Jefferson Highway. The proposed roadway includes a four-lane boulevard with a shared use path on each side, roundabout, and intersection improvements.

17. Firm Experience:

Firm name	APS Engineering and Testing	Past Performance Evaluation Discipline(s)*	Geotech
Project name	I-10 Widening LA 415 to Essen LN	Firm responsibility (prime or sub?)	Sub
Project number	H.004100	Owner's name	Louisiana Department of Transformation and Development
Project location	Baton Rouge	Owner's Project Manager	Kristy Smith, P.E.
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70802, (443) 822-5379-1016, Kristy.Smith@la.gov		
Services commenced by this firm (mm/yy)	09/19	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	05/23	Cost of consultant services provided by this firm ($1,000's)	$400

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

Firm's Role: Geotechnical Investigation

Firm Members Involved: Sergio Aviles, Sairam Eddanapudi

Geotechnical investigation to provide client with the necessary information for planning and design I -10 widening. A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington exit and ending at the lsu lakes. Along with this drilling and sampling A P S will also test for strength and engineering characteristics of the soil s. A total of eight (8) over the water borings and 44 l and borings with approximate 1000 triaxial compression, unconsolidated drained or undrained limits.

Relevant Services

- Geotechnical Explorations (GE)
- Topographic Survey (LC)
- Contract Management (CM)

17. Firm Experience:

Firm name	APS Engineering and Testing	Past Performance Evaluation Discipline(s)*	Geotech
Project name	US-90 Railroad Overpass (S. East of LA-85)	Firm responsibility (prime or sub?)	Sub
Project number	H.010155	Owner's name	Shread-Kurykendall & Associates, Inc
Project location	Iberia Parish	Owner's Project Manager	Nicci D. Gill
Owner's address, phone, email	13016 Justice Ave., Baton Rouge, LA 70816/ 225.296.1335/ ngill@skanger.com		
Services commenced by this firm (mm/yy)	11/19	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	12/23	Cost of consultant services provided by this firm ($1,000's)	$105K

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

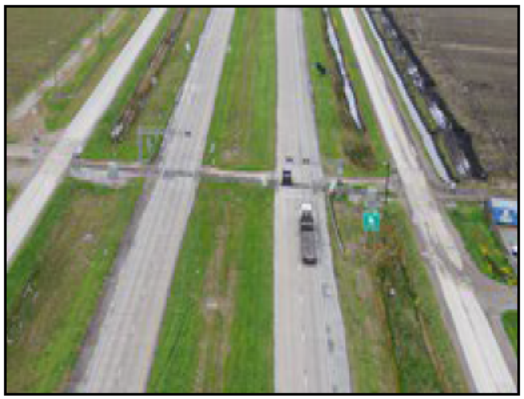
Firm Members Involved: Sergio Aviles, Sai Eddanapudi, Surendra Raj Pathak

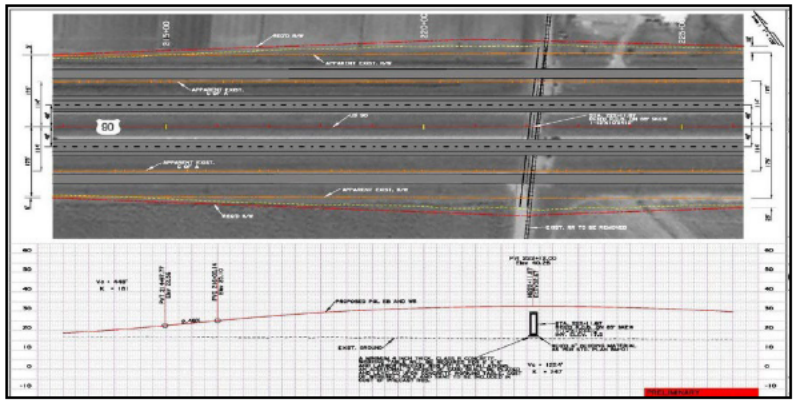
APS Geotechnical Investigation aimed to equip the client with essential information for the planning and design of a 12 ft. x 10 ft. Reinforced Concrete Box (RCB), spanning 412 ft. A PS team drilled a total of twelve (12) borings, each reaching a depth of 120 ft. Undisturbed samples were consistently obtained from the ground surface to a depth of 20 feet, and thereafter at five (5) feet intervals. A laboratory testing program, conducted in-house by the PS laboratory, determined pertinent engineering characteristics of the subsurface materials. This program included visual description and classification, as well as the determination of moisture content. APS team performed over 60 Atterbergs and Unconfined Uniaxial Strength (UUS) tests, along with 18 consolidation tests.

Relevant Services

- Geotechnical Explorations (GE)
- Geotechnical Design (GD)
- Geotechnical Construction (GC)
- Constructability
- Contract Management (CM)

The geotechnical report, generated by APS, encompassed MSE wall embankment settlement, stability analysis, pile capacity analysis, and provided design and general construction recommendations.





17. Firm Experience:

Firm name	APS Engineering and Testing	Past Performance Evaluation Discipline(s)*	Geotech
Project name	Comite River Diversion Bridge at LA-67, LA-19 and LA-19 Rail-road Bridge	Firm responsibility (prime or sub?)	Sub
Project number	H.001352; H.002273	Owner's name	Huval & Associates, Inc.
Project location	East Baton Rouge, LA	Owner's Project Manager	Thomas M. Gattles III, P.E.
Owner's address, phone, email	922 West Don't des Mouton Rd,. Lafayette, LA 70507 / 337.264.3798/ tgattle@huvalassoc.com		
Services commenced by this firm (mm/yy)	11/19	Total consultant contract cost ($1,000's)	N/A
Services completed by this firm (mm/yy)	06/22	Cost of consultant services provided by this firm ($1,000's)	150K

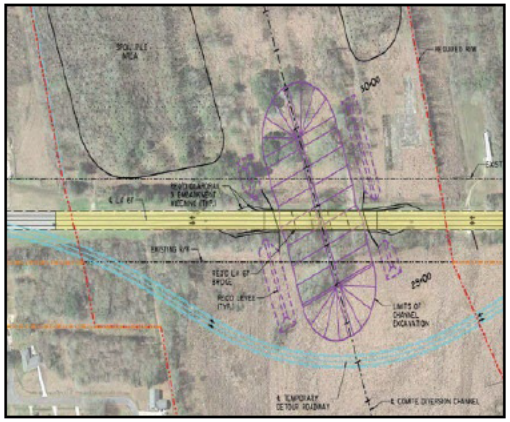
Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)

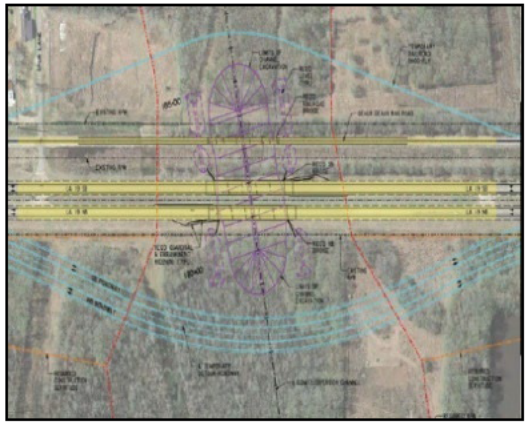
Firm Members Involved: Sergio Aviles, Sai Eddanapudi, Surendra Raj Pathak

APS provided the necessary information to plan and construct the LA-19 RR Bridge. The assessment covered slope stability (embankment), settlement and retaining wall of the LA-19 RR Bridge, PPC piles for the LA-19 Twin Bridges, and drilled shafts for the LA-67 Bridge. A PS team drilled and sampled a total of 19 borings, ranging between 50 ft. and 110 ft. in depth. APS laboratory, in-house, conducted testing on collected soil samples. The testing schedule included visual classification as well as standard methods for determining moisture content, liquid limit, plastic limit and plasticity, unconsolidated-undrained triaxial compression, and one-dimensional consolidation.

Relevant Services

- Geotechnical Explorations (GE)
- Geotechnical Design (GD)
- Geotechnical Construction (GC)
- CMAR
- Constructability
- Contract Management (CM)





Sections 18-19

I-285 Riverside Drive project
in Sandy Springs, Georgia

The Arcadis team has the precise experience in designing skewed and/or non-traditionally shaped roundabout intersections. At off-set intersections, roundabouts can be used to better align approach legs left of center to the roundabout, which leads to improved fastest-path speed control and lane alignments, improving roundabout safety and operations.

18. Approach and Methodology:

LADOTD has identified the need to widen LA 44 from two to four lanes from the north of Panama Canal to the shopping center south of Pelican Point Parkway, including a dual lane roundabout at Pelican Point. Arcadis understands our role to improve provide roadway, drainage, pavement markings, signing and transportation management plan while minimizing environmental and right-of-way (ROW) impacts throughout the study corridor. The project will include the assessment and replacement of a bridge over Panama Canal, which will include the hydraulic analysis and drainage on the structure, within the project limits.

Arcadis has assembled a highly qualified team, complemented by Bonton Associates for drainage design and APS for geotechnical services. This multi-disciplinary team is led by **Project Manager Jose Rodriguez, PE** who is experienced on similar projects. Jose is prepared to work in partnership with LADOTD to deliver a complete, economical, and constructable project. Our primary goal is to develop a design that balances roadway safety and operations, structural, environmental, and hydraulic site constraints to produce the best value for LADOTD.

There are inherent challenges in designing and constructing dual lane roundabouts, including proper lane alignment and guidance such that motorists unfamiliar with dual lane roundabouts can safely enter and exit the roundabout without changing lanes within the roundabout. Challenges in bridge replacements over water include obtaining environmental permits, maintenance of traffic, utility coordination and FEMA coordination.

Our approach and strategy for successful delivery will be defined by proper roadway and roundabout design strategies that minimize and optimize traffic management during construction as well as develop strategies for the bridge replacement while minimizing the roadway profile change, ROW and environmental impacts and traffic disruptions. Early and continuous coordination between the design team and all pertinent stakeholders, including LADOTD, is critical to both making design alternative selections and keeping the project on schedule.

PROJECT INITIATION

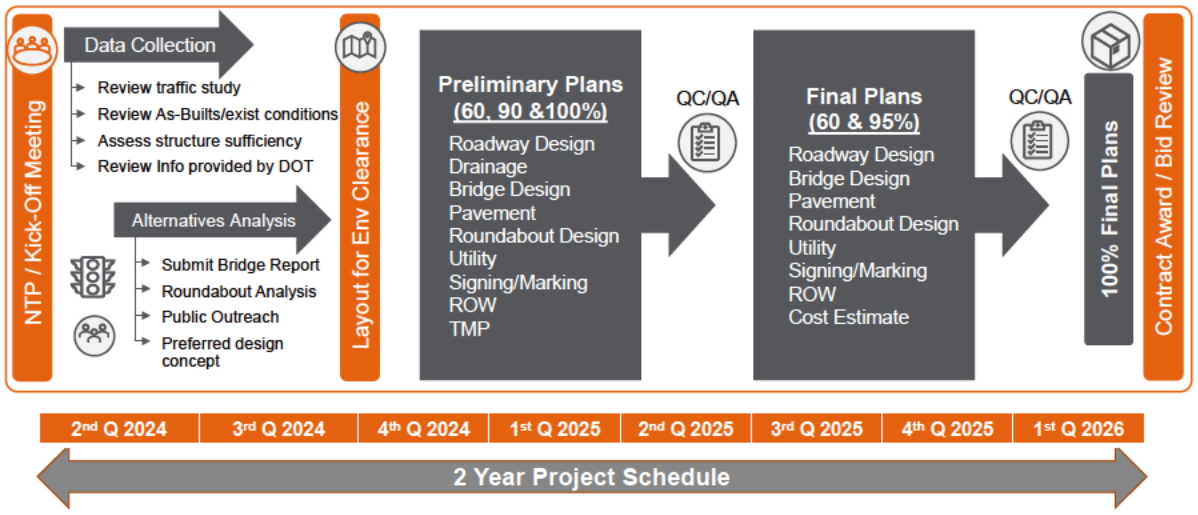
Upon selection, Arcadis will work with the LADOTD Project Manager to develop the full contract scope and develop a manhour estimate spreadsheet as well as a delivery schedule.

This early coordination ensures that Arcadis and LADOTD have a full understanding of the project goals, deliverables, and expectations. Once hours and scope are agreed upon and a NTP is issued, a team project kickoff meeting will be held to review the project scope, critical delivery items, dates for milestone deliverables, and LADOTD review time estimates. The project design criteria, identified environmental constraints, and safety concerns will also be reviewed and documented, including any review of LADOTD services to be provided. Kick-off meeting minutes will be documented and distributed to all key team personnel.

After receiving the NTP, the Project Manager and task leads will meet with the LADOTD PM to mutually agree on the deliverables, procedures, and communication protocols. After collecting data, our team, in conjunction with LADOTD, will identify any required permits as well as any construction constraints due to site access issues. We will develop the Design Criteria in accordance with all applicable LADOTD policies, procedures, and manuals and submit to the LADOTD Project Manager for review and approval.

APPROACH TO PROJECT DELIVERY AND SCHEDULE:

Our Team will present the project design schedule for major work items at the kick-off meeting. We will provide a full detailed schedule with all dates and details for critical path tasks and deliverables and the milestone that constitutes each of the design submittals to the Department. Our proposed 730 -day schedule is illustrated in the figure below.



18. Approach and Methodology:

PUBLIC INVOLVEMENT

While the LADOTD will be responsible for the public engagement, we anticipate actively participating in the planning and execution of the public involvement for this project. Our typical public engagement plan consists of a community survey available during any public engagement or focus group meeting, then an open house forum to communicate priorities and project alternatives as defined though the process. This structure allows for multiple methods of engagement to ensure members of the community have ample opportunities to provide feedback and for the team to gather as much feedback as possible from targeted stakeholder groups including impacted communities and landowners.

We have significant public involvement experience for similar roundabout projects, beginning with educational experience for those unfamiliar with multi-lane roundabouts or apprehensive about operations or applicability of the design for this given location. For past projects, our team has developed: project sketches and concepts for many roundabout projects; GIS mapping and visualizations of the study area at the public meetings and external communications; animated traffic operation visualizations using VISSIM and Studio 3DS Max to demonstrate the operations of alternatives.

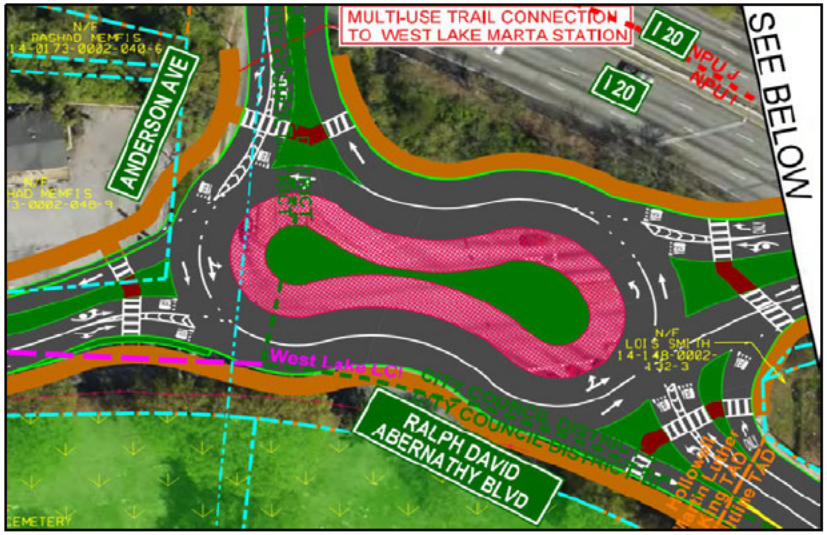
ROUNDABOUT CONCEPTS

Arcadis conducted an initial site assessment and review of the concept plan in order to determine the proposed roundabout at LA 44 and Pelican Point parkway will be a key first decision for this project. The concept plan shows the roundabout on LA 44 at Pelican Point Parkway, serving the Pelican Point residential community and Pelican Point Golf & Country Club west of LA 44, is only 250 feet south of the intersection of LA 44 and Pelican Crossing Drive, serving the Pelican Crossing residential community east of LA 44. In parallel, stakeholder communications and meetings will be held with both communities to discuss planning and operational analysis of the proposed roadway and intersection conditions. Arcadis will present to the LADOTD for consideration combining these closely spaced intersections into one multi-lane roundabout serving both residential communities.

A sketch below is included as a potential skewed intersection approach to combine Pelican Point Parkway and Pelican Crossing Drive into one multi-lane roundabout.

Potential design combining Pelican Point & Pelican Crossing Approaches into LA 44 Roundabout

Another variation to combine these two approaches would be a "peanut" shaped roundabout design that would center the roundabouts tangent to the two approaches but channel the roadway in between to control speeds for each approach. Arcadis has developed this type of roundabout across the country as well as the one shown below in Georgia.



"Peanut-shaped" roundabout Arcadis developed for GDOT

18. Approach and Methodology:

TRAFFIC ANALYSIS

The Arcadis team understands the importance of documenting the existing conditions as part of Stage 0 and using that understanding to estimate impacts to traffic during construction. Our approach to traffic analysis will require evaluation of all pertinent traffic and, roundabout analysis data as well as key information from the Roundabout Justification (LA 44 RJR_I-10 LA 22) report to determine the best fit design. We anticipate that the Tier 1 process will screen potential bridge replacement sequences to determine high-level impacts to the traffic network. Additionally, Arcadis will perform the required level of analysis to justify permanent roadway improvements. All of this combined data will be used as the basis for the Transportation Management Plan (TMP).

TRANSPORTATION MANAGEMENT PLAN (TMP)

Arcadis will develop a Level 3 TMP in accordance with LADOTD EDSM VI.1.1.8. We understand the importance of the TMP document to minimize impacts of construction on the traveling public without compromising site safety or work quality. This goal will be achieved through public and motorist information/outreach strategies, work zone impact management strategies, incident management, construction strategies, and clearly defining the project team's roles and responsibilities. Arcadis will work closely with the LADOTD District Traffic Operations Engineer and Project Engineer during the development of construction phasing / sequencing alternatives to better understand the potential impacts of temporary closures / detours and select appropriate mitigation strategies.

ROADWAY AND DRAINAGE

When designing a roundabout, it is essential to prioritize drainage considerations to maintain a functional and safe roadway. To achieve these goals, the Arcadis team will design the Pelican Point Parkway longitudinal grades and cross slopes in the roundabout to diverge water away from the roundabout lanes and provide positive drainage. The drainage team will strategically position inlets and catch basins as required, considering these drainage structures' capacity to capture and manage peak flow during intense rainfall. We will also implement erosion control measures, such as riprap or grass-lined channels, to prevent soil erosion around the roundabout. Our roadway engineers will collaborate closely with drainage engineers to integrate roadway line and grade requirements with drainage considerations into the overall roundabout design.

The Arcadis design team will review the findings and information provided in the RJR and use it as the basis for the initial roundabout design. For the Pelican Point Parkway roundabout, maintaining access to existing properties will be carefully planned to minimize disruption to residential driveways. The Arcadis design team will also ensure that the proposed roundabout accommodates larger turning paths for vehicles entering and exiting, incorporating additional truck aprons or lane width where necessary and considering the unique characteristics of the location to aim to create a safe, efficient, and aesthetically pleasing traffic management solution.

BRIDGE DESIGN & EVALUATION

Arcadis performed an initial desktop assessment of the bridge over Panama Canal along LA 44 (Structure No. 610302650102371). Based on the December 2022 inspection, the deck, superstructure and substructure are in good condition requiring minor repair. Based off the bridge construction date of 2008 and the bridge condition information, latex overlay on the existing deck may be considered based on the friction number provided by the LADOTD. If replacement of the bridge is under consideration, Arcadis will explore the option of using LG-PPC Girders supported on PPC piling.

Upon selection, Arcadis will take these initial desktop review considerations and perform an in-depth evaluation of the existing bridge including a review of existing information provided by the LADOTD, an in-field inspection of all the elements of the bridge, and an LRFR load rating of the existing bridge evaluating the structure per the recommendations of the Department Bridge Design Manual and the AASHTO Manual for Bridge Evaluation. Following this evaluation, the Arcadis team will submit a Bridge Evaluation Report to the LADOTD for review. Upon approval of the evaluation report, Arcadis will request a meeting to discuss the most appropriate solution for the bridge.

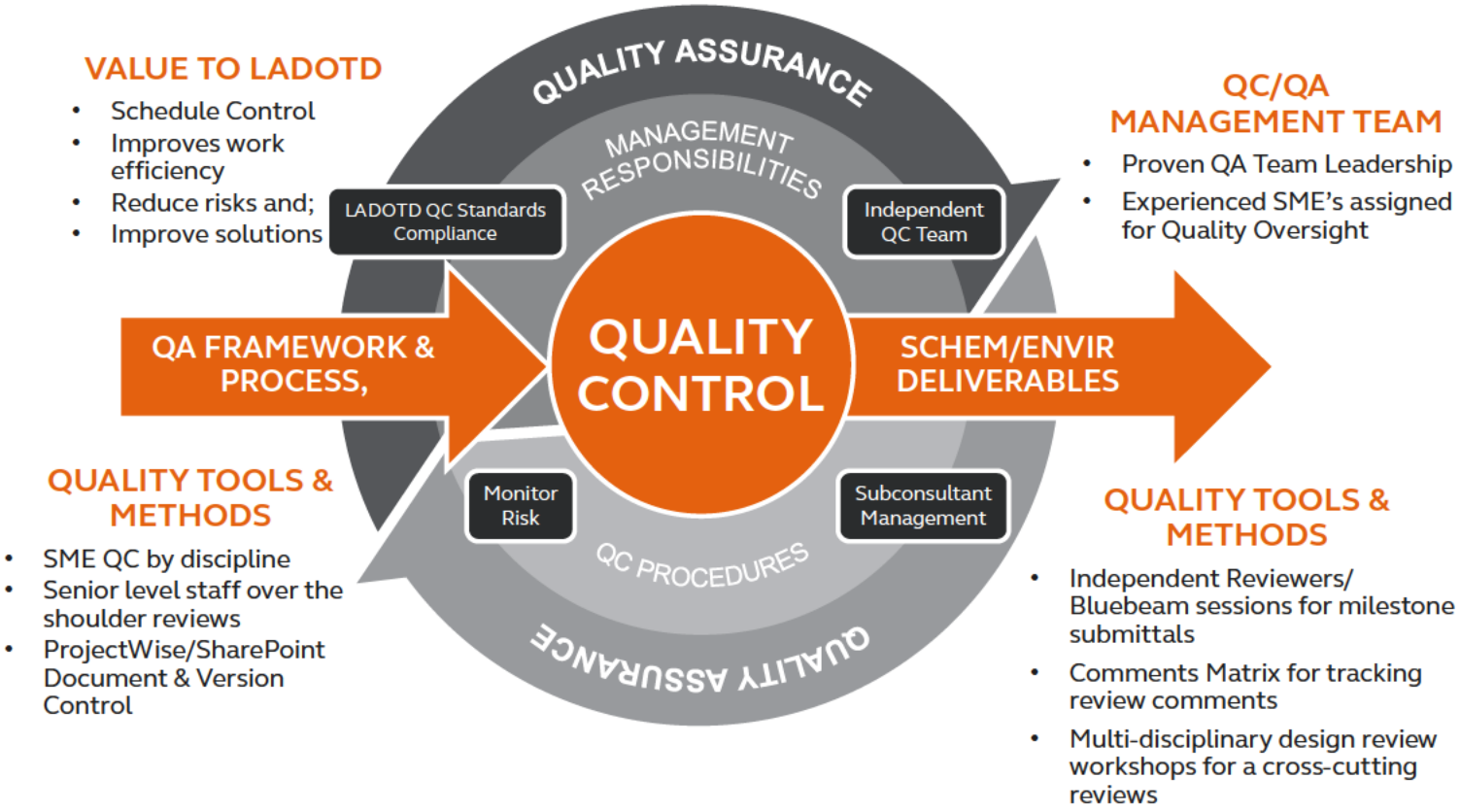
Arcadis will develop the Preliminary Plans on the preferred alternative and approval of our design criteria. The Preliminary plans will include proposed geometric alignments, a viable bridge structure, minimizing impact on the public during staged construction, assessing potential detours, and ensuring the safety of both pedestrian and vehicle traffic. Arcadis will attend the scheduled Plan-in-hand meeting with the LADOTD Project Manager, the Bridge Design Section, and the DOTD District for a review of the plans, and comments responses before proceeding with Final Preliminary Plans.

18. Approach and Methodology:

The Arcadis Bridge Design team will develop detailed bridge construction plans for both, the substructure, and the superstructure of the bridge. After the submission and approval of the 60% Final Plans, the Arcadis team will move on to producing the 90% Advanced Check Prints, initialize the bridge load rating report, and the final QC/QA checklist, and complete the Constructability Form. The Project Manager will schedule the 98% Final Plans Review meeting. Additionally, the Arcadis team will prepare the As-Designed Load Rating for the structure following the latest LADOTD guidelines and procedures. During this time, Arcadis will prepare the final construction cost estimate, final pay items list, Summary of Quantities, and any special provision for the project.

QUALITY CONTROL / QUALITY ASSURANCE

A final key to project success is quality control. Arcadis has internal quality control processes and procedures we follow throughout the life of the project. Anup Shah, PE, SE has extensive years of experience performing QC/QA plan and calculation reviews for multiple state DOTs including LADOTD and will lead Arcadis' QC/QA team. The Arcadis QC/QA team will ensure every document and design submittal is reviewed for technical accuracy, quality of deliverable and correctness in plan preparation. **A copy of our Quality Control / Quality Assurance Plan is attached with this proposal.**



WHY ARCADIS? The Arcadis Team brings years of successful experience delivering the full scope of services for bridge evaluation and replacement projects. We have extensive LADOTD experience developing roadway and traffic engineering projects following the Roadway Design Manual and Bridge Design Manual. Our dedicated roundabout experts will contribute their national expertise to assist our local team in selecting an optimal roundabout geometry that balances safety, efficiency, and functionality. Our staff is familiar with the expectations and preferences of the LADOTD, and the approach discussed here will guide us in meeting those expectations and working collaboratively with the LADOTD, at every aspect of our work for this contract.

19. Workload:

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Past Performance Evaluation Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
ARCADIS	Environmental	4400009703 / H.000688.2	US 11 Norfolk Southern Railroad	$3,008
		4400007175 / H.011328.2	I-49 South (Ricohoc to Berwick)	$886,523
		4400019338 / Multiple State Project Numbers	Rural Bridge Replacement Initiative Phase II – Multiple State Project Numbers – Districts 02, 03, 07, 61, and 62	$81,772
		4400009281 / H.009932	US 80 Widening: Vancil Road to Well Road EA	$5,343
		4400024307 / H.015052	I-20: Widening/Ovrly (Vancil Rd-LA 34)	$44,452
		4400025022 / H.015498.5 Recall 102225	Park Road Over Lagoon	$35,000
		4400025022 / H.015500.5 Recall 103011	Adema Lane Over Drainage Canal	$41,762
		4400025022 / H.015499.5 Recall 000023	Charles Drive Over 20 Arpent Canal	$58,503
		4400025022 / H.015334.5 Recall 200851	9th Street Over St. Louis Canal	$58,681
		4400025022 / H.015497.5 Recall 020146	Jack Egle Bridge Road Over Canal	$30,000
		4400025022 / H.015496.5 Recall 100019	Sauvage Avenue And Caddy Drive Bridges	$30,000
		4400025022 / H.015496.5 Recall 100020	Sauvage Avenue And Caddy Drive Bridges	$30,000
	Traffic	4400007175 / H.011328.2	I-49 South (Ricohoc to Berwick)	$106,064
		4400018646 / H.004100.5	I-10: LA 415 to Essen Lane on I-10 and I-12	$59,982
		4400017033 / H.005121	LA 1/LA 415 Connector	$5,363
		4400019379 / H.013797	LA 30: EBR PL – I-10	$232,048
		4400024307 / H.015052	I-20: Widening/Ovrly (Vancil Rd-LA 34)	$120,020
		4400023690 / H.015213.5	District 04 Pedestrian Safety Improvements	$116,365
		4400021325 / H.012837.5	I-10 New Orleans Master Plan	$262,398
	Road	4400007175 / H.011328.2	I-49 South (Ricohoc to Berwick)	$291,484
		4400016923 / H.012901.6, H.010634.6	US 90Z (Bodenger Blvd. – Stumpf Blvd.)	$210,848
		4400019010 / H.010116.5	LA 1088: Soult and Trinity Roundabouts	$70,778
		4400024084 / H.009300.5	CMAR Contract for Hooper Road Widening (LA 3034 – LA 37)	$36,665
		4400024307 / H.015052	I-20: Widening/Ovrly (Vancil Rd-LA 34)	$57,787
		4400018646 / H.004100.5	I-10: LA 415 to Essen Lane on I-10 and I-12	$110,290

ARCADIS		4400025022 / H.015498.5 Recall 102225	Park Road Over Lagoon	$45,000
		4400025022 / H.015497.5 Recall 020146	Jack Egle Bridge Road Over Canal	$40,000
		4400025022 / H.015496.5 Recall 100019	Sauvage Avenue And Caddy Drive Bridges	$40,000
		4400025022 / H.015496.5 Recall 100020	Sauvage Avenue And Caddy Drive Bridges	$40,000
	Bridge	4400025022 / H.015498.5 Recall 102225	Park Road Over Lagoon	$68,603
		4400025022 / H.015497.5 Recall 020146	Jack Egle Bridge Road Over Canal	$62,067
		4400025022 / H.015496.5 Recall 100019	Sauvage Avenue And Caddy Drive Bridges	$62,540
		4400025022 / H.015496.5 Recall 100020	Sauvage Avenue And Caddy Drive Bridges	$62,466
		4400018646 / H.004100.5	I-10: LA 415 to Essen Lane on I-10 and I-12	$23,219
		4400021325 / H.015193.1	LA 22: Tchefuncte Bridge Feasibility	$180,253
	CE&I/OV	4400025046 / H.013710.6	I-10: US 61 to LaPlace ITS Deployment (CE&I)	$30,066
		4400025665 / H.013482.6	I-10 WBR Queue Warning System	$419,812
	Data Collection	4400021325 / H.012837.5	I-10 New Orleans Master Plan	$46,306
		4400021325 / H.015316.1	I-10 US 90 Bus. to Elysian Fields (NO)	$18,833
	ITS	4400016811 / H.013868.5	ITS Program Management and Operations (2023)	$381,389
		4400016811 / H.013868.6 (A)	ITS Routine Maintenance Engineering and Inspection (ME&I) (2023)	$308,301
		4400016811 / H.013868.6 (B)	ITS Responsive/Emergency Maintenance Engineering and Inspection (ME&I)	$98,062
APS Engineering and Testing	Geotech	4400091011/ H.001271.5	Retainer Contract for Geotechnical Services- Cane River Bridge	$133,758
		4400017262/ H.012027	I-20: Union Pacific RR Overpass	$61,644
		4400017262/ H.012545	Wiggins Bayou Bridge	$14,646
BONTON ASSOCIATES	Road	4400023782 / H.013429.5	Downtown Thibodaux Sidewalks Entity Contract	$6,975

Sections 20-23

Arcadis provides in-depth bridge design, inspection and evaluation services under one roof and throughout the U.S.

20. Certifications/Licenses:

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

CERTIFICATIONS	ARCADIS													APS (DBE)		BONTON ASSOCIATES (DBE)	
	Akhil Chauhan	Anup Shah	Jose L. Rodriguez	Victor Sanchez	Ari Deitch	Jonathan Reid	Skyler Waaso	Kester Hollier	David Fulks	Thomas Montz	Max Aguirre	Jose M. Rodriguez	Christine Dohy	Sergio Aviles	Surendra Pathak	Marcus Bonton	LaDarien Beene
Meeting Minimum Personnel Requirement	1	2	3	4, 5	6												
DBE Certification														•		•	
Professional Engineer (LA)	•	•	•	•	•		•	•	•	•	•			•	•	•	•
Structural Engineer		•															
Professional Traffic Operations Engineer	•				•	•	•	•		•							
Professional Transportation Planner	•				•					•							
Road Safety Professional					•	•					•	•					
Project Management Professional	•																
ATSSA – Traffic Control Technician											•			•			•
ATSSA – Traffic Control Supervisor											•				•	•	•
LADOTD TEPR – Module 1	•				•	•	•	•		•	•	•				•	•
LADOTD TEPR – Module 2	•				•	•	•	•		•	•	•				•	•
LADOTD TEPR – Module 3	•				•	•	•	•		•	•	•				•	•
Roundabout Design Workshop	•								•	•							
Roundabout Analysis Workshop – SIDRA Intersection 6	•									•							
NHI Course No. 380075 – New Approaches to Highway Safety Analysis	•																
NHI Course No. 133121 – Traffic Signal Design and Operation	•				•												
FHWA NHI Course No. 130056 – Safety Inspection of In-Service Bridges for Professional Engineers													•				
FHWA NHI Course No. 130078 – Fracture Critical Inspection Techniques for Steel bridges													•				
FHWA – NHI Course No. 380071 – Interactive Highway Safety Design Model (IHSDM)	•																
FHWA – NHI Course No. 133078 – Access Management, Location and Design	•									•							
DOTD – Highway Safety Manual Workshop					•				•								
Louisiana Local Technical Assistance Program – Louisiana's Complete Street Peer Exchange	•																
LADOTD – Using Statistics in Highway Safety	•																

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Akhilendra Singh Chauhan

License/Certificate Type - Number	Expiration Date
PE.0033703	09/30/2024

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Transportation Professional Certification Board Inc.

certifies that

Akhilendra Singh Chauhan

has met all of the requirements established by the Certification Board to use the title of

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Unless withdrawn by the Certification Board this certificate number 2544 issued in Washington, D.C. is subject to the provisions for renewal

November 24, 2008

Steven D. Hofener
Chair

PTOE
PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Executive Director

Transportation Professional Certification Board Inc.

certifies that

Akhilendra Singh Chauhan

has met all of the requirements established by the Certification Board to use the title of

PROFESSIONAL TRANSPORTATION PLANNER

Unless withdrawn by the Certification Board this certificate number 246 issued in Washington, D.C. is subject to the provisions for renewal

December 1, 2009

Steven D. Hofener
Chair

PTP
PROFESSIONAL TRANSPORTATION PLANNER

Executive Director

Project Management Institute

This is to certify that

Akhilendra S Chauhan

has been formally evaluated for demonstrated experience, knowledge and skills to lead and direct project teams and is hereby bestowed the global credential

Project Management Professional

In testimony whereof, we have subscribed our signatures under the seal of the Institute.

Beth Pariseau - Chair, Board of Directors

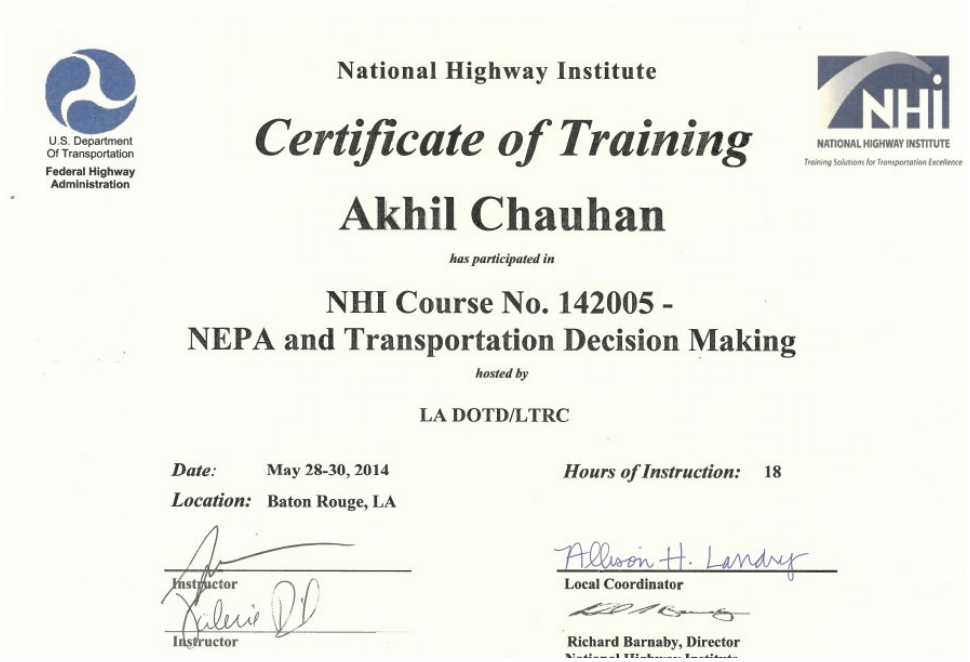
Mark A. Langley - President and Chief Executive Officer

PMP® Number 1444676

PMP® Original Grant Date 16 August 2011

PMP® Expiration Date 15 August 2014

Project Management Institute



National Highway Institute

Certificate of Training

Akhil Chauhan

has participated in

NHI Course No. 142005 -
NEPA and Transportation Decision Making

hosted by

LA DOTD/LTRC

Date: May 28-30, 2014 *Hours of Instruction:* 18

Location: Baton Rouge, LA

Instructor

Instructor

Allison H. Landry
Local Coordinator

Richard Barnaby, Director

National Highway Institute

Certificate of Training

Akhil Chauhan

has participated in

FHWA - NHI Course No. 380071 -
Interactive Highway Safety Design Model (IHSDM)

hosted by

Louisiana Department of Transportation and Development

Date: May 9-10, 2012 *Hours of Instruction:* 12

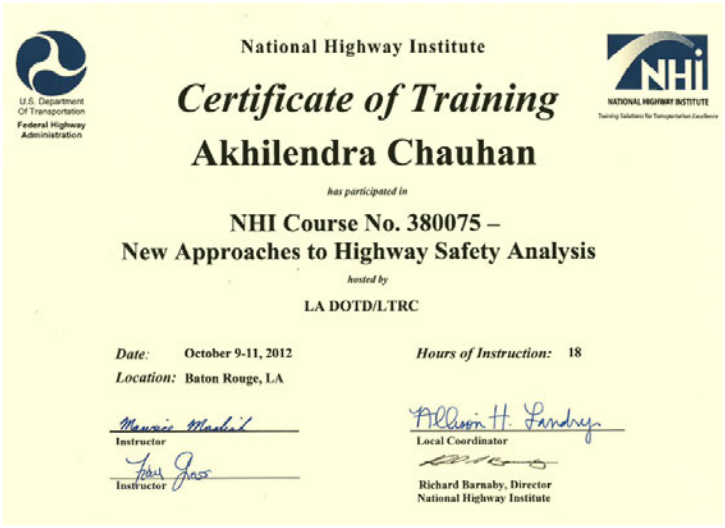
Location: Baton Rouge, LA

Michael Dumanis
Instructor

Instructor

Local Coordinator

Richard Barnaby, Director
National Highway Institute



National Highway Institute

Certificate of Training

Akhilendra Chauhan

has participated in

NHI Course No. 380075 –
New Approaches to Highway Safety Analysis

hosted by

LA DOTD/LTRC

Date: October 9-11, 2012 *Hours of Instruction:* 18

Location: Baton Rouge, LA

Instructor

Instructor

Allison H. Landry
Local Coordinator

Richard Barnaby, Director
National Highway Institute

National Highway Institute

Certificate of Training

AKHIL CHAUHAN

has participated in

FHWA-NHI-133121 Traffic Signal Design and Operation

hosted by

LA DOTD/LTRC

Date: August 16-17, 2017 *Hours of Instruction:* 11

Location: Baton Rouge, LA

Instructor

Instructor

Allison H. Landry
Local Coordinator

Valerie Briggs, Director
National Highway Institute

National Highway Institute

Certificate of Training

Akhil Chauhan

has participated in

FHWA - NHI Course No. 133078
Access Management, Location and Design (3 day)

hosted by

LA DOTD/LTRC

Date: January 6-8, 2015 *Hours of Instruction:* 18

Location: Baton Rouge, LA

Instructor

Instructor

Allison H. Landry
Local Coordinator

Valerie Briggs, Director
National Highway Institute

Certificate of Completion

presented to

Akhil Chauhan

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: June 4, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Akhil Chauhan

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: June 11, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 4

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Akhil Chauhan

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: September 10, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

NE ROUNDABOUTS

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Akhilendra Chauhan*** has completed

SIDRA INTERSECTION 6
ROUNDABOUT ANALYSIS WORKSHOP

Hours of Instruction: 13

Location: Baton Rouge, Louisiana
Date: September 12th & 13th, 2013

Howard McCulloch

Howard McCulloch, NE ROUNDABOUTS

NE ROUNDABOUTS

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Akhil Chauhan*** has completed

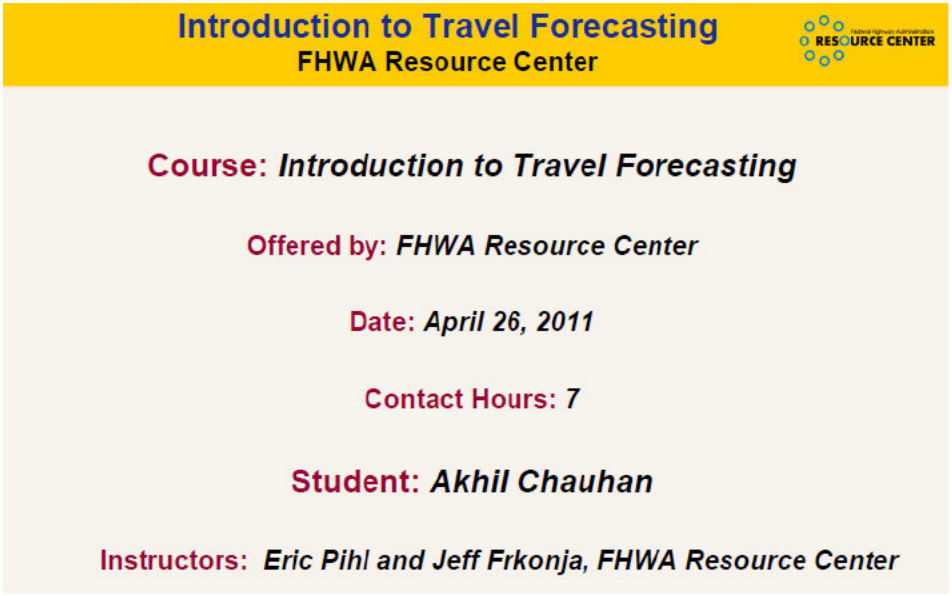
ROUNDABOUT DESIGN WORKSHOP

Hours of Instruction: 13

Location: Baton Rouge, Louisiana
Date: September 10th & 11th, 2013

Howard McCulloch

Howard McCulloch, P.E., NE ROUNDABOUTS



Introduction to Travel Forecasting
FHWA Resource Center

RESOURCE CENTER

Course: ***Introduction to Travel Forecasting***

Offered by: ***FHWA Resource Center***

Date: ***April 26, 2011***

Contact Hours: ***7***

Student: ***Akhil Chauhan***

Instructors: ***Eric Pihl and Jeff Frkonja, FHWA Resource Center***

Certificate of Training

PRESENTED BY

Louisiana Local Technical Assistance Program

TO CERTIFY THAT

Akhil Chauhan

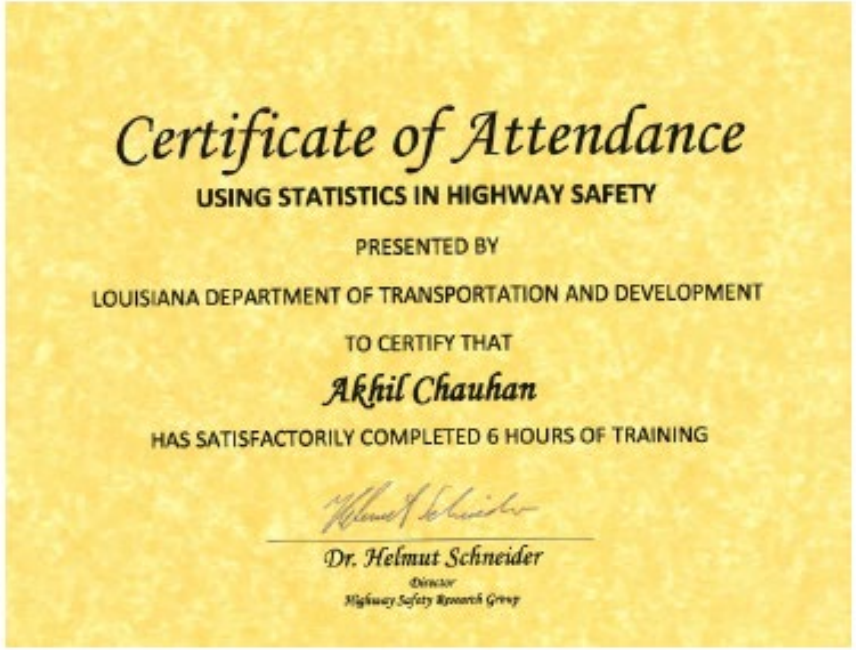
HAS SATISFACTORILY COMPLETED 7 PROFESSIONAL DEVELOPMENT HOURS IN:

Louisiana's Complete Streets Peer Exchange

Director of Louisiana LTAP Center

January 19-20, 2016
Date

Baton Rouge, Louisiana
Location



Certificate of Attendance

USING STATISTICS IN HIGHWAY SAFETY

PRESENTED BY

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TO CERTIFY THAT

Akhil Chauhan

HAS SATISFACTORILY COMPLETED 6 HOURS OF TRAINING

Dr. Helmut Schneider
Director
Highway Safety Research Group

CERTIFICATE OF PARTICIPATION

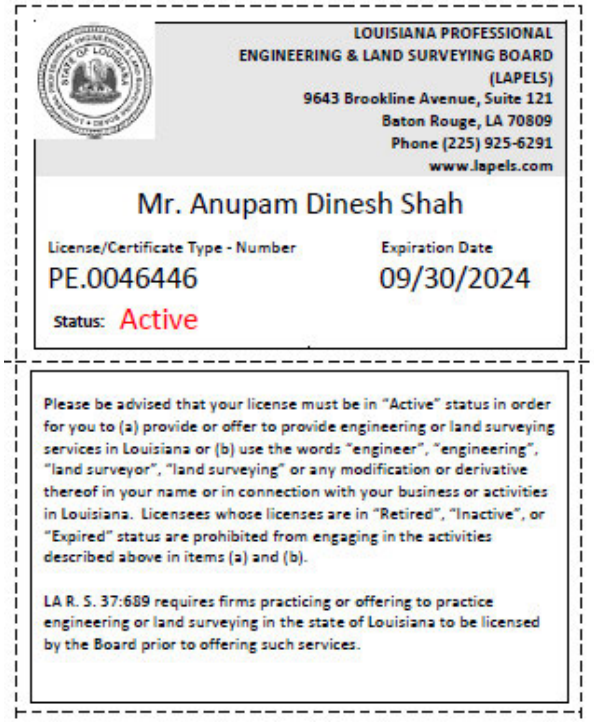
IS GIVEN TO

Akhil Chauhan

for having participated in Louisiana's Local Road Safety Peer Exchange

on September 10-11, 2015 in Baton Rouge, Louisiana

DORTHA F. CUMMINS
Director, Louisiana Center for Transportation Safety



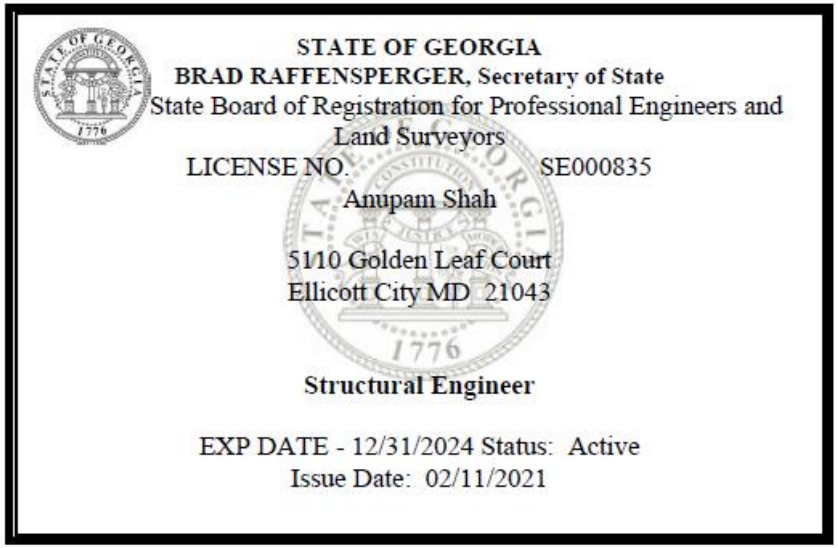
LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Anupam Dinesh Shah

License/Certificate Type - Number: PE.0046446
Expiration Date: 09/30/2024
Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.



STATE OF GEORGIA
BRAD RAFFENSPERGER, Secretary of State
State Board of Registration for Professional Engineers and Land Surveyors
LICENSE NO. SE000835
Anupam Shah
5110 Golden Leaf Court
Ellicott City MD 21043
Structural Engineer

EXP DATE - 12/31/2024 Status: Active
Issue Date: 02/11/2021

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Jose Luis Rodriguez

License/Certificate Type - Number	Expiration Date
PE.0030492	03/31/2025

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

From: Rodriguez, Jose
To: Lu, Lailani
Subject: FW: Registration confirmation for March Traffic Control Training - New Orleans
Date: Miyerkules, Pebrero 28, 2024 2:26:59 PM

Lani,

I registered for the Traffic Control Class.

From: judyb@lagc.org <judyb@lagc.org>
Sent: Wednesday, February 28, 2024 1:22 PM
To: Rodriguez, Jose <Jose.L.Rodriguez@arcadis.com>
Subject: Registration confirmation for March Traffic Control Training - New Orleans

Louisiana Associated General Contractors

Thank you for registering for March Traffic Control Training - New Orleans

3/26/2024 8:00 AM - 5:00 PM CST
Regional Transportation Management Center
New Orleans, Louisiana
Add to Outlook calendar
Add to Google calendar

Thank you for registering for the Traffic Control Class. Please be reminded that if you are attending the TCS Refresher Course you will need to attend on Wednesday.

Please let us know if you have any questions & we look forward to seeing you here!

Thanks,

Judy Brousseau
Louisiana Associated General Contractors
666 North Street
Baton Rouge, LA 70802
p: 225-344-0432

www.lagc.org

Below are the details of your registration.

Sign Up Date: 2/28/2024

Sign Up Information: Jose Rodriquez
10352 Plaza Americana Dr.
Baton Rouge 70816
jose.l.rodriguez@arcadis.com

Invoice Number: 22885

Registration Item	Confirmation #	Quantity	Price
Traffic Control Supervisor Refresher	21022	1	$349.00
Attendees:	**Jose Rodriguez** jose.l.rodriguez@arcadis.com		
		Sub-Total:	$359.47
		Taxes:	$0.00
		Total:	$359.47
		Amount Paid:	$359.47
		Amount Due:	$0.00

LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 2/5/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Cut Here

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Victor A. Sanchez Nivar

License/Certificate Type - Number	Expiration Date
PE.0033976	09/30/2024

Status: Active

Fold Here

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer
All information provided by LAPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LAPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LAPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LAPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LAPELS.

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ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Ari J. Deitch

License/Certificate Type - Number	Expiration Date
PE.0041842	03/31/2024

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Transportation Professional Certification Board, Inc.

certifies that

Ariel Jacob Deitch

has met all of the requirements established by the Certification Board to use the title of

Professional Transportation Planner

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 690 issued in Washington, DC, USA

07/17/2019

Diane Morabito
Chair

PTP
PROFESSIONAL TRANSPORTATION PLANNER

Jeffrey F. Paniati
Executive Director

February Traffic Control Training - Baton Rouge

Louisiana Associated General Contractors

Thank you for registering for February Traffic Control Training - Baton Rouge

2/20/2024 - 2/22/2024 8:00 AM - 5:00 PM
LAGC Office
666 North St
Baton Rouge, Louisiana 70802

Thank you for registering for the Traffic Control Class. Please be reminded that if you are attending the TCS Refresher Course you will need to attend on Wednesday.

Please let us know if you have any questions & we look forward to seeing you here!

Thanks,

Judy Brousseau
Louisiana Associated General Contractors
666 North Street
Baton Rouge, LA 70802
p: 225-344-0432

www.lagc.org

Below are the details of your registration.

Sign Up Date: 12/15/2023

Sign Up Information: Ari Deitch
Traffic Engineer Lead
Arcadis
7925 Menlo Drive
Baton Rouge, LA 70808
12253031660
ari.deitch@arcadis.com

Registration Item	Confirmation #	Quantity	Price
Traffic Control Technician & Supervisor	20604	1	$750.00

Total	**$750.00**
Amount Paid	$750.00
Amount Due	**$0.00**

666 North St. | Baton Rouge, LA 70802

Phone: (225) 344-0432 | michaeld@lagc.org

Certificate of Professional Development Hours

presented to

Ari Deitch

for attending the

Highway Safety Manual Workshop

12 PDHs

on

May 2-3, 2013 Baton Rouge, Louisiana

Authorized By

Research, Technology Transfer, Education and Training

Transportation Professional Certification Board, Inc.

certifies that

Ari Jacob Deitch

has met all of the requirements established by the Certification Board to use the title of

Road Safety Professional

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 87 issued in Washington, DC, USA

12/21/2018

Diane W. Morabito
Chair

ROAD SAFETY PROFESSIONAL

Jeffrey F. Paniati
Executive Director

Transportation Professional Certification Board, Inc.

certifies that

Ariel Jacob Deitch

has met all of the requirements established by the Certification Board to use the title of

Professional Traffic Operations Engineer

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 4846 issued in Washington, DC, USA

11/20/17

Michael K. Park
Chair

PTOE PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Jeffrey F. Paniati
Executive Director

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE

ARI DEITCH

has participated in

FHWA-NHI-133121 Traffic Signal Design and Operation

hosted by

LA DOTD/LTRC

Date: *August 16-17, 2017* ***Hours of Instruction:*** 11

Location: *Baton Rouge, LA*

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute

Certificate of Completion

presented to

Ari Deitch

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: July 16, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Ari Deitch

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: July 23, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Ari Deitch

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 15, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Transportation Professional Certification Board, Inc.

certifies that

Jonathan David Reid

has met all of the requirements established by the Certification Board to use the title of

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Unless withdrawn by the Certification Board this certificate number 1588 issued in Washington, D.C. will remain valid for three years from March 22, 2005

Chair

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Executive Director

Congratulations!
Jonathan Reid

You have completed

Traffic Engineering Analysis Process & Report Class
Modules 1, 2 &3

Date: April 27-28, 2023
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 8.50

Authorized Instructor

Authorized instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Skyler James Waaso

License/Certificate Type - Number	Expiration Date
PE.0039070	09/30/2024

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Transportation Professional Certification Board, Inc.

certifies that

Skyler James Waaso

has met all of the requirements established by the Certification Board to use the title of

Professional Traffic Operations Engineer

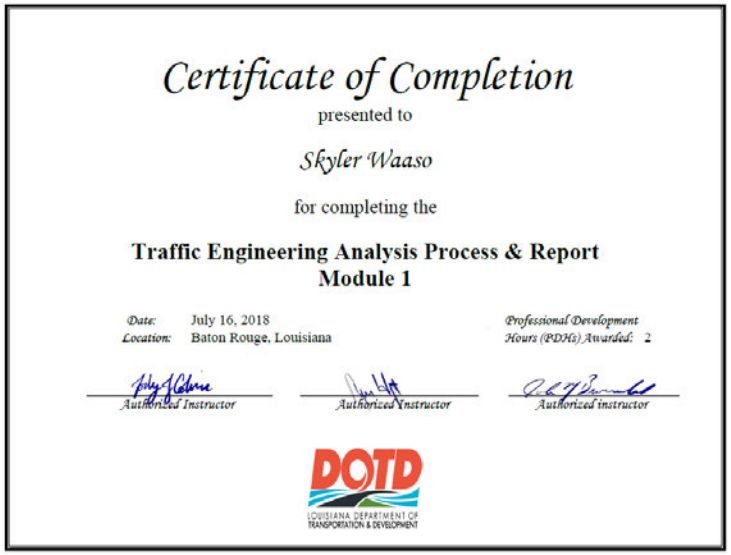
unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 4600 issued in Washington, DC, USA

3/27/19

Diane M. Morabito
Chair

PTOE PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Jeffrey F. Paniati
Executive Director



Certificate of Completion

presented to

Skyler Waaso

for completing the

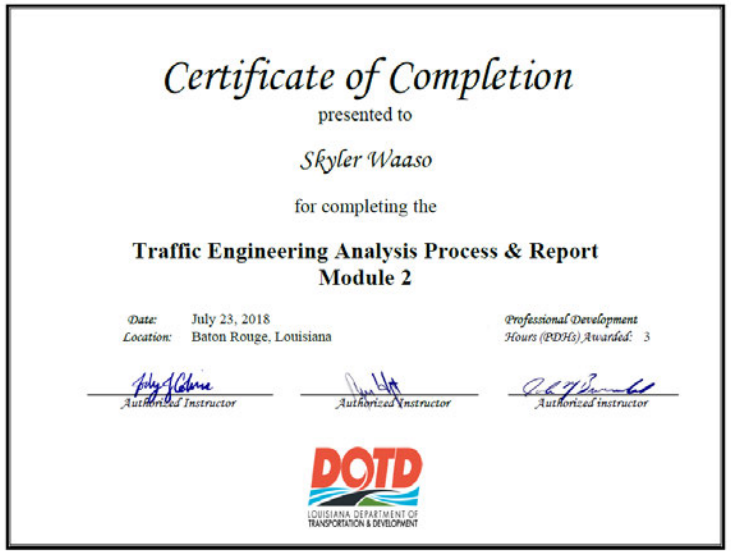
Traffic Engineering Analysis Process & Report
Module 1

Date: July 16, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Skyler Waaso

for completing the

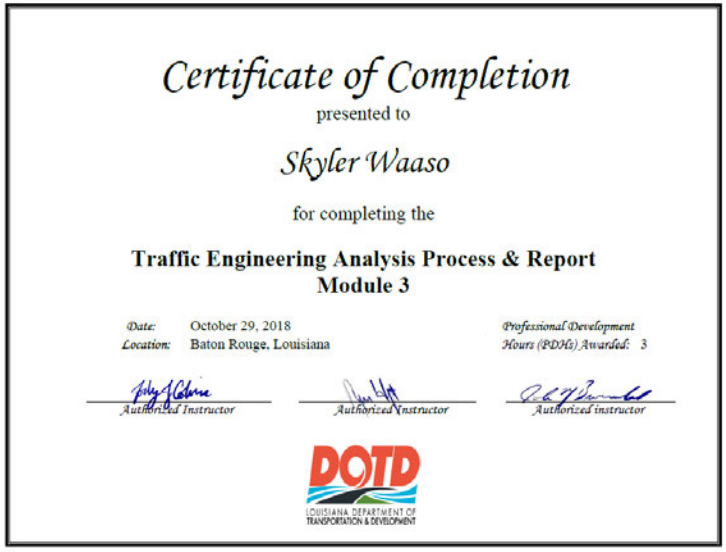
Traffic Engineering Analysis Process & Report
Module 2

Date: July 23, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Skyler Waaso

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 29, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor | Authorized Instructor | Authorized Instructor

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

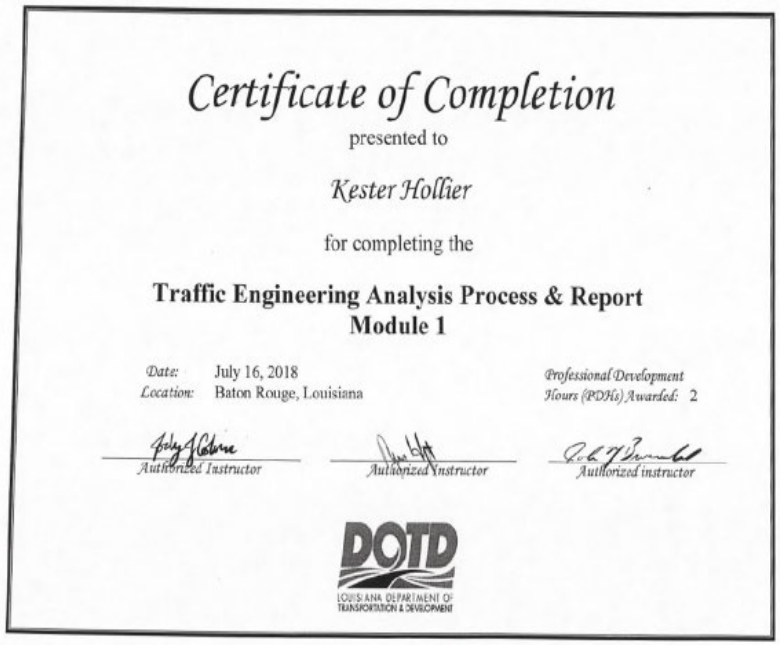
Mr. Kester Berk Hollier

License/Certificate Type - Number	Expiration Date
PE.0034304	03/31/2025

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.



Certificate of Completion

presented to

Kester Hollier

for completing the

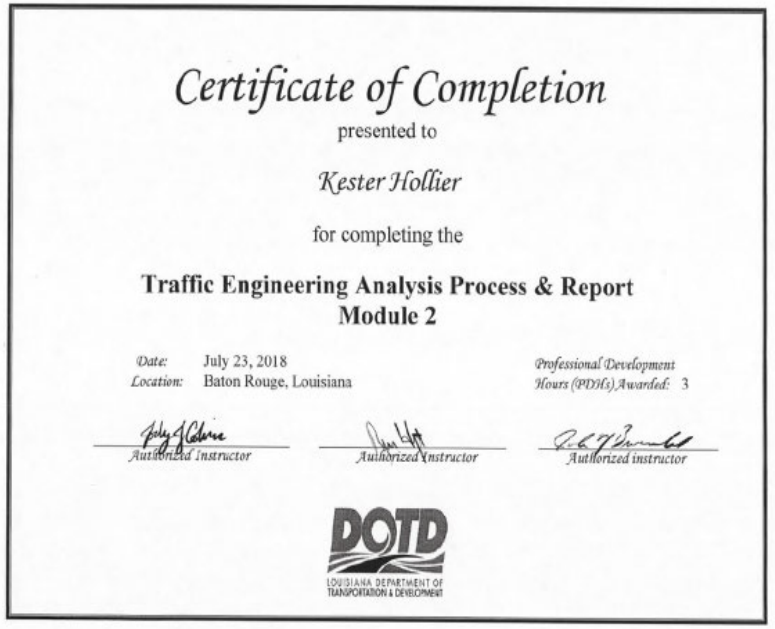
Traffic Engineering Analysis Process & Report
Module 1

Date: July 16, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Kester Hollier

for completing the

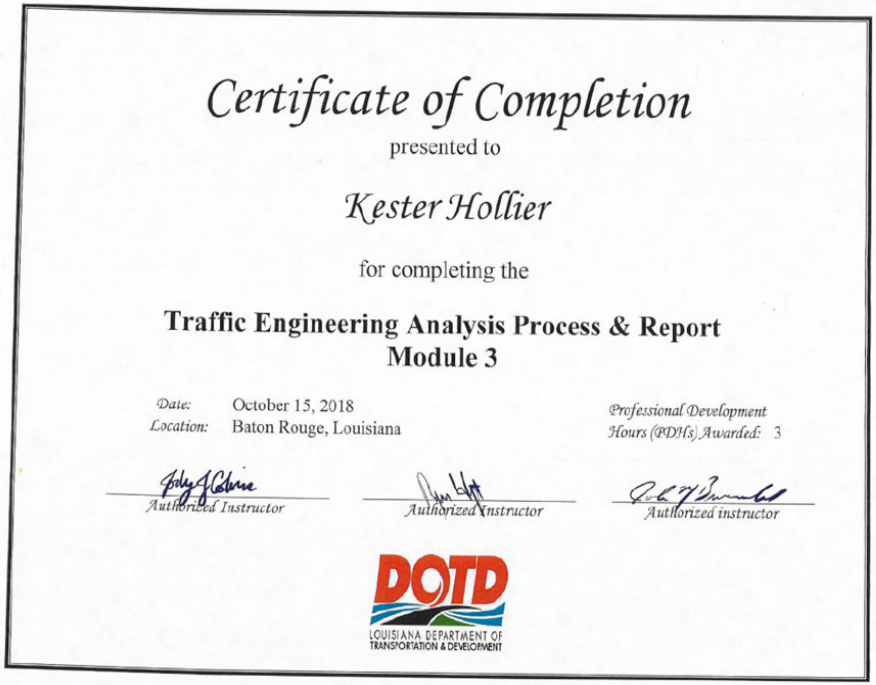
Traffic Engineering Analysis Process & Report
Module 2

Date: July 23, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Kester Hollier

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 15, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Cut Here

Fold Here

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. David Lorie Fulks II

License/Certificate Type - Number
PE.0030151

Expiration Date
09/30/2024

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

CERTIFICATE OF COURSE COMPLETION

This certifies that ***David Fulks*** has completed

ROUNDABOUT DESIGN WORKSHOP

Hours of Instruction: 13

Location: Baton Rouge, Louisiana
Date: September 10th & 11th, 2013

Howard McCulloch

Howard McCulloch, P.E., NE ROUNDABOUTS

LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 2/5/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

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LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Max Abelardo Aguirre Deras Ph.D.

License/Certificate Type - Number	Expiration Date
PE.0047579	09/30/2025

Status: Active

Fold Here

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer
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Transportation Professional Certification Board, Inc.

certifies that

Max Aguirre

has met all of the requirements established by the Certification Board to use the title of

Road Safety Professional

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 636 issued in Washington, DC, USA

8/3/2021

Deborah L Snyder
Deborah Snyder
Chair

RSP1 ROAD SAFETY PROFESSIONAL

Jeffrey F. Paniati
Jeffrey F. Paniati
Executive Director

Certificate of Completion

presented to

Max Aguirre

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: January 29, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Max Aguirre

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: January 29, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Max Aguirre

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: January 30, 2020
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3.5

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Thomas Jude Montz Jr.

License/Certificate Type - Number	Expiration Date
PE.0039128	09/30/2024

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Transportation Professional Certification Board, Inc.

certifies that

Thomas Jude Montz, Jr.

has met all of the requirements established by the Certification Board to use the title of

Professional Traffic Operations Engineer

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 4093 issued in Washington, DC, USA
7/18/2016

Kenneth W. Ackeret
Chair

PTOE PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

Jeffrey F. Paniati
Executive Director

PTV GROUP
the mind of movement

CERTIFICATE OF TRAINING

Thomas Montz

is awarded 14 PDH credits for participation in the following training course:

PTV Vissim Advanced

Soheil Sajjadi, Ph.D.

May 22, 2015
Baton Rouge, LA

Transportation Professional Certification Board, Inc.

certifies that

Thomas Jude Montz, Jr.

has met all of the requirements established by the Certification Board to use the title of

Professional Transportation Planner

unless withdrawn by the Certification Board and subject to the provisions for renewal.
Certificate number 599 issued in Washington, DC, USA

3/15/17

Michael K. Park
Chair

PTP PROFESSIONAL TRANSPORTATION PLANNER

Jeffrey F. Paniati
Executive Director

U.S. Department Of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Thomas Montz

has participated in

NHI Course No. 133078 –
Access Management, Location and Design

hosted by

LA DOTD/LTRC

Date: **February 5-7, 2013**

Location: **Baton Rouge, LA**

Hours of Instruction: **18**

Instructor

Instructor

Local Coordinator

Richard Barnaby, Director
National Highway Institute

NE ROUNDABOUTS

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Thomas Montz*** has completed

ROUNDABOUT DESIGN WORKSHOP

Hours of Instruction: 13

Location: Baton Rouge, Louisiana
Date: September 10th & 11th, 2013

Howard McCulloch

Howard McCulloch, P.E., NE ROUNDABOUTS

NE ROUNDABOUTS

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Thomas Montz*** has completed

SIDRA INTERSECTION 6
ROUNDABOUT ANALYSIS WORKSHOP

Hours of Instruction: 13

Location: Baton Rouge, Louisiana
Date: September 12th & 13th, 2013

Howard McCulloch

Howard McCulloch, NE ROUNDABOUTS

Certificate of Completion

presented to

Thomas Montz

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: July 16, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Thomas Montz

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: July 23, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

Thomas Montz

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: December 3, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

Christine Dohy

has Successfully Completed

FHWA-NHI-130056 Safety Inspection of In-Service Bridges for Professional Engineers

hosted by

Ohio Department of Transportation

Date: April 24-28, 2023
Location: Akron, Ohio

Hours of Instruction: 34.0

M. Patrick Kane
Instructor

Tina M. Potter
Local Coordinator

John Wackerly
Instructor

Thomas Harman
Thomas Harman, Director
National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

NATIONAL HIGHWAY INSTITUTE

Certificate of Training

Christine Dohy

has participated in

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

hosted by

Ohio Department of Transportation

Date: November 6-9, 2018
Location: Columbus, OH

Hours of Instruction: 25

Instructor

Debbie Cox
Local Coordinator

Instructor

Valerie Briggs
Valerie Briggs, Director
National Highway Institute

LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 2/5/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Cut Here

LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Sergio L. Aviles

License/Certificate Type - Number	Expiration Date
PE.0033571	03/31/2026

Status: Active

Fold Here

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

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LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

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LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Surendra Raj Pathak

License/Certificate Type - Number	Expiration Date
PE.0043487	09/30/2025

Status: Active

Fold Here

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

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LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

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

APS Engineering and Testing, LLC

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

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

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

Certificate Eligibility: October 2023 to October 2024

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

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Sergio Aviles

has attended

Traffic Control Technician Virtual Training

Training Course

1/24/2023 to 1/24/2027
Training Valid Through

CEU: 0.75

Director of Training

,
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

This certificate provides proof of training, not certification.

American Traffic Safety Services Association ATSSA.com

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Surendra Pathak

has attended

Traffic Control Supervisor Virtual Training

Training Course

12/28/2022 to
12/28/2026
Training Valid Through

,
Location

CEU: 1.50

Director of Training

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

This certificate provides proof of training, not certification.

American Traffic Safety Services Association ATSSA.com

Prime Consultant Name Here: Arcadis

LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

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LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Marcus Samuel Bonton

License/Certificate Type - Number	Expiration Date
PE.0040389	09/30/2024

Status: Active

Fold Here

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

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LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

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LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. LaDarien C. Beene

License/Certificate Type - Number	Expiration Date
PE.0045333	09/30/2025

Status: Active

Fold Here

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer
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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Office of the Secretary
PO Box 94245 | Baton Rouge, LA 70804-9245
PH: 225-379-1200 | FX: 225-379-1851

John Bel Edwards, Governor
Eric Kalivoda, Secretary

June 6, 2023

Bonton Associates, LLC
ATTN: Darius Bonton
232 3rd Street, Suite 100
Baton Rouge, LA 70801

Dear Darius Bonton,

The Louisiana Department of Transportation and Development (LADOTD) Compliance Programs Section has received your firm's Disadvantaged Business Enterprise (**DBE**) and Small Business Element (**SBE**) annual affidavit. Based on the information, which you provided, it has been confirmed that your firm continues to meet the eligibility requirements of our program and remains certified for **only** the following **specific** work categories **that fall under the listed NAICS codes**:

NC541330-Engineering Services
NC541620-Environmental Consulting Services
C09-Civil Engineering
C95-Stormwater Plans/Inspections

Please note that per the federal regulations, suppliers only receive 60% goal credit towards the materials they provide. Also, note that any contractor performing work in excess of $50,000 with the exception of electrical, mechanical and plumbing requires A Louisiana Contractor's License, which are required to have a license if work is in excess of $10,000. You may contact the State Licensing Board for Contractors at (225) 765-2301 for more information. All participants of the Louisiana Unified Certification Program will recognize your firm's certification. This includes all entities receiving federal transportation funding within the boundaries of our state.

You will be required to submit an annual affidavit with all supporting documents (**Business taxes with all attachments, such as 1098, 1099, K-1's and/or W-2's**) stating your firm continues to meet the eligibility requirements of the program. An email informing you to submit the necessary documentation will be forwarded to you approximately six (6) weeks prior to your anniversary date of **June 30, 2024.** However, should you not receive notification from this office for your annual affidavit; it is your responsibility to contact us. Additionally, you must notify our office immediately regarding any changes, which affect the social and economic disadvantage, size, ownership or control of your firm.

The LADOTD has contracted SJB Group, LLC to provide DBE Supportive Services to all certified DBEs, in the LAUCP, at no cost to you. This consultant can offer your firm assistance and guidance on areas such as marketing, estimating, bidding, financial preparations, etc. Contact Jackie des Bordes or Kenyatta Sparks with the SJB Group, LLC at (225) 769-3400 for any assistance needed to grow your organization.

The Louisiana UCP certifying entity reserves the right to withdraw this certification, if at any time, it is determined that **DBE and SBE** certifications was knowingly obtained by the submission of false, misleading or incorrect data. The Louisiana UCP certifying entity also reserves the right to request additional information and/or conduct an on-site visit at any time during your certification period.

We are pleased to have you as a participant in the LAUCP and wish you much success.

If you have any questions regarding the content of this letter, contact the LADOTD DBE Certification Unit at (225) 379-1382.

Respectfully,

Rhonda Wallace

Rhonda Wallace
DBE/SBE Programs Manager

Enclosure (Certificate)

LOUISIANA UNIFIED CERTIFICATION PROGRAM

Disadvantaged Business Enterprise Program (DBE)

Small Business Element (SBE)

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

Bonton Associates, LLC

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

NC541330, NC541620

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

Certificate Eligibility: June 2023 to June 2024

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

Rhonda Wallace

Rhonda Wallace, DBE/SBE Programs Manager

Louisiana Department of Transportation & Development

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

Marcus Bonton
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

4/29/2022 to 4/29/2026
Training Valid Through

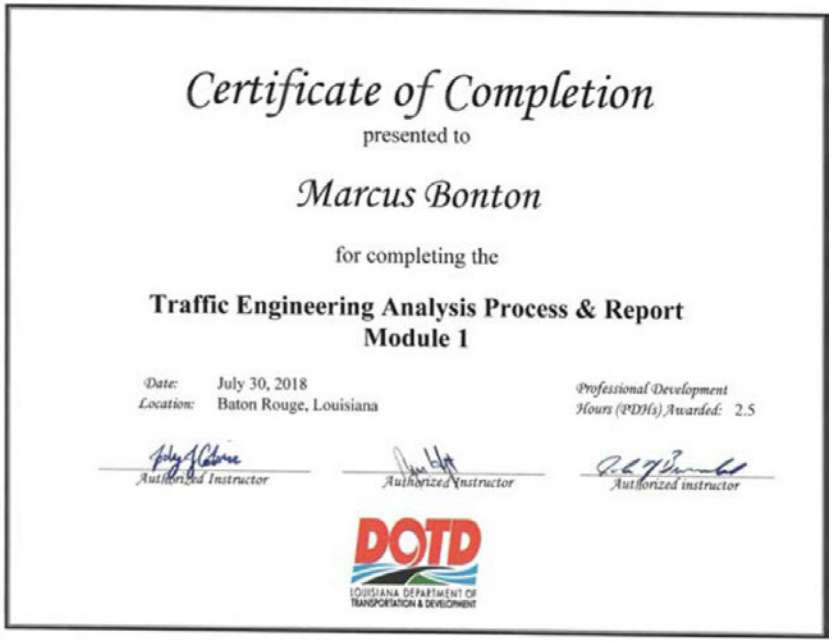
Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.

ATSSA American Traffic Safety Services Association ATSSA.com



Certificate of Completion

presented to

Marcus Bonton

for completing the

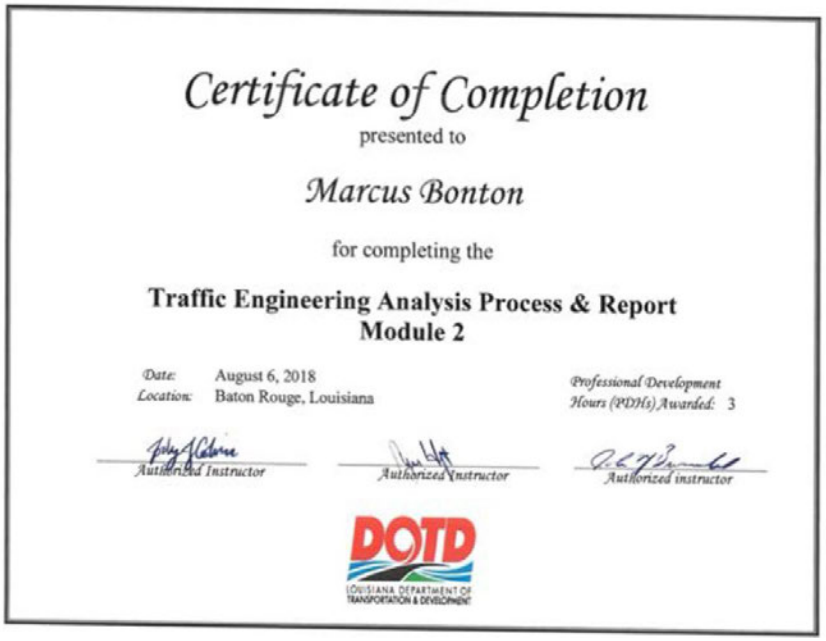
Traffic Engineering Analysis Process & Report
Module 1

Date: July 30, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2.5

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Marcus Bonton

for completing the

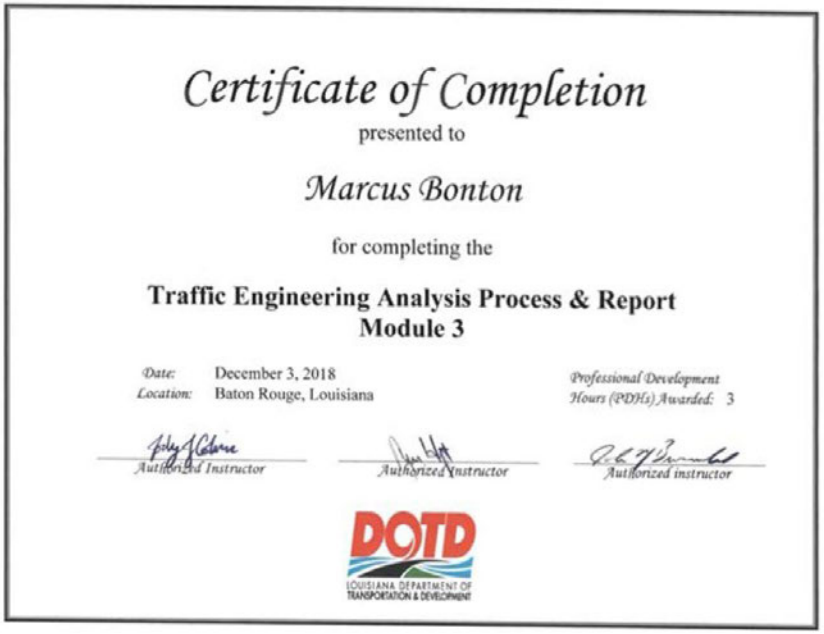
Traffic Engineering Analysis Process & Report
Module 2

Date: August 6, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Marcus Bonton

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: December 3, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

LaDarien Beene

for completing the

Traffic Engineering Analysis Process & Report
Module 1

Date: April 19, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

LaDarien Beene

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: May 21, 2018
Location: Alexandria, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Certificate of Completion

presented to

LaDarien Beene

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: August 15, 2018
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized Instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

LaDarien Beene
has attended
Traffic Control Supervisor-LA State Specific
Training Course

4/27/2022 to 4/27/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

ATSSA American Traffic Safety Services Association ATSSA.com

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

LaDarien Beene
has attended
Traffic Control Technician-LA State Specific
Training Course

4/26/2022 to 4/26/2026
Training Valid Through

Director of Training

Baton Rouge, LA
Location

President, CEO

ATSSA provides training and certification but neither constitutes employment by ATSSA.
This certificate provides proof of training, not certification.

ATSSA American Traffic Safety Services Association ATSSA.com

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

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

ARCADIS

QUALITY CONTROL / QUALITY ASSURANCE

Bridge Design

LA 44: I-10 Roundabouts

Contract No. 4400028432

State Project No. H.015569.5

F.A.P. No. H015569

Route: LA 44 & I-10

Ascension Parish, LA

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TABLE OF CONTENTS

1. Introduction

Project Description

The Consultant shall provide engineering and related services for the design and development of construction plans for two multi-lane roundabouts at the interchanges of LA 44 and I-10 with another multi-lane roundabout at the intersection of LA 44 and West Edenborne Parkway.

Project Team Organization

Arcadis U.S., Inc. will be the prime consultant for the project. Arcadis will manage the contract and is responsible for Bridge Design, Roadway Design, Traffic, and overall QA/QC of the design documents.

The sub-consultants, Bonton and Associates will be supporting drainage design. APS will be responsible for geotechnical services.

As the prime, Arcadis will be fully responsible for overall QA/QC of the project. The key team members and roles are described below, but listed here for easy reference:

Title/Role	Name	Company
Project Manager	Jose L. Rodriguez, PE	Arcadis
Bridge Design Lead	Victor Sanchez, PE	Arcadis
Roadway Design Lead	Jose L. Rodriguez, PE	Arcadis
Quality Review	Anup Shah, PE, SE	Arcadis

Staff qualifications for QC/QA roles and qualification information for team support staff are described in the 24-102 form for this proposal.

Project Team Communications/Coordination. As Project Manager, Mr. Jose L. Rodriguez will be the team's administrative and technical point of contact for the LADOTD. All team communications to LADOTD will be through Mr. Rodriguez or his designee on a case-by-case basis or as requested by LADOTD.

The details of the QC/QA plan described below apply to the current project based on the scope of services requested. The overall QC/QA plan shall be amended in case additional services are added to the contract through amendments or extensions.

2. Design Criteria

The design criteria and the project objectives will be discussed in the Consultant Kick-Off Meeting. The design criteria will be created in accordance with the latest versions of the following documents:

- AASHTO LRFD Bridge Design Specifications
- AREMA – Manual for Railway Engineering
- LADOTD Bridge Design Manuals
- LADOTD Bridge Design Technical Memoranda
- LADOTD Minimum Design Guidelines
- AASHTO Geometric Design of Highways and Streets

The design criteria shall include.

- Governing Design and Construction Specifications and Other References
- Design Assumptions and Design Exceptions
- General Information
- Design Factors
- Design Loads
- Limit States
- Bridge Barrier
- Guardrail
- Approach Slab
- Deck and Deck Drainage
- Superstructure
- Substructure
- Piles/Drilled Shafts
- Walls
- Geotechnical Design
- Software

3. Design Team

As project manager, **Jose L. Rodriguez, PE** of Arcadis will be responsible for Quality Assurance, i.e., assuring that the QC Plan is implemented. He will also serve as the administrative and technical point of contact for the Arcadis team.

Mr. Victor Sanchez, PE of Arcadis will lead the structural design team bridge condition and replacement. Mr. Sanchez' qualifications are clearly summarized in the attached 24-102 forms. He will be in charge of the preliminary and final design and cost estimation of the superstructure and substructure for the new bridge structures.

Mr. Jose L. Rodriguez, PE will lead the roadway design efforts for the project. He and his team are responsible for carrying out the roadway and geometric design. His credentials are also well highlighted in the relevant section of the 24-102 form

Mr. Anup Shah, PE, SE from Arcadis will lead the overall QA/QC review team. Mr. Shah will perform detailed review of the contract documents including plan sets, specifications etc. Their credentials are also highlighted in the relevant section of the 24-102 form.

The design teams mentioned above are responsible for the development of the plan & profile plans, preliminary and final design calculations, special provisions, and cost estimate for their respective disciplines. The designers are also required to follow the design criteria that will be developed for the project.

4. Preliminary and Final Bridge Plans Development

Before design efforts are initiated, detailed design criteria for roadway and bridge structures shall be proposed and approved by the LADOTD. Approval will be memorialized in a meeting/email or call record. Any changes to the design criteria will be reflected in a revised version of the design criteria that conforms with expectations in LADOTD Policy Appendix A. Any changes will be distributed to team members via the Project Manager. Calculations used in the design process will be maintained by the designer and be consistent with the LADOTD calculation book checklist in Appendix B of the LADOTD QA/QC Policy. Key meeting decisions and communicated information will be memorialized in meeting records and shall be circulated via email to the design team.

Both the designer and detailer are responsible for conducting an initial self-check of their own work product. They and other support staff preparing work product will be required to affix their name at "prepared by" to denote responsibility on the Arcadis QC/QA Acknowledgement Form. (See Section 6 for example of form)

5. QC Team

Quality Control (QC) activities are those related to checking the accuracy and consistency of materials developed for the contract. The team of Arcadis and its sub-consultants is wholly responsible for all QC activities of team deliverables. LADOTD is not responsible for the quality of any contract deliverables. The preliminary and final design plans for the bridge structure and traffic will be checked by Mr. Porta of Arcadis. Mr. Porta has a vast experience in LADOTD plans & specification preparation for a wide variety of projects nationwide. His qualifications are clearly summarized in the attached 24-102 form. He will also lead the QC effort to ensure compliance with the LADOTD design guidelines. As a design checker, he will perform a full technical review of the plan and profile drawings, and cost estimate. He will also ensure that the plans reflect the most current information shown in the design criteria.

6. QC Review

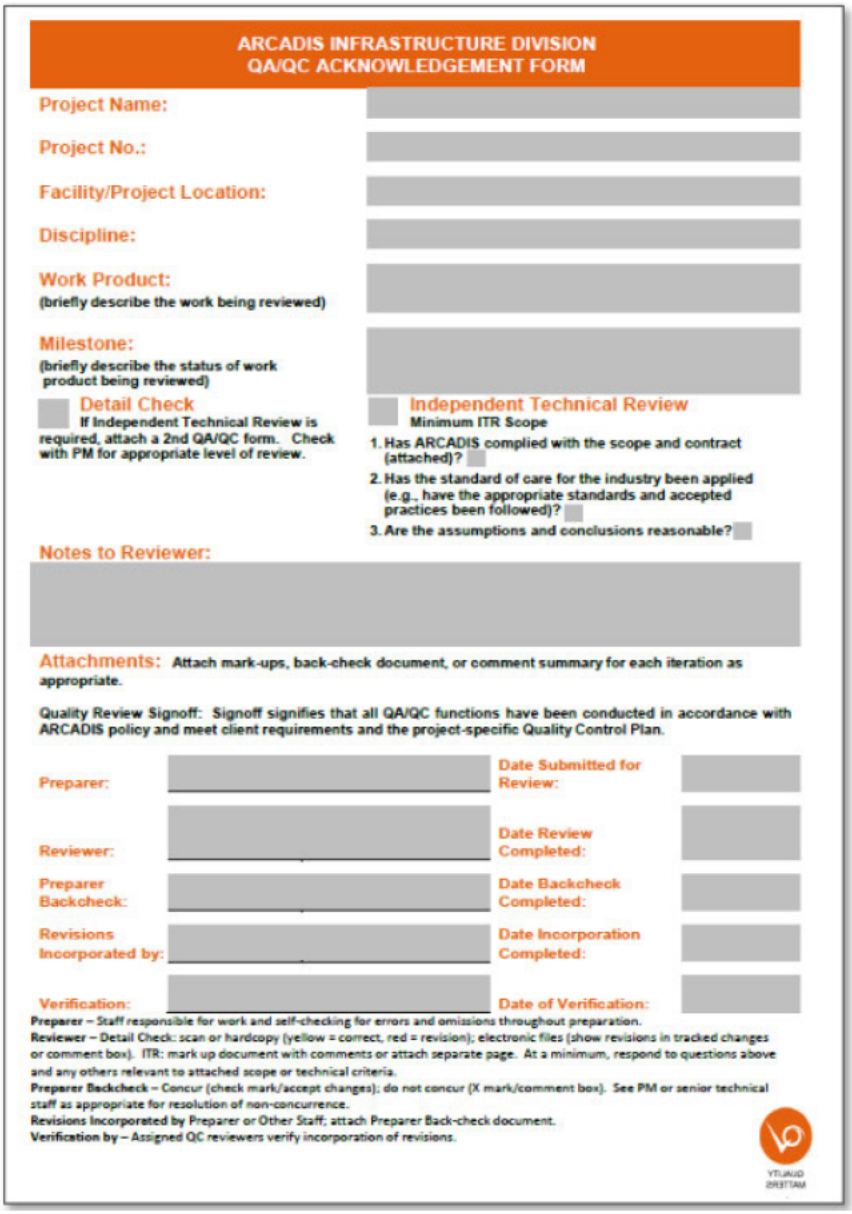
Based on Arcadis' practice and established workflow on previous LADOTD projects, it is recommended that the review be initiated and completed at the end of each phase. Individual pieces of the design, carried out throughout the project, shall be subjected to QC review before being transmitted or presented before LADOTD. A color-coding procedure will be used on plan, calculations, and report work products for the purpose of documenting responsibility and completion of work checking, back checking, comment incorporation, and change verification. The Arcadis Infrastructure Bridge Group color codes will be implemented for this entire project, which is explained below:

Color Code	Action	Responsibility
Yellow Highlight	Item is Correct	Checker/reviewer
Red Pencil	Delete, Error and Correction, Addition, Comment	Checker/reviewer
Green Pencil	Has been resolved, (use check); additional changes	Designer
Blue Pencil	Resolution of error or comment addressed and corrected on original document	Checker/reviewer
Orange Highlight	Revision has been made	CADD/other

LADOTD checklists will be used by both the design and QC teams in the preparation and review of project design criteria, final calculations, and the QA Packet. Arcadis utilizes the use of a Quality Matters QA/QC Acknowledgement Form to document milestone reviews, which is used in combination with QC stamps providing lines for checker, author/designer resolution, and comment incorporation verification. This form will be extensively used at each QC review of individual design components involved in the project.

Proper QC procedures should minimize superseding calculations. However, any such calculations will be carefully coordinated by the Designer to ensure proper disposition. All such changes will be documented as appropriate on the Project Activity Log Sheet.

QUALITY MATTERS



ARCADIS INFRASTRUCTURE DIVISION
QA/QC ACKNOWLEDGEMENT FORM

Project Name:

Project No.:

Facility/Project Location:

Discipline:

Work Product:
(briefly describe the work being reviewed)

Milestone:
(briefly describe the status of work product being reviewed)

☐ Detail Check
If Independent Technical Review is required, attach a 2nd QA/QC form. Check with PM for appropriate level of review.

☐ Independent Technical Review
Minimum ITR Scope
1. Has ARCADIS complied with the scope and contract (attached)? ☐
2. Has the standard of care for the industry been applied (e.g., have the appropriate standards and accepted practices been followed)? ☐
3. Are the assumptions and conclusions reasonable? ☐

Notes to Reviewer:

Attachments: Attach mark-ups, back-check document, or comment summary for each iteration as appropriate.

Quality Review Signoff: Signoff signifies that all QA/QC functions have been conducted in accordance with ARCADIS policy and meet client requirements and the project-specific Quality Control Plan.

Preparer:		Date Submitted for Review:	
Reviewer:		Date Review Completed:	
Preparer Backcheck:		Date Backcheck Completed:	
Revisions Incorporated by:		Date Incorporation Completed:	
Verification:		Date of Verification:	

Preparer – Staff responsible for work and self-checking for errors and omissions throughout preparation.
Reviewer – Detail Check: scan or hardcopy (yellow = correct, red = revision); electronic files (show revisions in tracked changes or comment box). ITR: mark up document with comments or attach separate page. At a minimum, respond to questions above and any others relevant to attached scope or technical criteria.
Preparer Backcheck – Concur (check mark/accept changes); do not concur (X mark/comment box). See PM or senior technical staff as appropriate for resolution of non-concurrence.
Revisions Incorporated by Preparer or Other Staff; attach Preparer Back-check document.
Verification by – Assigned QC reviewers verify incorporation of revisions.

7. QA Information Package

Upon satisfactory completion of the design and detail checks, the designer is required to prepare the QA Information Package utilizing the LADOTD approved checklist (Appendix C). This package includes the following items:

- QA information package checklist
- Calculation book
- Plans
- Special provisions including Non-Standard items
- Cost estimate
- Relevant documents, such as checklists, review comments, etc. that were used by the designer, design checker, detailer and detail checker

The designer is responsible for providing this package to the Reviewer for his further use prior to submittal milestones. Should there be any revisions to the plans or calculations after this submittal, the designer shall revise the QA Information. Package and inform the Reviewer of the changes and provide him with the revised information.

8. QA Process

Quality Assurance (QA) activities are those related to reviewing work to ensure QC procedures are in place and effective. Arcadis is wholly responsible for all QA activities of team deliverables. Project Manager Jose Rodriguez, PE is ultimately responsible for ensuring that the QC Plan is implemented, and that the Reviewer has completed all steps of the review. LADOTD is not responsible for assuring that the QC Plan is implemented or for maintaining documentation of QC reviews and related information. The team of Arcadis and its sub-consultants is solely responsible for maintaining all administrative and technical files for project archives.

Mr. Rodriguez will coordinate with the Reviewer as required and maintain a record of QC forms including the LADOTD required checklists, QC/QA certification, Arcadis review forms, and other relevant information. Once the project manager confirms that the Reviewer has completed the QA process, design documents including design calculations, plans, special provisions and cost estimate shall be considered as final.

9. QC/QA Certificate

At the completion of the QA process by the Reviewer, the QC/QA certificate (Appendix D of the LADOTD Policy) shall be signed by the designer, design checker, detailer, detail checker, and reviewer. This form will be included in the project central files maintained by the Project Manager.

10. Archiving Design Files

Mr. Jose Rodriguez, PE shall be responsible for transmitting all deliverables to the LADOTD. He will maintain all final deliverables' digital files on a USB thumb drive and ProjectWise. Paper copies of these materials will also be maintained by the Project Manager in the repository of project files and moved to off-site archives in accordance with LADOTD document retention policy and Arcadis' retention policies, as appropriate. Retained files will include final, approved deliverables, calculation books, plans, special provisions, cost estimate, and other pertinent documents in accordance with the Bridge Design Section records retention policy, as well as contract documentation, QC/QA records, correspondence, and other materials per Arcadis' records retention policy.

11. Reference Material

Arcadis will use the following reference materials in our QC/QA process:

- AASHTO LRFD Bridge Design Specifications
- LADOTD Bridge Design & Evaluation Manual
- LADOTD Bridge Design Technical Memoranda
- AREMA Manual for Railway Engineering
- LADOTD Roadway Design Procedures and Details
- LADOTD Minimum Design Guidelines
- AASHTO Geometric Design of Highways and Streets
- LADOTD Policy on Quality Control and Quality Assurance
- Arcadis Policy on Records Retention and Management
- Arcadis Infrastructure Division Quality Matters Program

12. Software

Computer based calculations will be completed only with use of the following list of pre-approved LADOTD Bridge Design Section software programs:

Software Name	Developer
Bridge Design	AASHTOware
Bridge Rating	AASHTOware
ConSpan	Bentley LEAP
CSI Bridge/SAP2000/CSI COL	Computers and Structures, Inc.
FB-Multiplier	BSI/Univ. of Florida
LEAP Bridge Enterprise	Bentley LEAP
L-Pile	Ensoft, Inc.
Mathcad	PTC, Inc.
RC-Pier	Bentley Leap
MicroStation	Bentley
CadConform	Altiva
Power Inroads	Bentley
Staad Pro	Bentley

Should other software be needed during the course of the contract, needs will be identified at the earliest opportunity, and a synopsis of the software including its purpose, industry use, limitations and other germane information will be submitted to the State Bridge Design Engineer Administrator for consideration and approval for use.

13. Deliverables

A deliverables schedule will be developed at the Consultant Project Kick-Off Meeting in accordance with other actions listed in the Consultant Project Kick-Off Meeting Agenda Checklist (Appendix H) of the

LADOTD Policy. This schedule will be reviewed regularly by the Project Manager, Mr. Jose Rodriguez, PE for opportunities to reduce activity durations and expedite delivery.

Deliverables schedules, quality reviews, financials, and other topics are addressed on a monthly basis between Arcadis Project Managers and Operations Managers in a Monthly Project Progress Review Meeting near monthly financial close period. An internal consultant QC milestone schedule will also be developed in association with this deliverable schedule. It will be maintained by the Project Manager for use by the consultant team for review scheduling. Deliverables will be internally reviewed for correctness and completeness prior to LADOTD submittal and be accompanied by a Consultant Submittal (QC/QA) Certification form (Appendix I of the LADOTD Policy).

APPENDICES

LADOTD POLICY ON QUALITY CONTROL AND QUALITY ASSURANCE

Design Criteria Checklist

(Appendix A of LADOTD Policy on Quality Control and Quality Assurance)

Design criteria for each project shall include, but not limited to, the following sections:

_____ Cover sheet

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- Revision date
- The Supervisor or Team Leader's signature and date

_____ Governing Design and Construction Specifications and Other References

A list of governing design and construction specifications and other references used for the project shall be included in this section. The edition number, interim revisions, and/or publication date must be specified for each reference.

_____ Design Assumptions and Design Exceptions

All design assumptions and design exceptions received must be included in this section along with supporting documents.

_____ General Information

The general information as listed below should be included in this section:

- Bridge information (no. of bridges, bridge clear width, length, no. of lanes, lane width, shoulder width, etc.)
- Road information (roadway classifications, design speed, traffic data, etc.)
- Vertical datum
- Vertical and horizontal clearances
- Other relevant information

_____ Hydraulic Design Criteria

All hydraulic design criteria (design year, design water elevations, scour depth and scour elevation, etc.) shall be included in this section and the information shall be provided by the Hydraulic Engineer.

_____ Design Factors

The ductility factor ŋD, redundancy factor ŋR, and operational importance factor ŋI shall be listed in this section.

_____ Design Loads

All design loads (dead load, live load, wind load, thermal loads, vessel collision loads, seismic load, wave loads, etc.) used for the project shall be included in this section.

_____ Limit States

All applicable limit states for this project shall be listed in this section.

_____ Bridge Barrier

The design criteria, types, and test levels for bridge barriers shall be listed in this section. Standard plans and special details should be listed if they are utilized.

_____ **Guardrail**

The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans and special details should be listed if they are utilized.

_____ **Approach Slab**

Design criteria for approach slab shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Deck and Deck Drainage**

All design criteria for deck and deck drainage design shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Bearing**

All bearing types and design criteria for each bearing type shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Joint**

All joint types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Superstructure**

All superstructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Substructure**

All substructure types and design criteria for each type shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Piles and Drilled Shafts**

All pile types, sizes, and structural design criteria shall be included in this section. Standard plans and special details should be listed if they are utilized.

_____ **Geotechnical Design**

All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. Standard plans and special details should be listed if they are utilized.

_____ **Mechanical Design**

All mechanical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

_____ **Electrical/Lighting Design**

All electrical design criteria shall be included in this section if applicable. Standard plans and special details should be listed if they are utilized.

_____ **As-Designed Bridge Rating Criteria**

All as-designed bridge rating criteria shall be included in this section.

_____ **Software**

All software used for design and check shall be included in this section.

Final Calculation Book Checklist

(Appendix B of LADOTD Policy on Quality Control and Quality Assurance)

The final calculation book for each project shall include, but not limited to, the following sections:

_____ **Cover Sheet**

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- The title of “Final Calculation Book”
- The EOR’s seal with signature and date

_____ **Final Calculation Book Check List**

_____ **QC/QA Certifications**

_____ **Peer Review Resolution Agreement (if peer review is performed)**

_____ **Design Criteria**

_____ **Final Hydraulic Analysis Report from Hydraulic Engineer**

_____ **Final Geotechnical Analysis Report from Geotechnical Engineer**

_____ **Superstructure Design Calculations**

_____ **Substructure Design Calculations**

_____ **Quantity Calculations**

_____ **Special Provisions/NS-Items**

_____ **Construction Cost Estimate**

_____ **As-Designed Rating Report**

_____ **List of All Final Electronic Design Files and File Locations (ProjectWise directory name)**

Final calculation book shall be submitted to LADOTD on a CD or Flash Drive or placed to a designated ProjectWise folder including the following information:

_____ **A PDF File of the Calculation Book**

_____ **All Electronic Design Files**

_____ **A PDF File of the As-Designed Rating Report Only**

QA Information Package Checklist

(Appendix C of LADOTD Policy on Quality Control and Quality Assurance)

Project No.: H.015569.5

Project Name: LA 44: I-10 ROUNDABOUTS, ROUTE: LA 44 & I-10, ASCENSION PARISH

Project Description: The Consultant shall provide engineering and related services for the design and development of construction plans for two multi-lane roundabouts at the interchanges of LA 44 and I-10 with another multi-lane roundabout at the intersection of LA 44 and West Edenborne Parkway.

_____ **Calculation Book**

_____ **Plans**

_____ **Special Provisions**

_____ **Cost Estimate**

_____ **Other Documents:** _____

ARCADIS Design & Consultancy for natural and built assets

QC/QA Certification

(Appendix D of LADOTD Policy on Quality Control and Quality Assurance)

Project No.: H.015569.5

Project Name: LA 44: I-10 ROUNDABOUTS, ROUTE: LA 44 & I-10, ASCENSION PARISH

Project Description: The Consultant shall provide engineering and related services for the design and development of construction plans for two multi-lane roundabouts at the interchanges of LA 44 and I-10 with another multi-lane roundabout at the intersection of LA 44 and West Edenborne Parkway.

We, the undersigned designers, detailers, checkers, and reviewers for this project, have reviewed and accepted the calculations, plans, quantities, special provisions, and cost estimate prepared for this project. We certify that the work for which we are responsible has been completed in accordance with the LADOTD Bridge Design Section Policy on QC/QA.

Team Members	Name	PE Registration No.	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designer						
Designer						
Designer						
Designer						
Design Checker						
Design Checker						
Design Checker						
Detailer						
Detail Checker						
Reviewer						
Hydraulic Engineer						
EOR						

QC/QA EVALUATION

APPENDIX E of LADOTD Policy on Quality Control and Quality Assurance

Project No.: H.015569.5

Project Name: LA 44: I-10 ROUNDABOUTS, ROUTE: LA 44 & I-10, ASCENSION PARISH

Project Description: The Consultant shall provide engineering and related services for the design and development of construction plans for two multi-lane roundabouts at the interchanges of LA 44 and I-10 with another multi-lane roundabout at the intersection of LA 44 and West Edenborne Parkway.

We, the undersigned Peer Reviewer, Supervisor or Team Leader of the design team, and LADOTD Representative for this project, have reviewed and accepted the attached peer review resolutions. We certify that the peer review has been performed in accordance with the LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	Signature
Peer Reviewer		
Supervisor or Team Leader		
LADOTD Representative		

Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist

(Appendix H of LADOTD Policy on Quality Control and Quality Assurance)

A kick-off meeting with the Consultant's bridge design team shall be initiated by the LADOTD Bridge Design Task Manager once the project is awarded. The meeting agenda shall include, but not limited to, the following items:

_____ **Introduce LADOTD Bridge Task Manager and the Consultant's Key Team Members**

(The EOR and Key Designers/Design Checker/Reviewer).

_____ **Discuss Consultant's Staffing Plan and Implementation of QC/QA Plan Document**

(The staffing plan should include names and responsibilities of the designers, detailers, checkers, reviewers, and the EOR.)

_____ **Determine Schedules for Project Submittals**

(Design Criteria, TS&L, 30%, 60%, 90%, 100% of Preliminary Plans and Final Plans, Final Calculations, etc.)

_____ **Share Expectations and Consultant Rating Criteria**

(Consultant rating will be performed for all project submittals shown on the project submittal schedule.)

_____ **Discuss Design Criteria**

_____ **Discuss Budget, Supplemental Requests, Invoices, and Importance of Avoiding Claims**

(Staff shown on invoices will be reviewed in accordance with the staffing plan.)

ARCADIS Design & Consultancy for natural and built assets

Consultant Submittal QC/QA Certification

(Appendix I of LADOTD Policy on Quality Control and Quality Assurance)

Project No.: H.015569.5

Project Name: LA 44: I-10 ROUNDABOUTS, ROUTE: LA 44 & I-10, ASCENSION PARISH

Project Description: The Consultant shall provide engineering and related services for the design and development of construction plans for two multi-lane roundabouts at the interchanges of LA 44 and I-10 with another multi-lane roundabout at the intersection of LA 44 and West Edenborne Parkway.

We, the Engineers of Record for this project, certify that the information included in this submittal has been prepared in accordance with the QC/QA plan documents and the information presented is accurate and meets the requirements of this submittal.

Submittal Description		
Engineer of Record (Bridge Design)	Signature	Date
Engineer of Record (Roadway Design)	Signature	Date

Project Activity Log Sheet

(Appendix J of LADOTD Policy on Quality Control and Quality Assurance)

Project No.: H.015569.5

Project Name: LA 44: I-10 ROUNDABOUTS, ROUTE: LA 44 & I-10, ASCENSION PARISH.

Bridge Task Manager: Victor Sanchez, PE

Date	Project Activity	Comments

ARCADIS Design & Consultancy for natural and built assets

Consultant Submittal Review Checklist

Items	Design Criteria	TS&L	30% PP	60% PP	90% PP	100% PP	30% FP	60% FP	90% FP	100% FP	Final Calculation Book	Plan Revisions	Change Orders
Consultant Submittal QC/QA Certification													
Design Criteria	C												
TS&L		C											
Bridge Index			D	D	D	D	D	D	C	S			
General Notes			D	D	D	D	D	D	C	S			
Summary of Estimated Quantities			D	D	C	C	D	D	C	S			
General Plans			D	D	C	C	C	C	C	S			
Typical Sections			D	D	C	C							
Super elevation Diagram				D	D	C	C	C	C	S			
Construction Phasing Details				D	D	C	C	C	C	S			
Traffic Control Details				D	D	C	C	C	C	S			
Foundation/Pile Layout				D	D	C	C	C	C	S			
Pile Loads/Details					D	D	D	C	C	S			
Pile Data Table							D	D	C	S			
Bent Details							D	D	C	S			
Fender Details							D	D	C	S			
Girder Details							D	D	C	S			
Span Details							D	D	C	S			
Joint Details								D	C	S			
Bearing Details								D	C	S			
Approach Slab								D	C	S			

Items	Design Criteria	TS&L	30% PP	60% PP	90% PP	100% PP	30% FP	60% FP	90% FP	100% FP	Final Calculation Book	Plan Revisions	Change Orders
Guardrail Details								D	C	S			
Bridge Barrier/Railing Details								D	C	S			
Detour Bridge Details								D	C	S			
Revetment Details								D	C	S			
Signing/Lighting Details								D	C	S			
Year Plate								D	C	S			
Rebar Support								D	C	S			
Misc. Details								D	C	S			
Electrical Details								D	C	S			
As-built Plans								D	C	C			
Special Provisions							D	D	C	C			
NS-Items							D	D	C	C			
Cost Estimate					D	D	D	D	C	C			
Final Calculations											S		
Revised Plans/Calculations												S	S

LEGEND:

"R" = the item is required and shall be included in the submittal

"C" = the item shall be complete and shall be included in the submittal

"D" = the item shall be in development and shall be included in the submittal

"S" = the item is stamped by the EOR and shall be included in the submittal

22. Sub-consultant information:

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

Firm Name (Name must match as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
APS ENGINEERING AND TESTING, LLC	1645 Nicholson Drive, BR, LA 70802	Sergio Aviles sergio@aps- testing.com	225-456-5714
BONTON ASSOCIATES, L.L.C.	232 Third Street, Suite 100, Baton Rouge, LA 70801	Marcus Bonton, P.E. Marcus@bontonassociates.com	225-706-0975

(Add rows as needed)

23. Location:

If location is an evaluation criterion for this advertisement and the prime consultant intends to establish a local presence, describe the plan for doing so. **Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the advertisement**.

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