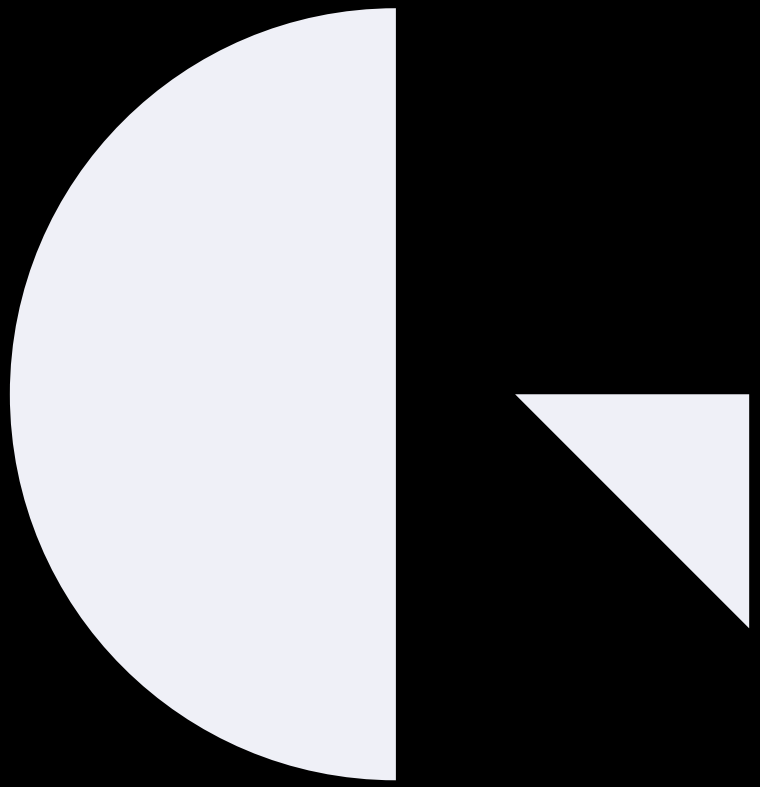
Gresham Smith



LADOTD

CMAR Contract for Hooper Road Widening (LA 3034-LA 37)
Contract Number 4400024084
State Project Number H.009300.5
April 26, 2022

Genuine Ingenuity

10000 Perkins Rowe
Suite 280
Baton Rouge, LA 70810

225.757.5849
GreshamSmith.com

April 26, 2022

Mr. Michael Gorbaty
Consultant Contract Services Administrator
Department of Transportation and Development
1201 Capitol Access Road, Room 405-E
Baton Rouge, LA 70802

RE: CMAR Contract for Hooper Road Widening (LA 3034-LA 37) Contract Number 4400024084

Dear Mr. Gorbaty

At Gresham Smith, we have been honored to partner with LADOTD and numerous public agencies on a variety of projects. From our Baton Rouge office, and also at the corporate level, we share in the stake that the LADOTD holds in carrying out its responsibilities in the most effective manner possible. Our key local staff all have experience successfully completing road, bridge, complete street, and traffic projects individually for LADOTD and we look forward to the opportunity to partner with LADOTD and the selected CMAR Contractor to design the widening of Hooper Road along with the potential roundabouts at the intersections of LA 408 (Hooper Road) at LA 3034 (Sullivan Road) and at LA 37 (Greenwell Springs Road).

We have vast experience with alternative delivery methods across several of our offices in other states, and we are eager to expand that experience with this CMAR project here in the state of Louisiana. Our overriding goal is to Focus on the Success of Our Client. To make this project a success for LADOTD, we have assembled an extremely strong team that includes Gresham Smith's local staff who have extensive experience and knowledge of the department's policies, processes, and procedures. Our local staff gained this experience and knowledge by working for LADOTD as employees and delivered projects for LADOTD as consultants. Our local team will be supported by key subject matter experts located in regional offices. Gresham Smith staff will be supported by Urban Systems, Inc, a local certified WBE firm who will perform the traffic design and analysis for this project. We will also be supported by APS Engineering and Testing, a local certified DBE firm who will perform the geotechnical investigation and design services. Finally, we will be supported by Michael Baker International, who will perform the Hydraulics and drainage design tasks and assist with the roadway and value engineering tasks. Our team brings added value over and above your vision for the contract, and offers the DOTD a winning formula based on the following:

- Herbert "Bert" Moore II, P.E., PLS, PTOE, Project Executive and Gresham Smith's Louisiana Transportation Leader, is experienced with the analysis and design of roundabouts. In his 23 years of experience as both as a consultant and as LADOTD's District Traffic Operations Engineer for District 61, Bert is intimately familiar with

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this area having maintained this route within his district and his work on the roundabout that Gresham Smith has designed at Hooper Road at Sullivan Road. As the Project Executive, Bert will ensure the team has the expertise and resources necessary for LADOTD's successful completion of this project on-time and on-budget.

- John Weres, PE, Project Manager, will be responsible for overall project management of this contract. John has significant experience leading large alternative delivery projects as well as complex projects for Gresham Smith. John will also lead the bridge design and rating portions of this project.
- Richard Savoie, PE, Deputy Project Manager, will oversee day-to-day project tasks. Richard's 40+year career includes 34 years with the LADOTD in increasing roles culminating as the LADOTD Chief Engineer. In his four years as Chief Engineer, Richard provided guidance to staff, while promoting innovation, continuous improvement and efficient use of resources. As the Chief Engineer he was involved in and cut the ribbon to open LADOTD's John James Audubon Bridge, the largest Design Build project to date. He was responsible for establishing engineering standards, policies and procedures that guide program and project delivery, construction, and preservation of all transportation-related projects and systems. In addition, he was accountable for the on-time and on-budget delivery of the DOTD Highway Priority Program.
- Brennon Hughes, P.E., Lead Design Engineer, will lead our road design tasks. Brennon's experience as a former LADOTD road design engineer and as a construction project engineer, make him a prime candidate to lead this design. While at LADOTD, he worked on years-long, multi-million-dollar projects with multiple stakeholders including the design of the LA 22 Widening and multilane roundabout at the intersection of LA 22 at LA 70, in Ascension Parish which has just been opened to traffic and the multilane roundabout at the intersection of LA 408 (Hooper Road) at LA 3034 (Sullivan Road) in Central, Louisiana.

The Gresham Smith team is eager, enthusiastic and available to start work immediately on this project. We respectfully ask for your consideration and appreciate the opportunity to present this proposal. Please feel free to contact me with any questions at 225.282.2101 or by email at bert.moore@greshamsmith.com or our proposed project manager, John Weres at 225.960.5480 or by email at john.weres@greshamsmith.com.

Sincerely,

Herbert "Bert" Moore, II, P.E., PLS, PTOE
State Transportation Leader - Louisiana

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Smith

DOTD FORM: 24-102

(Revised March 1, 2022)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number. ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE. Prime consultant should enter the firm name in the footer at the bottom of this page. (It will carry over to subsequent pages.)

1. Contract title as shown in the advertisement	CMAR Contract for Hooper Road Widening (LA 3034-LA 37)
2. Contract number(s) as shown in the advertisement	4400024084
3. State Project Number(s), if shown in the advertisement	H.009300.5
4. Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Gresham Smith
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.0003429 DUNS number: 059153676
6. Prime consultant mailing address	10000 Perkins Rowe, Suite 280, Baton Rouge, LA 70810
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	10000 Perkins Rowe, Suite 280, Baton Rouge, LA 70810
8. Name, title, phone number, and email address of prime consultant's contract point of contact	John Weres, P.E., Senior Transportation Engineer 225.960.5480 / john.weres@greshamsmith.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Herbert "Bert" Moore, II, P.E., PLS, PTOE State Transportation Leader - Louisiana 225.757.5849 / bert.moore@greshamsmith.com

10. This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response, the proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature (shall be the same person as #9):  Date: April 26, 2022
11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firm(s): APS and Urban Systems Firm(s)' %: 12%

12. Past Performance Evaluation Discipline Table:

Past Performance Rating Categories	% of Overall Contract	Gresham Smith (Prime)	Michael Baker International (Sub)	*APS (Sub)	*Urban Systems Inc. (Sub)
Road (includes Value Engineering and Hydraulic)	76%	67%	33%	0%	0%
Bridge	10%	100%	0%	0%	0%
Traffic	8%	20%	0%	0%	80%
Geotech	6%	0%	0%	100%	0%
Identify the percentage of work for the **overall contract** to be performed by the prime consultant and each sub-consultant.					
Percent of Contract	**100%**	**63%**	**25%**	**6%**	**6%**

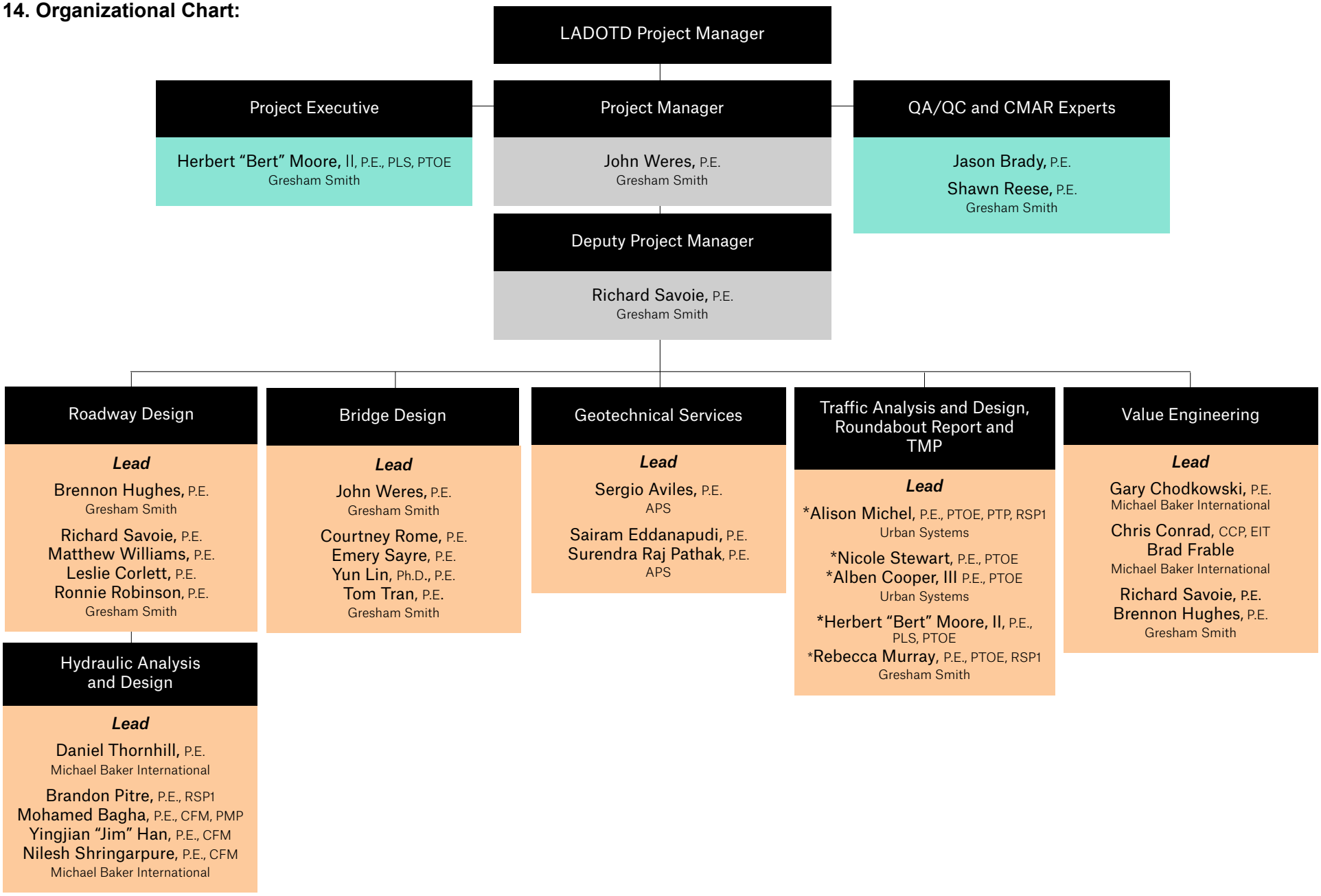
*Indicates DBE

13. Firm Size:

Firm Name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Gresham Smith	Principal	1	2
Gresham Smith	Supervisor-Engineer	8	12
Gresham Smith	Supervisor-Other	1	5
Gresham Smith	Engineer	6	14
Gresham Smith	Engineer-Other	1	4
Gresham Smith	Professional	1	3
Gresham Smith	Engineer Intern	6	8
Gresham Smith	Senior Technician	2	3
Gresham Smith	GIS Analyst	0	1
Gresham Smith	CADD-Operator	0	2
Gresham Smith	Clerical	1	1
Michael Baker	Administrative	1	2
Michael Baker	Biologist/Wetlands	0	6
Michael Baker	Clerical	1	2
Michael Baker	Engineer	5	8
Michael Baker	Engineer Intern	4	9
Michael Baker	Engineer - Other	1	9
Michael Baker	Environmental Pro	0	7
Michael Baker	Environmental Manager	0	4
Michael Baker	GIS Analyst	0	8
Michael Baker	Principal	1	5
Michael Baker	Senior Technician	1	8
Michael Baker	Supervisor - Eng	4	7
Michael Baker	Supervisor - Other	1	8
Michael Baker	Technician	1	6
APS	Engineer	5	5
APS	Driller	8	8
APS	Technician	12	12
Urban Systems	Supervisor-Engineer	1	2
Urban Systems	Engineer	2	2
Urban Systems	Engineer-Other	1	1

Urban Systems	Engineer-Intern	2	2
Urban Systems	CAD Technician	1	1
Urban Systems	Technician	2	4
Urban Systems	Clerical	1	2

14. Organizational Chart:



*Has completed TEPR training

15. Minimum Personnel Requirements:

MPR (Do not insert wording from ad)	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license / certification required	State of license	License / certification expiration date
1.	Herbert "Bert" Moore, II, P.E., PLS, PTOE	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 31065 Exp. 9/30/2022
			PLS	Louisiana	PLS LA 5043 Exp. 9/30/2022
			PTOE	International	PTOE 2728 Exp. 9/30/2024
2.	Herbert "Bert" Moore, II, P.E., PLS, PTOE	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 31065 Exp. 9/30/2022
			PLS	Louisiana	PLS LA 5043 Exp. 9/30/2022
			PTOE	International	PTOE 2728 Exp. 9/30/2024
3.	John Weres, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 36429 Exp. 9/30/2023
4.	John Weres, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 36429 Exp. 9/30/2023
	Emery Sayre, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 34414 Exp. 9/30/2023
	Tom Tran, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 32072 Exp. 3/31/2024
5.	John Weres, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 36429 Exp. 9/30/2023
	Emery Sayre, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 34414 Exp. 9/30/2023
	Yun Lin, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 42444 Exp. 9/30/2022
6.	Richard Savoie, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 20936 Exp. 9/30/2022
	Ronnie Robinson, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 24040 Exp. 3/31/2024
	Matt Williams, P.E.	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 38683 Exp. 9/30/2022

7.	Herbert "Bert" Moore, II, P.E., PLS, PTOE	Gresham Smith	P.E. (Civil)	Louisiana	P.E., LA 31065 Exp. 9/30/2022
			PLS	Louisiana	PLS LA 5043 Exp. 9/30/2022
			PTOE	International	PTOE 2728 Exp. 9/30/2024
	Alison Michel, PE, PTOE, PTP, RSP1	Urban Systems	P.E. (Civil)	Louisiana	P.E., LA 30261 Exp. 3/31/2023
				International	PTOE 1023 Exp. 11/06/2023
				International	PTP 626 Exp. 11/20/2023
				International	RSP1 115 Exp. 12/21/2024
	Nicole Stewart, P.E., PTOE	Urban Systems	P.E. (Civil)	Louisiana	P.E., LA 34750 Exp. 9/30/2023
				International	PTOE 2923 Exp. 8/01/2023
8.	Sergio Aviles, P.E.	APS	P.E. (Civil)	Louisiana	P.E. LA 33571 Exp. 3/31/2023
9.	Sergio Aviles, P.E.	APS	P.E. (Civil)	Louisiana	P.E. LA 33571 Exp. 3/31/2023

(Add rows as needed)

16. Staff Experience:

Gresham Smith

John Weres, P.E.

Project Manager / Lead Bridge Engineer

Years of experience with this employer	5
Years of experience with other employer(s)	37

Degree(s) / Years / Specialization	Bachelor of Science / 1980 / Civil Engineering, University of Pittsburgh		
Active registration number / state / expiration date	PE.0036429 / LA / Exp. 9/30/2023		
Year registered	2011 (LA) 1985 (PA)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Project Manager / Lead Bridge Engineer. John will manage the overall project team and lead the bridge design and rating efforts.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
06/19 – Ongoing	**LADOTD, Complex Bridge Inspections, Statewide, LA	*Project Manager*. Task Orders 1, 3, 4, and 5 -** Retainer project for various bridge inspections of major river crossings. Completed hands-on inspection of fracture critical elements on several structures including the LA1 Truss over Atchafalaya River at Simmesport, LA8 Segmental Bridge over Red River at Boyce and the US165 Vertical Lift Bridge over Red River. Gresham Smith was able to complete the inspection of Bridge 005860, in Jeanerette, a steel swing truss and Bridge 009130, in Charenton, a steel swing truss – within the original budget.
04/20 – 09/20	**LADOTD, Complex Bridge Inspections, Statewide, LA	Task Order 2 - Emergency Bridge Repairs, US 71 in Downtown Shreveport, LA	*Project Manager*.** In April 2020, a train derailment damaged Bent 3 of the Spring Street Bridge forcing the roadway closure. Gresham Smith was selected to design the bridge repairs. One week after Gresham Smith's selection, DOTD selected CEC as the emergency contractor. Although not an official **CMAR** contract, it operated as such. Gresham Smith worked with the contractor to develop the strongback system to temporarily support the bridge for the replacement of the damaged bent. Gresham Smith worked closely with DOTD, CEC, and the railroads on the design of the repairs, crashwall design and substructures. As the PM, John Weres led the design effort, meeting regularly with the contractor and railroad on-site to reach consensus on all of the design details.
03/17 – 09/18	**TDOT, I-24 Superstructure Replacements – Spring & Oldham Street, Nashville, TN	*QA/QC & Construction Coordination.*** Following the successful Fast Fix 8 Design-Build project in Nashville, TDOT selected Gresham Smith to design superstructure replacements over railroads in a **CMAR** approach with the selected contractor. Accelerated Bridge Construction (ABC) techniques were utilized to replace two, dual interstate bridges, incorporating substructure modifications under live traffic and precast concrete deck panels. John served as the structures EOR for the final design and he performed shop drawing review and construction consultation.
03/22 – Ongoing	**I-10 Calcasieu River Bridge P3	Lake Charles, LA	*Design Manager*.** As part of the I-10 Calcasieu Mobility Partners, LLC team, Gresham Smith is providing design services as a subconsultant to Parson's Transportation Group for the **P3/Design-Build** team. John is serving as Project Manager for the Gresham Smith team, responsible for Traffic Control, ITS, Lighting Design and Structures coordination. John serves as a point of contact with the overall design-build team to coordinate the design efforts for the various teams and to provide local expertise for the structure design team.

01/13 – 11/15	**Virginia DOT, Virginia Capital Trail New Market Heights Phase and Varina Phase (2 separate bids total $15.2 million) near Richmond Virginia | *Structures Lead and PM*.** Prior to joining Gresham Smith served as bridge design lead for design and construction of 8 timber bridges (glu-lam and conventional timber) and one, 2-span steel structure over Route 895 for the 13-mile and 12-mile segments of the multi-use trail. Bridge design includes top-down construction techniques to minimize wetland impacts and avoid damaging the tree canopy along Virginia Route 5.
11/13 – 05/14	**U-2925 Salem Creek Connector Design-Build, North Carolina DOT (Shirley Construction) | Structures Lead**. Prior to joining Gresham Smith, John served as the Structures Lead Designer for preparation of the preliminary design and bid for a $90 million roadway and new intersection project in central North Carolina. The project included five new roadway bridges and two new railroad structures and included the design for a Diverging Diamond Interchange (DDI). John served as design lead engineer for four of the bridge structures and as design coordinator for all structures. Several of the bridges included context sensitive design features including brick facades and a faux arch structure with decorative lighting. The railroad structures included phased construction and new track installation. Foundations included drilled shafts, driven steel piles and MSE retaining walls.
01/09 – 11/11	**Denver FastTracks - Denver RTD | *Design Manager*.** Prior to joining Gresham Smith, John served in a subconsultant role to another engineering firm for the Denver FastTracks transit project as part of the P3 team. John served as design manager for a heavy rail bridge reconstruction as part of the railroad realignment, and as QA lead for transit bridges. The transit system was accommodated by relocating the existing railroad system.
02/13 – 03/14	**Purple Line, Maryland Transit Authority | *Structures Design Lead*.** Prior to joining Gresham Smith, John's firm was lead designer for this $2.2 Billion design-build-operate-maintain **PPP** project in northern Maryland. John served as the structures design lead for ancillary structures, for local road crossing bridges, and the multi-use trail structures. Project included preliminary designs, Alternative Technical Concept (ATC) support, and cost estimating.
01/08 – 10/10	**S.R. 0576, Section 54A, Findlay Connector, PA Turnpike Commission | *Project Manager***. John served as project manager and lead structural engineer for a $70 million new highway/interchange at the Pittsburgh International Airport. The project included dual, 8-span, 1,545' steel multi-girder structures as well as 6 other bridge structures, various retaining walls the widening of SR 60 and modifications to an adjacent interchange on SR 60. John's duties included overall team management for the highway and bridge design teams and coordination with various subconsultants, PennDOT, Moon Township and Findlay Township officials and airport officials. The new interchange provides direct access to the airport and was located within the glide path of runway 10R, requiring extensive coordination with the Pittsburgh International Airport engineering and operations staff throughout the design and construction phases. Special highway and sign lighting were required as a result of the proximity to the runway and the bridge design and construction, including crane locations were coordinated with the airport staff.

*Icon represents key project highlighted in Section 17.

16. Staff Experience:

Gresham Smith

Richard Savoie, P.E.

Deputy Project Manager

Years of experience with this firm/employer	3.5
Years of experience with other firm(s)/employer(s)	40

Degree(s) / Years / Specialization	Bachelor of Science / 1978 / Civil Engineering, McNeese State University		
Active registration number / state / expiration date	P.E.0020936 / LA / 9/30/22		
Year registered	1983 (LA)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Deputy Project Manager / Richard will manage the roadway design team, coordinate with the subconsultants and QC on all deliverables.		

04/20 – Ongoing	**City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design | *Senior Engineer.*** Gresham Smith was tasked with the full roundabout design to be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Richard is responsible for overall Quality Control on the project. He is mentoring the engineering staff on the field evaluation requirements, reviewing all potential improvements, and is responsible for QC reviews on the preliminary and final design plan submissions.
09/18 – 12/20	**LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA | *Senior Engineer.*** The project consisted of roadway realignment at the bridge approach to improve roadway geometry and safety. Right-of-way is being acquired at one quadrant of the intersection and Richard is assisting with the coordination between the right-of-way plans and the roadway requirements. Richard performed Quality Control reviews on the final preliminary design submission and was responsible for Quality Control on the final design process.
09/18 – 12/19	**LADOTD, SRTS/LRSP Task Order 14: Farmerville Design, Union Parish, Farmerville, LA | *Senior Engineer.*** Richard provided quality control review for the Final Plan submission for this Safe Routes to Public Places Project. The review was to ensure that the plans were developed in accordance with standard LADOTD policy and procedure. Plans included installation of sidewalks along various local roadways, driveway adjustments to ensure ADA compliance and utility relocation avoidance.
02/09 – 03/14	**LADOTD, Project and Program Delivery | *Project Manager.*** Richard was the Project Manager for the I-49 North project in Caddo Parish, from I-220 to the Arkansas State Line. The project started with the Corridor Selection Study and progressed to the Environmental Impact Study. Once the alignment was selected plan development began and thence project delivery for this $670 million project. As the Deputy Chief and Chief Engineer, participated in many partnering sessions for the Huey P. Long Bridge widening, John James Audubon Bridge and the cable replacement for the I-310 Luling Bridge with contractors and designers. He was the first Director of **Value Engineering** when the department started their **Value Engineering** program in 1998. He participated in multiple **Value Engineering** sessions and led the **Value Engineering** study for the pavement replacement for I-10 thru Lake Charles.
Career	Richard's 40+-year career includes 34 years with LADOTD in increasing roles culminating as the Chief Engineer. Richard was responsible for establishing engineering directives and standards, policies, budgets, expenditures, programs and procedures that guided project and program delivery, construction, and preservation of all transportation-related projects and systems.

16. Staff Experience:

Gresham Smith

Jason Brady, P.E.

QA/QC & CMAR/Alternative Delivery Expert

Years of experience with this firm/employer	21
Years of experience with other firm(s)/employer(s)	4

Degree(s) / Years / Specialization	Bachelor of Science / 1997 / Civil Engineering, University of Tennessee		
Active registration number / state / expiration date	P.E.108135 / TN / 2/28/2023		
Year registered	2003 (TN)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	QA/QC & CMAR/Alternative Delivery Expert / Jason will QC on all deliverables.		

01/17 – Ongoing	**City of Alcoa, Tesla Boulevard - Local Interstate Connector Road, Alcoa, TN | *Principal, Project Manager*.** Gresham Smith planned and designed the collector roadway as a city street. During the planning process, Gresham Smith assisted the City in applying for and being awarded state funds for the roadway as part of the LIC program linking local roads to interstates. Partnering between the city, developer and both site and roadway engineers helped to centralize detention for the Phase 1 build-out increasing the marketability of the parcels and simplifying maintenance of the stormwater facility.
06/13 – 9/14	**TDOT, Diverging Diamond Interchange at SR 66 (Exit 407), Knoxville, TN | *Project Engineer*.** Gresham Smith was charged with complete design development from preliminary roadway plans to final signed and sealed roadway construction plans for the reconstruction of the I-40 interchange at SR 66 (Exit 407) to a DDI. Gresham Smith's scope of services include preliminary, ROW and final construction plans, public meetings presentations and stakeholder coordination, traffic control phasing, signal and lighting design, ITS design and utility coordination.
06/12 – 07/13	**City of Johnson City, Indian Ridge Road/SR 381 Intersection, Johnson City, TN | *Project Manager*.** When faced with increasing congestion at the intersection of Indian Ridge Rd and SR 381 Johnson City turned to Gresham Smith for help engineering a solution. The intersection complexity required a good deal of planning and coordination between all stakeholders. After evaluating several constructability and longevity factors the City and Gresham Smith agreed to move ahead with a more robust intersection than originally planned. Improvements include the relocation of the City Greenway, widening of a railroad bridge and the reconstruction of a failing timber retaining wall.
02/09 – 03/14	**City of Alcoa, SR 33 Widening at Pellissippi Parkway, Alcoa, TN | *Assistant Project Manager*.** Gresham Smith provided design and CEI services to widen SR 33 from Hunt Road to the future north entrance of the Technology Park at I-140. The project was designed in accordance with TDOT specifications and standards, and is ADA-compliant. A critical design element to the project was the inclusion of sidewalks and multiuse paths. Gresham Smith worked with the City of Alcoa and the Blount County Industrial Development Board to plan and design new multimodal facilities to the SR 33 corridor, including critical connections to sections of the existing and proposed Maryville/Alcoa greenway network. In addition, sections of sidewalk constructed with pavers were designed to match the existing facility in the Pellissippi Place Technology Park.

16. Staff Experience:

Gresham Smith

Shawn Reese, P.E.

QA/QC & CMAR/Alternative Delivery Expert

Years of experience with this firm/employer	4
Years of experience with other firm(s)/employer(s)	40

Degree(s) / Years / Specialization	Bachelor of Science / 1992 / Construction Technology, Eastern Kentucky University		
Active registration number / state / expiration date	P.E.036255 / GA / 12/31/22		
Year registered	2011 (GA)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	QA/QC & CMAR/Alternative Delivery Expert / Shawn will QC on all deliverables.		

09/18 – 09/20	**Sandy Springs, Hammond Drive Corridor Design, Sandy Springs, GA | *Project Manager.*** Gresham Smith provided traffic studies, environmental planning, public outreach and conceptual engineering design for the Hammond Drive corridor, from Roswell Road (SR 9) to Glenridge Drive, connecting to planned improvements by GDOT at the Hammond Drive/Georgia 400 interchange. This portion of Hammond Drive currently carries a volume of traffic which is higher than the capacity of a two-lane roadway and lacks adequate facilities for people walking, biking and taking transit. To improve mobility, the project will add one lane in each direction along Hammond Drive and provide additional turn lanes at the intersections with Roswell Road and with Glenridge Drive. It will also streamline turning movements, making it easier to turn from side streets while limiting neighborhood cut-through traffic by managing access along Hammond Drive, through the use of cul-de-sacs and roundabouts.
03/17 – 04/19	**Cobb County DOT, McCollum Parkway at Big Shanty/Ben King Road, Marietta, GA | *Quality Engineer.*** Shawn provided design and constructability review for this project, which included the development of a roundabout or signalized intersection at Big Shanty Road and Ben King Road as well as the design of new sidewalks.
05/07 – 01/08	**Cobb County DOT, West Sandtown Road Safety & Operational Improvements, Cobb County, GA | *Project Manager.*** Shawn was responsible for managing the design for the safety and operational improvements along the 4.2 mile project corridor including horizontal and vertical improvements to comply with sight distance requirements, adding curb, gutter and sidewalk along one side of the roadway and replacing the existing bridge over Mudd Creek with a bottomless arch culvert.
02/17 – 03/19	**Cherokee County/GDOT, CR 107/Howell Bridge Road, Safety and Operational Improvements, Cherokee County, GA | *Project Manager.*** This project involves the design and preparation of construction documents for CR 107/Howell Bridge Road over Sharp Mountain Creek. The project includes approx. 500 feet of approach roadway at each end.
03/21 – Ongoing	**GDOT, SR 280 Interchange at I-285, Cobb County, GA | *Principal Roadway Engineer***. This project involves the reconstruction and reconfiguration of the ramps to and from I-285 to improve vehicular flow. Responsible for developing concept designs for replacing the existing diamond interchange with a Tight Urban Diamond or Diverging Diamond Interchange.
02/05 – 07/06	**Northwest Express Roadbuilders, I-75/I-575 Northwest Corridor PPP Design-Build Project, Cobb and Cherokee Counties, GA | *Deputy Design Manager, Lead Roadway Engineer, Right of Way Lead.*** This $1 billion project placed 29.8 miles of reversible managed express lanes along the west side of the existing I-75 southbound lanes and within the existing median of I-575.

16. Staff Experience:

Gresham Smith

Brennon Hughes, P.E.

Lead Roadway Design Engineer

Years of experience with this firm/employer	5
Years of experience with other firm(s)/employer(s)	6

Degree(s) / Years / Specialization	Bachelor of Science / 2011 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.0039985 / LA / 3/31/24		
Year registered	2015	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Lead Roadway/ Design Engineer / Brennon will lead the development of the roadway plans and development of bid packages.		

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
04/20 – Ongoing	**City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design	*Lead Roadway/Roundabout Design Engineer*.** Gresham Smith was tasked with the full roundabout design to be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Brennon led the design and preparation of preliminary plans and cost estimates. This project is currently undergoing scope adjustments for final design.
03/21 – Ongoing	**MSY Airport: Entrance Road Capacity Design	*Lead Roadway Design*.** Brennon was responsible for planning and coordinating staffing, scheduling, and budgeting for this project. He also led the design and the preparation of preliminary and final plans and cost estimates. He worked closely with Airport officials along with the consultant for the adjacent design-build project to coordinate the widening of the entrance road to the MSY Airport. This project is scheduled for letting this Spring.
10/15 – 08/17	**LADOTD, Multilane Roundabout LA 22 at LA 70 and LA 22 Geometric Improvements near I-10, Ascension Parish, LA	*Lead Roadway Design*.** This was a widening and intersection improvement project located at the intersection of LA 22 and LA 70 in Ascension Parish to north of I-10. This project included widening of LA 22, a double lane roundabout at LA 22 and LA 70 with a slip lane, along with two J-Turns north of I-10 and two J-Turns south of I-10 along LA 22. Brennon's role was to lead the design and the preparation of preliminary and final plans and cost estimates. He developed these plans from initial survey request up to 60% final plans.
08/17 – 12/20	**LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA	*Lead Roadway Design Engineer.*** Brennon led the design and the preparation of preliminary and final plans and cost estimates. This project involved safety and operations improvements for the intersection realignment, curb and gutter drainage design, sidewalks, truck islands and turnouts.
09/11 – 07/17	**LADOTD Roadway Group.	*Project Engineer*.** Prior to joining Gresham Smith, Brennon served with the LADOTD Roadway Group as a designer on various roadway projects including a new roundabout, widening projects, overlay projects, and intersection improvements.
Certifications (See section 20)	• DOTD FHWA-NHI-380096V Modern Roundabouts: Intersections Designed for Safety • American Traffic Safety Services Association –Traffic Control Supervisor, LA State Specific

16. Staff Experience:

Gresham Smith

Ronnie Robinson, P.E.

Senior Transportation Engineer

Years of experience with this firm/employer	6
Years of experience with other firm(s)/employer(s)	33

Degree(s) / Years / Specialization	Bachelor of Science / 1982 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.0024040 / LA / 3/31/24		
Year registered	1988	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Senior Transportation Engineer / Ronnie will assist with the road design tasks for the preliminary and final plans.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
04/20 – Ongoing	**City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design | *Senior Transportation Engineer*.** Gresham Smith was tasked with the full roundabout design to be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Ronnie provided quality control for the preliminary design phase, participated in the plan-in-hand meeting, and will provide design assistance for the development of the final design plans.
02/17 – 12/20	**LADOTD, SRTS/LRSP Task Order 6 and 21: Endom Bridge Preliminary and Final Design, West Monroe, LA | *Senior Transportation Engineer.*** Ronnie's responsibilities included developing preliminary and final plans and construction cost estimates. His efforts included coordination of the contaminated waste investigation, drainage layout and quality control for the preliminary design.
03/16 – 10/17	**LADOTD, Farmerville State and Local Road Traffic Study, Farmerville, LA | *Senior Engineer.*** Gresham Smith was selected to perform a formal traffic study of all the intersections (57) within and around the City of Farmerville on both state and local routes. The project included data collection, safety/crash review, developing alternatives, analysis of existing and proposed conditions and benefit/cost analysis. Ronnie assisted with the development of alternatives and was responsible for developing construction cost estimates for various alternatives.
07/17 – 06/19	**LADOTD, SRTS/LRSP Task Order 7: McMillan at Blanchard Intersection Improvements Design, West Monroe, LA | *Senior Engineer.*** Ronnie's responsibilities included conducting field traffic observations and collecting field data for the study portion. For the design portion, his responsibilities included developing conceptual designs, preliminary and final plans and construction cost estimates.
Career	Ronnie has 33 years of experience with the Louisiana Department of Transportation and Development. He worked 11 of his 16 years in construction as a project engineer, eight years as manager of the design and permit sections and nine years as administrator for the design, water resources, permit and materials testing sections.

16. Staff Experience:

Gresham Smith

Matthew Williams, P.E.

Senior Roadway Engineer

Years of experience with this employer	11
Years of experience with other employer(s)	14

Degree(s) / Years / Specialization	Bachelor of Science / 1996 / Civil Engineering		
Active registration number / state / expiration date	PE.38683 / LA / Exp. 9/30/2022 | PE. 24120 / AL / Exp. 12/31/2023		
Year registered	2014 (LA) 2001 (AL)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Senior Roadway Engineer / Matthew will assist with the road design tasks for the preliminary and final plans.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
01/14 – 06/17	**MDOT, I-55 from County Line Road to Old Agency Road (Phase A), Madison County, MS | *Project Manager*.** Responsibilities included the preparation of conceptual plans for the realignment of the I-55 and I-220 interchange as well as various side ramp connections in Jackson, Mississippi. Matt was responsible for ensuring design met required criteria, and ensuring ramp adjustments and urban drainage design along County Line Road were constructible.
04/10 – 08/15	**MDOT, I-55 Interchange at Gluckstadt, Madison County, MS | *Transportation Engineer*.** Matt was responsible for design of roadway geometrics, rural and urban drainage, cross-sections, erosion control, and miscellaneous plan details and quantities; determination of right-of-way limits; and cost estimating.
04/11 – 03/13	**MDOT, SR 15 from Union County Line to One Mile North of SR 4, Tippah County, MS | *Transportation Engineer*.** Matt was responsible for design of roadway geometrics, rural and urban drainage design, cross-sections, traffic control, erosion control, and miscellaneous plan details and quantities; and cost estimating.
01/16 – 06/20	**MDOT, SR 2 from Existing SR 15 to SR 15 Bypass, Tippah County, MS | *Project Engineer/Project Manager*.** Matt was responsible for developing alternatives along existing East Palmer Street which compared impacts to adjacent property owners, ability to meet design criteria, and constructability. This project was subsequently changed to include SR2 on new location. Matt is responsible for ensuring the project meets design criteria and that roadway, bridge and bridge hydraulic efforts are all coordinated.
11/14 – Ongoing	**MDOT, 2014 RWD WA #1: SR 309 Byhalia Creek BR, Marshall County, MS | *Transportation Engineer*.** Matt was responsible oversight of design.
10/16 – 01/20	**MDOT, 2014 RWD WA #4 and MDOT 2017 BR WA #2 US 51 Yalobusha County, MS | *Project Manager*.** Matt is responsible for ensuring the project meets design criteria and that roadway, bridge and bridge hydraulic efforts are all coordinated.

16. Staff Experience:

Gresham Smith

Leslie Corlett, P.E.

Senior Roadway Engineer

Years of experience with this firm/employer	18
Years of experience with other firm(s)/employer(s)	2

Degree(s) / Years / Specialization	Bachelor of Science / 1996 / Civil Engineering, Auburn University		
Active registration number / state / expiration date	PE.25726 / AL / Exp. 12/31/23		
Year registered	2003 (AL PE)	**Discipline**	P.E. / Civil
Contract role(s) / brief description of responsibilities	Leslie will support the team by providing support for the road design activities and roundabout design experience.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc.**
7/15 – 12/15	**ALDOT, North Region Roundabout Feasibility Study, US 72 at SR 79, Scottsboro, AL | *Project Professional.*** Leslie supported the team to complete a roundabout feasibility study to determine the safety and operational benefits and feasibility of a roundabout at the intersection of US 72 at SR 79. This existing two way stop controlled intersection has seen 29 crashes in a five-year period, with 24 of these crashes being angle crashes, and 15 of the crashes being serious injury crashes.
3/15 – 10/15	**ALDOT, Roundabout Design Support, Various Counties, AL | *Transportation Engineer.*** As a task order under Gresham Smith's Transportation Support Services Contract with ALDOT, Leslie provided design support to ALDOT's Roadway Design Section for the design of three roundabouts: US 231 at US 411/CR 33 in St. Clair County, SR 160 at SR 79 in Blount County, and SR 5 at CR 58 in Bibb County. Gresham assisted ALDOT's designers with the initial horizontal and vertical geometry for the roundabouts.
1/16 – 6/16	**ALDOT, 5th Street at the SR-13 Interchange from Main Avenue to Bridge Avenue, Roundabout Feasibility Study, HSIP-6315, Northport, AL | *Transportation Engineer.*** Leslie studied the existing and projected traffic volumes at four intersections along 5th Street within and adjacent to the SR 13 interchange to determine if the traffic operation would benefit by the construction of roundabouts at these intersections.
2/16 – 6/16	**ALDOT, CR 13 at CR 30 Roundabout Peer Review, Baldwin County, AL | *Supervisor.*** Leslie assisted the team to complete a roundabout peer review of the proposed Alabama Transportation Rehabilitation and Improvement Program (ATRIP) roundabout project at CR 13 and CR 30 for the ALDOT Southwest Region, Mobile Area County Transportation Office.
3/17 – 7/17	**McCollum Parkway and Big Shanty Road Intersection Improvements Concept Study, Cobb County, GA | *Roadway & Traffic Engineer.*** Leslie provided design and engineering services for two new transportation projects. The team designed intersection and sidewalk improvements for McCollum Parkway at Big Shanty Road and Ben King Road and designed a bridge replacement for Willeo Road over Willeo Creek, as part of the county's Bridge Replacement Program.

16. Staff Experience:

Gresham Smith

Courtney Rome, P.E.

Bridge Engineer

Years of experience with this employer	4.5
Years of experience with other employer(s)	7.5

Degree(s) / Years / Specialization	Bachelor of Science / 2009 / Civil Engineering, Southern University and A&M College		
Active registration number / state / expiration date	PE.0043355 / LA / Exp. 9/30/23		
Year registered	2019 (LA)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Bridge Engineer / Courtney will assist with the bridge design tasks for the preliminary and final plans.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/19 – Ongoing	**LADOTD, Complex Bridge Inspections, Statewide, LA | *Engineer.*** As an NHI Certified Bridge Inspector, Courtney is performing bridge inspections for various complex bridge structures throughout Louisiana, including steel trusses, concrete structures and moveable bridges. For Task Order 3 and 4 projects, Courtney is assuming a leadership role in the development of the reports and element level evaluations.
11/17 – Ongoing	**MDOT, SR 178 Benton County Bridge Replacements, MS | *Engineer.*** Gresham Smith is providing final design (Phase B) services for the replacement of two water crossings on parallel alignment. Both bridges include utilization of prestressed Florida I-Beams (FIB) to maximize span lengths while minimizing structure depths. Courtney performed the deck design and beam design services for a one-span (135-foot) and three-span (80- x 100- x 80-foot) structure and also completed the design of pipe piles for the pier bents.
06/17 – 07/18	**Tennessee DOT, Underwater Bridge Inspection Program, TN | *Report QC.*** Courtney provided quality assurance reviews of the reports for the underwater inspection of 57 structures throughout the state of Tennessee.
04/20 – 08/20	**LADOTD, Task Order 2, US 71 Spring Street Emergency Repairs, Shreveport, LA | *Design Engineer.*** Following the train derailment that damaged the steel bent for the US 71 Spring Street Bridge, Gresham Smith was selected to evaluate the structure and design the emergency repairs. Courtney led the substructure design elements including the temporary shoring to support the railroad loads and for the crash wall and helical piles.
07/18 – Ongoing	**MDOT, MS-149 Simpson County Bridges, Simpson County, MS | *Bridge Engineer.*** Courtney performed final design calculations including Leap Bridge Design for FIB girders for multiple span designs for two of the four bridges. Courtney prepared the bridge plan sheets for two structures including all deck, beams, and foundations. Courtney led Gresham Smith's development of design and details for MDOT's first use of partial depth concrete deck panels, to accelerate construction and improve construction safety.
Certifications (See section 20)	• NHI 130055 – Bridge Inspection Team Leader and NHI 130078 Fracture Critical Insp. Techniques • SPRAT Level 1 Rope Access Technician.

16. Staff Experience:

Gresham Smith

Emery Sayre, P.E.

Senior Bridge Engineer

Years of experience with this employer	3
Years of experience with other employer(s)	17

Degree(s) / Years / Specialization	Bachelor of Science / 2001 / Civil Engineering, University of Mississippi		
Active registration number / state / expiration date	PE. 0034414 / LA / Exp. 9/30/2023		
Year registered	2009 (LA) 2007 (MS)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Senior Bridge Engineer / Emery will assist with the bridge design tasks for the preliminary and final plans.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*****, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
06/19 – Ongoing	**LADOTD, Complex Bridge Inspections, Statewide, LA | *Bridge Inspector.*** As an NHI Certified Bridge Inspector and as an NHI certified Team Leader, Emery served as a structural bridge inspector for the recently selected Complex Bridge Inspection Program with LADOTD's Section 21. Emery provided inspection services, including operator for the Under Bridge Inspection vehicle (UBI) and he also performed quality control reviews for the inspection reports. Gresham Smith has completed Task Order #1 in-depth bridge inspections including the following bridges: • LA 1 Simmesport Truss over Atchafalaya River. • Jackson Street Vertical Lift Bridge over Red River in Alexandria. • LA 8 Concrete Segmental Bridge over Red River at Boyce, LA.
07/18 – 06/21	**MDOT, SR 178 Benton County Bridge Replacements, MS | *Bridge Engineer.*** Gresham Smith provided final design (Phase B) services for the replacement of two water crossings on parallel alignment. Both bridges include utilization of prestressed Florida I-Beams (FIB) to maximize span lengths while minimizing structure depths. Emery provided Services During Construction for the replacement of 2 rural bridges including review of all contractor submittals, including deck overhang designs, pile driving submittals, and shop drawings.
04/20 – 08/20	**LADOTD, Task Order 2, US 71 Spring Street Emergency Repairs, Shreveport, LA | *Design Engineer*.** Following the train derailment that damaged the steel bent for the US 71 Spring Street Bridge, Gresham Smith was selected to evaluate the structure and design the emergency repairs. Emery provided constructability reviews for the temporary support bracing system, the steel repairs, and railroad coordination.
07/18 – Ongoing	**MDOT, SR 149 Simpson County Bridge Replacements, MS | *Engineer.*** Gresham Smith is partnered with MDOT for Phase B (Final Design) for the reconstruction of S.R. 149 near D'Lo, Simpson County, Mississippi. Gresham Smith designed the two longer structures (Bridge 128.2 and Bridge 128.6), with partial depth deck panels utilized for MDOT as a pilot to verify the ease of construction and as an accelerated bridge construction (ABC) technique. Emery served as the Engineer-of-Record for the other two hydraulic crossing bridges (Bridge 131.4 and Bridge 131.7) and will manage the services during construction (Phase C) work on this project once it is awarded for construction.

10/19 – Ongoing	**MDOT, MS-493 Bridge Replacements, Lauderdale County, MS	*Design Engineer*.** Emery is serving as Engineer-of-Record (EOR) for the project and is responsible for the overall structural design and coordination with MDOT and the roadway designer for the final design of two stream crossing bridges in Lauderdale County, MS. The design includes a curved structure alignment and a sharply skewed bridge alignment. Modified FIB concrete beams, similar to DOTD's LG-25 girders, were utilized to minimize the structure depth in order to meet hydraulic requirements. Emery is currently managing the bridge support services during construction (Phase C) work now that the construction contract has been awarded.
03/21 – Ongoing	**TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN	*Project Engineer.*** Following the successful completion of 2019/2020 Task Orders for load rating of 90 complex structures, TDOT issued a 2021 task order to Gresham Smith for additional bridge load ratings. TO26 Included 21 complex bridges including Reinforced Concrete Hollow (Multi-cell) Box bridges, Reinforced Concrete Hollow (Multi-cell) Box spliced with Prestress-Precast Concrete Box Beam bridges, Rigid Frame (K-Frame) Reinforced Concrete Hollow (Multi-cell) Box spliced with Prestress-Precast Concrete Box Beam bridges, Steel Stringer-Floorbeam-Girder systems, Steel Rigid Frame (K-Frame) Bridges, Steel Curved Bridges with multiple ramp spurs (fingers), Integral bent caps, and 35 standard bridges to be rated using AASHTOWare BrR software in order to complete the load ratings of 56 bridges in 4 months. Emery supported the load rating of more than 13 of these bridges using the AASHTOWare BrR software.
09/18 – 11/18	**MDOT, SR 15 over Potterchitto Creek Bridge Repairs, Newton County, MS	*Jacking Engineer*.** On behalf of the repair contractor, Emery designed and detailed temporary shoring and bridge jacking plans to allow for bearing replacements and the resetting of slab spans to correct horizontal alignment of the bridge railing and perform other repairs to the 17-span slab span bridge while maintaining traffic throughout the work.
06/16 – 11/16	**MDOT, US-78/I-22 over Tallahatchie River Bridge Repairs, Union County, MS	*Shoring Engineer*.** On behalf of the repair contractor, Emery designed and detailed temporary top-down shoring to allow for partial demolition and reconstruction of the 3-span continuous box girder bridge.
08/13 – 08/14	**MDOT, US 84 WB over Mississippi River Pin & Link Replacements, Adams County, MS	*Assistant Project Manager*.** On behalf of the MDOT Bridge Division, Emery managed the preliminary engineering phase including assisting in the development of RFQ and RFP documents for a $4 million pin & link replacement project for the cantilevered through truss constructed in 1940.

16. Staff Experience:

Gresham Smith

Tom Tran, P.E.

Senior Bridge Engineer / Structures QA/QC

Years of experience with this employer	9
Years of experience with other employer(s)	22

Degree(s) / Years / Specialization	Bachelor of Science / 1991 / Civil Engineering, University of Central Florida		
Active registration number / state / expiration date	PE.0032072 / LA / Exp. 3/31/24		
Year registered	2005 (LA) 1996 (GA)	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Senior Bridge Engineer / Structures QAQC. Tom will provide quality control for the bridge design team.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
11/14 – 10/17	**MDOT, MS-309 Bridge Replacements, Marshall County MS | *Lead Bridge Engineer.*** Tom served as the design engineer for this project. The design included replacing full timber structures with AASHTO beam structures supported by either concrete piles or pipe piles. Span lengths ranged from 41' to 140'. Structure arrangements varied from 3-span to 6-span structures.
07/15 – 12/18 - Design	**GDOT, SR 15/Sandersville Truck Route GRIP Rural Widening and New Bridge Over Railroad Spur Line, Sandersville, GA | *Engineer of Record.*** Gresham Smith developed preliminary and final plans for a truck bypass project, including a combination of new alignment and existing roadway widening to create a four-lane section, as well as a new bridge over a railroad spur line. We developed a value engineering design utilizing a reduced median width and MSE walls to reduce the bridge length to reduce costs, including mitigation costs. We also developed the hydraulic analysis and design of a new triple 6-foot by 6-foot culvert at Sisters Church Creek.
10/19 – Ongoing	**MDOT, I-55 West Frontage Road Bridge Preservation (Bridge No.16.9C), Madison County, MS | *Lead Bridge Engineer.*** Gresham is performing Phase A & B Roadway Drainage analysis and design and bridge repair conceptual and final design for a bridge site with poor drainage and an embankment slide leading to damage to the end wall at the south end of the bridge. Tom is the lead structural design engineer for the phase "A" preliminary design of this fourspan prestressed concrete beam bridge over Old Highway 27 and KCS railroad. The bridge is 330 feet long and 80 feet wide and designed for AASHTO LRFD specification
11/13 – 10/14	**MDOT, Roadway WA #4: US 82 Underpass Bridge Removal at Leland, Leland, MS | *Senior Bridge Engineer.*** Gresham Smith was tasked with the US 82 Underpass Bridge Removal projects to provide a feasibility study and engineering design services as required to prepare Phase A (preliminary design) plans for removal of an abandoned railroad under-pass bridge and reconstruction of approximately 1,000 linear feet of US 82 near the Old Hwy. intersection in Leland.
01/13 – 06/14	**LADOTD, ITS Design and Implementation Services, WO#4: I-10 Twin Span ITS-Orleans & St. Tammany Parishes, Statewide, LA | *Senior Bridge Engineer.*** Tom led the detailed structural analyses of new camera poles and the DMS poles could be installed on the existing foundations within the bridge structure. The DMS pole required the design of a butterfly cantilever design to support the new front access LED DMS enclosure.

16. Staff Experience:

Gresham Smith

Yun Lin, Ph.D., P.E.

Bridge Engineer

Years of experience with this employer	4
Years of experience with other employer(s)	7

Degree(s) / Years / Specialization	Bachelor of Science / 2008 / Civil Engineering, West Virginia University, Master of Science / 2010 / Civil Engineering, Penn State University Doctor of Philosophy (Ph.D.) / 2015 / Structures, West Virginia University		
Active registration number / state / expiration date	PE. 0042444 / LA / Exp. 9/30/2022		
Year registered	2018	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities		Bridge Engineer / Dr. Lin will support the bridge design team and the bridge load rating efforts..	

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
Career	Dr. Lin relocated to Louisiana in 2015 and worked with John Weres with a different firm, prior to joining Gresham Smith in 2017. Dr. Lin's experience includes bridge inspection and rating, and bridge design. Dr. Lin is a trusted advisor to Midas for adapting their finite element analysis software for complex bridge analysis.
03/21 – Ongoing	**TDOT, Complex Bridge Load Ratings, Statewide, TN | *Project Engineer*.** Complex structures were analyzed utilizing finite element methods and CSi Bridge software. The structures load rated consisted of curved steel tub girders, steel arches with steel cables supporting steel floor beam – stringer systems, deck trusses, bascule arched steel truss, steel girder-floor beam-stringer system bridges, steel rigid K-frame bridges, and reinforced concrete rigid k-frames with spliced prestressed girders for center span bridges. The standard structures were analyzed using the AASHTOWare BrR software. Dr. Lin led the modeling and analysis of complex structures utilizing both CSiBridge and Midas programs where appropriate.
01/20 – 05/20	**LADOTD, Complex Bridge Inspections, District 08 Bridges | *Bridge Inspector*.** As an NHI Certified Team Leader, Dr. Lin provided bridge inspection services for the Concrete Segmental Bridge in Boyce LA and also for the LA 1 truss bridge in Simmesport, LA.
01/16 – 07/17	**MDOT, Mississippi Bridge Load Ratings, Statewide, MS | *Designer*.** Dr. Lin performed load rating calculations for three bridges in Mississippi. To include the special truck load for Mississippi, he created a stand-alone bridge load rating Spreadsheet (LFR) for three bascule bridges in Mississippi. The program included all load rating vehicles, all required trucks by MDOT, as well as, permit trucks with customized axle loads.
05/18 – 08/18	**LADOTD, Complex Bridge Inspections, GNO Bridge No. 1 | *Bridge Inspector.*** Dr. Lin served as on-site inspector and prepared the inspection report for the GNO Bridge No. 1 in New Orleans. Duties included the hands-on inspection of the fracture critical truss elements utilizing bridge access equipment.

16. Staff Experience:

Gresham Smith

Herbert "Bert" Moore, II, P.E., PLS, PTOE

Project Executive

Years of experience with this firm/employer	7
Years of experience with other firm(s)/employer(s)	16

Degree(s) / Years / Specialization	Bachelor of Science / 1999 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.0031065 / LA / Exp. 9/30/22 | PTOE 2728 / Exp. 9/30/24 | PLS 5043 / LA / Exp. 9/30/22		
Year registered	2004(PE); 2009(PTOE); 2010(PLS)	**Discipline**	P.E./Civil, PLS, PTOE
Contract role(s) / brief description of responsibilities	Project Executive / Bert will support the traffic, design, and analysis / engineering tasks for this contract.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
Career	As the District Traffic Operations Engineer of District 61, Bert was responsible for the operation and maintenance of the traffic signals, signing and striping along all of the state routes within the study area (LA 408 (Hooper), LA 3034 (Sullivan and Wax) and LA 37 (Greenwell Springs Road). Additionally Bert was responsible for the review and approval of traffic studies in the area including the study performed by Urban Systems for the intersection of Hooper at Sullivan for the Green Light Plan. Since leaving the department, Bert has continued to work on projects along Hooper Road, LA 3034 and LA 37.
04/20 – Ongoing	**City of Central (LA), Hooper Road (LA 408) at Sullivan Road (LA 3034) Roundabout Design | *Senior Transportation Engineer*.** Gresham Smith was tasked with the full roundabout design to be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Bert has assisted the team with roundabout analysis, temporary traffic control and sequencing of construction.
07/18 – 12/21	**LADOTD, LA 37: Sullivan Road to Liberty Road Stage 0 Feasibility Study, Baton Rouge, LA | *Project Executive*.** Collected and reviewed over 580 crash reports over a span of three years from the state highway crash database and collected ADT data on 21 segments of LA 37 and intersecting streets, peak hour turning movement counts at 12 significant intersections and 15-minute counts along 38 driveways and insignificant side streets. The reports were reviewed and evaluated using the safety triage safety tool box. Traffic analysis will be performed using HCS and Synchro and other software tools as needed. We reviewed historic traffic volume counts and TransCAD models and performed count analyses to develop regional growth rates for the study area.
06/19 – Ongoing	**LADOTD, Complex Bridge Inspections, Task Orders 1, 3, and 4, Statewide LA | *Project Executive***. Bert serves as the Project Executive responsible for ensuring that all aspects of the work are performed in accordance with contract requirements. Bert also serves as the lead Traffic Engineer responsible for development of the traffic control plans and coordination with DOTD District Traffic Engineers.

10/17 – 04/18	**LADOTD, US 90 Bridge Maintenance over I-10 Ramps, Transportation Management Plan (TMP), Lake Charles, LA	*Project Executive.*** Gresham Smith was selected to develop a TMP for the replacement of the bridge deck of the US 90 overpass over I-10 in Lake Charles, LA. The project included working with the design engineers to determine the required lane closures for the construction, data collection and queue and safety analyses. Bert was responsible for the overall study including overseeing the data collection review, conducting the queue and safety analysis, implementing the proper traffic control plans and development of the TMP report.
04/18 – 05/19	**LADOTD, I-10 TMP West of LA 108 to I-210 Interchange TMP, Lake Charles, LA	*Project Executive.*** Gresham Smith developed a TMP for the Rubbelization and Overlay on I-10 between I-210 and the LA 108 Interchange in Lake Charles, LA. This project included the mill and overlay of I-10, widening two flat deck bridges on I-10 to add a lane, and replacing all of the concrete panels on I-10 through the LA 108 interchange. In order to replace the concrete panels on I-10, traffic was moved to a C/D road within the interchange and cloverleaf ramps were closed during construction. Two temporary traffic signals were designed to facilitate traffic at this interchange. This project included data collection and queue and safety analyses and traffic signal design. Bert was responsible for the overall study including overseeing the data collection review, conducting the queue and safety analysis, implementing the proper traffic control plans, development of the TMP report, the design of two temporary traffic signals and QA/QC.
05/17 – 03/19	**LADOTD, I-210 at LA 1138-2 (Nelson Road) Interchange Modification Re-Evaluation Study, Lake Charles, LA	*Project Executive.*** Gresham Smith was selected to develop a calibrated VISSIM model to model existing conditions and the future proposed diverging diamond interchange at I-210 at Nelson Road in order to evaluate the proposed interchange design. The project included data collection, development of growth rates, lead the Road Safety Assessment, developing and calibrating an existing VISSIM model and evaluation of the proposed alternative. Bert was responsible for the overall study, overseeing data collection, conducting safety analysis, development of VISSIM models, development of alternatives and the report.
04/20 – 09/20	**LADOTD, Complex Bridge Inspections, Statewide, LA	Task Order 2 - Emergency Bridge Repairs, US 71 in Downtown Shreveport, LA	*Project Executive*.** In April 2020, a train derailment damaged Bent 3 of the Spring Street Bridge forcing the roadway closure. Gresham Smith was selected to perform the bridge repairs to open the bridge. Working with the selected contractor, helical piles were designed to support the new column foundations and crash wall. Bert served as Project Executive (Principal) and assisted with DOTD coordination.
11/08 – 11/14	**LADOTD, Baton Rouge, LA	*District Traffic Operations Engineer*.** While at LADOTD, Bert was responsible for reviewing, approving and developing temporary traffic control plans for all construction and maintenance work on the state highway system, which included the yearly inspections of all the on system bridges each year by district forces and consultants. These bridges included all of the I-10 bridges through the Baton Rouge region and over the Mississippi River. Bert was also responsible for Transportation Management Plans (TMPs) required for construction projects on these bridges.
Certifications (See section 20)	• DOTD Traffic Engineering Analysis Process & Report – Modules 1, 2 and 3 • U.S. Department of Transportation Federal Highway Administration – DPFA Certification • LADOTD – Highway Safety Manual Workshop NCHRP 17-38 • Louisiana Local Technical Assistance Program – Regional Crash Data Workshop • American Traffic Safety Services Association –Traffic Control Supervisor, LA State Specific

16. Staff Experience:

Gresham Smith

Rebecca Murray, P.E., PTOE, RSP1

Traffic Engineer

Years of experience with this employer	6
Years of experience with other employer(s)	0

Degree(s) / Years / Specialization	Bachelor of Science / 2015 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.0043788 / LA / Exp. 3/31/24 | PTOE 4861 / Exp. 3/26/23 | RSP1 611 / Exp. 4/5/24		
Year registered	2019 (LA) 2020 (PTOE) 2021 (RSP1)	**Discipline**	P.E./Civil; PTOE; RSP1
Contract role(s) / brief description of responsibilities	Traffic Engineer / Rebecca will assist with the traffic analysis and design related tasks.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
07/18 – 12/21	**LADOTD, LA 37: Sullivan Road to Liberty Road Stage 0 Feasibility Study, Baton Rouge, LA | *Engineer.*** Collected and reviewed over 580 crash reports over a span of three years from the state highway crash database and collected ADT data on 21 segments of LA 37 and intersecting streets, peak hour turning movement counts at 12 significant intersections and 15-minute counts along 38 driveways and insignificant side streets. The reports were reviewed and evaluated using the safety triage safety tool box. Traffic analysis will be performed using HCS and Synchro and other software tools as needed. We reviewed historic traffic volume counts and TransCAD models and performed count analyses to develop regional growth rates for the study area. Rebecca assisted with review of the count data, development of growth rates, crash data analysis and traffic analysis.
6/19 – Ongoing	**LADOTD, Complex Bridge Inspections, Task Orders 1, 3, and 4, Statewide LA | *Engineer.*** Rebecca serves as the engineer assisting with the development of traffic control plans for bridge inspection in accordance with the LADOTD TTC plans. Rebecca also assists with the coordination with DOTD District Traffic Operations Engineers.
04/18 – 04/19	**LADOTD, I-10 Transportation Management Plan (TMP) West of 108 to I-210 Interchange, H.009620.5, Calcasieu Parish, LA | *Pre-Professional.*** LADOTD developed design plans for the Rubblization and Overlay of I-10 from just west of the LA 108 interchange to the I-210 interchange. This project includes a full closure on I-10 diverting traffic to the ramps. This diversion required 2 cloverleaf ramps to be closed and temporary traffic signals to be installed at the ramps. Rebecca assisted with the traffic and crash analysis, and the development of the TMP documentation for this project and revision of the TMP that was performed the I-210 redecking project as well as traffic signal design plans for the traffic signals.
10/17 – 04/18	**LADOTD, I-10 at US 90 Lockmoor Bridge Transportation Management Plan (TMP), H.013076.5-1, Lake Charles, LA | *Pre-Professional.*** LADOTD oversaw the design of planned bridge maintenance of the US 90 bridge that operates as an on ramp to I-10 Eastbound. This bridge crosses over mainline I-10 for both the Eastbound and Westbound directions as well as the Westbound Off Ramp and Eastbound On Ramp to/from PPG drive. We were selected to develop the TMP to identify the challenges and strategies to address these challenges in order to minimize the traffic delays associated with the lane closures, demand volumes and incidents within the construction limits. Rebecca assisted with the traffic and crash analysis and the TMP documentation.
Certifications (See section 20)	• Traffic Engineering Analysis Process & Report – Modules 1, 2 and 3 • American Traffic Safety Services Association – Traffic Control Technician, LA State Specific; Certified Flagger; Traffic Control Supervisor, LA State Specific

16. Staff Experience:

Michael Baker International

Daniel Thornhill, P.E.

Drainage Design Manager

Years of experience with this firm/employer	2
Years of experience with other firm(s)/employer(s)	22

Degree(s) / Years / Specialization	Bachelor of Science / 1997 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.0032367 / LA / Exp. 9/30/24		
Year registered	2006	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Drainage Design Manager / Daniel will lead design efforts for the drainage/hydraulics/hydrology for roadway and channels.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.***, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
05/12 – 01/18	**LADOTD, Juban Road (LA 1026) Widening, Livingston Parish, Louisiana. Livingston Parish	*Project Manager/Engineer***. Responsible for the layout of horizontal and vertical alignments for the widening of existing 2-lane roadway to a 4-lane boulevard with three multi-lane roundabout intersections which includes sidepaths along both sides of roadway from first roundabout (at Juban Crossing 5th Driveway) to US 190 (Florida St.). Mr. Thornhill was the lead drainage engineer who oversaw the development of existing drainage maps along with the development of design drainage maps. He was responsible for the development of drainage flows for a combination of sub-surface and ditch drainage along with inlet spacing and sizing of sub-surface drainage pipe. Project involved utilizing LADOTD Hydraulics Manual and HYDRWIN software.
03/14 – 08/15	**LADOTD, I-12 Entrance Ramp at Millerville Road, East Baton Rouge Parish, Louisiana. East Baton Rouge Parish	*Project Manager/Engineer***. Responsible for the design of a new westbound entrance ramp from Millerville Road to I-12. Project included widening of Millerville Road to accommodate new double left turn lanes at new intersection at new development. Project included developing traffic control plans for lane shift of three (3) lanes along I-12 to provide protection for construction workers while building the new entrance ramp along with addition of new traffic signal and removal of existing traffic signal at another intersection. Additional responsibilities included the lead drainage engineer responsible for the development of existing and proposed drainage maps, hydraulic flow calculations for both inlet spacing and ditches along the new ramp and westbound I-12.
05/16 – 01/18	**Calcasieu Police Jury, Ham Reid Road at Lake Street (LA 3092) Intersection Improvement Project, Lake Charles, Louisiana	*Project Engineer/Manager.*** Responsible for the production of Construction Plans for a new Single Lane Roundabout at the intersection of Ham Reid Road and Lake Street (LA 3092). Permit project for Calcasieu Parish through DOTD District 7. Aided in the development of existing and proposed drainage maps to accommodate the sub-surface drainage at the roundabout and the ditches along the remainder of the entrance and exit legs of the roundabouts to where the project tied into existing pavement width.
08/16 – 06/17	**East Baton Rouge Department of Transportation and Drainage, W. Parker Blvd Intersection Improvement, East Baton Rouge Parish, Louisiana. East Baton Rouge Parish	*Project Manager.*** Responsible for the addition of a left turn from W. Parker Blvd onto Burbank Dr. Project included the removal and replacement of existing sidewalks to adhere to ADA standard. Project tied to DOTD maintained LA 42 (Burbank Dr). Project included the addition of catch basins to capture the flow for the

	new turn lane, replacement of existing clay sub-surface drainage with reinforced concrete pipe, along with grading behind the curb to drain the neighboring properties.
11/21 – Ongoing	**LADOTD, US 371: KCS RR Overpass HBI, Webster Parish, Louisiana. Louisiana Department of Transportation and Development	*Project Manager.*** Responsibilities include design of alignments and bridge layouts along with the management of schedule and invoices for the replacement of 3 bridges at 2 locations in Webster Parish along US 371. First location is the replacement of a single bridge in the town of Sibley and the second location is replacement of two parallel bridges just north of the interchange with I-20. Additional responsibilities include the development of construction plans, coordination with KCS Railroad and DOTD Railroad Section, and development of existing and proposed drainage maps for the roadway drainage.
12/06 – 06/10	**East Baton Rouge Department of Transportation and Drainage, Green Light Plan (GLP), East Baton Rouge Parish, Louisiana	*Project Manager.*** Responsible for the negotiations of contracts, oversaw design and development of construction plans of 7 projects in East Baton Rouge Parish. Additional responsibilities included obtaining utility agreements, clearance of right-of-way, and development of bid documents. All projects included combination of sub-surface and ditches along with hydraulic calculations for new bridge/box culvert crossings: • **Siegen Lane** - Highland Road to Perkins Road **(DOTD Roadway)** • **Highland Road** - Old Perkins Road to Airline Highway **(DOTD Roadway)** (Included new bridges and railroad coordination for at grade crossing) • **Jones Creek Road** – Coursey Blvd to South Harrell's Ferry Road (Included new bridges) • **South Harrell's Ferry Road** – Millerville Road to O'Neal Lane (Included new box culvert bridge) • **O'Neal Lane** – South Harrell's Ferry Road to just south of I-12 **(DOTD Roadway)** • **Lobdell Avenue** – Government Street to Florida Blvd • **Ford Street** – Plank Road to Mickens Road
05/98 – 11/00	**East Baton Rouge Department of Transportation and Drainage, Bluebonnet Road Realignment, EBR DPW, East Baton Rouge Parish, Louisiana	*Project Engineer.*** Responsible for hydraulic/hydrology study for two existing drainage channels designed the sub-surface drainage for a new 4-lane roadway with medians, developed existing and proposed drainage maps, performed inlet spacing analysis along with development of subsurface drainage system, assisted with the horizontal and vertical layouts, and aided in the preparation of contract plans in accordance to East Baton Rouge Standard Plans and Specifications. Project crossed or tied into three DOTD maintained roadways (I-10 Interchange, LA 73 (Jefferson Hwy), and US 61 (Airline Hwy).
04/99 – 09/99	**East Baton Rouge Department of Transportation and Drainage, Baton Rouge Metropolitan Airport Entrance Road Improvements, East Baton Rouge Parish, Louisiana	*Project Engineer.*** Responsible for hydraulic/hydrology study for the design of subsurface drainage for the realigned entrance roads for the airport and the sizing of the bridge structure over Monte Sano Bayou based on hydraulic analysis. Project included a series of road realignments to tie into new parking garage and improved terminal entrance.
08/97 – 11/00	**LADOTD, Off-System Bridge Replacement, Rapides Parish, Louisiana. Louisiana Department of Transportation and Development	*Project Engineer***. Responsible for the development of hydraulic design for six off-system bridges in Rapides Parish. Hydraulic design included the delineation of drainage basins, calculation of hydraulic flows, sizing of channel opening through both WSPRO and HEC-RAS and setting the low chord for each bridge structure.

16. Staff Experience:

Michael Baker International

Brandon Pitre, P.E., RSP$_1$

Drainage Engineer

Years of experience with this firm/employer	2
Years of experience with other firm(s)/employer(s)	7

Degree(s) / Years / Specialization	Master of Science / 2012 / Civil Engineer, Texas A&M University Bachelor of Science / 2010 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.0040975 / LA / Exp. 3/31/23		
Year registered	2016	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Drainage Engineer / Brandon will assist with design efforts for the drainage/hydraulics/hydrology for roadway and channels.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.***, **"designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
06/18 – 12/19	**LADOTD, US 90 Ramps at LA 88 Roundabouts, New Iberia, LA, Highway Safety Design Retainer | *Roadway Design Engineer.*** Project whose scope consisted of converting the eastbound and westbound US 90 ramp terminals into two multi-lane roundabouts, along with making improvements to the existing drainage network to increase hydraulic capacity. Responsible for roadway design and plan production, completing the 100% Preliminary Plans based on comments from the client at the Plan-In-Hand meeting. This involved making several changes to the MicroStation files by modifying the typical pavement sections and details, revising the construction sequencing layout, modifying the drainage design, and creating the permanent signing and pavement marking layout sheets. Since the location is considered a flood-sensitive area, the project scope also consisted of re-grading and widening of roadside ditches along with replacement of existing sub-surface drainage structures with more than 1,000 feet of larger sized concrete drainage pipes to mitigate flooding. Responsible for the hydraulic analysis and drainage design utilizing LA DOTD's HYDRWIN software to size the proposed drainage inlets, sub-surface drainage pipes, and roadside ditches. All necessary drainage calculations were included in the hydraulics report. Developed and delivered the 100% Final Plans which involved determining the required quantities of the required construction items and developing the accompanying construction cost estimate.
12/17 – 07/18	**LADOTD, US 190B at Jefferson Avenue Roundabout Design, Covington, Highway Safety Design Retainer | *Roadway Design Engineer.*** Responsible for design and plan production for this project whose scope consisted of converting a 4-way intersection into a single-lane roundabout. Responsible for completing 100% Preliminary Plans based on comments from the client at the Plan-In-Hand meeting. This involved making several changes to the MicroStation fi les such as revisions to the typical pavement section and details, plan and profile sheets, and construction sequencing sheets. Since this area is prone to street flooding, the project scope required the addition of sub-surface drainage. Project site is located in a downtown area with several small businesses located around the intersection; therefore, right-of-way takings needed to be minimized and ideally non-existent. As a result, the design to convert some of the drainage via roadside ditches to sub-surface drainage. Responsible for the hydraulic analysis and drainage design utilizing LA DOTD's HYDRWIN software to size the proposed drainage inlets, more than 200 feet of sub-surface drainage pipes, and roadside ditches. All necessary drainage calculations were included in the hydraulics report. Developed the 60% Final Plans which involved determining the required construction items and developing the accompanying construction cost estimate.

10/16 – 01/17	**LADOTD, I-12 Widening, LA 21 to US 190, Covington | *Transportation Engineer*.** Responsible for drainage analysis and design utilizing LA DOTD's HYDRWIN software (primarily based on peak design flow) to ensure that existing cross drains were hydraulically adequate based on new interstate construction. This analysis was needed for all mainline concrete converts as well as all drainage structures that crossed underneath the entrance and exit ramps. Performed hydraulic calculations and created existing and design drainage maps as well as composed the accompanying hydraulics report.
11/15 – 06/17	**St. Tammany Parish Public Works, Francis Road Extension, Covington, LA. | *Project Intern.*** Assisted in design and plan production of a 2-lane asphalt roadway extension project to better serve local community by providing better connectivity between local subdivisions and recreational facility. Responsible for conducting drainage analysis to compare pre- and post-development drainage design and to determine required culvert sizing for required cross drain underneath the new, proposed roadway and verifying hydraulic adequacy for existing culverts. Drainage analysis was performed using the Autodesk Storm and Sanitary Analysis (SSA) software.
11/21 – Ongoing	**LADOTD, US 371: KCS RR Overpass HBI, Webster Parish, Louisiana. Louisiana Department of Transportation and Development | *Project Engineer.*** Responsibilities include design of alignments and bridge layouts along with the management of schedule and invoices for the replacement of 3 bridges at 2 locations in Webster Parish along US 371. First location is the replacement of a single bridge in the town of Sibley and the second location is replacement of two parallel bridges just north of the interchange with I-20. Additional responsibilities include the development of construction plans, coordination with KCS Railroad and DOTD Railroad Section, and development of existing and proposed drainage maps for the roadway drainage.
03/16 – 10/17	**LADOTD, Pavement Preservation Retainer, Bossier, Claiborne, and East Feliciana Parish, Louisiana | *Transportation Engineer.*** Served as lead engineer on design and production of letter-size construction plans for three roadway rehabilitation projects. Responsible for conducting field surveys which included tasks such as establishing centerline stationing, documenting existing pavement and guardrail conditions, measuring existing driveways, turn-outs, mailboxes, cross drains, and guardrail length. Developed construction plans which included summary sheets of estimated quantities of required construction items, typical roadway section sheets, and all applicable special detail sheets.
12/19 – 08/20	**TxDOT, I-2 Design Build, Pharr, Texas | *Transportation Engineer*.** As part of the retaining wall team for this interstate widening project, responsible for utilizing Power GeoPak to extract relevant horizontal and vertical alignment data for the retaining walls, including bridge abutment walls at overpass structures, from the 3D roadway model. Also responsible for creating the plan and profile sheets along with all relevant typical section detail sheets to show the type of wall construction required for the proposed retaining walls along the interstate corridor.

16. Staff Experience:

Michael Baker International

Mohamed Bagha, P.E., CFM, PMP

Drainage Engineer/QA/QC Manager

Years of experience with this firm/employer	16
Years of experience with other firm(s)/employer(s)	6

Degree(s) / Years / Specialization	Master's Certificate/ 2011 / Project Management Program, University of Pittsburgh Master of Science / 2003 / Civil Engineering, The State University of New York at Buffalo Bachelor of Science / 1998 / Civil Engineering, National Institute of Technology, Nagpur, India		
Active registration number / state / expiration date	P.E.102919 / TX / Exp. 3/31/2023		
Year registered	2006	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Drainage Engineer / Mohamed serve as a QA/QC manager for the drainage/hydraulics team.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
12/20 – Ongoing	**LADOTD, Louisiana Watershed Initiative (LWI) Modeling, Regions 1, 4, and 6	*Deputy Project Manager.*** Mr. Bagha will serve as the Deputy PM and the client's main point of contact. He is the lead technical staff member who will oversee the daily work required to deliver the work on these contracts. The projects involve developing and calibrating comprehensive hydrologic, hydraulic, coastal and consequence models for multiple HUC- 8 watersheds in Regions 1,4, and 6 in Louisiana. Contract execution and task orders assignments are pending. Michael Baker will locate previous watershed studies that took place in each HUC8 and acquire, document, and convert LiDAR data for each watershed.
05/20 – 4/21	**TxDOT Houston District, Loop 494 at Caney Creek, Montgomery County, TX	*Project Manager.*** Served as project lead for H&H analyses and drainage design for the fast-tracked project to replace an 1066' long hydraulically and structurally deficient bridge carrying LP 494 over Caney Creek in Montgomery County. Developed bridge alternatives, incorporating skewed abutments and bent alignments to minimize obstruction to flow. Located bents outside channel banks to reduce obstruction. Developed existing and proposed hydrologic and hydraulic models for watershed, and developed bridge geometry and opening sizes that met design criteria, incorporated freeboard, and did not cause adverse hydraulic impacts upstream and downstream of TxDOT Right of Way. The design was completed in 9 months, ahead of the 11 month schedule, Evaluated and mitigated net fill placed in the floodplain using minor channel grading to restore floodplain storage volume.
10/20 –9 /21	**TxDOT Houston District, LP 494 at FM 1485, Montgomery County, TX	*Drainage Manager.*** Served as team lead for H&H analyses and drainage design on this roadway widening project, which included the design of storm sewers, roadside ditches, a bridge—class culvert and a minor culvert within project limits. Performed hydrologic analysis to determine appropriate design discharges, developed unsteady hydraulic models to establish design water surface elevations. Sized culverts and storm sewers to convey design storm event, without increasing flows or water surface elevations upstream or downstream. Developed culvert layouts, ditch horizontal and vertical alignments, and storm sewers with in-line restrictors to create attenuation to offset runoff increases from additional impervious cover. .
04/21 – 3/22	**TxDOT Houston District, FM 1791, Montgomery County, TX	*Project Manager.*** Served as team lead for H&H analyses and drainage design on proposed 3.5 mile roadway widening project, which involved the reconstruction of 2 bridges, 1 bridge class culvert and 7 minor culvert crossings. Also designed roadside ditches for the length of the project. Evaluated hydrology and

	hydraulics for each crossing, developed design discharges and water surface elevations, and sized replacement structures that did not exacerbate flood risks outside ROW limits. Developed bridge layouts and culvert layouts for each structure to be replaced, and developed ditch designs with inline attenuation using inline weirs. Used Xp-SWMM to demonstrate the attenuation effect provided by the culverts. Evaluated and mitigated net fill placed in the Caney Creek and Caldwell Creek floodplains as a result of the proposed project.
01/18 – 03/21	**TxDOT, I-37 Engineering and Environmental Services, Corpus Christi, TX | *Task Manager.*** Task lead responsible for drainage design. Performed hydrologic and hydraulic modeling for existing and proposed conditions at Nueces River bridge crossing, performed impact analysis and mitigation. Developed drainage report, coordinated with client. Michael Baker provided structural, environmental, and hydrological engineering services for the PS&E for the widening of I-37 in Corpus Christi. Its services included preparing roadway and bridge designs, hydrologic and hydraulic designs, designs for stormwater drains and traffic signals, surveying, geotechnical data collection, subsurface utility engineering, and design support. It also prepared environmental permitting to meet the guidelines of the Clean Water Act and the Rivers and Harbors Act.
10/12 – 5/15	**Harris County Flood Control District, Cypress Creek Overflow, Harris County, TX | *Project Manager.*** Responsible for hydrologic modeling of existing conditions and various proposed structural mitigation alternatives using HEC-HMS, modeling channel enhancements using HEC-RAS 1-D steady and 1-D unsteady models and XP Storm 2-D models to better understand the amounts, locations and intensities of overflow to be managed under various mitigation scenarios. Responsible for invoicing, client coordination, subconsultant coordination, attending stakeholder meetings and client meetings. Michael Baker performed a study to reduce flood risks associated with overflow from Cypress Creek into the drainage areas upstream of Addicks and Barker reservoirs and to understand drainage impacts from development in northwest Harris County and avoid future drainage problems. Michael Baker defined the quantity, extent, and depth of Cypress Creek overflow and local runoff using a coupled XP-STORM 1D-2D model, using effective models adjusted for subsidence. Michael Baker up-dated the models to reflect future development and sized improvements needed to mitigate impacts of future development.
08/16 – 05/18	**TxDOT TPP Division, I-10 Schematic, San Antonio to Columbus, TX | *Drainage Task Lead.*** The purpose of this project was to increase capacity to meet growth demand and alleviate traffic congestion along a 120-mile rural section of I-10. Mohamed led the drainage analysis, preliminary design, and impact mitigation. He used H&H models to evaluate cross-drainage flows, elevations, and velocities and analyze the adequacy of 150 cross-drainage structures, including 44 bridges. One challenge was addressing the uncertainty of peak flows through multiple openings in a wide floodplain. I-10 crosses major rivers with wide floodplains and multiple openings. As a solution at Cibolo Creek, Mohamed developed 2-D hydraulic models to analyze flows arriving at each of the three openings on Cibolo Creek, adjusted frontage road and main lane roadway profiles, and adjusted bridge/culvert hydraulic openings to meet the design criteria. The new drainage design improves public safety with bridges conveying the design storm event and frontage road and main lane profiles being elevated to avoid flooding, all without creating additional adverse impacts upstream or downstream. Kyle Crossing, River Ridge, and Guadalupe Street Improvements, Hays County,
09/15 – 11/17	**TxDOT Austin District, Kyle Crossing, River Ridge, and Guadalupe Street Improvements, Hays County, TX | *Drainage Manager.*** Served as team lead for H&H analyses and drainage design on I-35 ramp reversal project through Hays County. Developed existing and proposed hydrologic and hydraulic models for onsite drainage features and cross-drainage (offsite channels). Designed new bridge openings for two new frontage bridges at Plum Creek and San Marcos River. Performed impact assessment to quantify and mitigate impacts of proposed fi ll including increases in peak flows, velocities, and water surface elevations. Developed HEC-HMS, HEC-RAS, HY8 and EPA SWMM models in support of this analysis. Evaluated and mitigated net fill placed in the floodplain as a result of the proposed ramp reversal project.

16. Staff Experience:

Michael Baker International

Yingjian "Jim" Han, P.E., CFM

Drainage Engineer

Years of experience with this firm/employer	1
Years of experience with other firm(s)/employer(s)	15

Degree(s) / Years / Specialization	Master of Science / 2005 / Environmental Engineering, Vanderbilt University		
Active registration number / state / expiration date	P.E.0035782 / LA / Exp. 3/31/23		
Year registered	2010	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Drainage Engineer/Modeler / Jim will participate with design efforts for the drainage for roadway and hydraulics/hydrology modeling for channels.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
12/12 – 06/13	**LADOTD, Highway LA 66 Bridge over Bayou Sara Rehabilitation, St. Francisville, Louisiana | *Lead Hydraulic Engineer.*** Responsibilities included serving as lead bridge hydraulic engineer for this bridge rehabilitation project, worked with roadway and structural engineers to evaluate new bridge and approaching roadway alignment and bridge low chord elevations, developed the bridge hydraulic models by using HEC-RAS to model the bridge's existing and proposed conditions under 50-yr, 100-yr, 200-yr and 500-yr flood events and Calculated the bridge scour depths and designed the bridge scour countermeasures by following the guidelines of DOTD 2011 Hydraulics Manual, FHWA HEC-18 and HEC-23
09/20 – 06/21	**Harris County Flood Control District, Cedar Bayou Watershed Channel Q122-00-00 Preliminary Engineering Study | *Drainage Engineer.*** Responsibilities included leading efforts for 1D and 1D-2D coupled HEC-RAS unsteady state models development, stabilized the 1D and 1D-2D coupled HEC-RAS unsteady state models by changing time steps, channel cross section spacings, lateral weir modeling methods, 1D-2D iterations, and 1D and 2D calculation tolerances, developed survey and geotechnical investigation scopes of services to support channel improvement and detention basin designs and managed project schedules, progress reports, invoices, and sub-consultants.
03/19 – 06/21	**TxDOTD, I-30 Widening from Linkcrest Drive to I-820 - Schematic and PS&E | *Drainage Engineer.*** Responsibilities included leading the drainage study of the schematic phase in which the drainage crossings were modeled by HY-8 and HEC-RAS, updated the effective FEMA HEC-RAS model to the proposed condition to demonstrate that the roadway widening project has no adverse impact to Mary's Creek in Zone AE, coordinated with TxDOT District Hydraulic Engineer to ensure the modeling methods to meet NFIP and TxDOT criteria and designed the storm sewer systems including inlets, laterals, and trunk lines during the PS&E phase of the project using Geopak Drainage.
12/17 – 07/20	**TxDOT, FM 1960 Roadway Improvement PS&E | *Drainage Team Lead.*** Responsibilities included working closely with roadway and bridge engineers to design a complex storm water conveyance system including two detention ponds to safely convey and detain the collected storm water runoff to downstream receiving drainage channels without adversely impacting the downstream flow conditions and properties, led a team of 3 professional engineers and 2 EITs including the staff from sub-consultants to develop a fully dynamic 1D XPSWMM model to simulate trunk lines, off-line detentions, and in-line detentions (over-sized storm sewer with restrictors), and led the PS&E development of the proposed drainage systems including storm sewer plans and profiles, detention basin grading and site plans, and outfall structures.

02/18 – 06/19	**TxDOT, FM 664 Bridge over Red Oak Creek Hydraulics Study	*Hydraulic Engineer.*** Responsibilities included serving as the bridge hydraulic study lead for this bridge replacement and widening project, worked with roadway and structural engineers to investigate different bridge design alternatives including complete replacement, widening the existing bridge, salvaging the existing bridge for NB traffic and constructing a new SB bridge, developed a HEC-RAS bridge model to support the preferred design alternative to show that the BFE (100-yr WSE) does not rise under the proposed condition, and prepared a bridge hydraulic report to document the existing conditions, bridge design alternatives, hydrology and hydraulic study assumptions, calculations and final conclusions.
11/15 – 01/17	**City of Sugar Land, Lexington Blvd & Highlands Section III Drainage Improvements	*Project Manager.*** Responsibilities included serving as both Project Manager and Lead Drainage Design Engineer for the local street and neighborhood flood mitigation projection in Sugar Land, established a dynamic unsteady-state XPSWMM H&H model to identify the existing storm system capacity deficiencies, developed several design alternatives based on the model results to reduce flood extents and depths, and prepared the bid package including the construction plan & project manual for the preferred design alternative chosen by the City of Sugar Land.
09/09 – 08/12	**USACE New Orleans, Hurricane and Storm Damage Risk Reduction System (HSDRRS) - West Bank and Vicinity, Hero to Oakville, Phase II, First Lift Levee Enlargement & Pumping Station, Plaquemines Parish, LA	*Project Engineer.*** Responsibilities included designing an earthen levee system in the marsh by using a sand platform as working base, coordination with other disciplines' design leaders to effectively resolve issues regarding engineering design and constructability, develop the construction plan & specification and prepared the final bidding package and provided the engineering services during construction and oversaw the contractor's performance.

16. Staff Experience:

Michael Baker International

Chris Conrad, CCP, EIT

Cost Analysis

Years of experience with this firm/employer	11
Years of experience with other firm(s)/employer(s)	25

Degree(s) / Years / Specialization	Bachelor of Science / 1989 / Structural Engineering, University of Colorado at Denver		
Active registration number / state / expiration date	E.I. 36579 / CO / N/A		
Year registered	1989	**Discipline**	E.I./Civil
Contract role(s) / brief description of responsibilities	Cost Analysis Professional / Conrad will participate in the preparation and review on construction cost estimates.		

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
01/19 – 04/20	**Virginia DOTD, Independent Cost Estimate for Rt. 58 Lover's Leap Design-Build, Patrick County, VA	*Cost Estimator*.** Cost Estimator for the performance of the Independent Cost estimate (ICE) for this design-build project. Worked with the estimating team to complete the independent cost estimate (ICE) for VDOT for this design-build project. Coordinated with the Design-Build Team (DBT) for the development of the plans to a level of approximately 30%. Developed the work plan; means and methods; major equipment; selection of major materials and subcontractors for the estimate. Coordinated to complete an independent design estimate and construction QA/QC estimate for the project. Reviewed the DBT's Project Schedule and provided recommendations to VDOT on the proposal level schedule. Submitted independent cost estimate to VDOT within 90 days of the start of the task.
08/17 – 01/18	**Naval Facilities Engineering Command, IDIQ for Architectural and Engineering Work for Multimedia Environmental Compliance Support	*Cost Estimator*.** Responsible for developing cost estimates based upon design submission criteria. Completed a one-year assignment providing on-site cost estimating services for the USACE Middle East Division. He was responsible for the development of multiple independent cost estimates for projects all over the region. Provided quantity takeoff, unit pricing, indirect cost factor development, conceptual construction schedule, execution analysis and cost report preparation, as well as submission. Also participated in client review and comment response resolution.
12/17 – Ongoing	**Connecticut DOT, Naugatuck Railroad Station Relocation, Naugatuck, Connecticut	*Cost Estimator*.** Responsible for developing cost estimates based upon design submission criteria. Provided quantity takeoff, unit pricing, indirect cost factor development, conceptual construction schedule, execution analysis and cost report preparation, as well as submission. Also participated in client review and comment response resolution. Michael Baker provided planning and conceptual design for construction of a new rail station on the site of an existing surface parking lot in order to provide high-level platform service for up to a four-car consist on the Waterbury branch line. The station is expected to further advance redevelopment efforts in downtown Naugatuck. Design elements include an Americans with Disabilities Act (ADA) compliant platform, canopies, retaining walls, elevator, stairs, ramps, station signage and graphics, electrical (power) and communications systems, and station site/civil items.
03/16 – Ongoing	**Connecticut DOT, Shore Line East Railroad Station Rehabilitations, Branford, Guilford, Madison, Clinton, and Westbrook, Connecticut	*Senior Cost Estimator*.** Responsible for cost estimating team to provide design phased

	submission cost estimates to validate current project budget. Michael Baker is providing planning, civil engineering, electrical engineering, architecture, and construction phase services for the upgrade of five passenger stations along the Shore Line East Railroad Line, a high-speed commuter and intercity passenger rail system serving portions of southeast Connecticut and providing connecting service to New York. The Shore Line East connects Old Saybrook to New Haven's Union Station and locations south toward Stamford and New York City
01/17 – 02/17	**Aviation Infrastructure Solutions, Pavement Condition Assessment, Hartsfield-Jackson, Atlanta International Airport (ATL), Atlanta, Georgia | *Cost Estimator***. Responsible for developing cost estimates based upon design submission criteria. Provided quantity takeoff, unit pricing, indirect cost factor development, conceptual construction schedule, execution analysis and cost report preparation, as well as submission. Also participated in client review and comment response resolution. Michael Baker captured high resolution imagery to perform nondestructive runway pavement inspections in a fraction of the time of traditional inspection teams. The project is being utilized as a test scenario to perform similar operations routinely to save time and budget over traditional means.

16. Staff Experience:

Michael Baker International

Brad Frable

Cost Analysis

Years of experience with this firm/employer	7
Years of experience with other firm(s)/employer(s)	22

Degree(s) / Years / Specialization	BSCET / 2000 / Structural Design and Construction Engineering Technology, The Pennsylvania State University, Harrisburg Campus		
Active registration number / state / expiration date	N/A		
Year registered	N/A	**Discipline**	N/A
Contract role(s) / brief description of responsibilities	Cost Analysis Professional / Brad will participate in the preparation and review on construction cost estimates.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
04/16 – 03/18	**Pennsylvania DOT, District 6-0 Bundled Bridge Program, Montgomery and Bucks Counties, Pennsylvania | *Construction Manager.*** Responsible for aiding with constructability and estimated costs. Michael Baker provided design and engineering services for repair and replacement of 10 structures under a D-6 Bundled Bridge Program. Routine inspections of these structures identified deficiencies that cannot be addressed through simple maintenance contracts. Therefore, all of the structures have been combined into one design project to be advertised under two separate construction contracts. Michael Baker provided project management; coordinated surveys; performed safety reviews; prepared type, size, and location (TS&L) plans, prepared waterway permit applications; and developed design field view submissions through plans, specifications, and estimates (PS&E) for each contract. Roadway tasks included final roadway, maintenance and protection of traffic, signing and pavement marking plans, erosion and sediment pollution control plans, and final structure plans. Final structures design included pay items, plan details, special provisions, and quantity and cost estimates.
07/17 – 09/17	**Pennsylvania DOT, College Avenue Bridge Replacement Construction Management Services, Delaware County, Pennsylvania | *Project Manager*** - Scheduling. As Project Manager/Scheduler, facilitated Project Control Meetings, reviewed the Contractor's Baseline CPM Schedule and Schedule Updates and facilitated issue resolution at the project level. Additionally, provided a Linear Schedule Analysis of the Contractor's CPM schedule that identified a sequencing revision that reduced the impact of a significant utility delay.
08/17 – 01/18	**West Virginia DOTD, Corridor H Quality Assurance Management (QAM) Services, Randolph and Tucker Counties, West Virginia | *Construction Manage*r.** Responsible for aiding with constructability and estimated costs. Michael Baker provided quality assurance management (QAM) for construction of Sections 1, 2, and 3 of the Corridor H highway from Kerens to Parsons. During a long-term relationship with the client, Michael Baker served as the owner's representative to provide all the services needed from pre-award phase, through post-award and construction stages of their largest ever construction project being executed as design-build.
12/17 – Ongoing	**Delaware River Joint Toll Bridge Commission, Scudder Falls Bridge Replacement, Final Design Services, Bucks County, Pennsylvania | *Construction Manager.*** Developed engineers schedule for the Scudder Falls Bridge Project, within P6, based on TS&L documentation, for the Hamilton Office's 60% submission to the DRJTBC. Also developed the engineer's

	estimate of the project cost, using HCSS HeavyBid. HeavyBid was acquired after the project assignment. HeavyBid required initial setup, of base databases to have the program function appropriately. Setup all of the initial labor, equipment, activity books, and established the biditem template for the program. Setup training with vendor to train additional staff. Assisted Hamilton Staff with additional constructability questions and reviews, for staging purposes and feasibility. Michael Baker is providing final design and post-design services for the Scudder Falls Bridge Replacement project.
07/19 – Ongoing	**Pennsylvania DOT, District 5-0, I-78 Bridge Replacement Construction Management and Construction Inspection Services, Berks County, Pennsylvania | *Construction Manager*.** Responsible for providing construction management services, including schedule review, project coordination with PennDOT and the Prime Contractor, and administering project control meetings. Also involved in day-to-day field solutions and aiding inspection staff with direction. Provided PennDOT with monthly cost summary reports. Michael Baker is providing construction management (CM) and construction inspection (CI) for an interstate project in District 5-0 in Berks County, Pennsylvania. Michael Baker is providing CM and CI staffing for various tasks, including meeting facilitation, value engineering, community relations, daily inspection, quality assurance for maintenance and protection of traffic, and environmental permit compliance oversight.

16. Staff Experience:

Michael Baker International

Gary Chodkowski, PE

Cost Estimator/Value Engineering Specialist

Years of experience with this firm/employer	27
Years of experience with other firm(s)/employer(s)	10

Degree(s) / Years / Specialization	Bachelor of Science / 1989 / Civil Engineering, University of Pittsburgh		
Active registration number / state / expiration date	P.E.0039376 / LA / Exp. 3/31/23		
Year registered	2014	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Cost Estimates/Value Engineering / Gary will be the lead cost estimator/value engineer serving as the QA/QC roll for costing and reviewing construction schedules.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
07/16 – 10/20	**ODOT, Main Broadway | *Cost Estimator.*** As Cost Estimator, Mr. Chodkowski provided cost estimates on various utility, bridge, highway, walls adjustments used to check contractor pricing for this $89M Interstate and Akron Interchange Replacement with 14 miles of urban/ interstate reconstruction, including 11 bridges (8 over railroad), 11 walls, and 4 noise walls.
03/18 – Ongoing	**Pennsylvania DOT, Tarentum Bridge Rehabilitation (Allegheny River), Tarentum, Pennsylvania | *Cost Estimator*.** As Cost Estimator, Mr. Chodkowski is providing cost and time information for preservation of Ramp B of the Tarentum Bridge Interchange. Michael Baker's services included bridge inspection; structure type, size, and location studies; right-of-way investigations; safety review; supplemental surveys; maintenance and protection of traffic during construction; utility investigations; and railroad grade crossing activities.
08/17 – 01/18	**KYDOT/INDOT, Sherman Minton Bridge, Louisville, Kentucky | *Construction Engineer*.** As a Construction Engineer, Mr. Chodkowski provided cost and time information for the rehabilitation of the major interstate river crossing into Louisville, Kentucky. He also developed a proposed heating insulated blanket system and cost for heating the tie-girder through the winter. Michael Baker performed construction management and inspection, in addition to fracture-critical inspection, for the rehabilitation of the 1,600-foot-long Sherman Minton Bridge, a double-deck tied-arch structure that carries I-64 eastbound and westbound and U.S. 150 over the Ohio River and connects Louisville, Kentucky, with downtown New Albany, Indiana. ***The project received the 2012 Project Achievement from the Construction Management Association of America.***
04/14 – 10/17	**ArDOT, Bella Vista By-Pass, Bentonville, Arkanasas | *Construction Engineer*.** As Construction Engineer, Mr. Chodkowski provided cost and scheduling data during construction of this new divided highway around Bentonville, Arkanasas. Michael Baker provided construction management and inspection services for the construction of the Bella Vista Bypass; approximately 6.37 miles of two-lane roadway with main lane, ramp, and overpass bridge structures extending from U.S. 71B to U.S. 72 South. Michael Baker's services included project management, construction management, and construction inspection.
08/16 – 02/17	**Pennsylvania DOT, Yellow Creek Bridge, Pennsylvania | *Cost Estimator*.** This project was the first Work Order of a five-year, $2,000,000 Open End Agreement with PennDOT Engineering District 10-0 enabled PennDOT to utilize Michael Baker's full spectrum of Preliminary Engineering, Final Design, and Environmental Services. The types of projects included, but were

	not limited to, bridge replacements or rehabilitations, roadway betterments, minor capital improvements, and minor location studies Mr. Chodkowski provided cost and time analysis during design of this road and bridge replacement over Yellow Creek in Pennsylvania.
06/15 – 12/16	**Pennsylvania DOT, Millfair Road Bridge and Roadway Improvements, Erie, Pennsylvania | *Cost Estimator/Scheduler*.** Mr. Chodkowski provided cost and time analysis for the route connecting road and railroad bridge crossing. Michael Baker provided engineering services for the realignment of Millfair Road (S.R. 4016), including two new bridges over existing railroads. Michael Baker's services included project management; preliminary and final roadway and bridge design; railroad coordination; and highway lighting, traffic control, traffic signal timing, pavement marking, and signing and sign lighting plans. Michael Baker provided oversight of surveys and the preparation of right-of-way plans, drainage and stormwater management plans, and erosion and sedimentation control plans by subconsultants.
12/03 – 12/05	**U.S. Army Corps of Engineers, Middle East District, Task 0010, A/E Services to Provide a Reconstruction and Rehabilitation Program Master Plan and Program / Integration Management Plan / Solicitation Package Development | *Cost Estimator*.** As Cost Estimator, responsibilities included providing parametric construction estimating services for the reconstruction of various bridges and roadways in Iraq. Michael Baker provided a team, both in Iraq and working in the U.S., to assist the client and the Coalition Provisional Authority (CPA) in the development of the Reconstruction and Rehabilitation Program Master Plan for the country of Iraq and the associated Program Management / Integration Management Plans / Solicitation Package Development to support the objectives of the CPA in the accomplishment of their assigned program.
08/14	**Sports and Exhibition Authority of Pittsburgh and Allegheny County, Lower Hill/Centre Avenue Infrastructure Project, Allegheny County, Pennsylvania | *Cost Estimator*.** As Cost Estimator, Mr. Chodkowski was responsible for generating an estimate and constructability reviews during the preliminary phase of design for this project. Michael Baker provided full-service site civil, transportation, and sustainable infrastructure design and engineering for the Lower Hill Redevelopment Site, a 28-acre parcel situated adjacent to Downtown Pittsburgh on the land formerly occupied by the Pittsburgh Civic Arena.

16. Staff Experience:

Michael Baker International

Nilesh Shringarpure, P.E., CFM

Drainage Engineer

Years of experience with this firm/employer	5
Years of experience with other firm(s)/employer(s)	10

Degree(s) / Years / Specialization	Master of Science / 2004 / Civil Engineering, Duke University Bachelor of Science / 1999 / Civil Engineering, Mumbai University		
Active registration number / state / expiration date	P.E.139719 / TX / Exp. 9/30/22		
Year registered	2020	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Drainage Engineer / Nilesh will participate with design efforts for the drainage for roadway and hydraulics/hydrology modeling for channels.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; ***i.e.***, **"designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
03/22 – 12/23	**LADOTD, Louisiana Watershed Initiative (LWI) Modeling Contract – Region 4, Louisiana | *Project Engineer***. Mr. Shringarpure is currently serving as a Project Engineer for LWI Region 4 which encompasses X HUC-8 watersheds totaling YY square miles of watershed area. He is computing parameters in support of development of hydrologic models in HEC-HMS that will be used in a complex two-dimensional unsteady HEC-RAS model.
02/22 – 03/22	**TxDOT, U.S. 81 Mainlanes Rehabilitation, Wise County, Texas | *Project Engineer*.** Mr. Shringarpure served as Project Engineer for roadway ditch design on a segment of the project. There were pockets of existing wetlands in existing ditches that needed protection during construction. Mr. Shringarpure applied best management practices in drainage design to avoid any impacts to these wetlands while providing adequate capacity and protection for the roadside ditches.
03/21 – 04/22	**TxDOT, FM 1791 from FM 149 to Walker County Line, Montgomery County, Texas | *Project Engineer*.** Mr. Shringarpure was the Lead H&H Engineer on this 3.4-mile rural two-lane roadway widening project. Mr. Shringarpure developed the design for one bridge-class culvert, minor cross culverts, and roadside ditches along the roadway corridor. Mr. Shringarpure developed an XP-SWMM model to size the ditches such that the hydraulic impacts due to the proposed widening are minimized. Mr. Shringarpure led the efforts to create drainage plans, specifications, estimates and to obtain drainage design approvals.
02/21 – 06/23	**TxDOT, U.S. 59 Hydrology and Hydraulics PS&E, Wharton County | *Lead Design Engineer***. Mr. Shringarpure is the Lead H&H Engineer on this project. This project involves upgrading U.S. 59 to a rural freeway standard since the route lies on the future I-69 corridor. The existing conditions consist of four lanes, divided, with a depressed median, while the proposed condition calls for six lanes, divided, with a median barrier. Mr. Shringarpure is leading the efforts to provide stormwater management solutions within the corridor to mitigate the stormwater impacts due to the proposed improvements. Mr. Shringarpure led the efforts to create drainage plans, specifications, estimates and to obtain drainage design approvals.
02/21 – 08/21	**TxDOT, SL 494 from FM1485 W to FM 1485, Montgomery County, Texas | *Lead Engineer*.** Mr. Shringarpure was the Lead H&H Engineer on this project. The proposed roadway improvement included widening the roadway by extending the left turn lane to provide additional storage. Mr. Shringarpure led the hydraulic design to provide adequate conveyance capacity while meeting the stormwater mitigation requirements. Mr. Shringarpure led the efforts to create drainage plans, specifications, estimates and to obtain drainage design approvals.

02/20 – 05/22	**TxDOT, I-2/I-69C Interchange project, Hidalgo County, Texas | *Project Engineer*.** The Texas Department of Transportation is proposing improvements to the interchange at I-2 at I-69C in Hidalgo County, Texas. The proposed project limits on I-2 are from 2nd Street in McAllen to FM 2557 (Stewart Rd) in San Juan and on I-69C from Nolana Loop to I-2 in Pharr. The proposed project will provide two lane direct connectors; reconfigure on and off ramps to optimize mobility; prioritize operational improvements to mainlanes; remove Sugar Road/Polk Road Overpass. Mr. Shringarpure designed dry detention ponds in certain segments of the project to mitigate the runoff generated due to the proposed improvements. Mr. Shringarpure created drainage detention plans, specifications, estimates and led the process to obtain drainage design approvals.
12/18 – 10/19	**Indiana DOT, CR 300 S/ New Airport Rd Slide Correction, Orange County, Indiana | *Lead Engineer*.** Mr. Shringarpure was the drainage design lead engineer on this project. The project entailed roadway realignment for an approximately 0.8-mile section of the road. The roadway, which was located in hilly and forested areas, presented significant geotechnical and environmental challenges. Mr. Shringarpure coordinated with multiple disciplines and created a hydraulic design that met the challenges presented by site conditions. Mr. Shringarpure designed the proposed storm sewer network, crossings and the detention design. Mr. Shringarpure created drainage plans, specifications, estimates, and hydraulic reports for approval by INDOT Hydraulics.
09/17 – 07/21	**Indiana DOT, US 50 Pavement Reconstruction from Agrico Lane to US 31, Jackson County | *Lead Engineer*.** Mr. Shringarpure was the drainage design lead engineer on this project. The project involved pavement reconstruction, addition of pedestrian path, adding travel lanes to one twin-bridge. There are four existing culvert crossings under the US 50 corridor that were upsized and replaced as part of the project improvements. Mr. Shringarpure designed the storm sewer network, the roadside ditches, and the cross culverts as part of the storm water management solution for this project. Mr. Shringarpure created plans, specifications, and estimates and compiled a hydraulic report for approval by INDOT Hydraulics.
02/21 – 04/21	**Harris County Flood Control District, Cypress Creek Watershed Bond Program Implementation Plan, Harris County, Texas | *Project Engineer***. Mr. Shringarpure was a Project Engineer on this project. He designed over ten large-sized dry detention facilities to provide storage volume identified in a regional study conducted by HCFCD in 2020 as a part of a preliminary design package. Mr. Shringarpure adopted the guidance provided in HCFCD Policy Criteria Procedures Manual to grade and design these detention facilities. He designed these facilities using AutoDesk Civil 3D and computed the excavation volumes for each facility. Mr. Shringarpure summarized the findings via exhibits and summary tables that were incorporated in a report.
02/22 – 06/22	**Harris County Flood Control District, J131-01-00-E001 Preliminary Engineering Report, Harris County, Texas | *Project Engineer*.** As a Project Engineer, Mr. Shringarpure designed three detention facilities as a part of a storm sewer and channel conveyance improvement project by HCFCD. The layout of each detention facility presented unique site constraints such as utilities, land use and future development. Mr. Shringarpure adopted the guidance provide in HCFCD Policy Criteria Procedures Manual to grade and design these detention facilities. He designed these facilities using AutoDesk Civil 3D and computed the excavation volumes for each facility. Mr. Shringarpure summarized the findings via exhibits and summary tables that were incorporated in a report.

16. Staff Experience:

APS Engineering and Testing, LLC

Sergio Aviles, P.E.

President

Years of experience with this firm/employer	9
Years of experience with other firm(s)/employer(s)	10

Degree(s) / Years / Specialization	Bachelor of Science / 2001 / Geotechnical		
Active registration number / state / expiration date	P.E. 0033571 / LA / Exp. 3/31/23		
Year registered	2007	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Project Manager/Design guidance/Field Crew and lab management.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/19 – 06/20	**Project No. H.004100: I-10 Widening LA 415 to Essen LN-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU lakes. Along with this drillingand sampling APS 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 approximate 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Aviles was the project manager to the Geotechnical Investigations. CMAR project
08/16 – 10/19	**Project No. H.012422: I-10/I-110 Interchange Modification at Terrace Ave-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave exit. APS tested for strength and engineering characteristics of the soils with approximate 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits by A P S Laboratory. Mr. Aviles was the project manager to the Geotechnical Investigations.
11/17 – 2/18	**Project No. H.013193 US 61 Thompson Creek Bridge Replacement-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. APS tested for strength and engineering characteristics of the soils. Mr. Aviles was the project manager to the Geotechnical Investigations.
11/19 – Present	**Project No. H.001352 and H.002273 Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19-** A P S was selected with the winning team for the design of the diversion CMAR project. A P S will be the Geotechnical designers for the project. Mr. Aviles is the project manager for the project design team. CMAR project
03/19 – 05/19	**Project No. H.001344 US 190 over Bogue Falaya River-** A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundation recommendation. Mr. Aviles is the project manager for the project design team.
12/19 – 3/20	**Project No. H.010155 US 90 Railroad Overpass SE of LA 85-** 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. Aviles is the project manager for the project design team.

02/17 – 10/17	**Project No. H.002861 Earhart Expressway/Causeway Boulevard:** APS was tasked 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 provides 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. Mr. Aviles is the project manager to the Geotechnical investigations and analysis assigned to help calculating the resistance factors.
07/14 – 08/14	**Project No. 700-51-0110: US 90 elevated portion for the future I-49 corridor.** APS performed all the preliminary drilling, testing, and CPT for US 90 and Highway 318 Intersection. A total of 46 boring and 11 CPT along with all the testing required by LADOTD. Mr. Aviles was the project manager to the Geotechnical investigations and analysis as assigned for roads and bridges design.
2001 – 2005	The following lists consist 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 PROJECTS LIST:** Mr. Aviles served as the staff geotechnical engineer while at the Pavement and Geotechnical Section for the following projects below: Below projects varies from Embank Design, Pile Design, Drilled Shaft design, MSE wall design, and construction supervision. Major projects cost 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 Innerloop 427-01-0029, 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.

16. Staff Experience:

APS Engineering and Testing, LLC

Sairam Eddanapudi, P.E.

Chief Engineer

Years of experience with this firm/employer	9
Years of experience with other firm(s)/employer(s)	8

Degree(s) / Years / Specialization	Master of Science / 2002 / Civil Engineering / Lamar University Bachelor of Science / 1999 / Civil Engineering, Sri Venkateswara University, India		
Active registration number / state / expiration date	P.E. 0035129 / LA / Exp. 3/31/23		
Year registered	2008	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Laboratory QA Manager- Will be in charge all daily operation of the project/QA/Design Engineer.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/19 – Present	**Project No. H.004100: I-10 Widening LA 415 to Essen LN-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU lakes. Along with this drillingand sampling APS 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 approximate 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Sai was the project QA to the Geotechnical Investigations. CMAR project
08/16 – 10/19	**Project No. H.012422: I-110 Interchange Modification at Terrace Ave-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave exit. APS tested for strength and engineering characteristics of the soils with approximate 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits by A P S Laboratory. Mr. Sai was QA to the Geotechnical Investigations.
11/17 – 2/18	**Project No. H.013193: US 61 Thompson Creek Bridge Replacement-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. APS tested for strength and engineering characteristics of the soils. Mr. Sai was QA to the Geotechnical Investigations.
11/19 – Present	**Project No. H.001352 and H.002273: Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19-** A P S was selected with the winning team for the design of the diversion CMAR project. A P S will be theGeotechnical designers for the project. Mr. Sai is the Senior Design Engineer for the project design team.
03/19 – 05/19	**Project No. H.001344: US 190 over Bogue Falaya River-** A P S was selected with the winning team for the Geotechnical Investigation and Design of the proposed new bridge. A total of 19 deep borings were drilled and tested for the foundationrecommendation. Mr. Sai is the Senior Design Engineer for the project design.

16. Staff Experience:

APS Engineering and Testing, LLC

Surendra Raj Pathak, P.E.

Staff Engineer

Years of experience with this firm/employer	5
Years of experience with other firm(s)/employer(s)	10

Degree(s) / Years / Specialization	Master of Science / Civil Engineering / 2013 / Mississippi State University Master of Science / Civil Engineering / 2007 / Norwegian University of Science and Technology Bachelor of Science / Civil Engineering / 1998 / Madan Mohan Malaviya University of Technology		
Active registration number / state / expiration date	P.E. 0043487 / LA / Exp. 9/30/23		
Year registered	2019	**Discipline**	P.E./Civil
Contract role(s) / brief description of responsibilities	Staff Engineer-Review field logs, lab data, and Design Engineer.		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
09/19 – Present	**Project No. H.004100: I-10 Widening LA 415 to Essen LN-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 52 deep borings starting at the Washington Exit and ending at the LSU lakes. Along with this drillingand sampling APS 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 approximate 1000 Triaxial Compression, Unconsolidated Drained Or Undrained (UU) and Atterberg Limits. Mr. Surendra was the project QC to the Geotechnical Investigations.
08/16 – 10/19	**Project No. H.012422: I-110 Interchange Modification at Terrace Ave-** A P S was tasked thru our DOTD geotechnicalretainer to drill and sample a total of six (6) deep borings for the design of the Terrace Ave exit. APS tested for strength and engineering characteristics of the soils with approximate 100 Triaxial Compression, Unconsolidated Drained Or Undrained (UU)and Atterberg Limits by A P S Laboratory. Mr. Surendra was QC to the Geotechnical Investigations.
11/17 – 2/18	**Project No. H.013193: US 61 Thompson Creek Bridge Replacement-** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of eight (8) deep borings for the replacement bridge at US 61 over Thompson Creek. APS tested for strength and engineering characteristics of the soils. Mr. Surendra was QC to the Geotechnical Investigations.
11/17 – 2/18	**Project No. H.002273, H.000710, and H.001352 Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19:** A P S was tasked thru our DOTD geotechnical retainer to drill and sample a total of 12 deep borings for the new and replacement bridges at Highway 19, 67, and 964. APS tested for strength and engineering characteristics of the soils. Mr. Surendra was QC to the Geotechnical Investigations.
11/19 – Present	**Project No. H.001352 and H.002273: Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge LA 67 and LA 19-** A P S was selected with the winning team for the design of the diversion CMAR project. A P S will be theGeotechnical designers for the project. Mr. Surendra is a design Engineer for the project design team.

16. Staff Experience:

Urban Systems

Alben Cooper, III P.E., PTOE

Transportation Engineer

Years of experience with this firm/employer	15
Years of experience with other firm(s)/employer(s)	0

Degree(s) / Years / Specialization	Bachelor of Science / 2006 / Civil Engineering,		
Active registration number / state / expiration date	P.E.36291 / LA / Exp. 9/30/23 | PTOE 3206 / Exp. 9/30/2023		
Year registered	2011(PE); 2012(PTOE)	**Discipline**	P.E./Civil, PTOE
Contract role(s) / brief description of responsibilities	Transportation Engineer		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/12 – 01/14	**Hooper Road Extension Stage 0, Hooper Road Widening Stage 0 and Hooper Road Extension and Widening Stage 1 EA | *Project Manager.*** As project manager, Alben played a vital role in the preparation of traffic studies that were included in with the LADOTD Stage 0 Feasibility Study and Stage 1 Environmental Assessment. Urban Systems performed the Stage 0 Feasibility Studies for the extension of Hooper Road and the widening of Hooper Road under separate projects. The Stage 1 study included the widening of LA 408 (Hooper Road) between Sullivan Road and LA 37/64 (Greenwell Spring Road) in East Baton Rouge Parish and the extension of Hooper Road from its existing terminus at LA 37/64 across the Amite River to LA 16 in Livingston Parish. The studies included the development and analysis of multiple intersection alternatives at the termini of the extension and included traditional intersections, roundabouts, SPUIs, partial cloverleafs, and flyovers. Tasks consisted of data acquisition, traffic assignments and forecasting, capacity analysis, preparation of the traffic study report and attendance at public meetings. Analysis was performed utilizing SIDRA and Synchro.
11/20 – Present	**US 190 at Northshore and Camp Villere Roundabouts, St Tammany| *Project Manager.*** As the project manager for the Traffic Engineering portion of the project, Alben, will be overseeing the design of permanent striping & signage plans per LADOTD standards and specifications. He will also manage the design of temporary traffic signalization that will be required during the multi-phases of roundabout construction. A review of the sequence of construction was also performed. Alben will coordinate with the prime-consultant, St Tammany Parish, LADOTD and FHWA as needed.
10/12 – 12/14	**LA 30 (Nicholson Drive) EA, Baton Rouge, LA| *Project Manager*.** Alben acted as the project manager for the preparation of a traffic study to be included in with the LADOTD Stage 1 Environmental Assessment. The projects included the widening of LA 30 in the vicinity of Louisiana State University to provide additional capacity. Tasks included the development and analysis of multiple alternatives including four-lane roadway, unbalanced roadway (i.e. 2 lanes northbound, 1 lane southbound), and a three-lane roadway with a reversible lane. Traffic assignment and forecasting, capacity analysis, turn lane warrants and queue evaluation to determine the proposed intersection lane configurations was performed. LADOTD access management policies were applied to determine placement and type of median openings for the median divided alternatives. Alben is now the lead designer for modifications to the traffic signal at

	Nicholson Dr at Jennifer Jean/Bob Petit to accommodate the additional lanes. The design is expected to include multiple temporary signal configurations. The design will be performed using LADOTD TSI format.
11/13 – 02/15	**City of Baton Rouge/East Baton Rouge Parish LA 30 (Nicholson Drive) at Brightside Lane Signal Design| *Project Manager.*** Alben was the lead design engineer for the replacement of the traffic signal at LA 30 (Nicholson Drive) at Brightside Lane/Lee Drive in Baton Rouge, LA. The traffic signal was replaced to accommodate the reconstruction of the intersection to fix elevation issues and to install additional turn lanes to improve capacity. This project also included temporary traffic signals to accommodate the traffic during multiple phases of construction. Railroad preemption phasing and timing was based on DOTD and the railroad company standards. A vertical sight distance evaluation was also performed to determine the appropriate placement of the traffic signal poles to avoid the signal heads from being blocked by the railroad cantilever. A construction cost estimate was also prepared for the installation of the temporary and permanent traffic signals.
08/10 – Current	**Pecue Lane / I-10 Interchange Traffic Signal Design | Project Manager.** As the lead engineer, Alben was responsible for the design of the traffic signals for Louisiana's first Diverging Diamond Interchange (DDI). Alben worked closely with DOTD and Baton Rouge City-Parish to develop signal phasing and timing to accommodate the projected traffic. The signal design plans also included the proposed new intersection of Pecue Ln at Rieger Rd. Alben prepared construction cost estimates for each signal. The next phase will be construction administration.
02/09 – 05/10	**Stage 1 Environmental Assessment, Houma, Terrebonne Parish, LA | *Project Manager.*** Alben was the lead traffic engineer for a traffic study to assess the impacts of the proposed widening of LA 311 from a two-lane undivided to a four-lane median divided roadway. Alben was responsible for collecting traffic data, forecasting future traffic volumes, conducting capacity analysis for roadways and intersections, conducting turn lane and traffic signal warrants and calculating storage lane lengths. A focus of the study was the development and analysis of alternatives to meet EDSM requirements regarding median opening spacing and type. Analysis was performed utilizing HCS Software.
09/11 – 04/14	**LA 23 Happy Jack to North Port Sulphur Stage 1 Environmental Assessment | *Project Manager.*** A traffic study was prepared to assess the effects of widening the LA 23 corridor from a 2-lane undivided roadway to a 4-lane divided roadway in Port Sulphur, Louisiana. The project team was led by Alben. The purpose of the project is to provide continuity between the 4-lane sections of LA 23 on both sides of the project area to accommodate the rapid economic growth in the gulf region and to improve hurricane evacuation for the area. This route is critical for both as it is the only corridor that provides access to/from the Mississippi River Delta. Median openings and u-turn locations were proposed and analyzed based on LADOTD EDSM requirements and access management techniques to improve safety. Tasks included traffic assignment and forecasting, turn lane warrants, capacity analysis, queue evaluations and attendance of public meetings.
07/12 – 05/13	**City of Gonzales LA 30 Roundabout Feasibility Study, Ascension Parish| *Project Manager.*** This project was a traffic study to determine the feasibility of converting a series of signalized intersections, including the I-10/LA 30 interchanges, to roundabouts in Gonzales, LA. As the lead engineer, Alben oversaw data acquisition, traffic assignments and forecasting, capacity analysis, and conceptual design. SIDRA software was utilized to analyze various alternatives to meet LADOTD Standards.

16. Staff Experience:

Urban Systems

Alison Michel, PE, PTOE, PTP, RSP$_1$

President/ Transportation Engineer

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

Degree(s) / Years / Specialization	Bachelor of Science / 1997 / Civil Engineering, Louisiana State University		
Active registration number / state / expiration date	P.E.30261 / LA / Exp. 3/31/23 | PTOE 1023 / Exp. 11/06/23 | PTP 626 / Exp. 11/20/23 | RSP$_1$ 115/ Exp.12/21/24		
Year registered	2002(PE); 2002(PTOE); 2017(PTP) 2018 (RSP)	**Discipline**	P.E./Civil, PTOE, PTP, RSP$_1$
Contract role(s) / brief description of responsibilities	Principal in Charge		

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).
06/12 – 01/14	**Hooper Road Extension Stage 0, Hooper Road Widening Stage 0 and Hooper Road EA | *Principal in Charge*.** Alison was the principal in charge of multiple studies for existing Hooper Road from Sullivan to Greenwell Springs in East Baton Rouge Parish including a proposed extension over the Amite River to LA 16 in Livingston Parish. The studies included the development and analysis of multiple intersection alternatives at the termini of the extension and along the route. The alternatives analyzed included traditional intersections, roundabouts, SPUIs, partial cloverleaves, and flyovers. Alison was responsible for coordination with the prime consultant and numerous agencies as well as QA/QC.
06/16 – 02/17	**LA 20 Canal Boulevard Widening | *Principal in Charge*.** This project was initiated by the City of Thibodaux and was originally designed with traditional widening without consideration of access management. Urban Systems conducted a traffic study to determine the optimum configuration for the widened section of roadway to be in conformance with LADOTD EDSMs to improve safety. The construction documents prepared included multiple traffic signals at partial median opening intersections. The coordinated system was interconnected via GPS. Alison's responsibilities included project management and QA-QC. She also presented the benefits of the safety improvements as a result of the access management at a public meeting.
12/09 –03/19	**Howard Avenue Extension | *Principal in Charge*.** Alison conducted a traffic study and prepared signal design plans for the extension of Howard in Avenue, New Orleans, LA. She developed the proper signal phasing and operation to accommodate the new geometry transitioning four lanes into three. The signal design included pedestrian signals for the mid-block crossing of Howard Avenue. While the signal equipment was designed based on City of New Orleans standards, the design plans were prepared in the latest LADOTD TSI format, and the construction cost estimate based on LADOTD pay items.

05/09 – 02/10	**US 11 Stage 0 and Access Management and Complete Street Improvements | *Principal in Charge.*** This project was facilitated by the Regional Planning Commission for LADOTD and the City of Slidell. Alison was the project manager responsible for coordinating between the agencies as well as overseeing the technical aspects of the project. The project alternatives were developed to meet LADOTD EDSMs on access management and their Complete Streets Policy. The study included consideration of a Road Diet and Roundabouts. Conflict points were compared among the alternatives.
04/12 – 09/12	**River Parish Community College Traffic Signal Design | *Principal in Charge.*** Alison was the Principal in Charge responsible for the management and QA-QC of the design of two new traffic signals on this project. The design included interconnection between the signals and connected into the state network. She coordinated between the developer and the LADOTD District Traffic Engineer to obtain a permit for the construction. This included coordinating with both LADOTD Traffic Engineering Management on use of the latest TSI forms and with the LADOTD Intelligent Transportation System office regarding tying into the state fiber optic communication lines along Interstate 10.
01/09 –04/12	**East Route of the Thibodaux East-West Connector Stage 0 Feasibility Study | *Principal in Charge.*** Alison was project manager for the traffic study portion of a Stage 0 feasibility study to evaluate alternative traffic control at the intersection of LA 20 (Canal Boulevard/Jackson Street) at Thompson Place/Back Street to provide access to accommodate a proposed east-west connector road through Thibodaux, LA. The subject intersection is a five-legged intersection formed by Jackson Street, Back Street, Thompson Place, and Canal Boulevard. Volume and intersection control data were analyzed using HCS+ software for the unsignalized and signalized intersections and SIDRA software for roundabouts to generate Level of Service and delay estimates for each location. Intersection geometry was modeled using VISSIM software to determine the expected operation. Roundabouts were analyzed using SIDRA software.
09/08 – 02/09	**District 02 Signal System Restoration Program | *Principal in Charge.*** Alison was project manager and lead engineer working with LADOTD District 02 in assessing and repairing specified signals in Terrebonne thirteen (13) signals and Lafourche Parishes six (6) signal damaged by hurricanes in the 2008 hurricane season. Signal equipment was assessed, and designs were prepared, including signing & marking and lighting, for immediate repair, minor rebuilds, and total reconstruction as needed. Construction Engineering and Inspection (CEI) services were provided during the construction phase.
03/01– 01/12	**Ryan Street at Prien Lake Road Intersection Improvements | *Principal in Charge.*** Alison was the project manager responsible for the preparation of roadway widening and signal design plans for this LADOTD project. First a CORSIM analysis of various intersection improvement strategies was conducted to determine the optimum lane configuration and signal operations. Once the preferred conceptual layout was identified, construction documents based on LADOTD standards were prepared to add turn lanes to both Ryan Street and Prien Lake Road within limited Right Of Way. In addition to the traffic signal modifications, the design included modification to drainage, reconfiguration of driveways, improving corner radii, widening concrete pavement and an asphalt overlay. Preliminary and Final plans, specifications and a cost estimate using LADOTD pay items were prepared under Alison's direction. The project was constructed successfully.

16. Staff Experience:

Urban Systems

Nicole Stewart, P.E., PTOE

Project Executive

Years of experience with this firm/employer	15
Years of experience with other firm(s)/employer(s)	1.5

Degree(s) / Years / Specialization	Bachelor of Science / 2004 / Civil Engineering and Bachelor of Science / 2004/ Physics		
Active registration number / state / expiration date	P.E.34750 / LA / Exp. 9/30/23 | PTOE 2923 / Exp. 8/23		
Year registered	2009(PE); 2009(PTOE);	**Discipline**	P.E./Civil, PTOE
Contract role(s) / brief description of responsibilities	Vice President/ Transportation Engineer		

Experience dates (mm/yy–mm/yy)	**Experience and qualifications relevant to the proposed contract, *i.e.*, "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).**
01/14 – 08/19	**I-49 South Albertson's Parkway to Ambassador Caffery Design-Build Project**, **Lafayette Parish, LA|** ***Transportation Engineer.*** Nicole was an integral team member for this Design-Build project. She prepared the Traffic Control Device Plans for all phases of construction. Nicole was responsible for the design of the permanent signage for the new portion of I-49 within the project limits. Traffic Control devices and signage plans were prepared to be in accordance with the Manual of Uniform Traffic Control Devices and the most current LADOTD standards. Throughout construction, Nicole was available to meet with contractor and visit the construction site on an as needed basis. Nicole provided timely responses to RFI's and prepared plan changes to address concerns raised in the field. She also prepared as build plans once the project was complete in August 2019.
05/17 – 01/19	**US 90 at Collins Diboll Drive|** ***Transportation Engineer.*** Nicole was the Principal in Charge for the signal modification plans for the widening of the Ochsner Hospital driveway/ Collins Diboll Drive. This modification included upgraded video detection, push button activated pedestrian signals as well as new phasing and timing. The signal modification plans were prepared using the latest LADOTD TSI format. Nicole also prepared the permit for intersection control devices on state right of way for this project.
12/14 – 01/17	**LA 447 Corridor Study and Environmental Assessment Livingston Parish, LA|** ***Transportation Engineer.*** Nicole was the lead engineer for Corridor Safety Study to identify improvements to LA 447 from north of Interstate 12 (I-12) to LA 16 that was included in the Environmental Assessment. She reviewed detailed crash reports obtained from the LADOTD database for the section south of Buddy Ellis Road. She oversaw the preparation of collision diagrams and the identification of crash trends. The predictive method was used per the Highway Safety Manual to estimate the crashes with and without potential improvements. Nicole also conducted turn lane warrants and identified where left and right turn lanes should be considered.

11/09 – 01/10	**Roundabout Study, St. Tammany Parish, LA| *Transportation Engineer.*** The project team evaluated converting the intersections of US 90 at Northshore Blvd, LA 59 at Lonesome Rd and LA 59 at Sharp Rd to roundabouts. Nicole used SIDRA software to evaluate the existing and projected conditions of each intersection. Nicole was also responsible for the spot speed studies to determine if there were existing speeding concerns at each intersection. The study concluded with recommendations for roundabout at each location.
03/10 – 01/14	**Houma-Thibodaux to I-10 Connection North-South Corridor Environmental Impact Statement | *Transportation Engineer.*** Nicole evaluated new alignments to connect US 90 to LA 3127 to establish a new north-south corridor to link the existing interstate system to the future I-49 South and provide an alternate route during hurricane evacuations. Nicole conducted an analysis to evaluate traffic operations for the various alternatives and to recommend lane configurations for the terminal intersections. At the completion of the study Nicole performed the QA/QC for the Level 2 Transportation Management Plan that was prepared for the final corridor alignment.
04/08 – 11/10	**LA 431 Corridor Stage 0 Traffic Study, Ascension Parish, LA| *Transportation Engineer.*** Nicole led the efforts as the engineer responsible for this safety to conduct this study. The primary focus of the study was to identify the causes of high number of roadway departures on LA 431 between LA 42 at US 61 and to recommend improvements at the eight major intersections within the study area. After conducting a review of detailed accident reports, conducting speed studies and intersection analysis, recommendations were made for geometric modifications such as converting the LA 431 at LA 42 intersection to a roundabout and installing lighting to reduce nighttime collisions.
04/10 – 08/11	**LA 447 and I-12 Interchange Stage 0 Feasibility Traffic Study | *Transportation Engineer*.** This traffic study was conducted by Nicole along with other team members to develop and analyze seven intersections along LA 447 in the vicinity of the I-12 interchange in Livingston Parish. In this study, roundabouts were considered for three intersections. Nicole managed the data collection efforts that included vehicle classification, speed, and crash data. Nicole was ultimately responsible for the QA/QC for traffic assignments, forecasting and the traffic analyses using Highway Capacity Software, (HCS) Plus and SIDRA.
03/21 – 01/22	**North Boulevard Corridor Enhancement (I-110 to Foster/Florida) |*Transportation Engineer.*** Nicole was the principal in charge of completing the data collection and the safety analysis appendices for the traffic study to identify improvements to the North Boulevard corridor in Baton Rouge. Seven Day counts and peak hour counts were collected at key intersections. Nicole conducted peak hour observations to note any existing safety concerns. The safety analysis was conducted using the LADOTD Safety Triage spreadsheet and individual crash reports were read and reviewed for accuracy and to identify potential safety countermeasures.

17. Firm Experience:

Gresham Smith	Past Performance Evaluation Discipline(s)*	Road

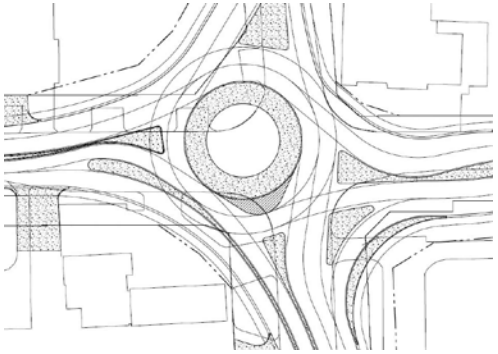
Hooper Road at Sullivan Road Roundabout Design

Firm responsibility (prime or sub?)	Sub

Project number	H.002320	**Owner's name**	City of Central (LA)	
Project location	Central, Louisiana	**Owner's Project Manager**		Toby Picard, P.E., Project Manager
Owner's address, phone, email	1 13421 Hooper Road, Suite 8, Central, LA / 225.379.1302 / toby.picard@la.gov			

Services commenced by this firm (mm/yy)	04/20	**Total consultant contract cost ($1,000's)**	$145
Services completed by this firm (mm/yy)	Ongoing	**Cost of consultant services provided by this firm ($1,000's)**	$145

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) *If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.



This project was originally designed as an intersection improvement project to add left and right turn lanes at the intersection of Hooper Road (LA 408) at Sullivan Road (LA 3034). Due to the anticipated future traffic volumes, it was determined that a multi-lane roundabout would be more efficient and have a longer service life than the planned traditional signalized intersection. Gresham Smith was selected to design the multi-lane roundabout at the intersection of Hooper Road at Sullivan Road.
The intersection contains some major constraints which include a historic building in the Northeast quadrant of the intersection and a gas station in the Southwest quadrant of the intersection. The roundabout must accommodate both pedestrians and bicyclists as well as multiple approach lanes and free flow right turn lanes at select approach legs as required by LADOTD's conceptual traffic design to accommodate future projected traffic volumes.

Gresham Smith is tasked with the full roundabout design to be in accordance with LADOTD's Roadway Design Manual geometric requirements and LADOTD's Complete Streets Policy to accommodate both pedestrians and bicycles through this intersection. Determining the location of the roundabout is critical in balancing a good geometric design with minimal right-of-way impacts and utility conflicts. Gresham Smith is also tasked with the drainage design at the roundabout and approach legs and is responsible for developing typical sections, plan and profile sheets, cross sections, quantities and construction cost estimates. This project includes a conceptual design phase as well as both preliminary and final plan design.

Currently, the roundabout has been through several geometric reviews by DOTD, including a plan-in-hand meeting. The 100% preliminary plans are complete. However, the project is now undergoing scope adjustments for the intersection design, and reverting back to the signalized intersection. The design of the future roundabout is now being included in this CMAR project advertisement.

Nature of firm's responsibility: Sub Consultant; Responsible for Developing Preliminary and Final Roundabout Design Plans.
Firm members involved include: Bert Moore, Richard Savoie, Brennon Hughes and Ronnie Robinson.

17. Firm Experience:

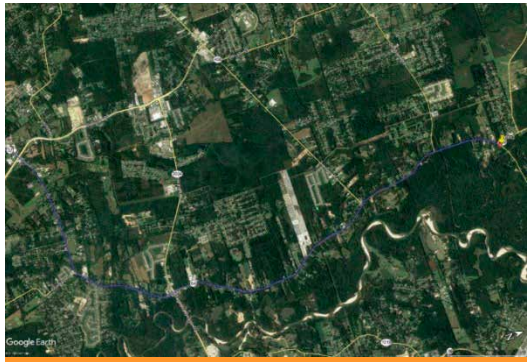
Gresham Smith	Past Performance Evaluation Discipline(s)*	Planning / Traffic

LA 37 (Sullivan to Liberty Road) Stage 0 Feasibility Study				Firm responsibility (prime or sub?)	Sub
Project number	4400007319, H.002297.1	**Owner's name**	Louisiana Department of Transportation and Development		
Project location	Central, Louisiana		**Owner's Project Manager**	Hong Zhang	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA / 225.379.1421/ Hong.Zhang@LA.GOV				

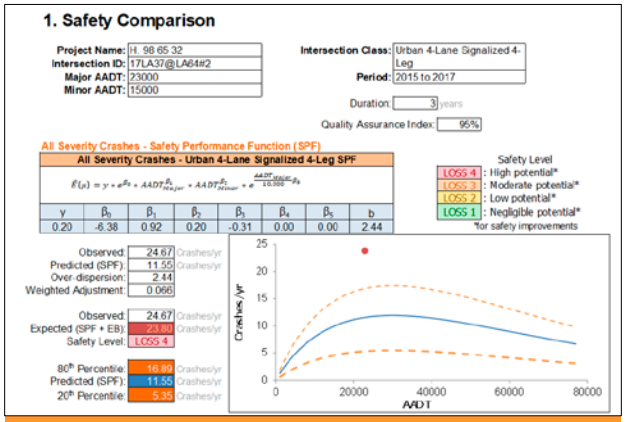
Services commenced by this firm (mm/yy)	08/18	**Total consultant contract cost ($1,000's)**	$207
Services completed by this firm (mm/yy)	Ongoing	**Cost of consultant services provided by this firm ($1,000's)**	$137

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

Gresham Smith was selected as part of a team to perform the traffic study portion of the LA 37 study in Central, Louisiana. The goal of this **Stage 0 Study** is to collect data along the corridor, determine growth rates for traffic volumes, perform safety and capacity analysis of existing and future traffic volumes and develop alternatives for improved capacity and safety along the corridor. **This study includes both safety and traffic analysis for the intersection of LA 37 at Hooper Road.**



LA 37 from Sullivan to Liberty Road Aerial



Excerpt from Safety Report

The corridor in question is over eight miles in length with varying roadway sections and widths. The majority of the corridor is a two lane asphalt roadway that carries over 16,000 ADT with no shoulders and an open ditch. During the peak hours a portion of LA 37 within the study area operates near capacity with commuters traveling the route from Livingston Parish to Baton Rouge. The corridor contains four signalized intersections and a number of driveways and local street intersections that are stop controlled on the minor approaches. In addition, there are four intersections with other state routes.

Project Highlights

- Data Collection
- Traffic Forecasting
- Capacity Analysis
- Safety Analysis
- Corridor Modeling

Gresham Smith performed the analysis for Existing, Future No Build and Future Build Alternatives. Crash reports were reviewed and evaluated using the LADOTD safety triage and the safety tool box. Traffic analysis will be performed using mainly HCS and Synchro software and other software tools as needed. It is anticipated that some of the proposed alternatives may include: widening the existing roadway to a multi-lane configuration, installation of a superstreet or j-turn configuration, roundabouts, traffic signals, the addition of paved shoulders or other geometric improvements.

Nature of firm's responsibility: Subconsultant; responsible for the traffic study.
Firm members involved include: Bert Moore, John Weres, Richard Savoie, Brennon Hughes, Tait Karlson and Rebecca Murray.

17. Firm Experience:

Gresham Smith	**Past Performance Evaluation Discipline(s)***	Bridge	
Complex Bridge Inspections IDIQ – Task Order #2, US 71 Spring Street Emergency Bridge Repairs		**Firm responsibility (prime or sub?)**	Prime

Project number		**Owner's name**	Louisiana Department of Transportation and Development
Project location	Shreveport, Louisiana	**Owner's Project Manager**	Heather Patton, P.E.
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA / 225.379.1306 / Heather.Patton@la.gov		
Services commenced by this firm (mm/yy)	04/20	**Total consultant contract cost ($1,000's)**	$142
Services completed by this firm (mm/yy)	09/20	**Cost of consultant services provided by this firm ($1,000's)**	$130

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.) *If there is more than one past performance evaluation category included in the advertisement, then indicate which past performance evaluation discipline(s) this project is being used to represent.



Similar to a formal Construction Management at Risk (CMAR) contract arrangement, Gresham Smith performed an emergency inspection of the bridge to perform measurements and evaluate potential repairs. Coordination with the railroad staff was performed to minimize impacts from on-going rail traffic. A contractor was selected to perform the construction, and Gresham Smith coordinated with the contractor and DOTD on potential repair details.

In April 2020, a train derailment impacted the US 71 Bridge over KCS Railroad in downtown Shreveport, causing the emergency closure of the bridge. LADOTD assigned Gresham Smith under TO #2 to prepare design plans to replace bent three and to install a concrete crash wall for future protection. Gresham Smith performed an emergency inspection of the bridge to perform measurements and evaluate potential repairs. Coordination with the railroad staff was performed to minimize impacts from on-going rail traffic.

A contractor was selected to perform the construction, and Gresham Smith coordinated with the contractor and DOTD on potential repair details, similar to a formal Construction Management at Risk (CMAR) contract arrangement. Working directly with the contractor to determine the best methods of repair to minimize the construction time and impacts to the railroad, we were able to complete the project and reopen the bridge to traffic in less than 4 months, a significantly shorter timeline than the conventional design bid build process.

Repairs included the installation of helical piles to resist the railroad crash loads on the foundations and utilization of rolled shapes to expedite steel fabrication. A strongback system to support the structure during the removal of the damaged bent was designed by the contractor. Gresham Smith reviewed and approved the system, then performed a field review to verify installed compliance with the design. Geotechnical evaluations were completed and utilized for the design of the helical piles and concrete wall footer.
Nature of firm's responsibility: Prime Consultant; Overall responsibility for entire contract.
Firm members involved include: Bert Moore, John Weres, Courtney Rome and Emery Sayre.

17. Firm Experience:

Gresham Smith	Past Performance Evaluation Discipline(s)*	Road

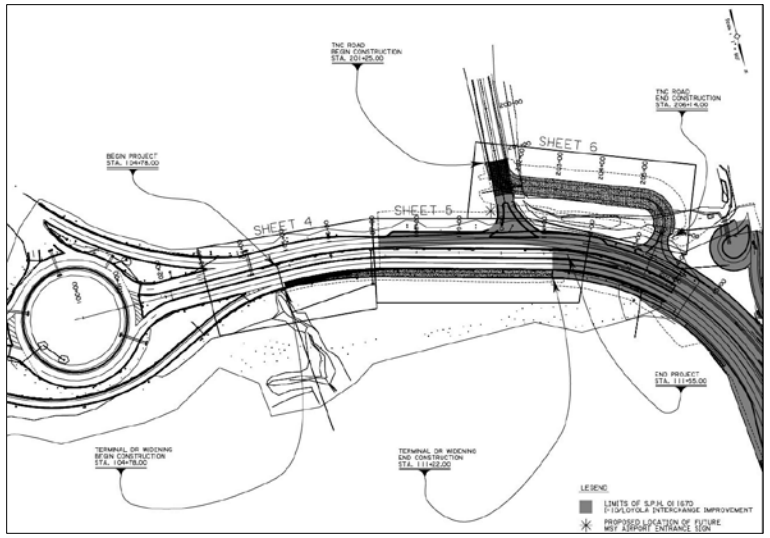
MSY - Task 4: Entrance Road Capacity

Firm responsibility (prime or sub?)	Prime

Project number	N/A	**Owner's name**	New Orleans Airport (MSY)		
Project location	Kenner, LA		**Owner's Project Manager**	Kenny Boyd	
Owner's address, phone, email	1 Terminal Dr, Kenner, LA 70062 / 303.641.9729 / ksboyd@burnsmcd.com				
Services commenced by this firm (mm/yy)	03/21		**Total consultant contract cost ($1,000's)**		$180.5
Services completed by this firm (mm/yy)	Ongoing		**Cost of consultant services provided by this firm ($1,000's)**		$180.5

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

Executed under a general engineering contract, Gresham Smith is currently providing design and project management for the City of New Orleans to widen the main exit road at Louis Armstrong New Orleans International Airport (MSY) from 2 lanes to 3 lanes. The project includes widening of approximately 1/4-mile of roadway, extending the roundabout slip lane exit from the roundabout and tying into the design-build flyover project currently under construction (S.P. H.011670). The completed widened road will connect the **I-10 at Loyola Interchange Design-Build project that is currently under construction for LADOTD**, improving the flow of traffic from MSY.



Additionally, Gresham Smith is tasked with the design of the new Transportation Network Companies (TNC) Uber lane roadway. This is a new alignment design which will realign the existing TNC Lane to a tie in point west of the existing location, tying into a turnout being constructed under the **I-10 at Loyola Interchange Design-Build project**. The completed new alignment roadway will provide access to a dedicated parking lot for ride-share vehicles approaching the airport and awaiting arrivals.

From the start, this project involved constant communication with both MSY Airport representatives along with coordination with the consultant for the **I-10 at Loyola Interchange Design-Build project**. A key aspect of this project was coordinating with the **I-10 at Loyola Interchange Design-Build project** which is currently under construction in order to facilitate a smooth transition for the widening of the roadway. This project was signed and sealed recently and is scheduled for letting this Spring.

Nature of firm's responsibility: Prime
Firm members involved include: Bert Moore, Brennon Hughes, Ronnie Robinson and Richard Savoie.

17. Firm Experience:

Gresham Smith	Past Performance Evaluation Discipline(s)*	Road

Sandy Springs TS193 Hammond Drive Corridor Design

Firm responsibility (prime or sub?)	Prime

Project number	N/A	**Owner's name**	City of Sandy Springs	
Project location	Sandy Springs, GA	**Owner's Project Manager**	Allen Johnson, P.E., PMP, TSPLOST Program Manager	
Owner's address, phone, email	1 Galambos Way, Sandy Springs, GA 30328 / 770.206.2013 / ajohnson@sandyspringsga.gov			

Services commenced by this firm (mm/yy)	09/18	**Total consultant contract cost ($1,000's)**	$247
Services completed by this firm (mm/yy)	09/20	**Cost of consultant services provided by this firm ($1,000's)**	$247

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

The purpose of this project is to improve safety and mobility and to improve bicycle/pedestrian access along Hammond Drive from Roswell Road (State Route 9) to Glenridge Drive in the north metro Atlanta city of Sandy Springs. This portion of Hammond Drive currently carries a volume of traffic which is higher than its two lane capacity and experiences severe congestion and queuing of traffic, especially during peak commuting hours. In its current configuration, this street also lacks adequate facilities for people walking, biking, and taking transit. Gresham Smith is tasked with developing a concept that addresses city mobility and safety concerns as well as numerous stakeholder and community input. Our scope includes public involvement, concept development, traffic analysis, roadway design, bridge design, hydraulic analysis, and preliminary, right of way, and final design development construction plans.

Public Involvement

While the public involvement process is ongoing, Gresham Smith staff attended a Sandy Springs "Neighborhood Input Session" that sought input from neighborhood residents about their hopes and concerns for the project. Five key themes emerged from this session that were incorporated into the design concept and will be presented at a public meeting early next year:

- Safety: Concerns that a redesigned Hammond Drive would make it more difficult to walk or ride a bike along or across the road.
- Quality of life: Hopes that a redesigned Hammond Drive would include "wow me" green spaces; attractive and effective screening for nearby homes; new parks or pools; and perhaps the burying of utilities underground.
- Neighborhood cohesion: The desire that there would be an innovative way to easily cross Hammond, such as a pedestrian/cyclist bridge or tunnel.
- Access: Concerns that a redesigned Hammond Drive would open the door for more cut-through traffic while making it harder for residents of Glenridge Hammond to enter and leave their neighborhood and hope that the project would find new ways of limiting cut-through traffic.
- Neighborhood appeal: In general, many worried that a redesigned Hammond Drive would damage the appeal of the neighborhood (and reduce property values). The hopes were that by making some of the improvements listed above, the neighborhood might become even more appealing—and that property values would appreciate.

Services: Traffic Analysis, Conceptual Alternatives Evaluation, Multimodal Concept Design, Visualization, Public Engagement
Nature of firm's responsibility: Prime
Firm members involved include: Shawn Reese

17. Firm Experience:

Michael Baker International	**Past Performance Evaluation Discipline(s)***	Road, Bridge

FM 1791 from FM 149 to Walker Co. Line		**Firm responsibility (prime or sub?)**	Prime
Project number	N/A	**Owner's name**	Texas Department of Transportation
Project location	Montgomery County, Texas	**Owner's Project Manager**	Ann Baker, P.E.
Owner's address, phone, email	7721 Washington Ave., Houston, TX / 713.802.5119 / ann.baker@txdot.gov		

Services commenced by this firm (mm/yy)	11/14	**Total consultant contract cost ($1,000's)**	$480
Services completed by this firm (mm/yy)	10/17 & Ongoing	**Cost of consultant services provided by this firm ($1,000's)**	$480

Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)
Michael Baker provided hydrologic and hydraulic analysis, impact mitigation and drainage design services for this roadway widening and reconstruction project for the Texas Department of Transportation (TxDOT). For the project, it developed hydrologic models, hydraulic models, drainage impact studies, bridge and culvert layouts, roadside ditch designs, hydraulic and wetland impact mitigation and scour studies for the multiple drainage crossings under FM 1791. Michael Baker developed alternative alignment and bridge layouts for the proposed bridges and bridge class culvert to replace the existing hydraulically deficient bridge and culvert crossings. For the project, Michael Baker provided roadway approach and bridge design alternatives as well as hydraulic and hydrology models.

Outside of the drainage crossings, the existing 2 lane roadway was proposed to be widened to add 5' shoulders on each side. Existing minor cross culverts were proposed to be extended of they were determined to be hydraulically and structurally adequate, or to be upsized if the existing culvert opening was determined to be inadequate. At larger drainage crossings, the roadway approaches were proposed to be reconstructed along new horizontal and vertical alignments to allow for adequate cross-drainage capacity and constructability perspective.

Michael Baker obtained topographic survey, soil borings, and geotechnical analysis to develop hydrologic and hydraulic models to simulate the pre-project conditions at each of the drainage crossings. Michael Baker then developed alternatives for bridge alignments and span configurations and used the hydrologic and hydraulic models to verify that the alternatives did not exacerbate flood risk outside state Right-of-Way. It developed comprehensive HEC-HMS hydrologic modeling for the watershed upstream of the FM 1791 corridor project using National Oceanic and Atmospheric Administration (NOAA) Atlas 14 rainfall depths and 2018 LiDAR, soil, and land-use data. Michael Baker also developed HEC-RAS 2-dimensional hydraulic models to calculate the pre-project conditions and post-project conditions discharges, water surface elevations, and velocities in the vicinity of the FM 1791 alignment.

Michael Baker developed multiple bridge layout alternatives, approach roadway alignments, and configurations for the replacement bridges to minimize construction and hydraulic impact outside TxDOT right-of-way.

Nature of firm's responsibility: Data collection; hydrologic and hydraulic modeling; hydraulic impact asstesment & mitigation; USACE, FEMA, community coordianation; and drainage analysis and design.
Firm members involved include: Nilesh Shringarpure

17. Firm Experience:

Michael Baker International	**Past Performance Evaluation Discipline(s)***	Road, Bridge

ICE – Route 58 Lover's Leap Design-Build

Firm responsibility (prime or sub?) Prime

Project number	ME0672	**Owner's name**	Virginia Department of Transportation
Project location	Patrick County, Virginia	**Owner's Project Manager**	Joseph Clarke, PE
Owner's address, phone, email	1401 East Broad Street, Richmond VA 23219 / 804.371.4316 / joseph.clarke@vdot.virginia.gov		

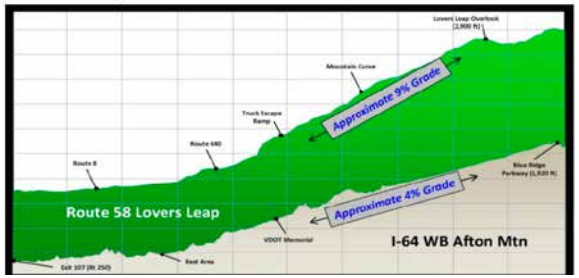
Services commenced by this firm (mm/yy)	10/19	**Total consultant contract cost ($1,000's)**	$250M
Services completed by this firm (mm/yy)	04/20	**Cost of consultant services provided by this firm ($1,000's)**	$600M

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

The Lover's Leap section of the Rt. 58 corridor is a section of existing 2-lane highway that will be upgraded to a new 4-lane highway. This section of the corridor is approximately 7.5 miles in length and has a significant grade difference over the length of the project. In the late 2019 Michael Baker was tasked by VDOT to develop a comprehensive Independent Cost Estimate (ICE) and schedule for this design-build project. For this ICE, Michael Baker assembled an internal team of cost estimators, schedulers, civil engineers to independently quantify, schedule and price this project. Michael Baker and VDOT reconciled the results of the ICE with the contractor. At the completion of negotiations, VDOT was able to recognize a savings of over $10M and one year of construction schedule over the contractor's initial budget and plan.

The DBT was responsible for and provided plans for the project; HCSS template for the project; labor Rates, Contractor Equipment Rates, and Materials and Subcontractor plug rates; quotes for the project. These quotes were made available to Michael Baker

Lovers Leap versus WB I-64 Afton Mountain Elevations



Michael Baker performed the following:

- Performed an independent set of quantity takeoffs
- Verified through the VDOT labor compliance specialist that the Labor Rates provided for the project by the Contractor followed the local wage determination.
- Verified that the Contractor provided Equipment rates
- Participated in the quantity and pricing reconciliations with DBT.
- Prepared independent Cut-to-Fill drawings for the project.
- Reviewed the Quotes and validated pricing and assumptions.
- Reviewed the Proposal Schedule from the Contractor and provided review comments to VDOT.
- Independently analyzed the project work and estimated the total construction duration.
- Provided technical expertise and Senior Construction Management econsulting services to assist in determining the most cost-efficient Means & Methods for this project.
- Participated in Risk Identification and Mitigation meeting with VDOT and the Contractor.
- Developed an independent cost estimate and schedule for the entire project scope. These estimates were reconciled with the contractor estimates.
- Michael Baker representatives worked closely with the VDOT project team to support negotiations that were acceptable to the DB contractor and favorable to the Common Wealth of Virginia.

Nature of firm's responsibility: Independent Cost Estimate, Scheduling, DOT IDIQ Task Order, HCSS Software, Quanity Verification, Phasing Review, Input on Risks, Cost Forecsasting, Microsoft Excel Format.

Firm members involved include: N/A

17. Firm Experience:

Michael Baker International	**Past Performance Evaluation Discipline(s)***	Road, Bridge

University Avenue Rehabilitation and Widening CMGC Contract Development		**Firm responsibility (prime or sub?)**	Prime
Project number	025-2-2-051/0617(003)	**Owner's name**	Alaska Department of Transportation and Public Facilities
Project location	Fairbanks, AK	**Owner's Project Manager**	Lauren Little, PE
Owner's address, phone, email	2301 Peger Road, Fairbanks, AK 99709-5399 \ 907.451.5731 \ lauren.little@alaska.gov		
Services commenced by this firm (mm/yy)	05/15	**Total consultant contract cost ($1,000's)**	$1,293
Services completed by this firm (mm/yy)	Ongoing	**Cost of consultant services provided by this firm ($1,000's)**	$471

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

The 2-mile University Avenue corridor has the highest traffic volumes within Fairbanks. The roadway is being rehabilitated and widened over five phases using **Construction Manager/General Contractor (CMGC) which is a very similar delivery process to CMAR** as the contract delivery mechanism. The programmed construction cost is $45M. Construction improvements include widening to four lanes, replacing the 320 foot Chena River Bridge, drainage improvements, intersection improvements and utility relocations. Michael Baker is the prime consultant and leading the delivery of CMGC services including contractor outreach, RFP development, process facilitation and independent cost estimating. The combination of state and federal funding provided flexibility to phase work.

Phasing construction allowed work to be accomplished and managed more effectively on annual basis. This demonstrated continued project progress to the traveling public. Phasing also allowed the team to work around pending ROW acquisitions. The Chena River Bridge replacement has many complexities such as conflicting utilities, traffic control, and staging. Detailed solutions, consequences, and costs were explored and allowed the team to choose the best value solution. The multiple phases required Michael Baker to track several projects simultaneously. We developed an approach that organized files efficiently. We applied the bridge construction and cost estimating expertise to scrutinize and vet the contractor's options.

Nature of firm's responsibility: Independent Cost Estimate, Scheduling, CMGC similar to CMAR, Quanity Verification, Phasing Review, Input on Risks, Cost Forecsasting

Firm members involved include: N/A

17. Firm Experience:

APS	Past Performance Evaluation Discipline(s)*	Geotech

I-10 Widening LA 415 to Essen LN

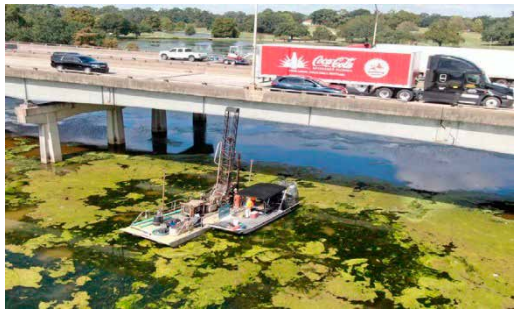
Firm responsibility (prime or sub?) Sub

Project number	H.004100	**Owner's name**	Louisiana Department of Transportation
Project location	Baton Rouge, LA	**Owner's Project Manager**	Kristy Smith, P.E.
Owner's address, phone, email	1201 Capitol Access Rd., Baton Rouge, La. 70802-4438 / 225.379.1016 / Kristy.Smith2@la.gov		

Services commenced by this firm (mm/yy)	09/19	**Total consultant contract cost ($1,000's)**	N/A
Services completed by this firm (mm/yy)	Ongoing	**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.)

Geotechnical investigation to provide client with the necessary information for planning and design I-10 widening. APS was asked thru our LADOTD 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 APS will also test for strength and engineering characteristics of the soils. A total of eight (8) over the water borings and 44 land borings with approximate 1000 triaxial compression, unconsolidated drained or undrained and atterberg limits.



Members involved:

Engineering
Sergio Aviles, P.E., Project Manager
Sairam Eddanapudi, P.E., Project Engineer
Surendra raj pathak, P.E., Staff Engineer

Laboratory testing
Sergio Aviles, P.E., QA/QC
Sairam Eddanapudi, P.E., QA/QC

Drilling
Melvin Vasquez, Driller Tech
Van George, Driller
Eric Bateaste, Driller

17. Firm Experience:

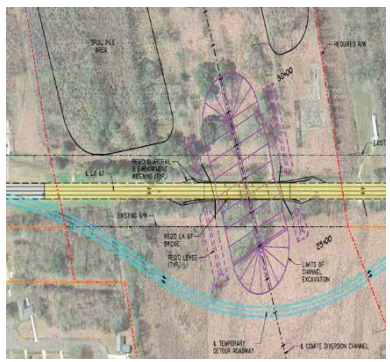
APS	Past Performance Evaluation Discipline(s)*	Geotech

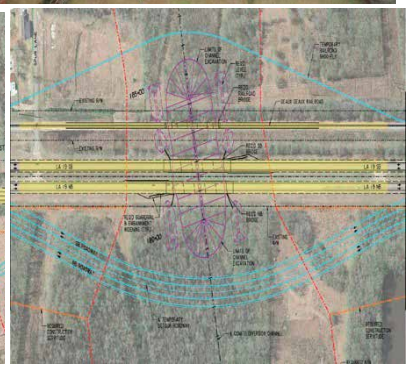
Comite River Diversion Bridge at LA 67, LA 19 and LA 19 Railroad Bridge	Firm responsibility (prime or sub?)	Sub

Project number	H.001352 and H.002273	**Owner's name**	Huval & Associates, Inc.		
Project location	East Baton Rouge Parish, LA		**Owner's Project Manager**	Thomas M. Gattle, III, P.E.	
Owner's address, phone, email	Huval & Associates, Inc. / 922 West Pont Des Mouton Road Lafayette, LA 70507 / 337.234.3798 / tgattle@huvalassoc.com				
Services commenced by this firm (mm/yy)	05/20	**Total consultant contract cost ($1,000's)**	N/A		
Services completed by this firm (mm/yy)	Ongoing	**Cost of consultant services provided by this firm ($1,000's)**	$115		

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

Geotechnical engineering to provide client with the necessary information for planning and build of LA 19 rr bridge - slope stability (embankment), LA 19 rr bridge - embankment/ mse wall settlement/ retaining wall, LA 19 twin bridges - ppc piles, LA 67 bridge - drilled shafts. All the necessary design will be done APS. No issue as of today. APS also drilled and sampled all the borings for LADOTD thru the geotechnical retainer and tested in house by APS laboratory.





Members involved:

Engineering

Sergio Aviles, P.E., Project Manager
Sairam Eddanapudi, P.E., Project Engineer
Surendra raj pathak, P.E., Staff Engineer

Laboratory testing

Sergio Aviles, P.E., QA/QC
Sairam Eddanapudi, P.E., QA/QC
Donna Easterly, Lab Manager
Cindy falks, Lab Tech

Drilling

Melvin Vasquez, Driller Tech
Van George, Driller
Eric Bateaste, Driller
Oscar johnson, Driller Tech
Trenton Anderson, Driller Tech

17. Firm Experience:

APS	Past Performance Evaluation Discipline(s)*	Geotech

US-90 Railroad Overpass (S. East of LA-85)

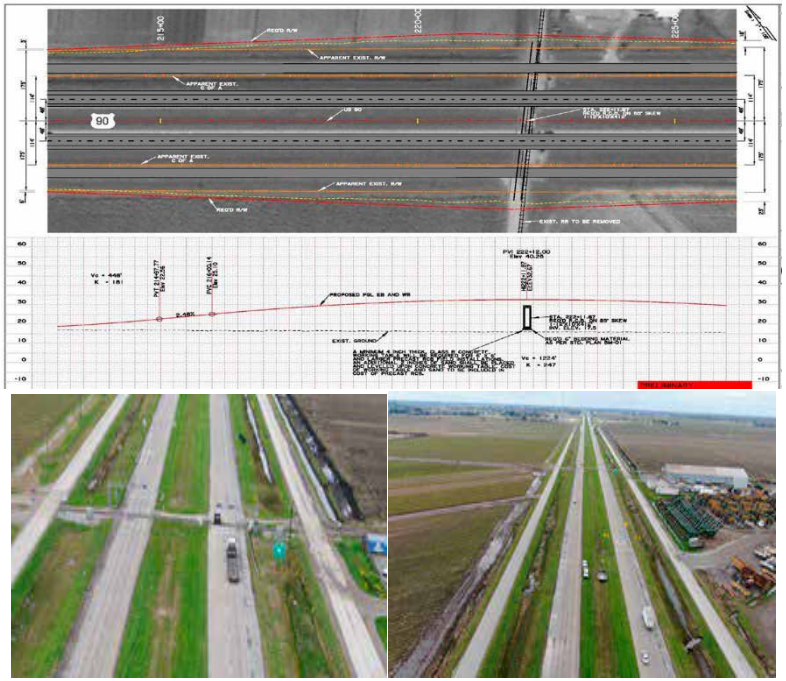
Firm responsibility (prime or sub?)	Sub

Project number	H.010155	**Owner's name**	Shread-Kuyrkendall & Associates, Inc.		
Project location	Iberia Parish, LA		**Owner's Project Manager**	Nicci D. Gill	
Owner's address, phone, email	13016 Justice Ave. Baton Rouge, LA 70816 / 225.296.1335 / ngill@skaengr.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)	03/20	**Cost of consultant services provided by this firm ($1,000's)**	$105

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

Geotechnical investigation to provide client with the necessary information for planning and design of a 12 ft . X 10 ft. Rcb, 412 ft . in length. A total of six (6) deep borings were completed by aps. Over 60 atterbergs and uu were tested by APS with 18 consolidation tests. All the necessary testing done by in house by APS laboratory.



Members involved:

Engineering
Sergio Aviles, P.E., Project Manager
Sairam Eddanapudi, P.E., Project Engineer
Surendra raj pathak, P.E., Staff Engineer

Laboratory Testing
Sergio Aviles, P.E., QA/QC
Sairam Eddanapudi, P.E., QA/QC
Donna Easterly, Lab Manager
Cindy falks, Lab Tech

Drilling
Melvin Vasquez, Driller Tech
Van George, Driller
Eric Bateaste, Driller
Oscar johnson, Driller Tech
Trenton Anderson, Driller Tech

17. Firm Experience:

Urban Systems, Inc.	**Past Performance Evaluation Discipline(s)***	Traffic

Stage 1 Environmental Assessment LA Hwy 408 – Hooper Road Extension and Widening (LA 16 – Sullivan Road)	**Firm responsibility (prime or sub?)**	Sub

Project number	No. H. 005403.2	**Owner's name**	LADOTD	
Project location	East Baton Rouge Parish, Louisiana	**Owner's Project Manager**	Nicholas Oliver	
Owner	1201 Capitol Access Road, BR, LA 70804, 225.379.1133, nicholas.oliver@la.gov			
Services commenced by this firm (mm/yy)	07/12	**Total consultant contract cost ($1,000's)**		Unknown
Services completed by this firm (mm/yy)	01/14	**Cost of consultant services provided by this firm ($1,000's)**		$81.9

USI prepared two (2) formal stage 0 Traffic Studies to assess the feasibility of the extension project and of the widening LA 408 (Hooper Road) from LA 3034 (Sullivan Road) to LA 37/64 (Greenwell Springs Road). Subsequently, USI prepared a formal Traffic Study to be included in the LADOTD Stage 1 Environmental Assessment (EA). The project included the widening of LA 408 (Hooper Road) East Baton Rouge Parish, and the extension of Hooper Road from its existing terminus at LA 37/64 across the Amite River to LA 16 in Livingston Parish. Two (2) alignments of the extension were carried forward from Stage 0. An additional southern alignment was added to the EA based on public and stakeholder input. Projected traffic volumes were taken from the Stage 0 Studies and were previously approved by LADOTD.

Various intersection alternatives were developed and analyzed at each of the subject intersections including signalization, grade separation, superstreets and roundabouts. The traffic volumes were estimated based on specific intersection configurations. Urban Systems utilized capacity analysis results to determine recommended lane configurations and storage lengths. Due to the various types of intersection configurations Highway Capacity Software (HCS+) was used to analyze the ramp junctions and SIDRA was used for intersections with roundabout alternatives or both roundabout and signal alternatives. Synchro was used to analyze signalized intersections, superstreet intersections, and SPUI alternatives. The U-turn intersections for the J-turns were analyzed in Synchro as modified left turns based on DOTD's recommended guidelines for a U-turn critical headway and follow-up headway values. VISSIM was used to evaluate each of the alternatives to model expected operations. Safety benefits and cost estimates for traffic control were documented. Results of the traffic analysis were utilized to select intersection alternatives to be included into the full EA.

Nature's of Firm's Responsibility: Traffic Engineering and Transportation Planning
Firm members involved include: A. Michel, A. Coope

17. Firm Experience:

Urban Systems, Inc.	**Past Performance Evaluation Discipline(s)***	Traffic

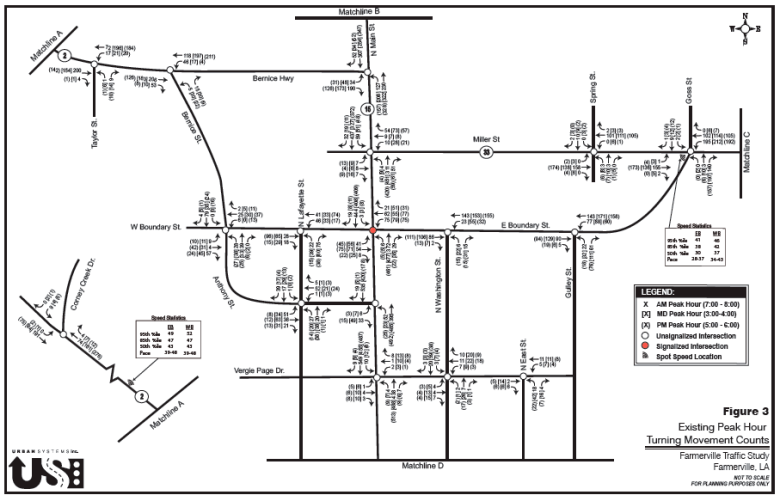
Retainer Traffic Engineering Services Contract : Farmerville Traffic Study				**Firm responsibility (prime or sub?)**	Sub
Project number	No. H. 012345.1	**Owner's name**	LADOTD		
Project location	Union Parish, Louisiana		**Owner's Project Manager**	Robin Smith	
Owner's address, phone, email	1201 Capitol Access Road, Baton Rouge, LA 70804 / 225-379-1232 / robin.smith2@la.gov				
Services commenced by this firm (mm/yy)	03/15		**Total consultant contract cost ($1,000's)**		Unknown
Services completed by this firm (mm/yy)	05/17		**Cost of consultant services provided by this firm ($1,000's)**		$132.1

As a Sub to Gresham Smith, Urban Systems assisted with conducting a traffic study to analyze the existing and projected future traffic conditions of the Town of Farmerville to aid in the development of design concepts that would improve the safety and efficiency of roadways in the study area. Due to the relocation of public and private schools, redistributed traffic was expected to impact the already congested intersections and routes.

Urban Systems' role was to collect data regarding the existing traffic system and conduct existing conditions analysis. The tasks included the QA/QC of collected traffic volumes and an inventory of existing roadway geometric features. These were used to create Synchro models of existing traffic conditions for capacity analysis. Crash histories were also reviewed and diagrammed to evaluate safety concerns. Safety, capacity and geometric analysis were used to establish existing issues as a baseline to judge the impact of future growth and changes.

Nicole Stewart was responsible for the Transportation Management Plans. Alison Catarella Michel was the principal in charge, assisted with volume development, reviewed analysis models and was responsible for QA-QC. They both assisted with the safety analysis on this project.

Nature's of Firm's Responsibility: Traffic Engineering and Transportation Planning
Firm members involved include: N. Stewart, A. Michel



17. Firm Experience:

Urban Systems, Inc.	**Past Performance Evaluation Discipline(s)***	Traffic	
Retainer Traffic Engineering Services Contract		**Firm responsibility (prime or sub?)**	Sub
Project number	**1.** No. H. 012632.1 **2.** No. H. 011065.5, **3**. No. H. 009620.5-1, **4**. No. H. 013076	**Owner's name**	LADOTD
Project location	Union and Calcasieu Parishes, LA	**Owner's Project Manager**	Hadi Shirazi
Owner's	1201 Capitol Access Road, Baton Rouge, LA 70804 / 225.379.1929 / hadi.shirazi@la.gov		
Services commenced by this firm (mm/yy)	**1.** 3/17 **3.** 5/18 **2.** 3/17 **4.** 10/1	**Total consultant contract cost ($1,000's)**	Unknown
Services completed by this firm (mm/yy)	**1.** 4/20 **3**.4/19 **2.** 1/19 **4**.12/17	**Cost of consultant services provided by this firm ($1,000's)**	**1.**$131.3 **2**.$154 **3**.$70.7 **4**.$44.9

These projects were task orders where USI collaborated with the prime consultant Gresham Smith.

US 171: MLK Blvd. Traffic Study

This project was unique in that alternatives were specifically developed to address the safety concerns about a short weave on US 171 between the I-10 ramps and Modeling Street. The study area was a 3-mile corridor which included approximately 10 signalized intersections as well as side streets and driveways. USI's roles included field observations, VISSIM modeling and Synchro analysis.

I-210 at LA 1138-2 Nelson Road Interchange Modification Re-Evaluation

This project consisted of an update to the Interchange Justification Report (IJR) for the Nelson Road Interchange that incorporated changes in the area from the construction of a new adjacent interchange at Cove Lane. Urban Systems conducted the safety analysis which included comparing the crash rates and data trends both before and after the Cove Lane opening for interstate segments, roadway segments and intersections. The DOTD Safety Section Triage Tools were used to summarize and analyze the crashes. The report included over 100 tables and 18 pages of collision diagrams. USI also organized and led the Road Safety Assessment (RSA) for I-210 at Nelson Rd. The multidisciplinary/ multi-agency team assessed potential road safety issues and identified opportunities for improvements, in the form of both short-term and long-term solutions.

Level 4 TMP: I-10 west of LA 108 & I-210 Interchange and Level 3 TMP: US 90 Bridge Maintenance over I-10 Ramps at LockMoor

Both Transportation Management plans included a safety analysis based on LADOTD guidelines. Crash rates were calculated for each location and compared to LADOTD's statewide averages and to LADOTD's High Potential for Safety Improvements List. Charts were created for each location for LADOTD's records. Crash diagrams were also prepared to document the number, location, and type of crashes. Each crash report was reviewed for accuracy.

Nature of firm's responsibility: Traffic Engineering and Transportation Planning

Firm members involved include: A. Cooper, N. Stewart, and A. Michel

18. Approach and Methodology:

Project Background

Hooper Road (LA 408) is a two-lane urban principal arterial NHS route located in the City of Central, LA. This project will widen a nearly 3-mile section of Hooper Rd. via full reconstruction to a four-lane divided highway from LA 3034 (Sullivan Rd) on the west end to LA 37 (Greenwell Springs Rd) on the east end. The corridor consists of a mix of business, residential, and undeveloped land. This project will also include intersection improvements in the form of multi-lane roundabouts at both the LA 3034 and LA 37 intersections. This project will be largely focused on roadway design, but will also include bridge design, hydraulic design, traffic design and analysis, geotechnical investigation and design services, along with the inclusion of value engineering concepts. The project will follow the Construction Management at Risk (CMAR) delivery method. The selected consultant will work with both DOTD and the CMAR contractor through the design process, including ongoing coordination at all design milestones for constructability, construction cost estimates, and value engineering proposals.

While the delivery method for this project is CMAR, the project at hand is relatively straightforward from a design perspective, and many aspects of the typical design-bid-build process can be applied. We have vast experience in the design of roundabouts and widening projects, and we will leverage that experience throughout our design of this project. This proposed design process is outlined as follows:

Kickoff Meeting

We will hold a pre-design kickoff meeting to discuss project scope and major discussion points. This meeting will consist of members of Gresham Smith's design team, along with representatives from both LADOTD and the selected CMAR Contractor. Primary discussion items will include a review of the project QA/QC Plan, Concurrence on Design Criteria, review of schedule and budget, and consensus on project outcomes and consultant rating criteria.

Survey

DOTD is providing all topographic survey and SUE services. As the designer, Gresham Smith will work closely with DOTD to ensure that survey limits fully encapsulate the potential construction footprint, including areas planned for construction staging, erosion control, and traffic control.

Preliminary Design

The Preliminary Plan Design process is expected to be comprised of a 30%, 60%, 90%, and 100% submittal. Additionally, a Plan-in-Hand meeting will be held following the 90% Preliminary Plan submittal.

The 30% Preliminary Plans (PP) submittal will consist of the Title Sheet, Proposed Typical Sections, and Plan Profile Sheets for the roadway project. 30% bridge plans will be developed in accordance with Appendix K of the LADOTD Bridge Design Manual, and will include the Type, Size, and Location submission and initial development of the general plans and notes. Our team member, APS Engineering and Testing, will perform and furnish the geotechnical investigation services and subgrade Soil survey information. The plans will undergo a geometric review by DOTD.

The 60% PP submittal will consist of updated Typical Sections and Plan Profile sheets, Drainage Plan Profile sheets along with hydraulic calculations which will be developed by our team member, Michael Baker International. An existing and design drainage map will be developed and included at this time. The plans will also include geometric details, cross sections, and summary tables. The plans will undergo a hydraulics review. 60% bridge plans will be further refined and developed and will include the foundation layout plan and phasing plans.

The 90% PP submittal will add suggested sequence of construction sheets and suggested temporary erosion control sheets to the plans. This is the first major plan submittal. A Plan-in-Hand meeting and site visit will be scheduled following the submittal. This meeting will be attended by the Gresham Smith Design Team, along with representatives from the City of Central, LADOTD, and the CMAR Contractor. Any design waivers or design exceptions needed for the project will be submitted at this time.

The 100% PP submittal will have addressed all Plan-in-Hand comments and consist of the Final ROW taking lines in order to initiate the ROW Map development, to be completed by DOTD. We are anticipating ROW acquisition and utility relocation as a part of this project. A Joint Plan Review Meeting will be held at this time to discuss the Base ROW Maps and utility relocation.

Value Engineering

An independent Value Engineering Analysis (VE) should be performed on the preliminary plans prior to finalizing any required right of way or utility relocation agreements as the analysis could affect each of these project components and cost constraints of the project. Richard Savoie, P.E., Gary Chodkowski, P.E. and Chris Conrad of our team all have has extensive experience with VE. While at LADOTD, Richard was the first Director of Value Engineering for LADOTD. During his tenure with the LADOTD he participated in many and even led some VE studies. Part of his role was to make recommendations to the Chief Engineer on which VE recommendations to implement and document the anticipated savings. In his role as director, he was responsible for reporting all VE recommendations and savings annually to FHWA. He also was responsible for reviewing contractor submitted Value

Engineering proposals and recommending to the Chief acceptance or rejection of the proposals. In all cases the final design must properly document the results of all VE proposals.

Final Design

The Final Design process is expected to be comprised of a 60%, 95%, 98%, and 100% submittal. All Final Plan submissions will consist of the full plan set.

The 60% Final Plans will undergo a final geometric and drainage review.
The 95% Final Plans are the second major plan submittal of the design process. Gresham Smith will submit a completed Constructability Biddability Review form at this time. Also included is an updated Cost Estimate, Design Report Form, Storm Water Pollution Prevention Plan (SWPPP form), utility conflicts list, completed Contract Time Worksheet and responses to all comments received on previous plan submissions.
The 98% Final Plans will go to the DOTD Contracts & Specifications section for review. The Construction Proposal will be developed at this time. Included with this plan submittal is the updated cost estimate, any needed Design Waiver request form (signed and sealed) and the Final QA/QC Form. Also, the plans will be sent to the DOTD Plan Quality Unit for a QA/QC Check. The Engineer's Construction Cost Estimate will be finalized at this point.

The 100% Final Plans submittal will consist of furnishing the Full-Size Plan Set. The Plans will be signed, sealed, and dated by the Engineer of Record.

Traffic Analysis

Both Gresham Smith and Urban Systems are intimately familiar with the project area, having completed numerous traffic studies at the project intersections in the past, most recently the LA 37 Stage 0 completed in December 2021. It may even be possible that some of the traffic data previously collected in 2019 could be used in our analysis here, creating a time savings on this project.. Based on the LA 37 study that Gresham Smith completed for LADOTD in 2021, it is anticipated that the intersection of Hooper at LA 37 will operate at an LOS F condition with the existing geometry and a conservative growth rate. With the widening of Hooper Road, additional traffic will be drawn to this intersection. Our team will evaluate the impacts of the widening of Hooper Road to four lanes all the way to LA 37. We will then complete a roundabout study for the intersection of Hooper Road at LA 37 to meet the requirements of the LA DOTD Traffic section and the Traffic Engineering Process and Report. We will assist the team with the signing and striping plans of the roundabouts and roadways as well as assisting with the development of a construction sequencing plan to maintain traffic through he roundabouts as they are constructed. Once the design phase has been completed, our team will develop a Transportation Management Plan (TMP) to mitigate the impacts of the construction on these state routes and intersections.

The Gresham Smith Team

From the first day this project was planned, we at Gresham Smith have had this project at the top of our priority list. There are a number of reasons for this, but we believe that we are the most uniquely qualified team for this project. Most notably, **we can save the DOTD both time and money because we have already designed a major portion of this project and performed studies on other areas.**

In the last two years, Gresham Smith, while working as a subconsultant to another consultant, has collaborated on the design of S.P. H.002320. This is a roadway widening project along LA 3034 (Sullivan Road) in which the project scope was modified to include a roundabout at the intersection of LA 408 (Hooper Road) at LA 3034 (Sullivan Road) in Central, Louisiana. Gresham Smith was contracted by the prime consultant who is working directly for the City of Central to provide design plans for the roundabout at this intersection. Brennon Hughes, P.E. is serving as our engineer of record for this roundabout design and is supported by our local roadway staff of Richard Savoie, P.E. and Ronnie Robinson, P.E. Brennon and his team have fully completed the roundabout design, which has already been through several geometric iterations and DOTD reviews, including a plan-in-hand meeting. Additionally, the east leg of this roundabout was designed with the future widening of Hooper Rd in mind. The east leg contains two travel lanes in each direction which taper down to the existing two-lane section near the Grace Church property. In recent months, the roundabout portion of this project had to be taken out due to funding and utility issues. The intersection is now being designed as a traditional intersection with signals, and the potential roundabout is now being included in this current advertisement. In summation, as it relates to this Hooper Road widening project, **the Gresham Smith team has already fully designed the roundabout at the western terminus of the project, and this roundabout was designed to facilitate the future widening of Hooper Road from two lanes to four lanes.**

Additionally, the Gresham Smith Team is uniquely familiar with the LA 37 intersection at the eastern terminus of the project. **We have already completed a traffic study which includes the evaluation of a roundabout at the LA 37/Hooper Road intersection.**

Gresham Smith completed the traffic portion of a Stage 0 study on LA 37 that included the intersection of Hooper Road. This study included both safety and capacity analysis. The safety analysis indicates that this intersection currently operates with a Level Of Safety Service (LOSS) of 3 for all crash severities and LOSS 2 for injury crashes. The capacity analysis indicated that this existing 3 legged intersection, which consists of 3 single lane approaches, currently experiences significant on the Hooper Road approach during both the AM and PM peak periods (LOS D @ 29.1 s/veh and F @ 142.3s/veh respectively). With the widening of Hooper Road all the way to LA 37, the demand on the Hooper

Road approach will significantly increase and improvements will be necessary to reduce the delays to an acceptable level of service. A multilane roundabout at this intersection would calm traffic and create suitable gaps for the Hooper Road approach to access LA 37 safely. The roundabout will also reduce the angular crashes that are currently occurring ,as well as the overall crash severity, at this intersection.

We feel that because of this, we are in the unique position to leverage the roundabout design which has already been completed and reviewed to satisfy all DOTD geometric requirements by simply including it within this Hooper Road widening project. If Gresham Smith is selected for this project, we will prioritize the completion of the final plans for the roundabout of Hooper Road at Sullivan. This could allow the CMAR contractor to mobilize several months earlier by beginning construction of the already designed roundabout, while our design team moves forward with the widening design and potential roundabout design at the LA 37 intersection. We will work closely with the CMAR contractor in collaboration on the acquisition of ROW, relocation of utilities, and how these aspects of the project affect the sequence of construction.

We plan to continue with the overall widening design and roundabout at LA 37 utilizing the same tools which were used for the LA 3034 roundabout: MicroStation, Inroads, and DOTD's Road Design Manual and Design Guidelines. Richard Savoie and Ronnie Robinson provide design support, guidance and help with decision making. They provide on team QA/QC and have a depth of experience in both the design and construction of roadway projects throughout the state of Louisiana. The entire team is supported by our firmwide roadway and roundabout experts with experience from designing numerous roundabouts throughout the southeastern U.S. as well as managing the Roundabout Peer Review Program for Alabama DOT.

Working with Contractors

We understand the importance and value of working with contractors to optimize value during both design and construction. As a firm we have a history of working alongside contractors on projects where we are performing Construction Engineering and Inspection (CEI) and also partnering with them on a wide variety of alternative delivery projects, including design build, Construction Manager/General Contractor (CMGC), and performing Value Engineering. This experience has sharpened our design teams ability to evaluate constructability early in the design life of a project and to seek the input of contractors and construction field staff when considering critical elements that effect project cost and complexity like maintenance of traffic and sequencing utility relocations.

Notable current work includes teaming with Charles Blalock and Sons construction in Pigeon Forge TN on a value engineering project that originated as a plan to develop waste areas adjacent to the ROW. Through our collaboration, we have eliminated of approximately 1900' of guardrail, reduced haul distances, improved steep terrain into developable land, reduced construction time, and shallowed closed system drainage. Other past Value Engineering projects include saving 2 million dollars on a parking lot design by eliminating closed system drainage, engineered water quality units and underground detention by replacing the asphalt pavement with permeable pavers and an open graded base; and a 5 million dollar savings redesigning an interstate truck climbing lane by reducing borrow and environmental impacts while also avoiding Acid Producing Material (APM).

In addition to the above projects where we are working directly for the contractor, we also have deep experience working under contract for a DOT on projects where a contractor is selected during the design process. One of the most notable projects is the I-40 Bridge Rehabilitation CM/GC Project – Fast Fix 8 in Nashville, TN. Gresham Smith partnered with TDOT and Kiewit (GC) to replace 8 interstate bridges using Accelerated Bridge Construction (ABC), which is another alternative delivery method very similar to CMAR, techniques in order to minimize the social and economic impacts to downtown Nashville. The replacement had an original estimated schedule of over 3 years when considering traditional reduced lanes as a means for maintenance of traffic. The ABC plan developed by the team replaced all 8 bridges in a series of 10 weekend road closures seven months ahead of schedule. This accomplishment was possible through continuous coordination between the contractor, owner, and engineer to develop 'outside the box' ideas for accomplishing this monumental task. The trust established through this project resulted in TDOT selecting Gresham Smith as their owner's representative for the US 64 bridge over the Ocoee River project which included assisting with the development of 30% plans and development of the design build RFP.

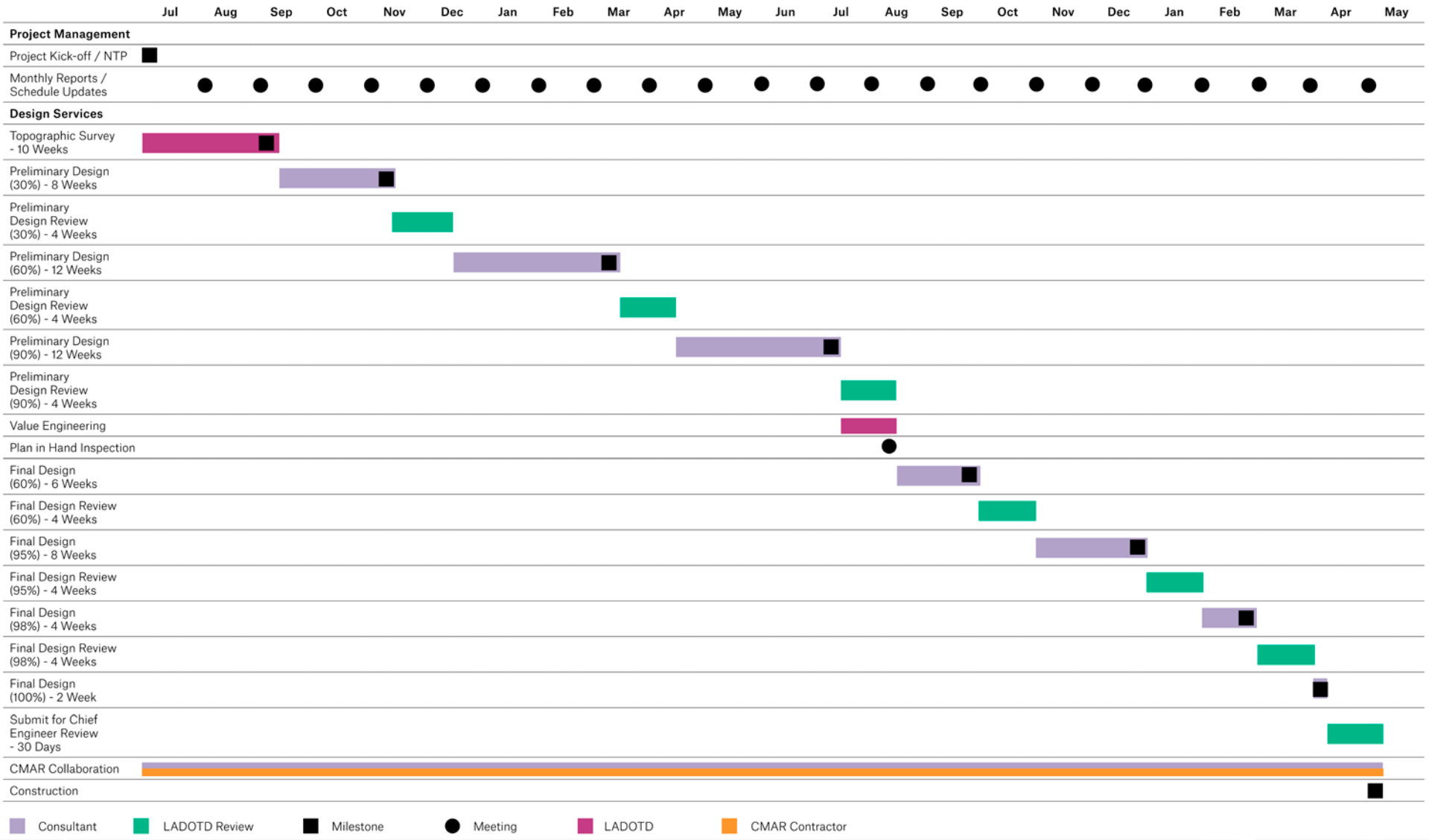
Summary

The selection of the Gresham Smith team for this project would result in significant time and cost savings for LADOTD. A portion of the work included within this project is substantially complete and the Gresham Smith team is uniquely familiar with the existing traffic and safety information on the highways within the project limits. The Gresham Smith design team plans to build on the same approach currently being implemented on our LA 408 at LA 3034 Roundabout project discussed above. We will ensure that all design services meet standard requirements of the many reference documents listed in this advertisement. Most notably, we will ensure that we are meeting DOTD's 2017 Minimum Design Guidelines while utilizing the DOTD Road Design Manual. Finally, as per the DOTD Construction Manager at Risk Manual, we will work in conjunction with the CMAR contractor to incorporate any DOTD approved CMAR contractor ideas on phasing, materials, constructability, traffic control, and other project approaches with the goal of improving project value and mitigating risk. We look forward to working alongside DOTD and the selected CMAR contractor to make this project a success.

Schedule

CMAR Contract for Hooper Road Widening

Termini	LA 408 (Hooper Rd) from LA 3034 (Sullivan Rd) to LA 37 (Greenwell Springs Rd)
Location	City of Central, LA
Scope	Pavement reconstruction and widening, roundabout design, bridge design, value engineering
Notice to Proceed	TBD
Kick-off Meeting	TBD
Due Date	TBD



19. Workload:

Firm	Past Performance Evaluation Disciplines(s) *	State Project Number	Project Name and Location	Remaining unpaid balance**
Gresham Smith	Traffic	H.12018.5	Lafayette Adaptive Traffic Signals	$166,999
Gresham Smith	Road	H.013271.5-2	LRSP/SRTS Tangipahoa Striping and Signage	$7,414
Gresham Smith	Road	H.012279.5	LRSP/SRTS Endom Bridge Construction Support Supplement	$4,450
Gresham Smith	Road	H.012527.5	LRSP/SRTS West Feliciana Signs, Striping and Guardrail	$3
Gresham Smith	CE&I/OV / ITS	H.011500.6	Lake Charles ITS Phase 3	$38,557
Gresham Smith	CE&I/OV / ITS	H.012381.6-2	Fiber Optic Mapping and Management Services – Lafayette, West Baton Rouge, point Coupee, St. Landry and Rapides	$14,803
Gresham Smith	CE&I/OV / ITS	H.012381.6	Fiber Optic Mapping and Management Services - Calcasieu, Jefferson, Orleans, Ouachita, Plaquemines and St. Charles	$453,467
Gresham Smith	Bridge	H.009730.5	Complex Bridge Inspection TO#4	$169,523
Gresham Smith	Bridge	H.009730.5	Complex Bridge Inspection TO#5	$382,280
Gresham Smith	Road	H.013720.5	LRSP Signs and Stripping - Bonner Street Bridge Pedestrian Improvements	$14,065
Gresham Smith	Road	H.013767.5	LRSP Signs and Stripping - St. Landry and St. Martin Parishes	$158,356
Gresham Smith	CE&I/OV	H.009308.6	TO#1 New Orleans DPW SRTS Sidewalk Project	$38,538
Michael Baker	Environmental	S.P. No. H.005168 F.A.P. No. DE-9208 (500)	NORG-Jefferson Highway EA, New Orleans, Louisiana Supplemental Agreement	$782,826
Michael Baker	Environmental, Road, Bridge	S.P. No. H.005168	NORG – Avondale PEL Study, New Orleans, Louisiana Supplemental Agreement	$930,562
Michael Baker	CE&I/OV	Contract No. 4400015166 S.P. No. H.007288.6 (CE&I) F.A.P. No. H007288	Montgomery St. (LA 34 – I-20), City of West Monroe, Ouachita Parish	$58
Michael Baker	CE&I/OV	Contract No. 4400014845 Task Order No. H.012018.6 S.P. No. H.012018.6 F.A.P. No. H012018	Adaptive Traffic Signal and Implementation, Lafayette Parish	$397,652
Michael Baker	CE&I/OV	Contract No. 440001485 Task Order No. H.0003184.6 S.P. No. H.003184.6	IDIQ Contract for Construction Engineering and Inspection Services with majority of work in District 07, I-10: Texas State Line - E. of Coone Gully, Calcasieu Parish	$779,165

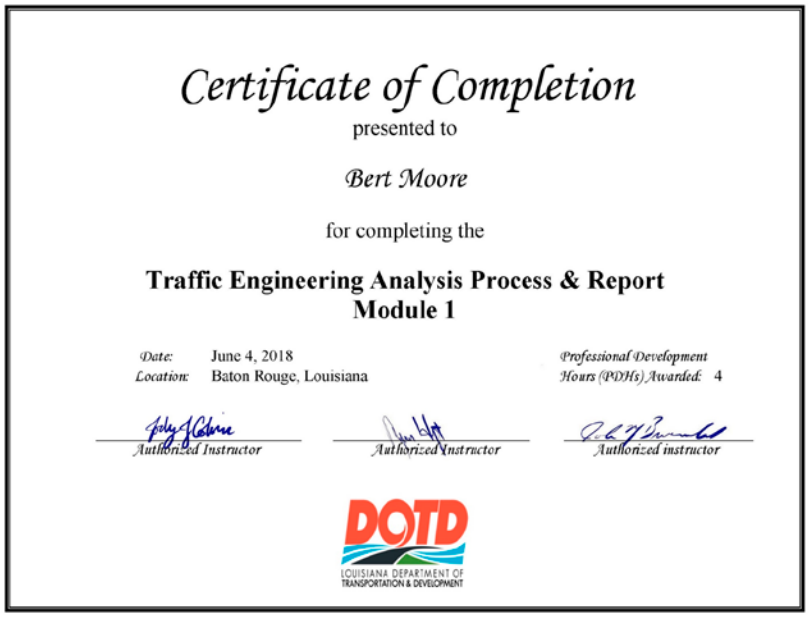
Firm	Past Performance Evaluation Disciplines(s) *	State Project Number	Project Name and Location	Remaining unpaid balance**
Michael Baker	CE&I/OV	Contract No. 4400013851 Task Order No. H.013271.6 S.P. No. H0.013271.6 F.A.P. No. H.013271	IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I), Statewide Tangipahoa PH Local Road Safety Upgrade, Tangipahoa Parish	$144,479
Michael Baker	CE&I/OV	Contract No. 4400013851 Task Order No. H.013271.6-2 S.P. NO. H.013271.6-2 F.A.P. No. H013271	IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I) Tangipahoa PH Local Road Safety Upgrade, Tangipahoa Parish	$20,217
Michael Baker	CE&I/OV	Contract No. 4400013851 Task Order No. H.013271.6-3 S.P. NO. H.013271.6-3 F.A.P. No. H013271	IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I) Tangipahoa PH Local Road Safety Upgrade, Tangipahoa Parish	$10,808
Michael Baker	CE&I/OV	Contract No. 4400013841 Task Order No. H.012473.6 S.P. No. H.012473.6 F.A.P. No. H012473	IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I), Statewide Marconi Dr. Shared-Use Path	$7,458
Michael Baker	CE&I/OV	Contract No.4400013851 Task Order No. H.009308.6S.P. No. H.009308.6F.A.P. No. H009308	IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I), Statewide New Orleans DPW SRTS Sidewalk Project	$138,901
Michael Baker	CE&I/OV	Contract No.4400013851 Task Order No. H.012527.6 S.P. No. H.012527.6 F.A.P. No. H012527	Local Road Safety Upgrade (W. Feliciana) West Feliciana Parish	$172,381
Michael Baker	CE&I/OV	Contract No.4400013851 Task Order No. H.013082.6 S.P. No. H.013082.6 F.A.P. No. H013082	Bootlegger Road Sidewalks St. Tammany Parish	$155,884

Firm	Past Performance Evaluation Disciplines(s) *	State Project Number	Project Name and Location	Remaining unpaid balance**
Michael Baker	ITS	Contract No. 4400011253 S.P. No. H.011500.6	Retainer Contract for Intelligent Transportation Systems (ITS), Lake Charles ITS Phase 3	$7,087
Michael Baker	Other	Contract No. 4400019130 Task Order No. 1	IDIQ Contract for Statewide Aviation Program Update – Phase II Statewide	$78,739
Michael Baker	Other	Contract No. 4400017092 Task Order No. 2	Collection of Existing Watershed Datasets, Models, and Studies; and Proposition of Modeling Design Approach, Schedule and Costs, Region 6	$1,160,975
Michael Baker	Other	Contract No. 4400017092 Task Order No. 3	Collection of Existing Watershed Datasets, Models, and Studies; and Proposition of Modeling Design Approach, Schedule and Costs, Region 6	$2,145,167
Michael Baker	Other	Contract No. 4400017090 Task Order No. 2	Collection of Existing Watershed Datasets, Models, and Studies; and Proposition of Modeling Design Approach, Schedule and Costs, Region 4	$1,209,876
Michael Baker	Other	Contract No. 4400017090 Task Order No. 3	Collection of Existing Watershed Datasets, Models, and Studies; and Proposition of Modeling Design Approach, Schedule and Costs, Region 4	$196,968
Michael Baker	Road, Bridge	Contract No. 4400021519 S.P. No. H.012030.5 F.A.P. No. H012030	US 371: KCS RR Overpasses HBI $630,967	$607,371
APS	GEOTECH	H.013127	Retainer Contract for Geotechnical Services	$53,996.00
APS	GEOTECH	H.013144	Retainer Contract for Geotechnical Services	$45,457.00
Urban Systems	CE&I / OV	H.004791	Belle Chasse Bridge and Tunnel	$116,574
Urban Systems	Traffic	H.011309.5	Mac Arthur Final Design	$30,687
Urban Systems	Traffic	H.012812	US 190: Northshore and Camp Villere	$11,014
Urban Systems	Traffic	H.004891	Reserve to I-20 Connector	$51,641
Urban Systems	Traffic	H.010571	Williams Traffic Signal Design	$22,750
Urban Systems	Traffic	H.011965.5	IWGO Bridge Rehabilitation TMP	$4,411

* 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. If a firm has more than one past performance evaluation discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per evaluation discipline.

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

20. Certifications/Licenses:



Certificate of Completion

presented to

Bert Moore

for completing the

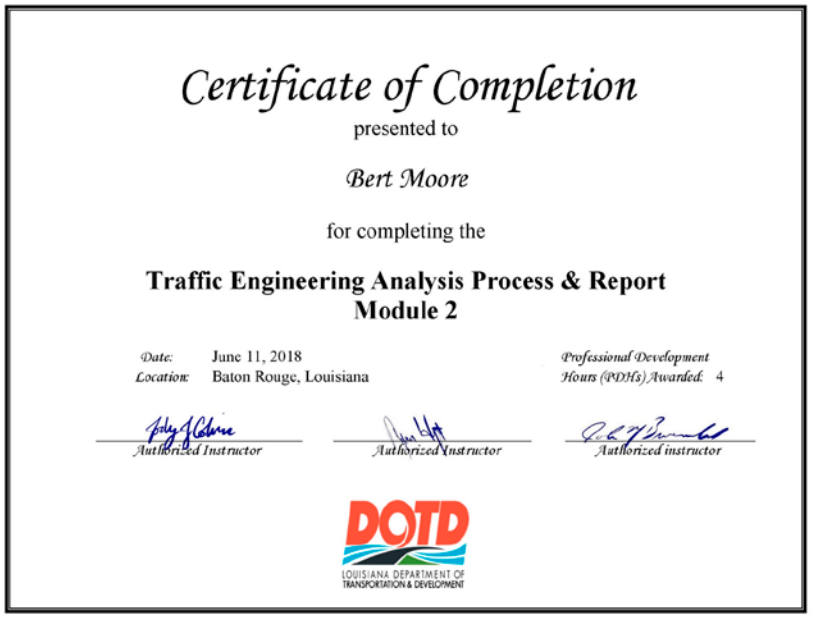
Traffic Engineering Analysis Process & Report
Module 1

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

Bert Moore

for completing the

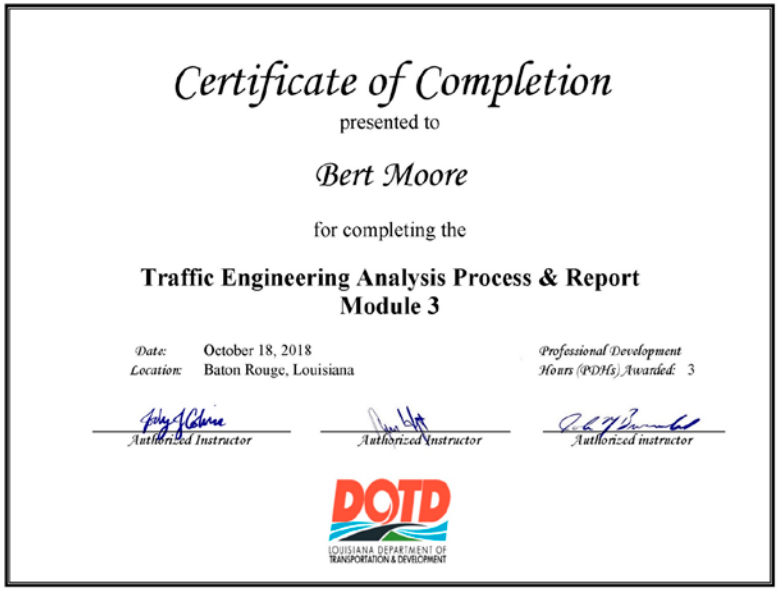
Traffic Engineering Analysis Process & Report
Module 2

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

Bert Moore

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: October 18, 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

RESOURCE CENTER

Certificate of Completion

BERT MOORE

has successfully completed the course entitled:

Designing Pedestrian Facilities for Accessibility (DPFA)

Location: Baton Rouge, Louisiana
Dates: May 08-09, 2017

Hours of Instruction enhancing Professional Development: 12 hrs

Patrick E. Gomez
Civil Rights Specialist
Federal Highway Administration

Ted Green
Professional Engineer
New Jersey LTAP

Certificate of Training

PRESENTED BY

The National Cooperative Research Program

TO CERTIFY THAT

Herbert Moore

HAS SATISFACTORILY COMPLETED 20 HOURS OF TRAINING IN:

Highway Safety Manual Workshop

NCHRP 17-38

Karen K. Dixon, PhD, P.E.
Ida van Schalkwyk, PhD
Larry F. Sutherland, P. E.
Instructors

LOUISIANA'S ON THE MOVE... DOTD BUILDS THE WAY

December 1-3, 2010
Date

Baton Rouge, Louisiana
Location

Certificate of Training

PRESENTED BY

Louisiana Local Technical
Assistance Program

TO CERTIFY THAT

Bert Moore

HAS SATISFACTORILY COMPLETED 3 PROFESSIONAL DEVELOPMENT HOURS IN:

Regional Crash Data Workshop

Director of Louisiana LTAP Center

LOCAL TECHNICAL ASSISTANCE PROGRAM LTAP LOUISIANA TRANSPORTATION RESEARCH CENTER

February 23, 2017
Date

Baton Rouge, Louisiana
Location

The American Traffic Safety
Services Association

Hereby recognizes that

Herbert Moore

has attended

Traffic Control Supervisor Refresher-LA State Specific

Training Course

4/13/2019 to 4/13/2019
Date

New Orleans, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

ATSSA
SAFER ROADS SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

SLOW

This is to affirm that

Herbert Moore

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Expiration Date 4/25/2023 *State Issued in* LA

Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com

National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

nhi national highway institute

Certificate of Training

BRENNON HUGHES

has participated in

FHWA-NHI-380096V Modern Roundabouts: Intersections Designed for Safety

hosted by

LA DOTD/LTRC

Date: *September 8 and 9, 2020* *Hours of Instruction:* 6

Location: *Virtual Delivery*

Instructor

Allison H. Landry
Local Coordinator

Instructor

Thomas Harman
Thomas Harman, Director
National Highway Institute

The American Traffic Safety Services Association

Hereby recognizes that

Brennon Hughes
has attended
Traffic Control Supervisor-LA State Specific
Training Course

07/26/2018
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

ATSSA
SAFER ROADS SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

SLOW

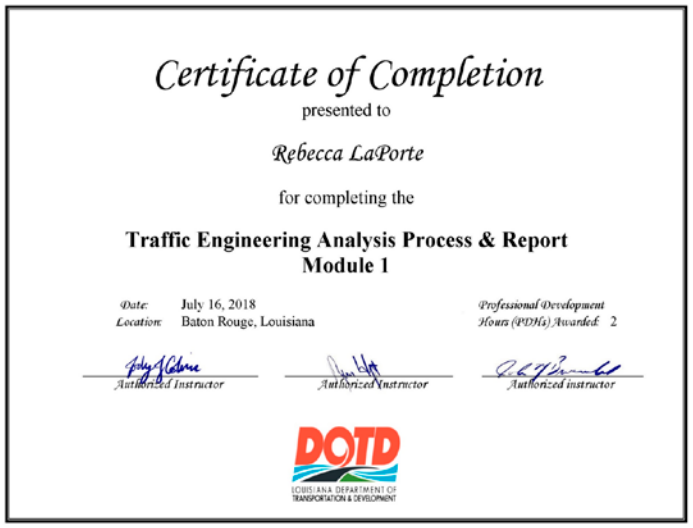
This is to affirm that

Brennon Hughes
has satisfied the requirements to be designated as a
CERTIFIED FLAGGER

Expiration Date 4/28/2023 *State Issued in* LA

Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com



Certificate of Completion

presented to

Rebecca LaPorte

for completing the

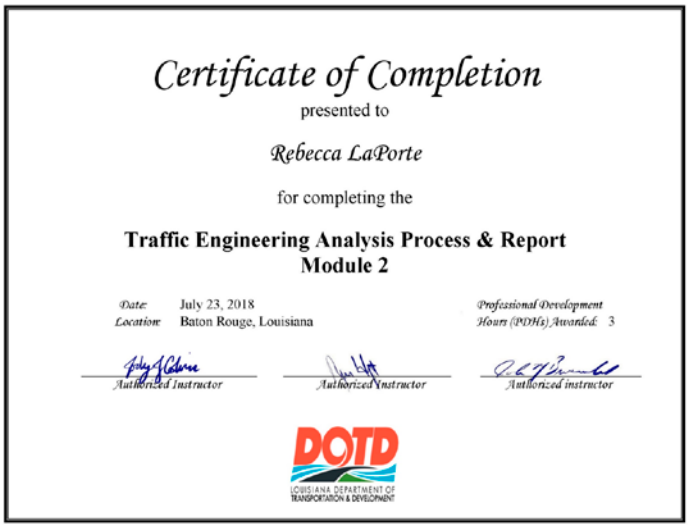
Traffic Engineering Analysis Process & Report
Module 1

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

Rebecca LaPorte

for completing the

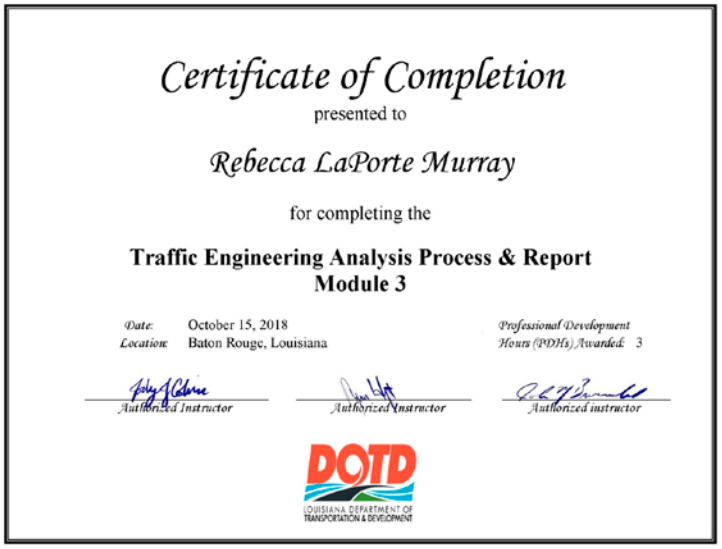
Traffic Engineering Analysis Process & Report
Module 2

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

Rebecca LaPorte Murray

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

The American Traffic Safety Services Association

Hereby recognizes that

Rebecca LaPorte

has attended

Traffic Control Supervisor-LA State Specific

1/13/16 to 1/14/16
Date

Baton Rouge, LA
Location

Training Course

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

The American Traffic Safety Services Association

Hereby recognizes that

Rebecca Murray

has attended

Traffic Control Supervisor Refresher-LA State Specific Training Course

2/14/2020 to 2/14/2020
Date

Baton Rouge, LA
Location

ATSSA
SAFER ROADS SAVE LIVES

Training & Products Dept. Director

President, CEO

ATSSA
SAFER ROADS SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

This is to affirm that

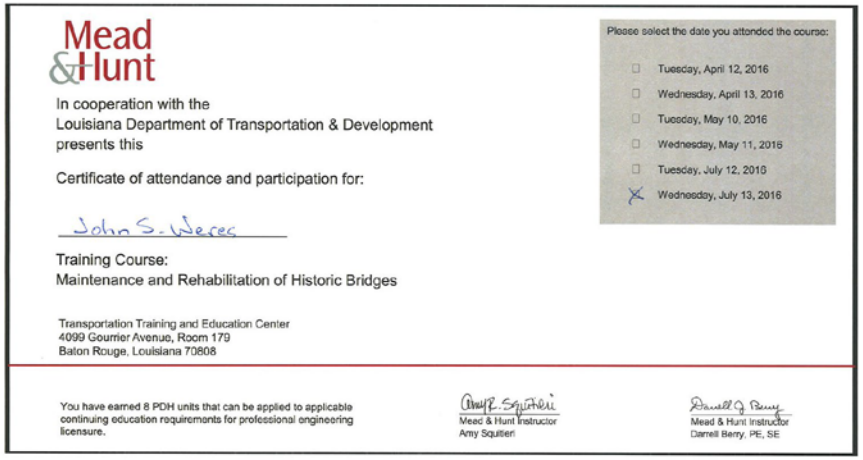
Rebecca Murray

has satisfied the requirements to be designated as a CERTIFIED FLAGGER

Expiration Date 2/8/2024 State Issued in LA

Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com



Mead & Hunt

In cooperation with the
Louisiana Department of Transportation & Development
presents this

Certificate of attendance and participation for:

John S. Weres

Training Course:
Maintenance and Rehabilitation of Historic Bridges

Transportation Training and Education Center
4099 Gourrier Avenue, Room 179
Baton Rouge, Louisiana 70808

Please select the date you attended the course:

- ☐ Tuesday, April 12, 2016
- ☐ Wednesday, April 13, 2016
- ☐ Tuesday, May 10, 2016
- ☐ Wednesday, May 11, 2016
- ☐ Tuesday, July 12, 2016
- ☒ Wednesday, July 13, 2016

You have earned 8 PDH units that can be applied to applicable continuing education requirements for professional engineering licensure.

Mead & Hunt Instructor
Amy Squitieri

Mead & Hunt Instructor
Darrell Berry, PE, SE

ATSSA TRAINED

PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

John Weres
has attended
Traffic Control Supervisor Refresher-LA State Specific
Training Course

6/30/2021 to 6/30/2025
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

I UNITED STATES OF AMERICA XI
DEPARTMENT OF TRANSPORTATION ▪ FEDERAL AVIATION ADMINISTRATION
IV NAME
JOHN STEVEN WERES
V ADDRESS 13301 HARPER CT
GULFPORT MS 39503-5458

U

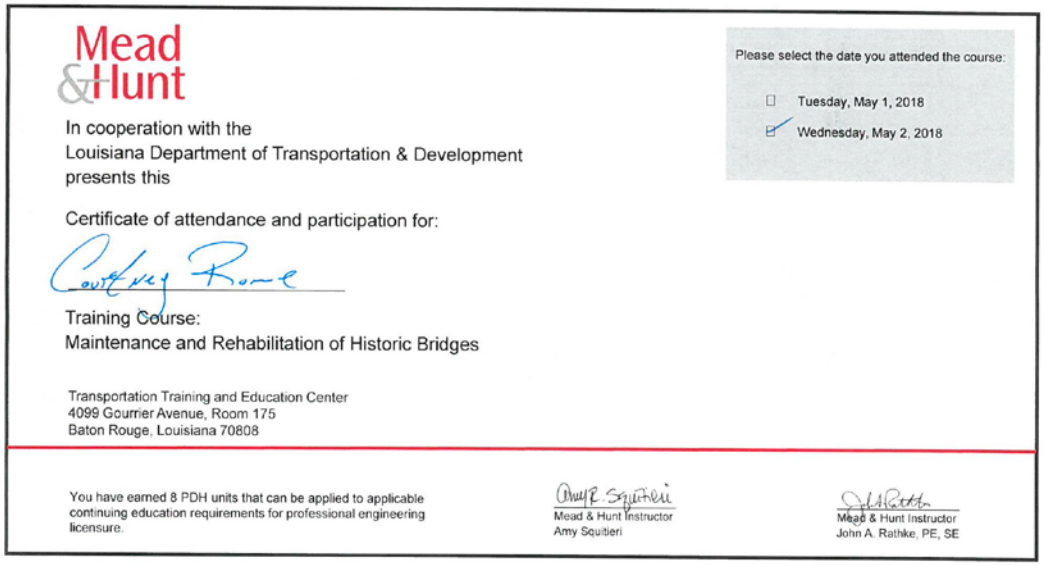
VI NATIONALITY USA SEX HEIGHT WEIGHT HAIR EYES
IVa D.O.B. 2 APR 1957 M 67 180 GRAY BROWN
IX HAS BEEN FOUND PROPERLY QUALIFIED TO EXERCISE THE PRIVILEGES OF

A

II REMOTE PILOT
III CERTIFICATE NUMBER 4496172
X DATE OF ISSUE 29 MAR 2021

S

XIV
VIII ADMINISTRATOR



Mead & Hunt

In cooperation with the
Louisiana Department of Transportation & Development
presents this

Certificate of attendance and participation for:

Courtney Rome

Training Course:
Maintenance and Rehabilitation of Historic Bridges

Please select the date you attended the course:

- ☐ Tuesday, May 1, 2018
- ☑ Wednesday, May 2, 2018

Transportation Training and Education Center
4099 Gourrier Avenue, Room 175
Baton Rouge, Louisiana 70808

You have earned 8 PDH units that can be applied to applicable continuing education requirements for professional engineering licensure.

Amy R. Squitieri
Mead & Hunt Instructor
Amy Squitieri

John A. Rathke
Mead & Hunt Instructor
John A. Rathke, PE, SE

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

NHI
NATIONAL HIGHWAY INSTITUTE

Certificate of Training

Courtney Rome

has participated in

FHWA-NHI-135095
Two-Dimensional Hydraulic Modeling of Rivers at Highway Encroachments
hosted by
Arkansas State Highway & Transportation Department

Date: November 15-17, 2016
Location: Little Rock, AR

Hours of Instruction:
Each Day of Training = 7 Hours

Instructor

Instructor

Local Coordinator

Valerie Briggs, Director
National Highway Institute

CERTIFICATE OF ATTENDANCE

FTN ASSOCIATES, LTD.

Certifies that

Courtney Rome

of the Arkansas State Highway and Transportation Department
Little Rock, AR

Attended the 2-Hour Course

Overview of 1D and 2D Unsteady Flow Modeling

on

June 19, 2014

FTN Associates, Ltd.
3 Innwood, Suite 220
Little Rock, AR 72211
(501) 225-7779

Marc C. Johnson, PE, CFM
Instructor

U.S. Department of Transportation
Federal Highway Administration

Certificate of Training

Courtney J. Rome

has completed training in

-AASHTO LRFD Bridge Design Specifications (Zone 1 & 2)
-Guide Specifications for LRFD Seismic Bridge Design (SDC A & B)

Location: Little Rock, Arkansas
Dates: April 9, 2014

Hours of Instruction (PDH): **4.5**
Continuing Education Units: **0.45**

Derrell Manceaux, P.E.
Senior Structural Engineer
Federal Highway Administration
Resource Center

Certificate of Training

this certifies that

Courtney Rome

has successfully completed

MASH Criteria Training

Presented by Trinity Highway Product and Gulf Material Sales

on April 13, 2016 in Little Rock Arkansas

Professional Development Hours (PDH) – 2

Signed Chuck Boyd Date 4-13-16

Chuck Boyd, P.E.

Certificate of Completion

This is to cerifiy that

Courtney Rome

has successfully completed the presentation entitled,

Evaluation of Analysis Methods and Midas Civil Software

Adam Hall

July 27, 2016

2 Professional Development Hours

GARVER

09/26/2016

Authorized Signature Date

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

Mr. Emery LaRue Sayre

License/Certificate Type - Number	Expiration Date
PE.0034414	09/30/2023

Status: Active

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Emery Sayre

has participated in

NHI Course No. FHWA-NHI-130107C

Maintenance of Movable Bridges

hosted by

National Highway Institute

Location: *Web-Based Course* ***Hours of Instruction:*** *4 hours*

Date: *2/25/2020*

Michael Davies, P.E.
Director, National Highway Institute

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

national highway institute

Certificate of Training

Emery Sayre

has participated in

FHWA-NHI-130092
Load and Resistance Factor Rating of Highway Bridges

hosted by

Texas Department of Transportation

Date: November 15-18, 2021 *Hours of Instruction:* 24
Location: Online Delivery, TX

Instructor

Instructor

Shandon Richardson
Local Coordinator

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

Emery Sayre

has participated in

FHWA-NHI-130053 Bridge Inspection Refresher Training

hosted by

Office of State Aid Road Construction

Date: *May 14-16, 2019* *Hours of Instruction:* 18
Location: *Ridgeland, MS*

Instructor

Instructor

Local Coordinator

Michael Davies, Director
National Highway Institute

National Highway Institute

Certificate of Training

Emery L. Sayre

has participated in

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

hosted by

Alabama DOT

Date: *September 15-18, 2015* ***Hours of Instruction:*** 25

Location: *Tuscaloosa, AL*

Steven J. Miller AM
Instructor

Benjamin Yates AM
Local Coordinator

Calvin J. Harper AM
Instructor

Richard Barnaby, Director
National Highway Institute

Certificate of Training

Emery L. Sayre

Has satisfactorily completed training for

SAFETY INSPECTION OF IN-SERVICE BRIDGES

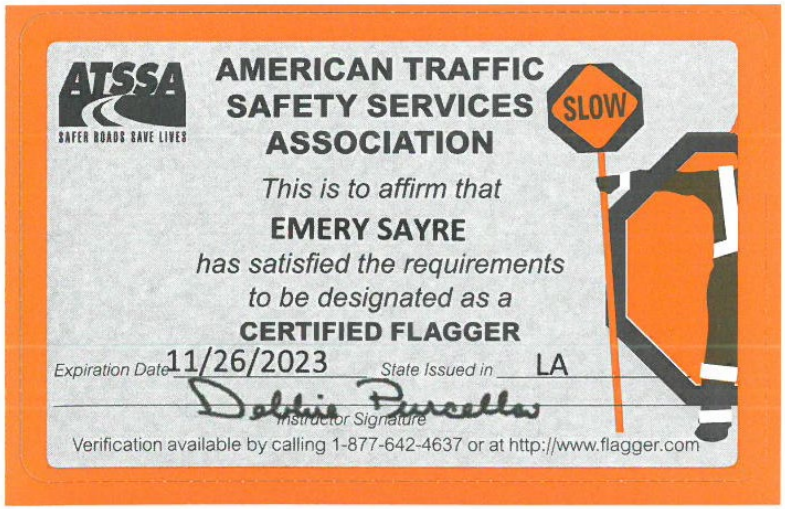
Location: Portland, Oregon
Date: September 13-24, 2010
Total Hours of Instruction: 76 Hours

SCORE:

Midterm	98/100
Final 1	115/120
Final 2	69 /80
Total	282/300 (94%)
Passing Grade:	70%

Phillip Fish
Fish & Associates, Inc.
NHI Certified

Phillip W. Sauser, PE
U.S. Army Corp of Engineers
NHI Certified



ATSSA
SAFER ROADS SAVE LIVES

AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION

SLOW

This is to affirm that

EMERY SAYRE

has satisfied the requirements to be designated as a

CERTIFIED FLAGGER

Expiration Date 11/26/2023 *State Issued in* LA

Debbie Purcell
Instructor Signature

Verification available by calling 1-877-642-4637 or at http://www.flagger.com

20. Certifications/Licenses:

Certificate of Completion

presented to

Alison Catarella-Michel

for completing the

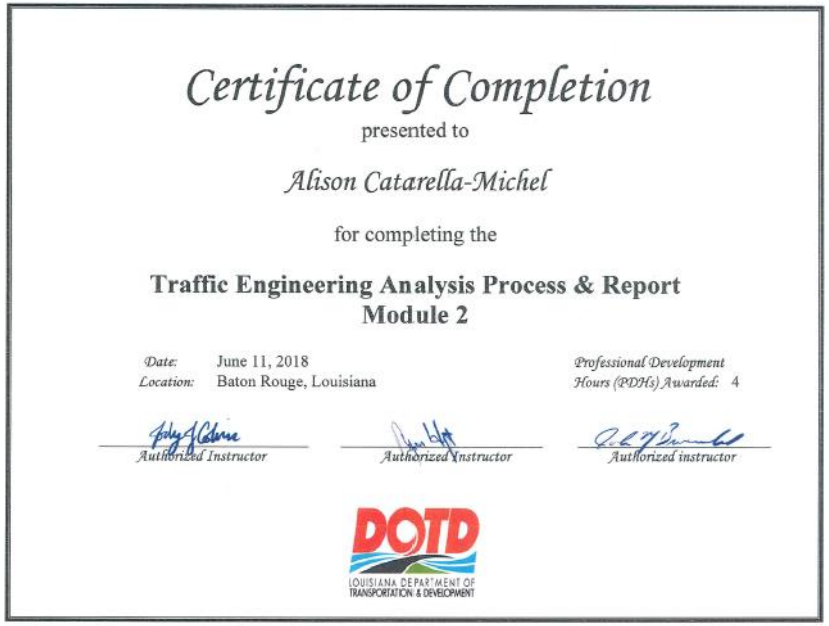
Traffic Engineering Analysis Process & Report
Module 1

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

Alison Catarella-Michel

for completing the

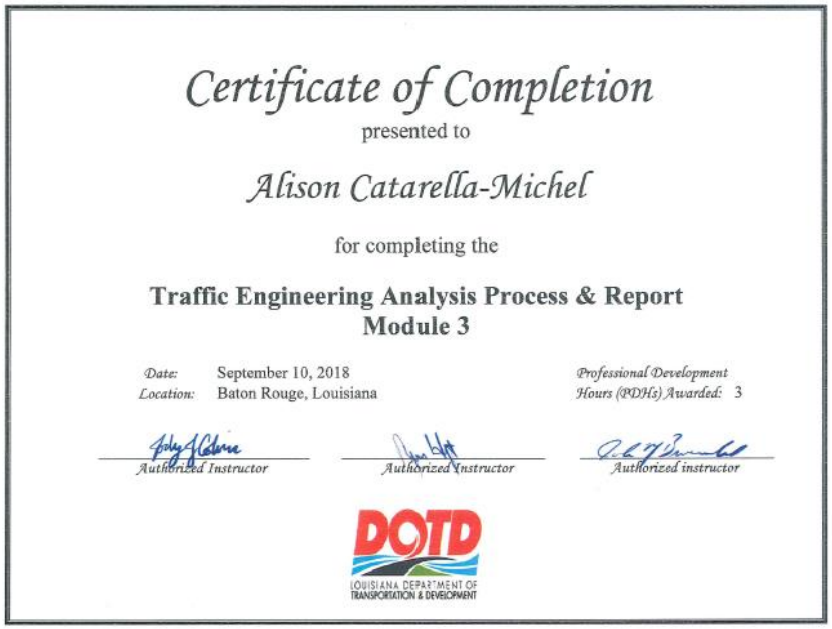
Traffic Engineering Analysis Process & Report
Module 2

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

Alison Catarella-Michel

for completing the

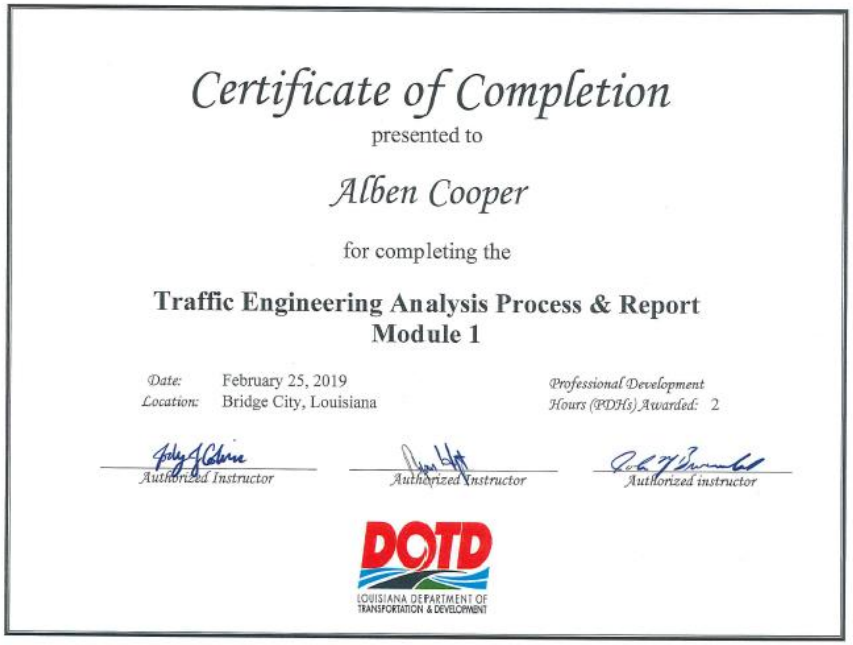
Traffic Engineering Analysis Process & Report
Module 3

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



Certificate of Completion

presented to

Alben Cooper

for completing the

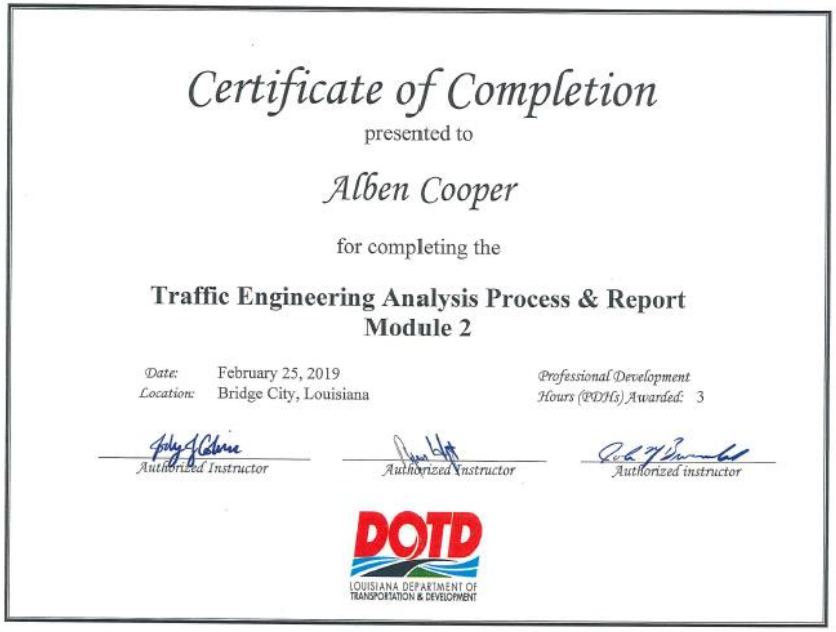
Traffic Engineering Analysis Process & Report
Module 1

Date: February 25, 2019
Location: Bridge City, Louisiana

Professional Development Hours (PDHs) Awarded: 2

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Alben Cooper

for completing the

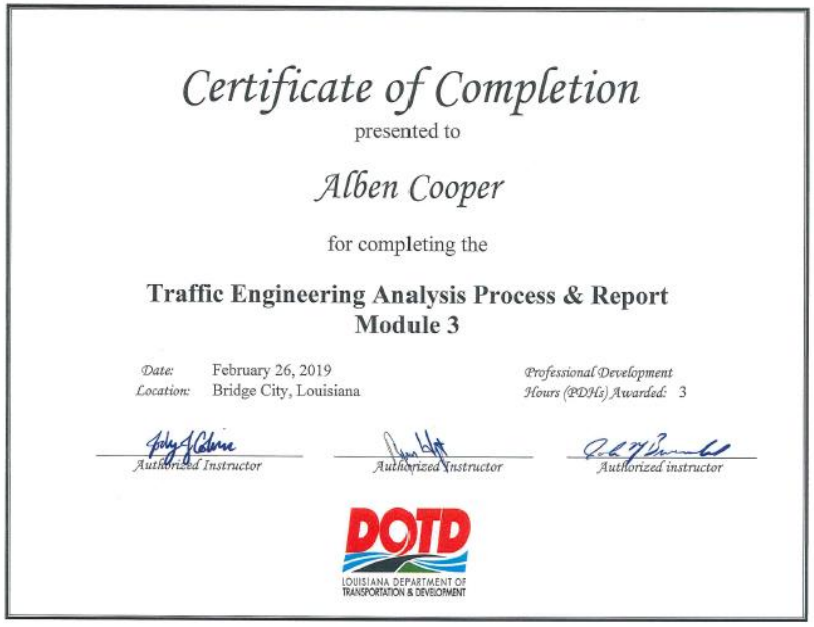
Traffic Engineering Analysis Process & Report
Module 2

Date: February 25, 2019
Location: Bridge City, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Alben Cooper

for completing the

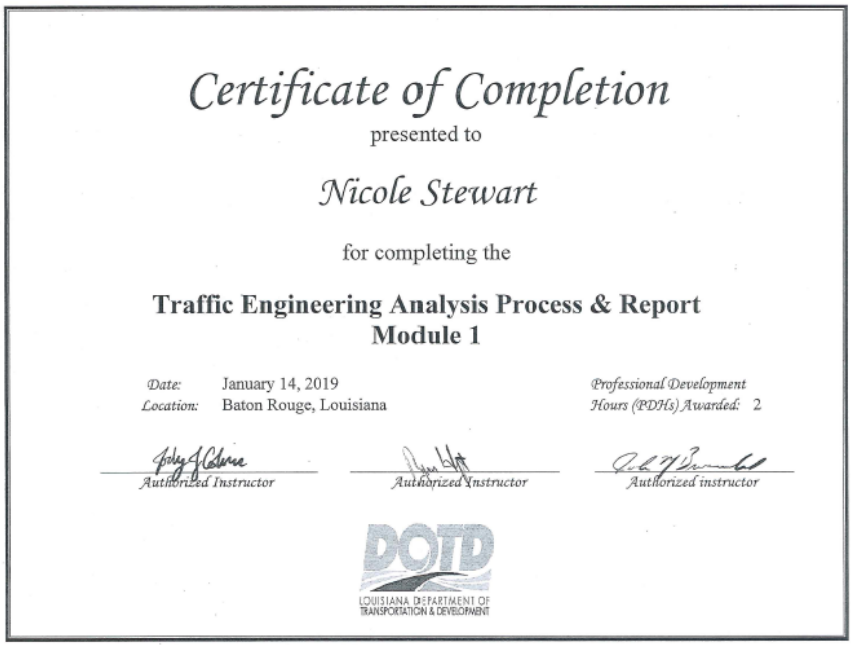
Traffic Engineering Analysis Process & Report
Module 3

Date: February 26, 2019
Location: Bridge City, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT



Certificate of Completion

presented to

Nicole Stewart

for completing the

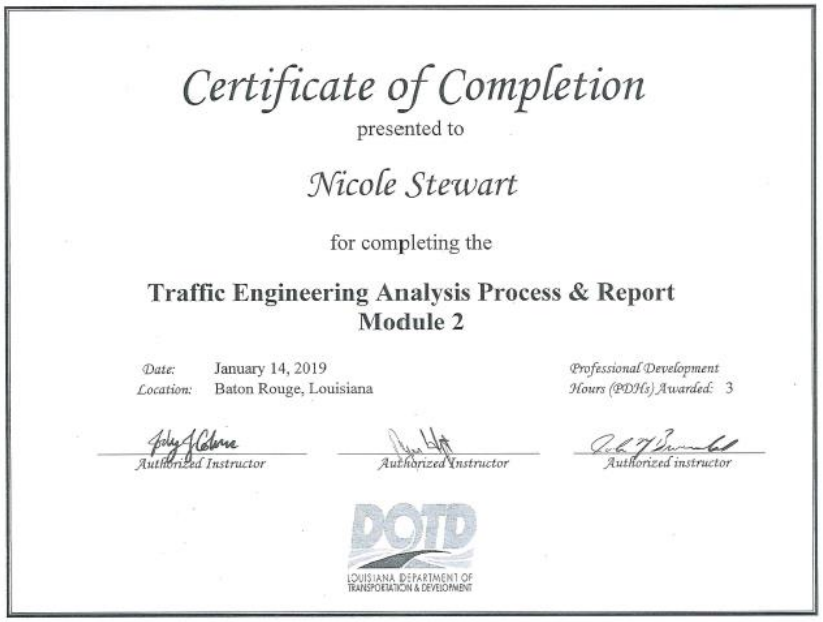
Traffic Engineering Analysis Process & Report
Module 1

Date: January 14, 2019
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

Nicole Stewart

for completing the

Traffic Engineering Analysis Process & Report
Module 2

Date: January 14, 2019
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

Nicole Stewart

for completing the

Traffic Engineering Analysis Process & Report
Module 3

Date: January 15, 2019
Location: Baton Rouge, Louisiana

Professional Development Hours (PDHs) Awarded: 3

Authorized Instructor *Authorized Instructor* *Authorized instructor*

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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

Our team will submit our QA/QC plan to the DOTD PM within 10 business days of notification that we have been awarded this project.

22. Sub-consultant Information:

Firm Name (as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
Michael Baker International, Inc.	2600 Citiplace Drive, Suite 450 Baton Rouge, LA 70808	Daniel Thornhill, P.E. daniel.thornhill@mbakerintl.com	225.218.2846
APS Engineering and Testing, LLC	5261 Highland Rd. PMB #320 Baton Rouge, LA 70808	Sergio Aviles P.E., M.ASCE sergio@aps-testing.com	225.456.5714
Urban Systems Associates, Inc.	2000 Tulane Ave #200, New Orleans, LA 70112	Alison Catarella-Michel, PE, PTOE, PTP, RSP1 acmichel@urbansystems.com	504.523.5511

(Add rows as needed)

23. Location:

100% of this project will be managed by local Gresham Smith staff from our office located at 10,000 Perkins Rowe Suite 280 Baton Rouge, LA 70810. The majority of the work performed by Baton Rouge staff within this office and will be supported by regional experts on our team.

Gresham Smith

Genuine Ingenuity

Alpharetta, GA
Atlanta, GA
Baton Rouge, LA
Birmingham, AL
Charlotte, NC
Chattanooga, TN
Chicago, IL
Cincinnati, OH
Columbus, OH
Dallas, TX
Ft. Lauderdale, FL
Jackson, MS
Jacksonville, FL
Knoxville, TN
Lexington, KY
Louisville, KY
Memphis, TN
Miami, FL
Nashville, TN
Richmond, VA
Suwanee, GA
Tallahassee, FL
Tampa, FL

10000 Perkins Rowe
Suite 280
Baton Rouge, LA 70810

225.757.5849
GreshamSmith.com