

PROPOSAL FOR ENGINEERING AND RELATED SERVICES

LA 44: PELICAN POINT ROUNDBABOUT AND WIDENING

February 6, 2024

Submitted to:
Louisiana Department of
Transportation and
Development (DOTD)



Submitted by:
Michael Baker
International, Inc.

Michael Baker
INTERNATIONAL

Pictured: SR 222 and 73 Roundabout

CONTRACT NO. 4400028434
STATE PROJECT NO. H.015568.5
F.A.P. NO. H015568



SECTIONS

1-11

CONTRACT AND CONSULTANT INFORMATION

Pictured: SR 662 Roundabout

The Michael Baker design team for this contract has been analyzing and designing roundabouts to DOTD guidelines for the last 14+ years.

DOTD FORM: 24-102

(Revised January 1, 2023)

PROPOSAL TO PROVIDE CONSULTANT SERVICES

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

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

1. Contract Name as shown in the advertisement	CONTRACT NO. 4400028434 LA 44: PELICAN POINT ROUNDABOUT AND WIDEN STATE PROJECT NO. H.015568.5 FEDERAL AID PROJECT NO. H015568 ROUTE: LA 44 ASCENSION PARISH
2. Contract Number(s) as shown in the advertisement	4400028434
3. State Project Number(s), if shown in the advertisement	H.015568.5
4. Prime consultant name (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	Michael Baker International, Inc.
5. Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	E.F. 0000062 V.F. 0000010
6. Prime consultant mailing address	Michael Baker International, Inc. 2600 CitiPlace Drive, Suite 450 Baton Rouge, Louisiana 70808
7. Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	Michael Baker International, Inc. 2600 CitiPlace Drive, Suite 450 Baton Rouge, Louisiana 70808
8. Name, title, phone number, and email address of prime consultant's contract point of contact	Daniel Thornhill, P.E. Associate Vice President / Office Executive 225-218-2846 daniel.thornhill@mbakerintl.com
9. Name, title, phone number, and email address of the official with signing authority for this proposal	Daniel Thornhill, P.E. Associate Vice President / Office Executive 225-218-2846 daniel.thornhill@mbakerintl.com

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

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



Signature above shall be the same person listed in Section 9:

2/6/2024

Date:

11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.

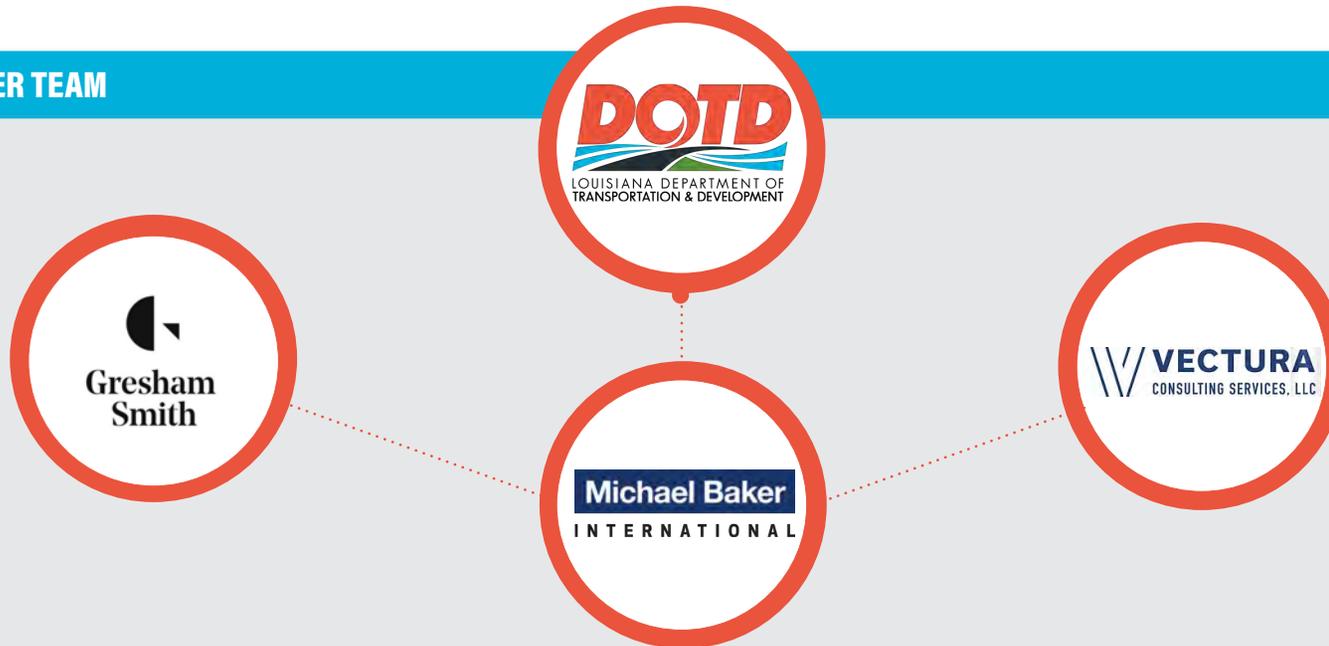
Firm(s):

Firm(s)' %:

Vectura Consulting Services, LLC

7.86%

YOUR MICHAEL BAKER TEAM



DOTD will experience a dedicated team of local partners led by Michael Baker. Each firm and each team member were chosen specifically to bring a unique skill set, expertise, and experience to deliver a safe, efficient roundabout design for the intersection of Pelican Point Drive and Route 44.

SECTION
12

PAST PERFORMANCE
EVALUATION DISCIPLINE
TABLE



Pictured: Texas 51st Street

The Michael Baker team has the resources and backlog that will allow us to hit the ground running to meet DOTD's needs for the LA 44 Roundabout at Pelican Point Parkway and LA 44 widening.

12. Past Performance Evaluation Discipline Table:

Past Performance Evaluation Discipline(s)	% of Overall Contract	Michael Baker International, Inc.	Gresham Smith	Vectura Consulting Services, LLC	Each Discipline must total to 100%
Road	72.00%	81.00%	16.00%	3.00%	100.00%
Bridge	20.00%	20.00%	80.00%	0.00%	100.00%
Traffic	6.00%	0.00%	5.00%	95.00%	100.00%
Environmental	2.00%	100.00%	0.00%	0.00%	100.00%
<i>Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.</i>					
Percent of Contract	100.00%	64.32%	27.82%	7.86%	100.00%



MUNICIPALITY PARTNERSHIP

The Michael Baker team has completed major projects of a variety of worktypes throughout the State of Louisiana. Our partnership and collaboration with these municipalities provide DOTD with a team who requires no ramp up time and has the ability to dive right in to a familiar project from the start.

- » 1. Lafayette, LA
- » 2. Youngsville, LA
- » 3. Baton Rouge, LA
- » 4. Denham Springs, LA
- » 5. City of Central, LA
- » 6. Walker, LA
- » 7. Covington, LA
- » 8. Mandeville, LA
- » 9. Slidell, LA
- » 10. Lake Charles, LA
- » 11. Alexandria, LA
- » 12. Bossier City, LA
- » 13. Ruston, LA
- » 14. Monroe, LA
- » 15. Leesville, LA
- » 16. Scott, LA
- » 17. Gonzales, LA
- » 18. Hammond, LA
- » 19. Webster Parish, LA
- » 20. District 07 DOTD (Five Parishes)

SECTION
13
FIRM SIZE



Pictured: Texas 51st Street

The Michael Baker team offers a deep bench of certified staff, including Louisiana-certified professional engineers, traffic engineers with Traffic Engineering Process and Report training, and construction professionals with relevant work zone training and certifications.

13. Firm Size:

<i>Firm name</i>	<i>DOTD Job Classification</i>	<i>Number of personnel committed to this contract</i>	<i>Total number of personnel available in this DOTD Job Classification (if needed)</i>
 <p>Michael Baker INTERNATIONAL Michael Baker International, Inc.</p>	Principal	1	2
	Supervisor - Engineer	1	3
	Supervisor - Other	1	3
	Engineer	2	5
	Engineer - Aide	1	2
	Engineer Intern	2	2
	Engineer - Other	1	5
	Environmental Pro	1	3
	Biologist/Wetlands	1	3
	Senior Technician	1	5
	Administrative	1	2
 <p>Gresham Smith Gresham Smith</p>	Principal	1	1
	Supervisor-Engineer	2	6
	Engineer	2	8
	Engineer Intern	2	8
	Professional	1	4
	Senior Technician	2	6
	Clerical	1	1
 <p>VECTURA CONSULTING SERVICES, LLC Vectura Consulting Services, LLC</p>	Supervisor - Eng	2	2
	Engineer	3	3
	Engineer Intern	1	2
	Inspector	0	2
	Supervisor - Other	0	1

SECTION
14

ORGANIZATIONAL CHART



Pictured: SR 15 & Lamey Bridge Road

Michael Baker's Project Manager, Daniel Thornhill, has extensive experience with roundabout geometry over the last 14 years where he has laid out or designed numerous roundabouts for feasibility, line & grade, and preliminary and final design projects.

14. Organizational Chart:



DOTD PROJECT MANAGER



PROJECT MANAGER & PRINCIPAL-IN-CHARGE

Daniel Thornhill, PE

QA/QC

Roundabout Geometrics - Steven Stuart, PE
Bridge - Charles "Tony" Hunley, PhD, PE
Bridge - Tom Tran, PE (GS)
Traffic - Sheelagh Brin Ferlito, PE, PTOE ^ (VCS)

BRIDGE SUPPORT TEAM

Bridge Design

Lead - John Weres, PE (GS)
 Courtney Rome, PE (GS)
 Jeff McRae, PE
 Shalin Sheth, PE

Bridge Rating

Petrina Butler, PE
 Shalin Sheth, PE
 Jeff McRae, PE
 Yun Lin, PhD, PE (GS)
 Courtney Rome, PE (GS)
 Don McCrary, PE (GS)

ENVIRONMENTAL SUPPORT

Lead - TJ Holliday, PWS
 Elizabeth Brock

ROADWAY DESIGN TEAM

Roadway

Lead - Daniel Thornhill, PE
 Herbert Moore, PE, PLS, PTOE (GS)
 Brandon Pitre, PE, RSP *
 Alison Gonzalez, PE
 Alexis Harrouch, EI
 Marcela Trochez

Hydraulics

Lead - Lloyd "Eric" Erikson, PE, CFM
 Aaron Dunavant, PE

Traffic

Lead - Laurence Lambert, PE, PTOE, PTP (VCS) *
 Kristen Farrington, PE, PTOE, RSP (VCS)
 Rebecca Murray, PE, PTOE, RSP (GS)

CONSTRUCTION ADMINISTRATION

Lead - Brandon Pitre, PE, RSP
 Mary Flynn, PE
 Kenny Collins, PE

LEGEND

- Personnel fulfilling an MPR role.
 - Personnel holds TCT, TCS, and Flagger certifications.

* - Indicates personnel who have completed the three TEPR modules.

PROJECT TEAM

Michael Baker International
 Gresham Smith (GS)
 Vectura Consulting Services, LLC (VCS)

SECTION
15

MINIMUM PERSONNEL
REQUIREMENTS



Pictured: Dogwood Road Roundabout

Michael Baker has teamed with Gresham Smith to bring their years of DOTD project experience for roadway and bridge projects. Gresham Smith has several retired DOTD personnel who are very experienced in the DOTD project delivery process.

15. Minimum Personnel Requirements:

<i>MPR No. Do not insert wording from ad</i>	<i>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)</i>	<i>Firm employed by</i>	<i>Type of license and discipline meeting MPR/ certification & number (Ex: PE # - Civil)</i>	<i>State of license</i>	<i>License/certification expiration date</i>
1	Daniel Thornhill, PE	Michael Baker International, Inc.	PE No. 32367 (Civil)	Louisiana	09/30/2024
2	Daniel Thornhill, PE	Michael Baker International, Inc.	PE No. 32367 (Civil)	Louisiana	09/30/2024
3	Daniel Thornhill, PE	Michael Baker International, Inc.	PE No. 32367 (Civil)	Louisiana	09/30/2024
4	John Weres, PE	Gresham Smith	PE No. 36429 (Civil)	Louisiana	09/30/2025
	Tom Tran, PE	Gresham Smith	PE No. 32072 (Civil)	Louisiana	03/31/2024
5	Petrina Butler, PE	Michael Baker International, Inc.	PE No. 39597 (Civil)	Louisiana	09/30/2025
	Yun Lin, PhD, PE	Gresham Smith	PE No. 42444 (Civil)	Louisiana	09/30/2024
	Courtney Rome, PE	Gresham Smith	PE No. 43355 (Civil)	Louisiana	09/30/2025
	Don McCrary, PE	Gresham Smith	PE No. 48452 (Civil)	Louisiana	03/31/2024

6	Laurence Lambert, PE, PTOE, PTP	Vectura Consulting Services, LLC	PE No. 29901	Louisiana	03/31/2024
	Sheelagh Brin Ferlito, PE, PTOE	Vectura Consulting Services, LLC	PE No. 25383 (Civil)	Louisiana	9/30/2025
	Herbert Moore, PE, PLS, PTOE	Gresham Smith	PE No. 31065 (Civil)	Louisiana	09/30/2024
	Rebecca Murray, PE, PTOE, RSP	Gresham Smith	PE No. 43788 (Civil)	Louisiana	03/31/2024



Pictured: I-5 to La Novia

Michael Baker has teamed with Vectura Consulting Services, LLC to bring their years of DOTD traffic management plan experience for helping to maintain traffic flow and operation during construction. Vectura's relationship with the traffic section of DOTD will help with seamless coordination with DOTD.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Daniel Thornhill, PE	Years of relevant experience with this employer	4
Title	Office Executive & Associate Vice President	Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization		BS / 1997 / Civil Engineering	
Active registration number / state / expiration date		PE No. 32367 / LA / 09-30-2024; Traffic Control Technician-LA State Specific / April 2026; Traffic Control Supervisor / LA State Specific / April 2026	
Year registered	2006	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		MPR Nos. 1, 2, & 3; Project Manager	
Daniel will apply more than 26 years of transportation engineering, design and construction experience to successfully manage this project, allocating resources as needed to ensure designs are developed on time and within budget. Daniel specializes in a variety of roadway design, corridor/traffic operation concept analysis, bridge design, hydraulics design, and subsurface drainage design projects, and has delivered more than 140 roundabout layouts throughout his career. He has successfully partnered with DOTD for more than 15 years, and is highly familiar with your standards and specifications for road, bridge, traffic, and drainage design work.		<ul style="list-style-type: none"> ✓ Highly familiar with DOTD staff, procedures, and projects ✓ 140+ roundabout layouts (Design, Stage 0 and Stage 1) ✓ Project Manager, Principal-in-Charge, or Senior Engineer on 75+ transportation projects across Louisiana 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
08/22 - Ongoing	Barksdale AFB Entrance Roads, Bossier Parish, Louisiana. NAVFAC Southeast. Project Manager. Responsible for the development of construction plans for new entrance roads for Barksdale AFB. The project includes a new roundabout at the Air Force Base gates along with new 4-lane divided highway to tie into the new LA 1267 highway constructed by DOTD under the I-20/I-220 Design Build interchange improvements. Additional responsibilities include coordination with the DOTD I-20/I-220 Project Manager and Design Build Owner Verification Managers along with overseeing new roadway drainage that meets DOTD Hydraulic requirements. Mr. Thornhill re-designed the proposed roundabout from the EA document to reduce the footprint by reducing the inscribed circle from 230'+ to 180' to meet DOTD Roundabout criteria along with reducing the median on the approach to the roundabout to encourage motorist to reduce speed as it approached the roundabout.		
11/21 - Ongoing	US 371: KCS RR Overpasses HBI, Webster Parish, Louisiana. DOTD. Project Manager & Principal-in-Charge. Responsible for the design and development of construction plans for the replacement of 3 bridges at two locations along US 371. Also responsible for horizontal and vertical geometry, intersection improvements, and setting the grade for the bridges. The first location is the replacement of a 3 span bridge over KCS Railroad in Sibley, LA. Project entails the development of new bridge alignment following DOTD and KCS Railroad requirements along with modifications of the existing road to accommodate the new bridge vertical alignment. Second location is the replacement of parallel bridges along US 371 at the Minden/I-20 interchange. Bridges will be replaced in phased construction to maintain traffic. Two new 3-span bridges will be constructed over KCS railroad meeting the DOTD and KCS design requirements required at the Sibley bridge site.		
10/22 - Ongoing	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program – District 07. DOTD, District 07. Principal-in-Charge. Responsible for the oversight of the development of a Preliminary Bridge Matrix and Final Structure Recommendation for the off-system bridge program for five parishes in District 07. Project is broken into Initial Phase and Final Design Phase. Matrix developments were part of the initial phase that started in October 2022 and was finished and submitted in December 2022. District 07 was given \$30.3 million dollars with allocations for each parish. Also responsible for meeting with each Parish engineer/Policy Jury to determine priority for which bridges needed replacement. Project is currently in Final Design Phase for the replacement of 12 Bridges and he duties include contract management, overseeing the design of the roadway approaches and approving the new bridge grades and selection of new bridge structures.		



Mr. Thornhill has worked on 140+ roundabouts in his career and has experience in a variety of engineering projects including environmental assessment, roadway design, corridor/traffic operation concept analysis, bridge design, hydraulics design, subsurface drainage design, and more.

140+
roundabouts worked on

04/22 – Ongoing	<p>LA 30: EBR PL – I-10, East Baton Rouge, Iberville, and Ascension Parishes, LA. DOTD Headquarters. Project Manager & Principal-in-Charge. Responsible for the oversight of the Environmental Assessment (EA) of the widening of LA 30 from a 2-lane roadway to 4-lane roadway. Project limits is roughly 14 miles from the East Baton Rouge/Iberville Parish line to the terminus at I-10 interchange. Project is currently in Part 1 of the EA which main focus on traffic count/study/analysis along with some early environmental field screening, initial geometric improvements at existing 5 intersections, SUE services, and development of existing hydraulic flows for existing 6 bridge/culvert structures. Additional responsibilities include oversight of existing alignments along with existing right-of-way lines. Additional coordination required is with DOTD new Mississippi River Bridge Environmental on-going project. Recent addition of 7 miles to the project limits have been added to the project to include LA 30 from Brightside/Lee Drive Intersection to the East Baton Rouge/Iberville Parish line. Project challenges are the number of industrial pipelines that parallel LA 30 on both sides of the roadway along with railroad on the west side of LA 30 from Brightside Intersection to just south of East Iberville High School.</p>
08/12 – 01/18	<p>Juban Road (LA 1026) Widening (I-12 to US 190), Livingston Parish, Louisiana. DOTD. Project Manager & Lead Design Engineer. Responsible for the development of construction plans for the widening of Juban Road from a 2-lane roadway to a 4-lane boulevard from just north of the I-12 Interchange to US 190. Improvements included three (3) multi-lane roundabouts along Juban Road while including sidepaths on both sides of Juban Road to meet the LADOTD complete streets initiative. Access Management was a priority along this route therefore the median was reduced to 6' to 8' to discourage left turn movements and make all driveways right-in/right-out while utilizing the roundabouts for U-turn movements. The first roundabout was located at future driveway number 5 for the Juban Crossing Development. The second roundabout was located midway along project with addition of service roads to encourage Livingston Parish to extend during future development to reduce driveways along Juban Road. The third roundabout was located at the Juban Road at US 190 intersection. The roundabout would replace an existing signal that causes traffic congestion especially during peak afternoon traffic. Project included all necessary improvements along US 190 for the new roundabout and additional turn lane for the new Sanctuary Development along with the replacement of several major box culvert crossings from Gray's Creek Branch.</p>
05/16 – 01/18	<p>Ham Reid Road at Lake Street (LA 3092) Intersection Improvement Project for Calcasieu Parish Police Jury. Calcasieu Parish Police Jury. Project Manager & Lead Design Engineer. Responsible for the development of construction plans for a new single lane roundabout at the intersection of Ham Reid Road and Lake Street (LA 3092). Project was studied as both a new signal and roundabout to provide traffic flow for land being developed along the southwest quadrant of the project. Through coordination with DOTD, it was determined a new single lane roundabout was the best alternative. The new roundabout would be a four-leg roundabout that would connect to Spanish Mission Trail roadway of Trails Subdivision with one of roundabout legs to provide seamless connectivity with Ham Reid Road to eliminate a possible Z-intersection configuration with only a 3-leg roundabout. Mr. Thornhill coordinated with both Calcasieu Parish Project Manager, DOTD District 7 Engineers, and DOTD Project Permit Specialist; development of geometric layouts both horizontally and vertically, development of right-of-way taking lines and coordination of right-of-way maps with surveyor, and hydraulic analysis for both subsurface and storm water flow. Project was being done as a permit project for Calcasieu Parish through DOTD District 7.</p>
03/14 – 05/15	<p>Mandeville Bypass, St. Tammany Parish, Louisiana. St. Tammany Parish Department of Public Works. Project Manager & Engineer. Responsible for overseeing the preparation of construction plans for a new Bypass from US 190 to LA 1088. Project includes 2-lane and 4-lane Roadway with multiple roundabouts at various intersections. Currently in Preliminary Pan Stage. Project tied to two DOTD maintained roads: US 190 and LA 1088.</p>
03/13 – 04/14	<p>US 190 Traffic Study, Covington, Louisiana. DOTD / Line & Grade Study for New Orleans Regional Planning Commission. Project Engineer. Responsible for the geometry layout of corridor improvements to aid in traffic operations along U.S. 190 (Collins Blvd.). Project included multiple roundabouts at various intersections.</p>
01/11 – 12/11	<p>LA 3234 (E. University Avenue) Extension, Hammond, Louisiana. DOTD. Project Engineer. Responsible for the geometric layouts of three alternatives, including multiple roundabouts, to extend a multi-lane state highway to provide access to the Hammond Airport (approximately two miles).</p>
11/12 – 04/14	<p>LA 1088 Traffic Corridor Study, St. Tammany Parish, Louisiana. DOTD. Project Engineer. Responsible for the geometric layout for three (3) Alternatives for the improvements of LA 1088 for improved traffic operations. Each alternative included roundabouts and / or J-turns at determined intersections while meeting LA DOTD complete streets initiative with combinations of bike paths/multi-use paths/sidewalks along the corridor.</p>
10/11 – 05/13	<p>LA 447 Corridor Study, Walker, Louisiana. DOTD. Project Engineer. Responsible for overseeing the design/feasibility study of interchange improvement concepts for the interchange at LA 447/I-12 along with the traffic operations improvement of LA 447 from a 5-lane section to a 4-lane divided with multiple roundabouts at various intersections.</p>

16. Staff Experience

Firm employed by	Gresham Smith		
Name	John Weres, P.E.	Years of relevant experience with this employer	7
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	36
Degree(s) / Years / Specialization	Bachelor of Science / 1980 / Civil Engineering, University of Pittsburgh		
Active registration number / state / expiration date	PE.0036429 / LA / exp. 09/2025		
Year registered	2011-LA, 1985-PA	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities	MPR No. 4; Bridge Design Lead		



John's 40+-year career includes diverse structure related activities including inspection, alternatives analysis, final design and construction management and program management. Experience includes multi-level interchanges, complex geometry, truss rehabilitations and suspension bridge rehabilitations, phased construction, deep foundations, complex pier geometry, and movable bridge inspection and design. NHI Certified 130055 (Team Leader), 130078 (Fracture Critical Steel), and 130092 Load Rating.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
06/19 – 03/20	LADOTD, Complex Bridge Inspections, Statewide, LA Project Manager. Task Order 1 - 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 for the initial three bridges.
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 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. John served as the design coordinator and facilitated the repairs.
07/20 – 10/23	LADOTD, Complex Bridge Inspections, Statewide, LA Project Manager. Task Order 3 - Retainer project for various movable bridge inspections. Completed hands-on inspection of fracture critical elements on several structures and coordinated the efforts of mechanical and electrical staff and served as EOR for the reports including the Bridge 006210 Vertical Lift Bridge at Loreauville, LA, Bridge 054360 Gross Tete Steel Swing Bridge and Bridge 054472 Indian Village Steel Swing Bridge in Iberville Parish. Due to cost savings on the initial 3 bridges in Task Order 2, we were able to complete the inspection of Bridge 006306, Bayside Bridge in Jeanerette, a steel swing bridge – within the original budget.
6/14 – 03/17 With another firm	LADOTD, Complex Bridge Inspections, Statewide, LA Deputy Project Manager/Project Manager. Retainer project for various bridge inspections of major river crossings. Completed hands-on inspection of fracture critical elements on several structures including the Louisa Bascule Bridge in St. Mary's Parish. John served on the field inspection teams for the I-20 Mississippi River Bridge in Vicksburg and the LA 47 Bridge over the Mississippi River Gulf Outlet. Under a separate task order, John led the evaluation of US 190 Bridge over US 22, including bridge rating with AASHTOWare BrR. The study was to determine the structural adequacy of the bridge with the addition of a center median.
06/21 – 08/21	FLDOT, Florida DEP, Florida Keys Overseas Heritage Trail Historic Bridge Evaluation, Marathon, FL QA/QC. Florida DEP selected Gresham Smith to inspect and evaluate two historic bridges, the Seven Mile Bridge and the Bahia-Honda Historic Truss. John led the field evaluations, including drone video documentation and development of the recommendations report. This historic, former railroad structure includes a 247' Parker Truss main span with 24 Pratt truss approach spans as well as 9 plate girder approaches.

07/19 – Ongoing	TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN Senior Structural Engineer. John provided bridge load rating for approximately 141 complex structures and 137 standard structures across the state of Tennessee. 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.
4/15 – 3/17 With another firm	LADOTD, I-49 Lafayette Connector, Lafayette, LA Deputy Lead Structural Design Engineer. Served as Deputy Lead Structural Design Engineer for the concept design for a 4-mile long elevated structure through an urban area. Structure concepts included post-tensioned concrete U-girders, span-by-span segmental boxes, and steel trapezoidal boxes. John coordinated the efforts of the individual design teams for each structure type and served as the public coordination lead for the structures as part of an overall community involvement plan on developing the proposed structure type for this \$800M project.
6/15 – 3/17 With another firm	LADOTD, State Project No. H.004367.5 – Earhart Expressway Connector, Metairie, LA Deputy Project Manager, Lead Structures Engineer. Preliminary and final design for a 7,000-foot urban expressway structure as part of the Earhart Expressway to Airline Highway Connector project. Preliminary design activities included survey, SUE, development of design criteria, development of bridge typical sections and development of proposed span arrangements and coordination with CN Railroad for the placement of bridge piers within the railroad right-of-way.
11/17 – 09/21	MDOT, MS-178 Benton County Bridges, Benton County, MS Lead Structure Engineer. John served as the Lead Design Engineer for the final design of a 2-cell box culvert and two prestressed concrete girder structures in northern Mississippi. These water crossings improved the hydraulic conditions at the sites and incorporated low-maintenance details such as jointless bridges.
01/17 – 08/21	MDOT, Marshall County Bridges Replacements, MS Lead Structure Engineer. John provided construction services for the new 3-span Byahalia Bridge and served as Engineer of Record (EOR) for replacement of 5 multi-span stream crossing structures in north Mississippi.

(Add rows as needed)

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Brandon Pitre, PE, RSP	Years of relevant experience with this employer	4
Title	Transportation Engineer / Project Manager	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		MSCE / 2012 / Civil Engineering; BSCE / 2010 / Civil Engineering	
Active registration number / state / expiration date		PE No. 40975 / Louisiana / exp. 03/31/2025; Traffic Control Technician/ LA State Specific / 04/2026; Traffic Control Supervisor / LA State Specific / 04/2026; Traffic Engineering Analysis Process & Report Modules 1-3; Roadway Safety Professional 1 / 12/2025	
Year registered	2016	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Roadway Design Support; Construction Services Lead	
<p>Brandon is a transportation engineer with experience in conceptual and geometric design for a variety of roadway projects. He has worked in the public sector at LADOTD in the Construction and Road Design Sections before working as an engineering consultant. His professional experience as a transportation engineer includes roadway geometric design and construction plan development using Bentley Microstation, InRoads, and Openroads Designer, as well as project management and construction engineering experience. His experience also includes roadway hydraulics design on a variety of projects, technical report writing, and pavement design.</p>		<ul style="list-style-type: none"> ✓ Former DOTD Road Designer ✓ Certified Roadway Safety Professional with TEPR Modules 1-3 ✓ Roundabout design experience at Barksdale Air Force Base and at the U.S. 371 Railroad Overpasses 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
11/21 - Ongoing	<p>US 371: KCS RR Overpasses HBI, Webster Parish, Louisiana. DOTD. Project Manager & Transportation Engineer. Serving as Project Manager and Roadway Design Lead for the project who will oversee the delivery of the Preliminary and Final roadway and bridge design plans. The project consists of the design and replacement of three bridges which cross over a KCS railroad line at two different locations in Webster Parish (Sibley and Minden). The new bridges will be concrete girder-type and includes widening the two existing bridges in Minden to accommodate an additional travel lane for each bridge. A detour bridge will also be included for the Sibley location. Strict adherence to the KCS railroad design guidelines as well as adequate coordination with KCS will have to be maintained during all phases of design.</p>		
08/22 - Ongoing	<p>Barksdale AFB Entrance Road and Gate Complex, Design-Build, Bossier Parish, Louisiana. NAVFAC. Transportation Engineer. Responsible for the roadway design and construction plan development of this project. The project consists of the design and construction of an extension of an existing state-owned highway, LA 1267, along with a new multi-lane roundabout. The new roadway will be a 4-lane divided highway entrance into the Barksdale AFB. Responsible for the development of the 3D roadway design model for the project as well as overseeing the delivery of the construction plans.</p>		
10/23 - Ongoing	<p>SR 25 - Grants Ferry to SR 471. Mississippi DOT. Roundabout Design Lead. Responsible for conceptual layout and design of three single-lane roundabouts located at the Spillway Rd / SR 471 intersection and the SR 25 ramp terminals located at SR 471. This involves establishing new horizontal and vertical alignments for the SR 25 ramps and Spillway Rd. Other duties included generating AutoTURN movements to provide sufficient roundabout geometry as well as producing accompanying speed profile reports to ensure that the proposed geometry does not allow high speed movements through the roundabout in accordance with the latest NCHRP guidance and MDOT standards. Michael Baker will develop final Right-of-Way Plans for the widening of SR 25 from Grants Ferry Road to SR 471 from four lanes to six lanes for approximately three miles. Our team is designing this project to the latest standards and criteria of MDOT and use the latest version of Open Roads Designer. All unsignalized crossovers will be converted to directional crossovers.</p>		



10/22 - Ongoing	<p>Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program – District 07, Louisiana. <i>DOTD, District 07. Project Manager.</i> Responsible for the development of construction plans for 12 Off-System Bridge replacement locations for the five parishes in District 07. Additional responsibilities include the coordination with sub-consultants for the services of topographic surveys, Right-of-Way mapping, geotechnical investigations, and hydraulic support. This project program requires Michael Baker to deliver 12 bridge replacements within the \$30.3 million dollars with allocated for District 07. DOTD issued NTP for additional services in May 2023.</p>
08/23 – Ongoing	<p>SR 15 Pontotoc Feasibility Study. <i>Mississippi DOT. Roadway Design Engineer.</i> Michael Baker is providing traffic analysis, safety analysis, and access management evaluation to identify solutions that will determine the needs for widening of SR 15 from US 278/MS 6 to SR 41/Main Street in Pontotoc, Mississippi to a four-lane boulevard section. The corridor is currently a mix of two-lane, three-lane (with center turn lane), and five-lane (with a center turn lane) sections. The Feasibility study includes desktop and field data collection, traffic analysis, safety analysis, environmental and planning analysis, conceptual traffic engineering, development and high-level design including two build concepts for 26 intersections along the road. It also includes planning level cost estimates, agency coordination, and coordination with the public via a public meeting.</p>
06/18 – 12/19	<p>US 90 Ramps at LA 88 Roundabouts, New Iberia, Louisiana / Highway Safety Design Retainer. <i>DOTD. Lead Roadway Designer.</i> Served as lead Roadway Design Engineer for this project whose scope consisted of converting the eastbound and westbound U.S. 90 ramp terminals into two multilane roundabouts, along with making improvements to the existing drainage network (sub-surface and open ditch) to increase hydraulic capacity. Since the local project representatives expressed concerns for design solutions aimed at reducing flooding during intense rain events, many of the existing cross drains, side drains, and existing roadside ditches needed to be upsized. Other safety measures were implemented in this project by the following measures: safety end treatments on culvert ends adjacent to LA 88, guard rail improvements based on the latest DOTD design standards, flexible traffic delineators separating lanes of opposing traffic flow, and two U-turns (bulb-outs) added along LA 88 on each side of U.S. 90. Responsible for roadway design and construction plan production, completing the 100% Preliminary Plans based on comments from the client at the Plan-In-Hand meeting. This involved resolution of all the client’s comments from the 100% Preliminary Plans submittal which involved items such as: modifying the typical pavement sections and details, adjusting the roadside ditch geometry, revising the construction sequencing layout, modifying the drainage design, and creating the permanent signing and pavement marking layout sheets. Responsible for developing and delivering the 100% Final Plans as the Engineer of Record which involved determining the required quantities of the required construction items and developing the accompanying construction cost estimate. Other work for this project included creating the existing and proposed drainage maps, hydraulics calculations utilizing DOTD’s HYDRWIN program and preparation of the hydraulics report.</p>
12/17 – 07/18	<p>U.S. 190B at Jefferson Avenue Roundabout Design for Highway Safety Design Retainer, Covington, Louisiana. <i>DOTD. Roadway Design Engineer.</i> Responsible for design and construction plan production for this project, whose scope consisted of converting a four-way intersection into a single-lane roundabout in downtown Covington in an area of narrow right-of-way limits. Responsible for completing 100% Preliminary Plans based on comments from the client (DOTD) at the Plan-In-Hand meeting. This involved making several changes to the plans such as: revisions to the typical pavement section and details, plan and profile sheets, and construction sequencing sheets. Responsible for developing the 60% Final Plans which involved resolution of all the client’s comments from the 100% Preliminary Plan submittal, determining the required construction items, and developing the accompanying construction cost estimate. Other work included hydraulics calculations utilizing DOTD’s HYDRWIN drainage program and preparation of the hydraulics report. During the 60% Final Plans development stage, this project was halted by DOTD based on the significant real estate cost for acquisition of an adjacent property (gas station on intersection corner).</p>
09/23 - 10/23	<p>McGregor Ave Widening and Roundabout Installation. <i>Alabama DOT. Roadway Design Engineer.</i> Responsible for making critical geometric adjustments to the horizontal alignments of McGregor Ave and Wimbledon Dr as well as changes to the roundabout to minimize property and right-of-way impacts to the adjacent landscape. Tasks included making key changes to the construction plans by updating several of the plan sheets including the primary survey control sheets, typical roadway sections, plan & profile sheets, pavement striping and permanent signing sheets, and roadway cross sections. As this project was nearly under construction, one of the challenges was to deliver an updated construction plan set to the contractor promptly as to not adversely affect the project schedule. The Michael Baker team was able to successfully meet this demand.</p>

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Lloyd "Eric" Erikson, PE, CFM	Years of relevant experience with this employer	1
Title	Department Manager - Water	Years of relevant experience with other employer(s)	24
Degree(s) / Years / Specialization		MS / 2003 / Engineering and Technology Management; BS / 1999 / Civil Engineering	
Active registration number / state / expiration date		Professional Engineer No. 31061 / Louisiana / exp. 12/2023; Certified Floodplain Manager / 07/2025	
Year registered	2003	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Drainage Design Lead	
Eric is a dedicated professional engineer with over two decades of experience in the consulting civil engineering industry. His experience includes project management and technical responsibility for civil / site, residential and commercial developments, drainage, water/wastewater, roadway, airport, and marine port projects.		<ul style="list-style-type: none"> ✓ Served DOTD on dozens of drainage task orders ✓ Specialized project experience addressing drainage concerns in the Baton Rouge area 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
03/23 - Ongoing	Barksdale AFB Entrance Roads, Bossier Parish, LA. NAVFAC. Drainage Design Lead. Responsible for development of drainage plans for new entrance roads for Barksdale AFB. The project includes a new roundabout at the Air Force Base gates along with new 4-lane divided highway to tie into the new LA 1267 highway constructed by DOTD under the I-20/I-220 Design Build interchange improvements. Coordinated with DOTD's I-20/I-220 Project Manager and Design Build Owner Verification Managers. The new roundabout is designed to be a multi-lane roundabout that accommodates the new LA 1267 spur of the I-20/220 interchange. Project includes the addition of street lighting in accordance with DOTD lighting guidelines.		
02/23 - Ongoing	US 371 KCS Railroad Overpass HBI, Louisiana. DOTD. Drainage Design Reviewer. Responsible for providing guidance, review, and Quality Control for the drainage design.		
01/2023 - Ongoing	LA 30: EBR PL - I-10, Ascension, Iberville, and East Baton Rouge Parishes, Louisiana. DOTD. Hydraulics QA/QC Reviewer. Responsible for providing quality reviews for the NEPA study for the widening of LA 30. Project is currently in the Part 1 phase of the study to determine the required widening requirements of LA 30 from the East Baton Rouge Parish Line to I-10. Project covers nearly 14 miles of improvements along LA 30 through Iberville and Ascension Parish. The study will determine how many additional lanes necessary for LA 30 along this stretch with intersection improvements at Bayou Paul Lane, LA 74, LA 3115, LA 73, and LA 3251. Additional responsibilities include determining if the drainage areas have been delineated properly and that the storm water runoff flows meet DOTD requirements along with reviewing the HEC-RAS models for consistency and conformity to the DOTD Hydraulics Manual.		
01/2023 - Ongoing	Parish Comprehensive Drainage Plan, St. Tammany Parish, Louisiana. St. Tammany Parish. Deputy Project Manager. Responsible for contract administration and assisting with general project management duties, such as resource allocation, team coordination, scheduling, and financial analysis. Attending public outreach meetings and assisted the public in understanding the project objective and goals. Provided review and QC of the Phase 1 final report. Michael Baker conducted a comprehensive drainage plan for the Saint Tammany Parish located on the north shore of Lake Pontchartrain, Louisiana. The plan evaluated the existing state of drainage in the parish including flood risk, water quality and development guidelines, recommended capital projects, and potential policy changes that would lead to reduced flood damaged and increased safety. The Michael Baker team provided data gathering efforts, ranked list of problem areas and provided four (4) in-person public and stakeholder outreach throughout Phase I of this project.		
01/2023 - Ongoing	Louisiana Watershed Initiative Modeling Contract - Region 6, Louisiana. DOTD. Deputy Project Manager. Responsible for the contract administration and assisting the project manager with general project management duties such as resource allocation, scheduling, team coordination, and financial analysis. Michael Baker is providing engineering and modeling services to DOTD for Region 6 for the Louisiana Watershed Initiative (LWI). The LWI project was launched in 2018 and introduced a watershed-based approach to reducing flood risk in Louisiana. It is organized by seven modeling regions, each of which encompasses multiple HUC-8 watersheds. For the contract, Michael Baker is providing hydrologic and hydraulic modeling, data collection and analysis, stakeholder engagement, and surveying.		



01/2023 - Ongoing	<p>Louisiana Watershed Initiative Region 6 Task Order 2, Louisiana. DOTD. Deputy Project Manager. Responsible for providing contract administration and assisting project manager in general project management duties such as resource allocation, scheduling, coordination of team members, and financial analysis. Michael Baker is providing engineering and modeling services to the Louisiana Department of Transportation & Development (DOTD) for Region 6 for the Louisiana Watershed Initiative (LWI). The LWI project was launched in 2018 and introduced a watershed-based approach to reducing flood risk in Louisiana. It is organized by seven modeling regions, each of which encompasses multiple HUC-8 watersheds. For the second task order, Michael Baker supplemented data collection and analysis, continued stakeholder engagement services, and performed topographic, bathymetric, and channel surveys.</p>
2/2023 - Ongoing	<p>Task Order 3 Series II HUC8 Specific Hydrologic and Hydraulic Modeling, Lower Grand, West Central Louisiana Coastal Region 6, Louisiana. DOTD. Deputy Project Manager. Responsible for contract administration and assisting in general project management duties such as resource allocation, scheduling, team coordination, and financial analysis. Michael Baker is performing hydrologic and hydraulic modeling for United States Geological Survey 8-digit cataloging unit subbasins Lower Grand and West Central Louisiana Coastal. These HUC 8s are in Louisiana Watershed Initiative Region 6. The contract includes data gap analysis, quality assurance/quality control, stakeholder engagement, topographic and bathymetric surveying, hydrometeorology and hydrography data, hydrological and hydraulic model developments, and data management. Michael Baker is developing a 2-D hydrological and hydraulic model of both HUC 8s utilizing rain-on-grid.</p>
08/19 - 12/21	<p>South Choctaw Widening, Baton Rouge, Louisiana. Parish of East Baton Rouge DPW. Drainage Design Reviewer. Responsibilities included oversight of entire construction plan set, including geometric design and drainage design. Reviewed DOTD HYDRWIN input and output files to make sure the design team was following DOTD Hydraulics Manual and design requirements. Also responsible for assisting the designer in addressing drainage comments from the municipality.</p>
07/17 - 09/17	<p>Scour Analysis for Perkins / Picardy Connector Bridges, Baton Rouge, Louisiana. Parish of East Baton Rouge DPW. Hydraulic Engineer. Responsibilities included hydraulic modeling and scour analysis of two separate proposed bridges to provide recommendations for pile lengths.</p>
01/23 - Ongoing	<p>Huval PN7077 101722, Baton Rouge, Louisiana. City/Parish of Baton Rouge. Project Manager. Responsible for the review and analysis of major drainage crossings in the project area including two large box culvert crossings and one minor box culvert crossing. Provided design methodology guidance to team members responsible for the design.</p>
01/2023 - Ongoing	<p>Airline Highway (US 61) - North for MOVEBR, East Baton Rouge Parish, Louisiana. City/Parish of Baton Rouge. Project Manager. Responsible for the review and analysis of major drainage crossings along Airline Highway between I-110 to US 190/US 61. Project is currently in the NEPA Decision making process. Additional responsibilities include reviewing existing models provided by MOVEBR for Jones Creek Crossing and Hurricane Creek crossings. NEPA Hydraulics phase is a low-level look at drainage improvements for the widening of Airline Highway from a 4-lane divided roadway to a 6-lane divided roadway. Once the NEPA process is complete, engineers will be released to develop construction plans. Overseeing the development of the roadway drainage for the improvements. Project is currently following the DOTD guidelines for NEPA clearance.</p>
01/2023 - Ongoing	<p>LWI/SPP Group 1 Beauregard, Vernon and St. Landry Parishes, Louisiana. Parish of East Baton Rouge DPW. Project Manager. Responsible for the overall execution of the project, contract administration, and general project management duties, which include resource allocation, team coordination, subconsultant coordination, scheduling, and financial analysis. Project will determine improvements to the watershed and reservoirs located within to mitigate flooding in the region.</p>

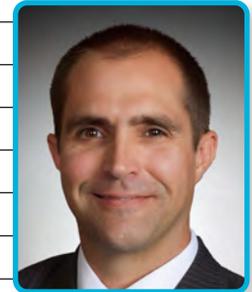
16. Staff Experience			
Firm employed by	Vectura Consulting Services, LLC		
Name	Laurence Lucius Lambert, II, PE, PTOE, PTP	Years of relevant experience with this employer	8
Title	Principal	Years of relevant experience with other employer(s)	18
Degree(s) / Years / Specialization	B.S./1997/Civil Engr. M.S./2006/Civil Engr. (Transportation focus) M.B.A./2010		
Active registration number / state / expiration date	PE.0029901 / LA / 3/31/2024		
Year registered	2001	Discipline	Civil
Contract role(s) / brief description of responsibilities	Traffic Engineering Lead		
<p>Laurence co-founded VECTURA in 2015 and has performed traffic services ranging from transit facility location studies to corridor studies that focus on complete street improvements. He also performed intersection / corridor studies for some of the most complicated corridors in the state of Louisiana using HCM and microsimulation tools to tackle these projects. Laurence also developed transportation components of several city, parish and regional comprehensive master plans. He currently serves as the Chair on the East Baton Rouge Complete Street Citizen Advisory Committee and the Board of Directors for the Capital Area Transit System (CATS). Laurence also taught the transportation engineering course in the Civil Engineering department at the University of New Orleans as an adjunct instructor.</p>			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
02/21 - 03/21	<p>H.013256.5 I-10 ITS Scott to Lake Charles (Southwest Louisiana) Laurence was the lead traffic engineer for a Level 2 Traffic Management Plan (TMP) for the construction of ITS equipment along I-10. The plan included a safety strategy that included a CAT Scan, LOS determination utilizing Citrix data, lane closure recommendations based on a queue analysis and public information strategies.</p>		
07/22 – 09/22	<p>H.013716.5 – US 167: Camellia Blvd – Churchill Dr (Lafayette, LA) Pedestrian Count Study Laurence developed a technical memorandum as part of a DOTD Safety IDIQ contract to document if an approach at a signalized intersection met the warrants listed in the <i>Traffic Engineering Manual</i> Sections 3B.2.4 and 3B.2.8 for a pedestrian marked crosswalk.</p>		
07/19 – current	<p>MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) At the beginning of the program, Laurence worked with the Capital Region Planning Commission to produce measures of effectiveness from the travel demand model to prioritize the MOVEBR project list. Laurence and Pong Wu developed a list of vehicle miles traveled, V/C ratios and vehicles hours of delay. Laurence also developed specifications of Rectangular Rapid Flashing Beacons (RRFB) for the City of Baton Rouge.</p>		
04/18 – 12/21	<p>H.010960.5 LA 30 Roundabouts at Tanger & I-10 Gonzales (Ascension, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans. Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the MUTCD details on roundabouts.</p>		
04/18 – 12/21	<p>H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish, LA) Laurence provided a Quality Control review of the temporary construction and sequence of construction plans. Vectura also provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.</p>		
02/20 – 09/21	<p>College Drive Corridor Enhancement from Perkins Road to I-10 (Baton Rouge, LA) Laurence was the project manager to develop Chapter 1 (Data Collection), Appendix A (Initial Data Collection), and Appendix B (Final Data Collection) for proposed improvements College Drive. Since the I-10 interchange was included in the study, approval from DOTD was required. Vectura collected, turning movement counts, 85% speed data, travel time runs, queue measurements, field observations, verification of Traffic Signal Inventories, and bicycle / pedestrian / transit observations.</p>		
09/17-04/18	<p>US 11 at US 190 Bus. (Fremaux Ave.) Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Equipment Design Slidell, LA Laurence assisted Brin in the development of a formal traffic study for a proposed crosswalk with pedestrian traffic signal equipment and pedestrian clearance timings based on DOTD requirements. Brin assisted with vehicle and pedestrian data collection, spot speed study, analyzed 3-year intersection crash data and developed signal timing for pedestrians to cross the street. From the design study, a set of Traffic Signal Modification Plans were developed to implement the recommended alternative.</p>		



10/17 - 10/18	H.013025 LA 182 (University Avenue) Corridor Planning Study (Lafayette, LA) Laurence was the lead transportation engineer for a Corridor Planning Study for LA 182. The scope focused on improving safety and mobility for pedestrian, bicycle, and transit users. Laurence collected AM & PM peak vehicle turning movement counts as well as pedestrian and bicycle counts. Laurence coordinated with the Acadiana Planning Commission to develop growth rates and design year volumes . Laurence then performed Highway Capacity Manual analysis for 5 intersections along the intersection analyses for the signalized and roundabout controlled alternatives. Included in the study was a safety analyses of five intersections and the intermediate segments. Based on the results of the safety analysis, Laurence provided design criteria to the design team for improving safety of pedestrians, bicycles, and vehicles.
01/17 – 07/17	RPC Task ST-1.17 Minnesota Park Road Improvements (Tangipahoa Parish) Laurence was the task leader for a traffic data collection and intersection analyses of a Stage 0 feasibility study. Laurence utilized Sidra software to perform an alternative analyses Highway Capacity Manual Analyses that included STOP, signal, and a roundabout . The DOTD procedures for utilizing Sidra were followed for this project. Laurence stamped the final version of the traffic study for the Stage 0.
09/16 - 04/17	H.004957.5 I-12 To Bush - LA 3241 (I-12 – LA 36) Corridor Study (St. Tammany Parish, LA) Laurence was the lead traffic engineer for a DOTD traffic study for the new LA 3241 alignment with the purpose of obtaining both existing and projected future traffic variables in accordance with standard operating procedures typically performed in these types of analyses. Laurence worked closely with the NORPC and District 62 to develop design year volumes using data the TransCAD model. The traffic study examined concepts that improved the safety and efficiency of the roadway consistent with the latest DOTD policies related to access management. Laurence, along with Brin, collected 7-day, 24-hour counts w/ classification on mainlines, turning movement counts for morning and evening peak periods and speed data for mainlines. Laurence also developed a VISSIM traffic simulation model of the preferred alternative.
07/14 - 01/17	FHWA Intersection & Interchange Geometrics: Innovative Design Considerations for All Users (Multiple States) FHWA funded workshops for state Departments of Transportation that were interested in learning more about innovative intersection & interchange design. Laurence presented either part or all the one-day or two-day workshops that included modules on the overall policy and goals of FHWA for these types of innovations, roundabouts, roundabout interchanges, DLTs, DDIs, J-turns / Superstreets, MUT, Thru-turns, quadrant, and the assessment tools (CAP-X) available to compare the measures of effectiveness of each innovation. Each module includes sections on design, traffic operations, safety and multi-modal accommodation Laurence has presented for the Alabama, Kentucky, Ohio, Oklahoma, Massachusetts, Tennessee, and Texas Departments of Transportation under this contract.
06/16 - 09/17	H.004490 Stage 0 Roundabout Studies, (Lafayette Parish, LA) Laurence performed a Stage 0 Feasibility Study for roundabouts at ten intersections in the Lafayette area. The scope was developed based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Laurence, along with Brin, collected 7-day, 24-hour counts w/ classification, turning movement counts for peak periods and speed data for mainlines . Once the traffic data was collected, Laurence performed traffic signal warrants analyses , performed a Sidra unsignalized, signalized and roundabout analyses. After the analyses were completed, Laurence developed a report that captured the results.
03/10 - 11/11	S.P. No. 700-09-0171 Stage 0 and 1 Study I-49 Inner City Connector (Shreveport, LA) This 3.5-mile route will connect existing I-49 / I-20 interchange to the proposed I-49 / I-220 interchange. After completing the Stage 0 , Laurence was the project manager for the traffic analyses for the EA phase. The total traffic analyses effort included over 30 TransCAD Models, 20 interchanges and 70 intersections. Analyses included signalized and unsignalized intersections, basic freeway segments, freeway merge / diverge segments and freeway weaving segments at the studied intersections and interchanges. This project included performing both Interchange Modifications Reports (IMRs) and Interchange Justification Reports (IJRs).
04/04 - 12/04	I-10 Frontage Roads, Picardy Interchange, Bluebonnet Siegen (Baton Rouge, LA) Laurence provided the traffic analysis for a highly unique reconfiguration of interstate ramps that included frontage roads and an overpass of I-10 for new an interchange at Picardy. HCS and VISSIM were the primary analysis tools for the analysis. As part of the design team that developed the concept for this project, Laurence performed feasibility studies, developed design criteria, and coordinated with city, state and federal agencies for approvals as well as gathered public input. Laurence prepared traffic signal timings and designs that included cost estimates for the project.
04/04 - 09/06	Stage 0 I-10 at Pecue Lane Interchange Justification Study (Baton Rouge, LA) Laurence was the lead traffic engineer for a Stage 0 traffic study analyzing the proposed interchange at I-10 and Pecue Lane. Laurence developed current and future traffic volumes based on the CRPC TransCAD model growth rates. Using HCS, Laurence analyzed signalized and unsignalized intersections , basic freeway segments, freeway merge / diverge segments and freeway weaving segments. Laurence also developed a micro-simulation model in both VISSIM and TSIS.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Thomas Jackson "TJ" Holliday, PWS	Years of relevant experience with this employer	15
Title	Environmental Planning Manager	Years of relevant experience with other employer(s)	11
Degree(s) / Years / Specialization		BS / 1998 / Civil Engineering	
Active registration number / state / expiration date		Professional Wetland Scientist No. 2447	
Year registered	2014	Discipline	Professional Wetland Scientist
Contract role(s) / brief description of responsibilities		Environmental Lead	
<p>TJ is an environmental specialist with experience involving various levels of environmental assessment and other issues related to the National Environmental Policy Act (NEPA). His responsibilities have included studies for wetlands, floodplains, water quality, coastal resources, threatened and endangered species, cultural resources, hazardous materials, noise and air quality, and community impacts. His primary project duties have included project management, data collection and analyses, mapping and aerial photo interpretation, document preparation, public outreach, agency coordination, and regulatory permitting and compliance.</p>		<ul style="list-style-type: none"> ✓ 25+ years experience ✓ Extensive experience with NEPA compliance 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
08/22 - Ongoing	<p>Barksdale AFB Entrance Roads, Bossier Parish, LA. NAVFAC. Environmental Lead. Responsible for the development of construction plans for new entrance roads for Barksdale AFB. The project includes a new roundabout at the Air Force Base gates along with new 4-lane divided highway to tie into the new LA 1267 highway constructed by DOTD under the I-20/I-220 Design Build interchange improvements. Additional responsibilities include coordination with the DOTD I-20/I-220 Project Manager and Design Build Owner Verification Managers along with overseeing new roadway design that meets DOTD Design requirements. The new roundabout is designed to be a multi-lane roundabout that accommodates the new LA 1267 spur of the I-20/220 interchange. Project includes the addition of street lighting in accordance with DOTD lighting guidelines. Additional responsibility is the coordination with DOTD for a project permit with District 04.</p>		
10/22 - Ongoing	<p>Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program – District 07, Louisiana. DOTD. Environmental Lead. Oversaw the research by the environmental team for environmental constraints that could serve as a roadblock for the replacement of a bridge structure. The information gathered allowed the engineers to make decisions on which bridges structures should move forward in design based off these environmental constraints. The constraints included but not limited to the following: Archaeological Sites, NRHP, Pre-1971 La HBI, 71-85 NRHP, Tribal Lands, Wetlands, Scenic Stream, Levee Permit, Coastal Zone, T&E Species, Section 4(f) and 6(f) lands, Navigable Waterway, UST or Contaminated Sites, Potential Mitigation Cost, and Additional Environmental Permits. Project includes five parishes in District 07 for the replacement of existing off-system bridges. DOTD broke the project into an Initial Phase and a Final Design Phase. Project priorities were part of the initial phase that started in October 2022 and was finished and submitted in December 2022. District 07 was given \$30.3 million dollars with allocations for each parish.</p>		
04/22 - Ongoing	<p>LA 30: EBR PL – I-10, East Baton Rouge, Iberville, and Ascension Parishes, LA. DOTD Headquarters. Environmental Specialist. Responsible for the Environmental Assessment (EA) of the widening of LA 30 from a 2-lane roadway to 4-lane roadway. Project limits is roughly 14 miles from the East Baton Rouge/Iberville Parish line to the terminus at I-10 interchange. Project is currently in Part 1 of the EA which main focus on traffic count/study/analysis along with some early environmental field screening, initial geometric improvements at existing 5 intersections, SUE services, and development of existing hydraulic flows for existing 6 bridge/culvert structures. Additional responsibilities include oversight of existing alignments along with existing right-of-way lines. Additional coordination required is with DOTD new Mississippi River Bridge Environmental on-going project. Addition 7 miles of project has recently been added to the project to include LA 30 from Brightside/ Lee Drive Intersection to the East Baton Rouge/Iberville Parish line. Project challenges are the number of industrial pipelines that parallel LA 30 on both sides of the roadway along with railroad on the west side of LA 30 from Brightside Intersection to just south of East Iberville High School.</p>		



02/13 - 10/13	New Orleans Rail Gateway Environmental Impact Statement, Jefferson and Orleans Parishes, LA. DOTD. Environmental Specialist. Conducted field studies and documented findings for wetlands and hazardous materials. Assisted with preliminary engineering and NEPA/environmental studies for at-grade highway-rail crossing consolidation and grade separation studies of Jefferson Highway (U.S. 90) and the NOPB and KCS rail lines in Jefferson Parish, Louisiana. Michael Baker is providing operations, engineering and environmental studies and preparing an environmental assessment (EA) for improvements to two at-grade highway-rail crossings along Jefferson Highway (US 90) in Jefferson Parish.
01/10 – Ongoing	Natural Environment Master for Wetland and Other Waters Assessments and T/E Species Surveys for Roadway and Bridge Improvements, Statewide, Mississippi. Mississippi DOT. Environmental Lead. Responsible for environmental studies and reporting. Under three consecutive three-year contracts, Michael Baker has conducted listed species surveys and assessments of potential impacts to wetlands and other waters related to the replacement of bridges and construction of other improvements along various roadways throughout the state. Services include data collection and analysis, site investigations, wetland delineations, and report preparation.
01/10 - 04/13	S.R. 16 from S.R. 15 to S.R. 19 Bridge Design, Neshoba County, Mississippi. Mississippi DOT. Environmental Specialist. Responsible for field surveys to identify wetlands and other waters of the U.S. and preparation of a jurisdictional findings report for 404 permitting process. Michael Baker provided engineering services for improvements to 10 miles of S.R. 16 from S.R. 15 to S.R. 19. Michael Baker's services included the Phase A preliminary bridge plans for eight bridges, including hydraulic design for three bridges and a railroad crossing bridge, and stream and wetland delineation.
03/18 – 07/18	Jackson County Bridges, Mississippi. Jackson County Road Department. Environmental Lead. Michael Baker assisted the Jackson County Road Department with Section 404 permit coordination for multiple bridge replacement and roadway improvement projects within the County. The project included four sites located along Old Fort Bayou Road, Juniper Drive, and Solomon Road. Michael Baker's services included data collection and analysis for wetlands and other waters of the U.S. and threatened and endangered species. The projects required coordination with the Mobile District US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), MS Department of Marine Resources (MDMR), MS Department of Environmental Quality (MDEQ), and the MS Department of Archives and History (MDAH).
10/08 - 07/15	FM 521 Environmental Assessment, Texas. Texas DOT. Environmental Specialist. Responsible for completion of the EA document and preparation of the FONSI. Assisted with public involvement activities. Michael Baker performed an environmental assessment (EA) for the reconstructing and widening of FM 521, an existing two-lane rural undivided facility, to a four-lane divided urban arterial from Beltway 8 to FM 2234 (McHard Road). The project also includes improvements on FM 2234 at FM 521 and proposed grade separations at the Union Pacific Railroad (UPRR) crossings on both FM 2234 and FM 521. Michael Baker's services included wetlands delineation and permitting, public involvement, community impacts assessment, indirect and cumulative impacts assessments, and a Section 4(f) analysis.
02/11 - 06/11	Wetlands Delineation for S.R. 7 and S.R. 8 Bridge Replacements, Marshall, Benton, and Calhoun Counties, Mississippi. Mississippi DOT. Environmental Specialist. Conducted wetland and other waters assessments for a bridge replacement and road improvements along S.R. 7 in Marshall and Benton Counties and S.R. 8 in Calhoun County. Prepared jurisdictional findings report for submittal to USACE for 404 permit evaluations. Michael Baker performed wetland assessments and delineations for the replacement of the bridges on S.R. 7 in Marshall and Benton counties and S.R. 8 in Calhoun County. Michael Baker's services included data collection and analysis, field investigations, wetland delineations and assessments, and report preparation.
05/10 - 02/13	S.R. 607 Improvements from Texas Flat Road to I-59, Hancock and Pearl River Counties, Mississippi. Mississippi DOT. Environmental Specialist. Responsible for wetland and other waters of the U.S. delineation and reporting. Michael Baker provided engineering services for the widening of S.R. 607 to four lanes from Texas Flat Road to I-59, including the reconstruction of a bridge over Alligator Branch, the replacement of a bridge over Second Alligator Branch, and the replacement of a bridge over Indian Camp Creek.

16. Staff Experience

Firm employed by	Gresham Smith		
Name	Herbert " Bert" Moore, II, P.E., PLS, PTOE	Years of relevant experience with this employer	9
Title	Principal-in-Charge	Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization	Bachelor of Science / 1999 / Civil Engineering		
Active registration number / state / expiration date	P.E.0031065 / LA / Exp. 9/30/24 PTOE 2728 / Exp. 9/30/24 PLS 5043 / LA / Exp. 9/30/24		
Year registered	2004(PE); 2009(PTOE); 2010(PLS)	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities	MPR No. 6; Roadway Design Support		



Bert is a professional engineer with more than 24 years of experience designing and managing projects in the fields of traffic and transportation engineering. He previously spent six years as the district traffic operations engineer for LADOTD where he was responsible for the daily maintenance and operation of signs, striping and traffic equipment for 2,000 miles of roadway and over 600 traffic signals in the Department's Baton Rouge district. His experience is in traffic operations, traffic control, signal warrants, traffic signal timing and design, safety studies, the implementation of access management principles, temporary traffic control for work zones, Transportation Management Plans (TMP), and addressing bicycle and pedestrian needs within the roadway network. Bert has completed the LADOTD Traffic Analysis Process and Report Training.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/18 – 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.
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.
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 plans for all signing, stripping and traffic signals as well as plans for all construction and maintenance work on the state highway system within District 61. Bert was also responsible for Transportation Management Plans (TMPs) for construction and maintenance activities.
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. Bert was responsible for the review of traffic counts and traffic and safety analyses.

(Add rows as needed)

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Alison Gonzalez, PE	Years of relevant experience with this employer	4
Title	Project Manager	Years of relevant experience with other employer(s)	12
Degree(s) / Years / Specialization		BS / 2007 / Civil Engineering	
Active registration number / state / expiration date		PE No. 47215 / LA / exp. 03/31/2025	
Year registered	2022	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Roadway Design Support	
<p>Alison is a transportation engineer specializing in highway location and design and bicycle/pedestrian facility design projects. In these roles, she is responsible for the development of conceptual layouts and construction plan designs for highway design and location projects in Georgia. Her detailed responsibilities include roadway geometric design; drainage analysis and design; construction staging design; erosion, sedimentation & pollution control and monitoring plan preparation; signing & marking design; quantities and cost estimates; and construction and right of way plan preparation.</p>		<ul style="list-style-type: none"> ✓ 15+ years of relevant design experience ✓ Extensive experience in roadway design, including drainage design, construction staging, and erosion control 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
05/23 - Ongoing	<p>US 371: KCS RR Overpasses HBI, Webster Parish, Louisiana. DOTD. Roadway Engineer. Responsible for the design and development of construction plans for the replacement of 3 bridges at two locations along US 371. First location is the replacement of a 3 span bridge over KCS Railroad in Sibley, LA. Project entails the development of new bridge alignment following DOTD and KCS Railroad requirements along with modifications of the existing road to accommodate the new bridge vertical alignment. Additional site requirements include developing a detour road/bridge alignment to construct the new bridge under traffic along with reconstruction of LA 164/US 371 intersection. Second location is the replacement of parallel bridges along US 371 at the Minden/I-20 interchange. Bridges will be replaced in phase construction to maintain traffic. Two new 3-span bridges will be construction over KCS railroad meeting all the required DOTD and KCS design requirements as required at the Sibley bridge site.</p>		
05/23 - Ongoing	<p>LA 30: EBR PL - I-10, East Baton Rouge, Iberville, and Ascension Parishes, Louisiana. DOTD. Roadway Engineer. Responsible for the oversight of the Environmental Assessment (EA) of the widening of LA 30 from a 2-lane roadway to 4-lane roadway. Project is currently in Part 1 of the EA which main focus on traffic count/study/analysis along with some early environmental field screening, initial geometric improvements at existing 5 intersections, SUE services, and development of existing hydraulic flows for existing 6 bridge/culvert structures. Additional responsibilities include oversight of existing alignments along with existing right-of-way lines.</p>		
12/21 - Ongoing	<p>SR 25 @ Savannah & Middle River. Scott Bridge Company, Inc. Lead Roadway Engineer. Responsible for preparing all roadway submittals as required by the Design Build Agreement (DBA), including preliminary plans, final plans, release for construction (RFC) plans, and NPDES permitting plans. Michael Baker provided the Design-Build Services to replace two bridges along SR 25, one over the Savannah River (James P. Houlihan Bridge) and one over Middle River. Traffic will be maintained on the existing bridges while the proposed bridges are constructed parallel to the existing bridges. A Section 4(f) evaluation is required for impacts to historic resources and public recreational land, along with consultations with USFWS and NOAA fisheries due to the presence of federally protected aquatic species.</p>		
04/20 - Ongoing	<p>Sea Island Road at Dunbar Creek. Georgia DOT. Lead Roadway Engineer. Responsible for concept design and report development, preliminary plans, right-of-way plans, and final plans for the replacement of an existing bridge located on CR 583/Sea Island Road over Dunbar Creek on St. Simons Island. The proposed bridge will be raised one foot to meet the 100-year flood elevation. An onsite detour will be utilized by constructing a temporary bridge to the north of the existing bridge where traffic will be routed during construction. The roadway approaches were reconstructed to provide two 12-foot lanes with 8-foot rural shoulders.</p>		



01/18 – Ongoing	I-16/I-95 General Engineering Consultant Services, Savannah, Georgia. <i>Georgia DOT. Subject Matter Expert.</i> Responsible for reviewing roadway plans and design calculations to ensure that the design is in compliance with the Design-Build Agreement (DBA). Michael Baker is providing owner's representative post-let general engineering consultant services on the I-16 at I-95 interchange improvements and I-16 widening, as part of GDOT's MMIP program. Services include final design review, submittal review, and owner's verification of design-builder-provided construction engineering and inspection services.
09/17 – 04/23	Bridge Bundle - SR 10 Loop EB & WB at Middle Oconee River (PI#0013715), SR 82 at Middle Oconee River (PI#0013819), Clarke and Barrow Counties, Georgia. <i>Georgia DOT. Assistant Project Manager.</i> Responsible for this 0.10-mile long bridge replacement project on the northwest side of the heavily travelled SR 10 loop. This bridge replacement project is a 4-lane divided rural freeway around the city of Athens, GA to replace the existing 288-foot long, twin steel beam bridges, with a 3-span 350-foot long PSC beam bridge over the river. Staged construction will be utilized by first building a portion of the new bridge in the median area while traffic is maintained on the existing bridges. SR 82 is a 0.30-mile long 2-lane rural bridge replacement project that will replace the existing 4-span 250-foot long steel beam bridge with a 270-foot long, 3-span PSC beam bridge on a curved roadway alignment over the river. ABC techniques and an off-site detour will be utilized by closing the roadway to minimize the construction schedule and disruption to the public. M&N is responsible for overall project management, concept design, public involvement, environmental, preliminary plans, right-of-way plans, final construction plans including full bridge design and bridge hydraulic studies on this bundle.
06/16 – Ongoing	Quacco Road Widening, Chatham County, Georgia. <i>Chatham County. Design Engineer.</i> Developed designs for the proposed Quacco Road Improvements project. The project includes roadway widening and operational improvements to intersections, drainage features, and pedestrian facilities along a 2.6-mile-long segment of this corridor beginning just east of the existing bridge over I-95 and terminating at the existing signalized intersection with US 17. In addition, ADA compliant sidewalks and a 10' shared use path will contribute to the connectivity for the existing commuter bus route of Chatham Area Transit (CAT). The project deliverables will include completion of concept design, preliminary plans, stormwater management, right-of-way plans and final plans.
05/14 – 04/19	Operational, Safety and Pedestrian Improvements along Maxham Road, Douglas County, Georgia. <i>Douglas County. Lead Engineer.</i> Developed designs for the construction of operational, safety and pedestrian improvements along Maxham Road from SR 6/Thornton Road to Tree Terrace Parkway. This project includes 0.5 miles of roadway improvement, stormwater management facilities, and sidewalks. The project deliverables include concept, preliminary and final construction plans, right of way plans and NPDES permitting.
11/01 – 10/15	SR 25 CO/Bay Street Widening, Chatham County, Georgia. <i>Chatham County. Design Engineer.</i> Responsible for the widening of 1.3 miles of an existing sub-standard four-lane facility to a four-lane section with raised median and urban shoulders. A high volume of pedestrian traffic and potentially historic properties along the project corridor complicates the project. One of the major purposes of this project was to improve pedestrian safety by providing accessible pedestrian facilities with connections to adjacent businesses, neighborhoods, parks, and bus facilities. The completed project will provide a safe and aesthetically pleasing gateway to Savannah from the west. The project deliverables include concept development and approval, preliminary and final construction plans, right of way plans and NPDES permitting.
03/19 - 08/20	Savannah River International Trade Park Traffic Improvements, Chatham County, Georgia. <i>Georgia Ports Authority (GPA). Project Manager and Engineer of Record.</i> Responsible for the design and development of preliminary construction plans, final construction plans, and NPDES permitting for the improvements at the Savannah River International Trade Park (SRITP) facility. The development and sale of approximately 5.3 million square feet of warehouse space within five separate land parcels at the SRITP will result in increased traffic volumes at the site. This project consists of a signal upgrade at the intersection of SR 21 and International Trade Parkway (ITP) and the construction of a roundabout at the ITP intersection with Little Hearst Parkway.
02/14 - 04/16	Sun Valley Drive Extension and Roundabout, Roswell, Georgia. <i>City of Roswell. Lead Roadway Engineer.</i> Responsible for conceptual design, preliminary and final construction plans, right of way plans, and NPDES permitting for the construction of the Sun Valley Drive Extension to connect with Warsaw Road. This project includes 0.6 miles of roadway improvement, along with a roundabout, regional stormwater management facilities, a shared use path, sidewalks, streetscaping and lighting.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Alexis Harrouch, EI	Years of relevant experience with this employer	2
Title	Civil Associate - Highway	Years of relevant experience with other employer(s)	1
Degree(s) / Years / Specialization		BS / 2020 / Civil Engineering	
Active registration number / state / expiration date		EI No. 34742 / LA / 06/30/2023; Traffic Control Technician / LA State Specific / 08/2026; Traffic Control Supervisor / LA State Specific / 08/2026	
Year registered	2021	Discipline	EI (Civil)
Contract role(s) / brief description of responsibilities		Roadway Design Support	
Ms. Harrouch will serve a transportation/roadway designer responsible for the development of horizontal and vertical alignments, roadway hydraulics, development of 3D design models, and development of construction plans.		<ul style="list-style-type: none"> ✓ Road designer with experience on multiple DOTD roundabout projects ✓ Experience supporting diverse projects, ranging from road and bridge design to drainage design and environmental impact statements 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
10/22 – Ongoing	US 371: KCS RR Overpasses HBI, Webster Parish, Louisiana. DOTD. Roadway Designer. Responsible for the horizontal layout of detour road/bridge for the replacement of the existing bridge at Sibley, LA. Additional responsibilities include the develop of construction plans that meet DOTD and KCS RR requirements.		
10/22 – 05/23	Barksdale AFB Entrance Road and Gate Complex, Design-Build, Bossier Parish, Louisiana. NAVFAC. Roadway Designer. Responsible for the quantity takeoff and development of construction plans for contractor on a design-build project for new entrance roads for Barksdale AFB. The project consists of the design and construction of an extension of an existing state-owned highway, LA 1267, along with a new multi-lane roundabout. The new roadway will be a 4-lane divided highway entrance into the Barksdale AFB.		
10/22 - Ongoing	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program – District 07, Louisiana. DOTD. Roadway Designer. Responsible for the development of construction plans for 12 Off-System Bridge replacement locations for the five parishes in District 07. Additional responsibilities include the coordination with subconsultants for the services of topographic surveys, row mapping, geotechnical investigations, and hydraulic support. This project program requires Michael Baker to deliver 12 bridge replacements within the \$30.3 million dollars with allocated for District 07. DOTD issued NTP for additional services in May 2023.		
10/22 - Ongoing	LA 30: EBR P/L – I-10, Iberville and Ascension Parishes, Louisiana. DOTD. Engineer Intern & Roadway Designer. Responsible for the layout of the existing alignment along with determining the apparent row along the corridor based off as-builts and provided GIS parcel information from both Ascension and Iberville Parishes. Project limits have been extended an additional 5 miles to include the environmental study along the corridor in East Baton Rouge Parish. Additional responsibilities include the delineation of drainage area for several cross structures (bridge/box culverts/culverts) along the corridor along with determining the existing flows for those structures.		
10/22 - Ongoing	Airline Highway (US 61) – North for MOVEBR, East Baton Rouge Parish, Louisiana. City/Parish of Baton Rouge. Engineer Intern. Responsible for the delineation of drainage areas along with using the DOTD Hydraulics Manual and HYDRWIN software to develop the flows for both Jones Creek and Hurricane Creek that cross along the project limits. Additional responsibilities include checking the required hydraulics for the addition of an additional through lane in each direction and the impacts on existing parallel drainage along the corridor. The project is currently in the NEPA phase and once environmentally clear, required drainage structures will be designed for the future improvements.		
01/23 - Ongoing	Ardenwood-Lobdell Connector for MOVEBR, East Baton Rouge Parish, Louisiana. City/Parish of Baton Rouge. Engineer Intern. Responsible for performing independent technical review of roadway plans at each milestone submittal for the new Ardenwood-Lobdell Connector. The new connector is a 2-lane roadway with curb & gutter along with intersection improvements at both Lobdell Ave. and Ardenwood Rd. Project includes accommodations for complete streets with pedestrian sidewalks and bikepaths.		



08/21 - 08/22	Perkins Road, East Baton Rouge Parish, Louisiana. <i>East Baton Rouge Parish.</i> Engineer Intern. Responsible for the design of a section of roadway drainage. Additional responsibilities included the takeoff of project quantities along with participating in the development of geometry design for the project as well as the development of a striping layout.
01/21 - 09/22	I-49 Connector, Lafayette, Louisiana. <i>Lafayette Parish.</i> Engineer Intern. Responsible for the development of preliminary typical sections, cross sections and roadway models through the use of Microstation and Inroads Select Series 2. Developed vehicle turning move layouts with the use of Transoft AutoTurn along with participating in the development of geometry design for the project. Additional responsibilities included roundabout design in the core area along with the required tapers per LADOTD Standards.
02/21 - 04/22	Constantin, East Baton Rouge Parish, Louisiana. <i>East Baton Rouge Parish.</i> Engineer Intern. Responsible for the development of project design quantities along with the development of signing and striping layouts. Additional responsibilities included the development of geometric detail and layout sheets for the project.
08/23 - Ongoing	SR 15 Pontotoc Feasibility Study, Pontotoc, Mississippi. <i>Mississippi DOT.</i> Roadway Designer & Engineer Intern. Michael Baker is providing traffic analysis, safety analysis, and access management evaluation to identify solutions that will determine the needs for widening SR-15 from US 278/MS 6 to SR-41/Main St in Pontotoc, Mississippi to a four-lane boulevard section. The corridor is currently a mix of two-lane, three-lane (with a center turn lane), and five lane (with a center turn lane) sections. The Feasibility study includes desktop and field data collection, traffic analysis, environmental and planning analysis, conceptual traffic engineering, development and high-level design including two build concepts for 26 intersections along the road. It also includes planning level cost estimates, agency coordination, and coordination with the public via a public meeting. Responsible for the layout of the two build concepts which included J-Turns, Bulb Outs, Auxiliary lanes, Green-T intersections, and Roundabouts. Additional responsibilities include developing vehicle turning movement layouts with the use of Transoft AutoTurn and development of preliminary baselines through the use of OpenRoads Designer.
01/24 - Ongoing	SR 25 - Grants Ferry to SR 471, Flowood, Mississippi. <i>Mississippi DOT.</i> Roadway Designer & Engineer Intern. Michael Baker will develop final Right of Way Plans for the widening of SR-25 from Grants Ferry Road to SR 471 from 4 lanes to 6 lanes, approximately 3 miles. Our team is designing this project to the latest standards and criteria of MDOT and use the latest version of OpenRoads Designer. All unsignalized crossovers will be converted to directional crossovers. Responsible for developing vehicle turning movement layouts with the use of Transoft AutoTurn. Additional responsibilities include creating preliminary baselines, profiles, cross sections, and 3D roadway models through the use of OpenRoads Designer.
07/23 - Ongoing	SR 35 - Additional Lanes from CR-62 to CR-124 through the Town of Section, Jackson County, Alabama. <i>Alabama DOT.</i> Roadway Designer & Engineer Intern. Michael Baker provided engineering services to widen and add lanes to State Route 35 through the town of Section, Alabama. Michael Baker's services included the preparation of Right of Way plans, drainage and stormwater design, floodplain studies, erosion and sediment control plans, traffic control plans, construction cost estimates, and final design. Responsible for the development of final baselines, profiles, drainage profiles, and drainage cross sections through the use of Microstation and InRoads Select Series 2. The drainage profiles and drainage cross sections were designed to the latest ALDOT standards and criteria.
07/23 - Ongoing	Mickens Road for MOVEBR, East Baton Rouge Parish, Louisiana. <i>City/Parish of Baton Rouge.</i> Engineer Intern. Responsible for the development of the preliminary surface, drainage, and hydraulics report. The drainage was designed to the latest LADOTD Hydraulics Manual and City/Parish of Baton Rouge standards and criteria. A preliminary surface was created using LIDAR downloaded from LSU Atlas and The National Map Downloader from USGS. The preliminary drainage was developed using LADOTD Hydrowin and Excel.
06/18 - 08/19	H. 010909 - LA 44: Widening and Roundabout at LA 941, Ascension Parish, Louisiana. <i>DOTD.</i> Co-Op Student. Responsible for the development of the construction plans using Microstation and InRoads Select Series 2, Traffic Control Phasing using LADOTD Standards, and Quantity and Quality checks per LADOTD guidelines for submittals.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Marcela Trochez	Years of relevant experience with this employer	2
Title	Civil Associate	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 2022 / Civil Engineering; BS / 2014 / Biology	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities		Roadway Design Support	
<p>Marcela will support the development of roadway designs using her knowledge of engineering software such as HEC-HMS, HEC-RAS, QGIS, MicroStation V8i, and InRoads. Her engineering background focuses on structures, highways, geotechnical and foundations, and hydraulics and hydrology.</p>		<ul style="list-style-type: none"> ✓ Proficient in multiple engineering softwares ✓ Developing knowledge of DOTD standards and related engineering disciplines 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
08/22 – Ongoing	<p>Barksdale AFB Entrance Road and Gate Complex, Design-Build, Bossier Parish, Louisiana. NAVFAC. Civil Associate. Responsible for supporting development of construction plans including typical sections, horizontal and vertical alignment, and pavement quantities. The project consists of the design and construction of an extension of an existing state-owned highway, LA 1267, along with a new multi-lane roundabout. The new roadway will be a 4-lane divided highway entrance into the Barksdale AFB.</p>		
07/22 – Ongoing	<p>LA 30: EBR PL – I-10, East Baton Rouge, Iberville, and Ascension Parishes, Louisiana. DOTD. Civil Associate. Responsible for supporting environmental assessment and traffic study for the widening of LA 30 from a 2-lane roadway to 4-lane roadway. Project is currently in Part 1 of the EA which mainly focuses on traffic count/study/analysis along with some early environmental field screening, initial geometric improvements at existing five intersections, SUE services, and development of existing hydraulic flows for existing 6 bridge/culvert structures. Responsibilities included the study and analysis of existing drainage conditions to develop existing discharge flows at each of the six(6) outfall locations. The existing flows were calculated following the guidelines from the LADOTD Hydraulic Manual and ARCGIS software was used to delineate existing drainage areas by analyzing a Digital Elevation Model (DEM) obtained from LSU Atlas.</p>		
06/23 - Ongoing	<p>Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program – District 07, Louisiana. DOTD. Roadway Designer. Responsible for supporting the development of construction plans for Off-System Bridge replacement locations for the five parishes in District 07. Responsibilities included generating typical sections, horizontal and vertical alignment, roadway quantities, site visits, and hydraulic report assistance. This project program requires Michael Baker to deliver 12 bridge replacements within the \$30.3 million dollars allocated for District 07. DOTD issued NTP for additional services in May 2023.</p>		
08/23 – Ongoing	<p>SR 15 Pontotoc Feasibility Study. Mississippi DOT. Civil Associate. Michael Baker is providing traffic analysis, safety analysis, and access management evaluation to identify solutions that will determine the needs for widening of SR 15 from US 278/MS 6 to SR 41/Main Street in Pontotoc, Mississippi to a four-lane boulevard section. The corridor is currently a mix of two-lane, three-lane (with center turn lane), and five-lane (with a center turn lane) sections. The Feasibility study includes desktop and field data collection, traffic analysis, safety analysis, environmental and planning analysis, conceptual traffic engineering, development and high-level design including two build concepts for 26 intersections along the road. Civil Associate responsible for supporting the development of two conceptual alternative designs to improve the access management along the corridor and each of the 26 intersections to enhance the Level of Service (LOS) at location of interest. Open Roads Design Software is being used for the design.</p>		
11/22 – Ongoing	<p>Lake Charles Curbside Canopy Project, Lake Charles Regional Airport (LCH), Lake Charles, Louisiana. Lake Charles Regional Airport. Civil Associate. Michael Baker provided design and engineering services for new curbside canopies at the airport, as the previous metal canopies did not protect passengers adequately from rain. For the project, we provided designs for the new canopies, design alternatives, and Americans with Disabilities Act considerations. Our team's solution incorporated a 70-foot cantilevered steel tube frame and cable-stayed tensile-fabric covering, allowing for the re-use of the metal canopies to minimize demolition costs.</p>		



08/22 – Ongoing	<p>New Orleans Rail Gateway - Avondale PEL Study, Jefferson Parish, Louisiana. <i>DOTD. Civil Associate.</i> Contributed to the development of the conceptual roadway and bridge alternative analysis, which also involved the generation of horizontal and vertical geometry, and typical sections. Michael Baker is providing operations, engineering, and environmental studies and preparing a planning and environmental linkages (PEL) study to evaluate the consolidation, road-over-rail grade separation, or closure of four at-grade highway-rail crossings (Live Oak Boulevard, Willswood Lane, George Street, and Avondale-Garden Road). For the project, Michael Baker is performing project management, solicitation of views, secondary-source environmental resources inventory, geographic information system (GIS) mapping, freight rail operations forecasting and crossing occupancy time analyses, roadway traffic and crash analyses, purpose and need, roadway/bridge conceptual design, cost estimates, alternatives analyses, stakeholder and agency coordination, and public outreach.</p>
07/23 – Ongoing	<p>Mickens Road for MOVEBR, East Baton Rouge Parish, Louisiana. <i>City/Parish of Baton Rouge. Civil Associate.</i> Responsible for performing the existing drainage analysis and contributing to the proposed drainage design, each by following the guidelines of the LADOTD Hydraulic Manual and the city/parish of Baton Rouge Standards and Criteria. ArcGIS, LSU Atlas, and THE National Map downloaders from USGS were resources used in order to obtain preliminary LIDAR data and Surface data to begin the preliminary existing and proposed drainage analysis. The project involves improvements to Mickens Road, which is a two-lane roadway with no shoulder or pedestrian facilities. The potential improvements involve the widening of the first half of the road from a two-lane to a three-lane road with pedestrian facility and a closed drainage system. The second half of the road will potentially be a two lane road with paved shoulders and an open drainage design. Michael Baker in charge of providing a preliminary drainage study.</p>
07/23 – Ongoing	<p>SR 35 – Additional Lanes from CR-62 to CR-124 through the Town of Section, Jackson County, Alabama. <i>Alabama DOT. Civil Associate.</i> Responsible for supporting development of construction plans. Responsibilities included the development of typical sections, horizontal and vertical alignment, drainage and roadway cross-sections by using MicroStation V8I and Inroads software. Michael Baker provided engineering services to widen and add lanes to State Route 35 through the town of Section, AL. Michael Baker’s services included the preparations of right-of-way plans, drainage and stormwater design, floodplain studies, erosion and sediment control plans, traffic control plans, construction cost estimates, and final design.</p>

16. Staff Experience

Firm employed by	Gresham Smith		
Name	Courtney Rome, P.E.	Years of relevant experience with this employer	6
Title	Bridge Engineer	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization	Bachelor of Science / 2009 / Civil Engineering		
Active registration number / state / expiration date	PE.0043355 / LA / Exp. 9/30/23		
Year registered	2019 (LA)	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities	MPR No. 5 ; Bridge Design Support; Bridge Ratings Support		



Courtney is a civil engineering graduate of Southern University who served with the State of Arkansas Bridge Department for the first seven years of his career and joined Gresham Smith in October 2017. His emphasis has been with geotechnical design of bridge foundations, including scour and seismic concerns and with bridge hydraulics. He has received FHWA training (NHI- 135095) for Two-Dimensional Hydraulic Modeling of Rivers. Courtney has led the plan development for bridges designed with AASHTO LRFD Guidelines. His experience has included design of bridges, culverts and retaining walls, bridge ratings, and bid package development.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
06/19 – 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.
07/19 – Ongoing	TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN Project Engineer. Courtney provided bridge load rating for approximately 141 complex structures and 137 standard structures across the state of Tennessee. 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.
06/21 – 08/21	FLDOT, Florida DEP, Florida Keys Overseas Heritage Trail Historic Bridge Evaluation, Marathon, FL QA/QC. Florida DEP selected Gresham Smith to inspect and evaluate two historic bridges, the Seven Mile Bridge and the Bahia-Honda Historic Truss. Both structures are closed to traffic.
11/17 – 01/18	TDOT, Off-System Underwater Bridge Inspections, Statewide, TN QC Reviewer. Courtney provided quality control reviews for the inspection reports and graphics. The project included over 50 bridges throughout Tennessee
11/17 – Ongoing	MDOT, SR 178 Benton County Bridge Replacements, MS 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. 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.
07/18 – Ongoing	MDOT, SR 149 Simpson County Bridge Replacements, MS Engineer. Gresham Smith is partnering with MDOT for Phase B (Final Design) for the reconstruction of S.R. 149 near D’Lo, Simpson County, Mississippi. Courtney served as Engineer-of-Record for the two longer structures (Bridge 128.2 and Bridge 128.6). This is the first instance of partial depth deck panels utilized for MDOT as a pilot to verify the ease of construction and as an accelerated (ABC) time condition.

(Add rows as needed)

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Jeff McRae, PE	Years of relevant experience with this employer	27
Title	Technical Manager - Bridge	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 1996 / Civil Engineering	
Active registration number / state / expiration date		PE No. 34554 / Louisiana / exp. 09/30/2025	
Year registered	2009	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Bridge Design Engineer	
<p>With more than 25 years of experience focused on bridge design projects, Jeff is responsible for overseeing the completion of contract plans from the conceptual stage through final design on numerous bridge projects, generation of bridge quantity calculations, checking of concrete and steel bridge shop drawings, and generation of substructure and superstructure design calculations. He has also performed the duties of project manager on several bridge design projects and three bridge inspection projects.</p>		<ul style="list-style-type: none"> ✓ 25+ years leading major bridge designs and design reviews ✓ Delivered dozens of major urban bridge designs for DOTs across the Southern U.S. 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
11/21 - Ongoing	<p>US 371: KCS RR Overpasses HBI, Webster Parish, Louisiana. DOTD. Bridge Engineer. Serving as the Bridge Design Lead for the replacement of 3 bridges along US 371 at 2 locations: Sibley, La and Minden, LA. His responsibilities include overseeing the bridge design calculations and development of bridge plans making sure they meet both DOTD and KCS Railroad Design Guidelines. Project includes the design of a detour structure (Akrow Bridge) for the bridge site at Sibley in order to keep US 371 open under traffic. The new bridges will be concrete girder-type and includes widening the two existing bridges in Minden to accommodate an additional travel lane for each bridge. A detour bridge will also be included for the Sibley location. Strict adherence to the KCS railroad design guidelines as well as adequate coordination with KCS will have to be maintained during all phases of design.</p>		
11/22 - Ongoing	<p>Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program. DOTD, District 07. Lead Bridge Engineer. Responsible for overseeing the generation of engineering design calculations, bridge geometry, bridge quantities, and design plans. Michael Baker was selected by DOTD to provide bridge, roadway and environmental services for the replacement of off-system bridges in the five parishes located in DOTD District 07. Structures replaced by this program include numerous culverts, box culverts, and slab span bridges. Currently, 10 of the 12 bridge surveys have been approved, hydraulic studies are ongoing and initial submittals in February 2024, Solicitation of Views have been sent out, and Preliminary Plans have started. Providing project status updates to the Parishes and performing coordination with those Parishes in regards to historical hydraulic events.</p>		
01/14 - 03/16	<p>S.R. 28 Big Creek, Quinn Creek, and Strong River Bridge Replacements, Simpson County, MS. Mississippi DOT. Project Manager & Engineer. Responsible for generating preliminary bridge ROW plans, geometric calculations and design calculations for three hydraulic bridge crossings. One of the crossings, Strong River, required four separate alternates to be detailed as well as a construct-ability report and cost estimate comparison discussing the advantages and disadvantages of each alternate. Michael Baker is providing engineering services for the replacement of the S.R. 28 bridges over Big Creek, Quinn Creek, and Strong River. Michael Baker's services included hydraulic analyses, scour assessments, stream bank stabilization evaluations, preparation of hydraulic analysis reports, and conceptual and preliminary design.</p>		
06/20 - 12/21	<p>S.R. 601 Middle-Canal Road, Harrison County, Mississippi. Mississippi DOT. Bridge Design Lead. Responsible for generation of engineering design calculations, bridge geometry, bridge quantities, and conceptual through final bridge design contract plans for three grade crossings and one hydraulic crossing. Michael Baker provided engineering services for Alternate No. 2 (with North Connector Road) for the development of contract plans for the middle section (approximately 3.0 Miles) of a four-lane divided highway on new alignment from US 90 to I-10. Four bridges are on the alignment. Michael Baker also provided aerial mapping and centerline alignment for the entire length of the highway from US 90 to I-10</p>		



11/19 – 12/21	US Highway 49 Flyover Bridge Rehab, Rankin County, Mississippi. <i>Mississippi DOT. Project Manager.</i> Responsibilities included overall project management, QA/QC of bridge design calculations, generation of final contract plans and reviewing of contractor submittals. Michael Baker provided design and engineering services for final contract plans for the replacement of the curved right-side railing (outside of curve) and overhang on the US 49 North to I-20 West flyover bridge (Bridge No. 30) in Rankin County, Mississippi. Michael Baker also developed traffic control plans, performed infrared and ground penetrating radar surveys of the existing bridge deck and prepared a special provision specification for a high friction overlay to be applied to the bridge deck.
08/18 – Ongoing	Reunion Parkway Design Services Phase 3, Madison County, Mississippi. <i>Madison County Board of Supervisors. Project Manager.</i> Michael Baker provided design services for two bridge sites along Phase 3 of the Reunion Parkway in Madison County, Mississippi. The scope included developing Phase B Final Bridge Plans for an 880-foot-long bridge over Bear Creek and a 530-foot-long bridge over the Illinois Central Railroad.
01/16 – 04/16	S.R. 3 Bridge over Coldwater River Replacement, Tate County, MS. <i>Mississippi DOT. Engineer.</i> Michael Baker provided engineering services for the replacement of the bridge carrying S.R. 3 over Coldwater River. Michael Baker's services included bridge hydraulic one- and two-dimensional model analyses, scour analysis and evaluation, bridge scour and stream bank stabilization design, conceptual and preliminary structural design, and preparation of right-of-way plans.
01/13 – 04/13	S.R. 16 from S.R. 15 to S.R. 19 Bridge Design, Neshoba County, Mississippi. <i>Mississippi DOT. Engineer.</i> Responsibilities included generation of engineering design calculations, bridge geometry, bridge quantities, and conceptual through preliminary bridge design contract plans for ten bridges. Michael Baker provided engineering services for improvements to 10 miles of S.R. 16 from S.R. 15 to S.R. 19. Michael Baker's services included the Phase A preliminary bridge plans for eight bridges, including hydraulic design for three bridges and a railroad crossing bridge, and stream and wetland delineation.
01/99 – 12/10	I-55/I-20/ US 49 Rehabilitation; Stack #3 Design Phase, Jackson, Mississippi. <i>Mississippi DOT. Bridge Technical Manager and Engineer.</i> Responsibilities included generation and checking of engineering design calculations, bridge quantities, and final design contract plans. Responsibilities included generating design calculations and contract plans for the substructure and AASHTO beam superstructure spans as well as checking of curved steel girder design for Ramp G-6 over I-20 and U.S. 49. Responsibilities also included checking and regeneration of form grades, beam seats, etc. at four other bridge sites. Michael Baker provided engineering services (field surveys, preliminary through final design, and certain construction phase services including public relations assistance) for the rehabilitation of the interchanges of Interstate 20 with both Interstate 55 and U.S. Highway 49 in Jackson, Mississippi. The total project will be built through a series of four separate construction contracts all designed by Michael Baker. Current project is "STACK III". The project was awarded The 2010 Grand Conceptor Award for Engineering Excellence presented by the American Council of Engineering Companies of Mississippi.
04/12 – 04/13	S.R. 178 Bridge Replacement Right-of-Way Plans, Itawamba County, Mississippi. <i>Mississippi DOT. Engineer.</i> Responsibilities included generation of engineering and geometric design calculations, and development of final right-of-way bridge plans for eight bridges and two box bridge extensions. Michael Baker developed final right-of-way plans for replacement of eight bridges, extension of two box bridges, removal of one box bridge, and addition of a stream relocation and a new box bridge under a relocated local road. The roadways, totaling approximately seven miles along S.R. 178 between Clay and the Alabama State Line, were upgraded either to new construction standards or to 3R standards, depending on the locations. The project was divided into five sites. Three sites required detour roads, and two sites were temporarily closed to traffic. Michael Baker also performed all hydraulic analyses at the bridges and box bridges.
08/13 – 04/16	Bridge Hydraulic Design Master Services Agreement, Statewide, Mississippi. <i>Mississippi DOT. Engineer.</i> Michael Baker provided engineering services for bridge replacements under a two-year master services agreement for bridge hydraulic design. Michael Baker's services included hydraulic analyses, scour assessments, stream bank stabilization evaluations, preparation of hydraulic analysis reports, and conceptual and preliminary bridge design.
02/23 – Ongoing	I-2/I-69C Interchange and I-2 Reconstruction Design-Build, Pharr, McAllen, and San Juan, TX. <i>Texas DOT. Project Advisor.</i> Michael Baker provided design and engineering services for this major transportation reconstruction project for 7.8 miles of operational and safety improvements along I-2 in a rural-to-urban segment of the county. For this project, it developed roadway designs and alternative concepts as well as maintenance and protection of traffic (MOT) plans for efficiently redirecting traffic. Its roadway, bridge, and MOT teams collaborated using 3D models to ensure designs met requirements set by the Texas Department of Transportation (TxDOT) for construction clearance, profile grades, design speeds, bridge removals, and work-zone traffic barrier clearances. Michael Baker's unique solution for construction allowed the contractor to construct three out of the four direct connectors using minimal closures. By eliminating these restrictions, the contractor could offer a lower bid, reducing costs and saving money.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Petrina Butler, PE, ENV SP	Years of relevant experience with this employer	4
Title	Bridge Project Manager	Years of relevant experience with other employer(s)	18
Degree(s) / Years / Specialization		MS / 2008 / Structural Engineering; BS / 2002 / Civil Engineering	
Active registration number / state / expiration date		PE No. 39597 / LA / exp. 09/30/2025	
Year registered	2015	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		MPR No. 5 ; Bridge Rating	
Leveraging over 20 years of experience, Petrina's diverse capabilities include bridge design and load rating of prestressed concrete girders, steel welded plate girders, cast-in-place concrete flat slabs, prestressed cored slabs, and various substructure types. She also has experience in roadway design, right-of-way plan development and exhibit preparation, structural analysis and inspection, and management of transportation projects.		<ul style="list-style-type: none"> ✓ 15+ years of bridge rating experience ✓ Instructor for BrR Load Rating training courses ✓ Bridge design knowledge includes the new design, widening, and rehabilitation of small waterway crossings, culverts and drainage structures, and rail crossings 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
04/21 - Ongoing	Bridge Load Rating and Evaluation Engineering, Statewide, South Carolina. South Carolina DOT. Bridge Design Lead. As lead bridge engineer, responsible for the emergency repair of two bridges and the QC of bridge load ratings. Michael Baker is providing bridge inspection and engineering evaluation services in support of a statewide, consultant-led, bridge inspection effort for higher priority bridges across South Carolina. The bridges included in this contract encompass interstate system bridges, bridges over railroads, underwater inspections, and bridges with more challenging access needs.		
mm/yy - mm/yy	S-472/S-45 Bridge Replacement, Horry and Georgetown Counties, South Carolina. South Carolina DOT. Bridge Engineer. Responsible for QC review for load rating of two prestressed concrete cored slab bridges. Michael Baker is providing engineering services for the replacement of the S-472 Bridge over Horsepen Creek in Horry County and S-45 Bridge over Tributary to Boser Swamp in Georgetown County. Project services include surveys, environmental documentation and permitting, hydraulic and hydrological design, roadway and bridge design, geotechnical design, utility coordination, ROW support, SUE, public involvement, and construction services.		
05/22 - Ongoing	District 1, US 21 over Congaree Creek, Lexington County, South Carolina. South Carolina DOT. QA/QC Engineer. Provided QC peer view of load rating calculations and documentation. Michael Baker is providing engineering services for the replacement of the U.S. 21 Bridge over Congaree Creek. The project includes development and delivery of preliminary roadway and bridge plans, environmental studies and documentation, environmental permitting, ROW plans, final construction plans, and bridge hydrologic and hydraulic analyses, including a FEMA study.		
03/20-02/23	Bridge Inspection and Evaluation Engineering, Statewide, South Carolina. South Carolina DOT. Assistant Project Manager. Responsible for technical review. Michael Baker provided bridge load rating and evaluation engineering services for state-owned, county-owned, and other municipality-owned structures throughout South Carolina, primarily for the 1,815 bridges in District 3. Tasks include project management, site assessments, data collection, agency coordination, quality assurance reviews, and training development. Michael Baker established this statewide program and oversees five other consultants performing bridge load ratings, assessments, load and material testing, oversize and overweight permitting, complex structure rating and maintenance manuals, development of custom AASHTOWare Bridge Management program, and QA reviews.		
02/09 - 10/22	Bridge Services, Livermore, California and Albuquerque, New Mexico. Sandia National Laboratories. QA/QC Engineer. Responsible for load rating review. Michael Baker provided traffic counts, growth projections, scour analysis, seismic vulnerability analysis, and load rating for three bridges located at the Sandia National Laboratories sites in Livermore, CA, and Albuquerque, NM. The structure types included prestressed CA BT girders, prestressed t-beams, steel girders, reinforced concrete flat slabs, timber beams, box culverts, corrugated metal pipes, and reinforced concrete pipes. All load ratings were completed to meet the requirements of the Department of Energy Order DOE O 4371, using AASHTOWare BrR or CANDE.		



11/20 – 06/22	Shackleburg Road Bridge, Anderson County, South Carolina. <i>Anderson County.</i> Senior Engineer. Responsible for review and oversight of bridge design calculations and construction plans. Michael Baker provided professional engineering services on an accelerated schedule, providing advance design packages for the new single-span 60-foot span voided hollow cored slab bridge deck units and the end bent steel piles. The replacement design provided a very low maintenance, low-cost solution to prevent future washouts and allow for a 100-year life structure.
01/17 – 1/18	Local Bridge Inspection and Load Rating, Statewide, Mississippi. <i>Mississippi OSARC.</i> Bridge Design Lead. The project scope consisted of the inspection and load rating of 162 bridges on an expedited schedule (4 months), including both superstructure and substructure components. Bridge Load Rating Task Leader and Engineer of Record for all load rating work, including development of substructure calculation templates using Consys and Mathcad, review of AASHTOWare BrR templates for the project, and QC review of the load rating calculations and reports for the project. The project was delivered on-time and within budget.
06/22 – Ongoing	On-Call Engineering Services FY 22 and FY 23, Spartanburg, South Carolina. <i>Spartanburg County.</i> Project Manager. Provided evaluation of 18 posted bridges owned by the County and summarized repairs/strengthening options to eliminate load posting. Michael Baker is serving as an on-call consultant to perform roadway, bridge, and general civil design for Spartanburg County Public Works and the Community & Economic Development Departments. To date, tasks have included bridge inspection, load ratings, bridge analysis and repair, roadway design, drainage and erosion control, utility coordination, permitting and traffic control.
01/22 – 01/22	I-10 over Flat Creek Approach Slab Replacement, Gadsden County, Florida. <i>Florida DOT, District 3.</i> QA/QC Engineer. Provided QA review for bridge replacement plans. Michael Baker provided structural engineering and design services for the emergency repair of a multi-girder bridge following the collision of an over-height vehicle with the fascia girder. As part of the project for the Florida Department of Transportation, Michael Baker performed an emergency inspection, prepared plans for roadway, traffic control, and signing and pavement markings, and designed replacements for the bridge approach slab, drainage inlets, shoulder gutter, and guardrail. Its designs included the installation of four parallel, precast, prestressed concrete panels connected with UHPC closure strips.
12/08 – 01/10	Quail Road Bridge Replacement over Wolf Creek, Colleton County, South Carolina. <i>South Carolina DOT.</i> Bridge Design Lead. Lead Design Engineer for the replacement of a deficient two-lane bridge with a single-span prestressed girder superstructure supported on steel H-piles. Managed this bridge design project with SCDOT, including preparation of Scope of Work and Budget, submission of progress reports for invoice approval, tracking budget and schedule, and coordination with sub-consultants.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Shalin Sheth, PE	Years of relevant experience with this employer	2
Title	Bridge Engineer	Years of relevant experience with other employer(s)	4
Degree(s) / Years / Specialization		MS / 2019 / Civil Engineering (Structural); BTech / 2016 / Civil Engineering	
Active registration number / state / expiration date		PE No. 48337 / LA / exp. 03/31/2024	
Year registered	2023	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Bridge Design Support; Bridge Ratings Support	
<p>Shalin's experience includes structural design bridge design, bridge load rating, bridge load testing, and project management, for a variety of projects. He has worked in the structural forensics field as an intern, before working as a bridge EI. He has experience with drafting and detailing bridge widening plans, along with structural designing of bridge components. His professional experience also includes load rating bridges of various types, performing field load testing of bridges, computing bridge quantities and cost estimates, preparing bridge rehabilitation plans, conducting GPR surveys of bridge decks, training junior engineers, and various administrative tasks.</p>		<ul style="list-style-type: none"> ✓ Performed hundreds of load ratings for DOTD structures ✓ Well-versed in DOTD bridge design guidelines ✓ Highly proficient in a wide range of bridge design and load rating software, and in instructing others in its use ✓ Recently performed bridge inspection for simple span bridges in Mississippi and currently performing bridge load ratings on those structures for MDOT 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
11/22 - Ongoing	<p>Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program. DOTD, District 07. Bridge Engineer. Responsible for developing engineering design calculations, bridge geometry, bridge quantities, and design plans. Michael Baker was selected by DOTD to provide bridge, roadway and environmental services for the replacement of off-system bridges in the five parishes located in DOTD District 07. Structures replaced by this program include numerous culverts, box culverts, and slab span bridges. Currently, 10 of the 12 bridge surveys have been approved, hydraulic studies are ongoing and initial submittals in February 2024, Solicitation of Views have been sent out, and Preliminary Plans have started.</p>		
11/21 - Ongoing	<p>US 371: KCS RR Overpasses HBI, Webster Parish, Louisiana. DOTD. Bridge Engineer. Responsible for computation of engineering design calculations, determining structural feasibility of bridge geometry, structural design of all bridge components, computation of bridge quantities, and plan production at various preliminary and final submittal stages/milestones. Ensured that bridge plans meet both DOTD and KCS Railroad Design Guidelines. Project includes the design of a detour structure (Akrow Bridge) for the bridge site at Sibley in order to keep US 371 open under traffic. The new bridges will be concrete girder-type and includes widening the two existing bridges in Minden to accommodate an additional travel lane for each bridge. A detour bridge will also be included for the Sibley location. Strict adherence to the KCS railroad design guidelines as well as adequate coordination with KCS will have to be maintained during all phases of design.</p>		
07/19 - 08/22	<p>Macarthur Interchange Completion Phase II at US90-Z Eastbound, Jefferson Parish, Louisiana. DOTD. Engineer Intern. Responsible for structural analysis and girder capacity verification of prestressed concrete girders, developing spreadsheets and Mathcad files for computing development lengths and splice lengths, and deck reinforcement design. Also developed computing bridge quantities, girder riser elevations, riser thicknesses, deck elevations for the bridge, along with drafting CAD sheets in MicroStation for framing plans, pier cap details, and deck reinforcement plans in compliance with DOTD standards. This project consisted of demolition of an off-ramp and an on-ramp, along with reconstruction of both at different locations in addition to new construction to facilitate bridge widening.</p>		
05/21 - 08/21	<p>Mermentau River Swing Span Truss Bridge Repairs at Grand Cheniere, Louisiana. DOTD. Engineer Intern. Responsible for preparing a structural rehabilitation solution to repair a steel truss member with structural deficiency, along with repair solutions for floorbeams and stringers using steel cover plates. Drafted and redrew the fender system plans and railing repair plans and reviewing overall bridge repair quantities and the plan set. Assisted with bridge inspection and load rating services in the preliminary stage, and later prepared repair and rehabilitation plans and procedures for the entire superstructure and substructure along with the fender system for the movable bridge span.</p>		



07/19 – 02/21	<p>Load Rating of 311 Bridges, Louisiana. DOTD. Engineer Intern. Responsible for load rating 51 bridges of various types such as concrete slab bridges, reinforced concrete girder bridges, prestressed girder bridges, prestressed and reinforced channel bridges, reinforced concrete culverts, and timber beams/timber trestle bridges. For a typical bridge, the load rating process involved developing and analyzing the superstructure structural model in AASHTOWare BrR, substructure structural model in RC Pier (now LEAP Bridge Concrete), and post processing the analysis results using Mathcad to effectively determine the load carrying capacity of the bridge (load rating factors) and accordingly recommending the posting load to DOTD. This project's scope was initially the load rating of 311 bridges located across Louisiana, however later another 300+ bridges and culverts were added to the scope.</p>
07/22 – 08/22	<p>Load Rating of 176 Bridges, Louisiana. DOTD. Engineer Intern. Responsible for performing load rating for a total of 43 culverts out of 176. The typical process mainly involved developing and analyzing the structural model for concrete box culverts in AASHTOWare BrR, and then preparing reports with load posting recommendations, if applicable.</p>
07/22 – 08/22	<p>Load Rating of 114 Bridges, Louisiana. DOTD. Engineer Intern. Responsible for performing load rating for a historic steel beam bridge, and a prestressed concrete girder bridge. The typical load rating process involves modelling the superstructure and substructure in AASHTOWare BrR and LEAP Bridge Concrete respectively, along with compiling the load rating report. Also reviewed over 40 concrete slab bridges to be load rated by three junior engineer interns.</p>
03/23 - Ongoing	<p>I-2/I-69C Interchange Construction Support (Design-Build). Texas DOT. Bridge Engineer. Responsibilities include addressing RFIs, FDCs (Field Design Change), NDCs (Notice of Design Change) by performing structural analysis, making changes to the construction plan set sheets using Microstation as required, reviewing changes and drawings by other engineers, ensuring conformance to TXDOT construction specifications, coordinating with subconsultants and prime contractor DPJV (Dragados-Pulice Joint Venture), working with Bentley and Axiom to prepare custom drawing configuration files to prepare record drawings in accordance with TXDOT's requirements for 19 bridges (steel, prestressed concrete, concrete slab bridges).</p>
10/23 - Ongoing	<p>Load Rating based on 2023 Bridge Inspection Recommendations. Mississippi OSARC. Bridge Engineer. Responsibilities include performing load rating evaluation for 8 bridges (concrete slabs, steel girders, steel and timber girder/stringer/floor-beam systems, steel railcar bridges) using AASHTOWare BrR for superstructure analysis and an in-house spreadsheet developed for substructure analysis, preparing load rating summary reports and critical finding recommendations if applicable, and providing guidance to engineer interns.</p>
09/23 – 09/23	<p>Bridge Inspections. Mississippi OSARC. Assistant Team Lead. Responsibilities included performing a preliminary study of previously available inspection reports, filling out inspection forms as required by OSARC both prior and after inspections, conducting in-depth inspections of bridges (concrete channels, concrete slabs, reinforced concrete girders, steel girder bridges), noting defects in both superstructure and substructure, documenting photographs and measurements, assigning condition ratings to bridge elements, and recommending bridge closures based on critical findings if applicable, for 27 bridges.</p>

16. Staff Experience

Firm employed by	Gresham Smith		
Name	Yun Lin, Ph.D., P.E.	Years of relevant experience with this employer	11
Title	Bridge Load Rating Lead	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization	BS Civil Engineering, West Virginia University, 2008 MS Civil Penn State University, 2010 Doctor of Philosophy (Ph.D.) Structures, West Virginia University, 2015		
Active registration number / state / expiration date	PE. 0042444 / LA / 9/30/24		
Year registered	2018 (LA)	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities	MPR No. 5; Bridge Rating Support		



Dr. Lin recently returned to Gresham Smith fulltime as our Lead Load Rating Engineer, following a multi-year stint with the Virginia Department of Transportation (VDOT). At VDOT, Dr. Lin served 2 years as District Inspection Program manager and 1 year as District Load Rating Manager (Staunton District). Previously, Dr. Lin worked in Baton Rouge for a different firm (with John Weres) before joining Gresham Smith, originally in 2017, then again full time in 2023.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
1/22 – 8/23	VDOT, Staunton District District Inspection Program Manager. Dr. Lin directed inspection and load rating efforts for 3600+ bridges, ancillary structures and culverts across 11 counties. He led a team of 15 in-house staff including 4 load rating engineers. Dr. Lin managed communications for bridge load postings, oversaw two consultant contracts for inspection and load rating; and prioritized bridge maintenance funds for bridge repairs and replacements.
1/20 – 12/21	VDOT, Staunton District District Load Rating Manager. Dr. Lin led a team of 4 engineers to perform as-built load ratings for new and existing structures. General tasks included ensuring FHWA and State compliance for in-house load ratings, conducted training in AASHTOWare BrR for internal staff, and provided rehabilitation solutions to District Maintenance Department.
7/19 – 7/23 (Parttime) 8/23 – Ongoing (Fulltime)	TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN Project Engineer. Bridge load rating for complex structures and standard structures across the state of Tennessee. Complex structures were analyzed utilizing finite element methods and CSi Bridge software. 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. Dr. Lin also assisted TDOT with developing and refining their rating approach for Emergency Vehicles (EV). The complex structures load rated consisted of: <ul style="list-style-type: none"> • 16 Curved Steel Tub Girders • 6 Steel Tubs with Cantilever Approach Spans • 54 Curved Steel I Girders • 29 Steel K-Frames • 2 Steel Arches • 1 Bascule Truss • 1 Steel Through Girder • 2 Steel Trusses • 6 Girder-FloorBeam-Stringers

11/19 – 02/20	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 (Bridge # 037532) and also for the LA 1 truss bridge (Bridge # 036110) in Simmesport, LA. Dr. Lin assisted the team leader for the inspections and in developing the reports. <i>Client. Assigned Role.</i> Insert brief description of role & duties, scope of work (highlighting similarities where applicable), unique challenges/solutions, etc.
1/16 – 7/17	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.
1/19 – 1/20	Pedestrian Walkway Over US-31 in Vestavia Hills Near Wald Park in City of Mountain Brook, Alabama Lead Project Engineer. Dr. Lin served as the lead design engineer and was responsible for superstructure and substructure design for the project. The 175 ft long pedestrian bridge combines a 145 ft long simple span and a 30 ft cantilever span. Dr. Lin was responsible for design calculations and plan productions as well as communications with design architect and another party who was responsible for the elevator shaft (ADA compliance).
8/16 – 3/17	LADOTD, Earhart Expressway Preliminary Design, Metairie, LA Bridge Designer. Dr. Lin performed bridge design and evaluation for the preliminary design of a 1,500' elevated bridge structure in Metairie. Tasks included span arrangement evaluations, development of typical sections for various structure types, and foundation evaluations. Structure types considered included steel tub girders and post-tensioned concrete boxes.
3/17 – 7/17	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.
9/10 – 5/15	West Virginia University Doctorial Research Engineer. Yun worked as a doctorial researcher for WVDOT research projects and led a team of four graduate engineers. Research included developing a plan, assumptions and testing requirements; processing a series of tests on both facility constructed and in-place construction; and documenting results, including a doctoral thesis on Thermal Stress Analysis. The 3 research studies included: <ul style="list-style-type: none"> • Thermal Stress Analysis of Mass Concrete Bridge Elements (2014-2015) • Preliminary Analysis of Mass Concrete Bridge Elements (2010-2014) • Innovative Bridge Construction Using Self-Consolidating Concrete (2010-2011)

(Add rows as needed)

16. Staff Experience

Firm employed by	Gresham Smith		
Name	Donald McCrary, P.E.	Years of relevant experience with this employer	6
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	16
Degree(s) / Years / Specialization	Bachelor of Science / 2001 / Civil Engineering		
Active registration number / state / expiration date	PE. #110436 / TN / Exp. 7/31/25		
Year registered	2009 (TN)	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities	MPR No. 5; Bridge Rating Support		



Donald has over 22 years of experience within the bridge industry. The many type of bridges that Donald has designed throughout his career range from vehicular, pedestrian and railroad bridges. These structure types include all of the common construction materials such as steel, concrete and high performance steel. Donald also has done a tremendous amount of design using Accelerated Bridge Construction methods. He has quickly become one of Tennessee's leading engineers when it comes to designing a bridge with Accelerated Bridge Construction.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
07/19 – Ongoing	TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN Senior Structural Engineer. Donald provided bridge load rating management and QC reviews for approximately 141 complex structures and 137 standard structures across the state of Tennessee. 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.
10/17 – Ongoing	TDOT, Bridge Maintenance and Repair Contract, Regions 1, 2 & 3, TN Project Engineer. This contract has included underwater bridge inspections, routine structural repairs, superstructure replacements and widening, full structure replacements and Accelerated Bridge Construction projects. Donald's responsibilities included preliminary layouts, bridge inspections, superstructure design, substructure design, quantities, and preparing and organizing plan sheets and detail sheets.
06/17 – 1/18	TDOT, I-40 Interchange at SR 255, Davidson County, TN Project Engineer. The proposed structure is a two-span steel welded plate girder bridge. Additionally, this project has two other bridge structures along SR 255 crossing MNAA East-West Road and McCrory Creek. The geometric layout and preliminary design were also developed for these structures. The MNAA bridge structure proposes a single-span prestressed concrete girder structure that utilizes uniquely modified bulb-tee beams to meet the tight vertical alignment and clearance constraints. The McCrory Creek bridge structure is a three-span traditional prestressed concrete bulb-tee girder bridge.
06/17 – Ongoing	TDOT, SR 171 over I-40 Bridge Widening, Wilson County, TN Senior Bridge Engineer. Engineer-of-Record. This project included the widening of a 249-foot four-continuous-span, concrete structure utilizing 36-inch by 36-inch precast prestressed concrete box beams with composite deck. Donald's responsibilities included bridge inspections, superstructure design, substructure design, quantities, and QA/QC of design and plans.

(Add rows as needed)

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Aaron Dunavant, PE	Years of relevant experience with this employer	3
Title	Civil Engineer - Water	Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization		BS / 2015 / Biological and Agricultural Engineering	
Active registration number / state / expiration date		PE No. 47578 / LA / exp. 09/30/2025	
Year registered	2023	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Drainage Design Support	
Aaron has experience in Hydraulics & Hydrology (H&H) and natural channel design, HEC-RAS modeling, CAD design, and ArcGIS projects. He has utilized those skills to create natural channel designs for mitigation bank and erosion projects.		<ul style="list-style-type: none"> ✓ CAD expert for drainage and hydraulic design ✓ Extensive experience on DOTD drainage improvement projects 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
02/23 – Ongoing	US 371 KCS Railroad Overpass HBI, Louisiana. DOTD. Drainage Engineer. Responsible for supporting drainage design for this overpass project.		
01/22 – Ongoing	Task Order 1, Louisiana Watershed Initiative, Region 4. DOTD. Hydraulic Engineer. Responsible for gathering background data and creating a 2D HEC-RAS model for the Sabine River HUC-model in Region 4. Developed the loss method data and stream centerlines for a major portion of the model. Created bridge and culvert structures within the model. Performed HEC-HMS calibration runs for the model using available gage data. Created technical memos detailing all information and data from model.		
10/21 – Ongoing	Task Order 2, Louisiana Watershed Initiative, Region 6. DOTD. Hydraulic Engineer. Modeler for the Eastern Louisiana Coastal (Region 6) HEC-RAS model. Developed the loss method for infiltration, soils and land use data. Created centerlines for the major streams in the watershed by filtering out small streams from the National Hydrology Database. Developed break lines, bridge structures and mesh geometry in the hydraulic models. Simulated storms within the HEC-RAS models and adjusted calculated values for calibration and validation of the model. Michael Baker is providing engineering and modeling services to the Louisiana Department of Transportation & Development (DOTD) for Region 6 for the Louisiana Watershed Initiative (LWI). The LWI project was launched in 2018 and introduced a watershed-based approach to reducing flood risk in Louisiana. It is organized by seven modeling regions, each of which encompasses multiple HUC-8 watersheds. For the second task order, Michael Baker supplemented data collection and analysis, continued stakeholder engagement services, and performed topographic, bathymetric, and channel surveys.		
01/22 – Ongoing	Task Order 1, Louisiana Watershed Initiative, Region 4. DOTD. Hydraulic Engineer. Responsible for gathering background data and creating a 2D HEC-RAS model for the Sabine River HUC-model in Region 4. Developed the loss method data and stream centerlines for a major portion of the model. Created bridge and culvert structures within the model. Performed HEC-HMS calibration runs for the model using available gage data. Created technical memos detailing all information and data from model.		
09/22 – Ongoing	Parish Comprehensive Drainage Plan, St. Tammany Parish, Louisiana. St. Tammany Parish. Water Resources Engineer. Responsible for helping with community and public outreach presentation. Assisted with data acquisition and processing to determine areas of high flood risk and reports. Michael Baker conducted a comprehensive drainage plan for the Saint Tammany Parish located on the north shore of Lake Pontchartrain, Louisiana. The plan evaluated the existing state of drainage in the parish including flood risk, water quality and development guidelines, recommended capital projects, and potential policy changes that would lead to reduced flood damaged and increased safety. The Michael Baker team provided data gathering efforts, ranked list of problem areas and provided four (4) in-person public and stakeholder outreach throughout Phase I of this project.		



06/19 – 05/21	<p>Basin Natural Stable Channel Design PER, Houston, Texas. <i>Harris County.</i> Hydraulic Engineer. Created assessment maps for soils, geology, impervious surfaces, and drainage area in GIS. Researched reference reach tributary upstream of L112 for design parameters. Produced CAD details, final planset and memo for submittal. This project was part of the Little Cypress Creek Frontier program that aimed to reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1 percent (100-year) floodplain and reduce that floodplain by more than 5,800 acres. Bond ID F-34 will provide funding for right-of-way acquisition, design and construction of the Mason basin.</p>
11/19 – 12/20	<p>Buffalo Bayou Geomorphic Channel Stability and Rehabilitation Assessment. Houston, Texas. <i>Buffalo Bayou Partnership and Harris County.</i> Hydraulic Engineer. Mapped the existing erosion conditions on Buffalo Bayou from Shepherd to Jensen using GPS device. Created assessment maps using GIS Software. Updated report figures and maps for all recommended projects. This project provided a fluvial geomorphic assessment that investigated an understanding of the physical processes responsible for channel form and adjustment of Buffalo Bayou and its riparian zones in the study area . The goal was to improve the overall stability and resilience to future hydrologic and hydraulic stressors.</p>
03/17 – 05/19	<p>K155 Stream Restoration Project, Harris County, Texas. <i>Harris County.</i> Hydraulic Engineer. Created assessment maps using GIS software. Created construction planset and details using CAD software.</p>
06/22 – 06/22	<p>Black Creek Cooling Water Facility Dam Spillway Study, Jackson County, Mississippi. <i>Jackson County Port Authority.</i> Hydrologist. Part of the H&H team that developed the hydrology and hydraulic models. Calculated the probable maximum precipitation values in HEC-HMS for 21 different storms to determine which storm would produce the maximum flood values. Performed dam break analysis in HEC-RAS using these values to ensure the design standard of the dam. Michael Baker conducted a probable maximum flood (PMF) analysis and incremental hazard evaluation for the Black Creek Cooling Water Facility. The team developed a formal report outlining the findings of the analysis and provided recommendations for spillway improvements. The project's goal was to achieve a safe, secure, and more resilient infrastructure by enhancing its protection to prevent or mitigate the potential for dam failure.</p>

16. Staff Experience

Firm employed by	Gresham Smith		
Name	Rebecca Murray, P.E., PTOE, RSP1	Years of relevant experience with this employer	9
Title	Lead Traffic Engineer	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		Bachelor of Science / 2015 / Civil Engineering	
Active registration number / state / expiration date		P.E.0043788 / LA / Exp. 3/31/24 PTOE 4861 RSP1 611	
Year registered	2019 (LA) 2020 (PTOE) 2021 (RSP1)	Discipline	PE (Civil); PTOE; RSP1
Contract role(s) / brief description of responsibilities		MPR No. 6; Traffic Support	



Rebecca has worked in various roles and responsibilities on a variety of projects including interchange and corridor studies, traffic signal design plans, Adaptive Traffic Signal Control (ATSC) plans, traffic impact studies, and traffic modeling as well as feasibility and concept studies. Her responsibilities for these projects include reviewing traffic volumes and crash data to develop traffic models, develop proposed alternatives and perform analysis on the alternatives. She has experience modeling existing and proposed roadway networks in analysis software such as Synchro, Sidra, HCS, and VISSIM. Rebecca has completed the ATSSA Traffic Control Training and all 3 modules of LADOTD's Traffic Engineering Process and Report Training.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
04/18 – 05/19	LADOTD, I-10 TMP West of LA 108 to I-210 Interchange TMP, Lake Charles, LA Pre-Professional. Gresham Smith developed a TMP for the Rubbelization and Overlay on I-10 between I-210 and the LA 108 Interchange. 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. 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, and this project included data collection and queue and safety analyses and traffic signal design. Rebecca assisted with traffic counts and queue analysis, safety analysis, alternate route/detour analysis, temporary traffic control, and development of the TMP report.
10/17 – 04/18	LADOTD, US 90 Bridge Maintenance over I-10 Ramps, Transportation Management Plan (TMP), Lake Charles, LA Pre-Professional. 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. Rebecca assisted with traffic counts and queue analysis, safety analysis, alternate route/detour analysis, temporary traffic control, and development of the TMP report.
08/22 – 12/23	LADOTD, LRSP TO #6 LA 14 – US 90 to Power Center Parkway Traffic Report, Lake Charles, LA Traffic Engineer. Gresham Smith is analyzing no build and future conditions to identify possible pedestrian mitigation alternatives along LA 14 through the development of a traffic report. This report will also inform recommendations that improve safety/operation and access management.
10/16 – 03/17	LADOTD, SRTS/LRSP Task Order 2: McMillan Street Traffic Study, Monroe, LA Pre-Professional. Rebecca’s role on the project was to review and analyze traffic count data, distribute trips throughout the study area, evaluate crash data and analyze proposed improvement alternatives.
05/21 – Ongoing	MovEBR, Sherwood Forest Blvd MUP, C-P Project No. 20-EN-HC-0027, Baton Rouge, LA Engineer. Gresham Smith was selected to perform a traffic study and design of the pedestrian signal accommodations and crosswalks along Sherwood Forest Boulevard between South Harrell’s Ferry Road and Old Hammond Highway in support of the Sherwood Forest Boulevard

	Multi-Use Path design project. Design plans will be developed to add pedestrian signals to the existing traffic signals with the goal of upgrading existing intersections up to current ADA requirements for pedestrians.
10/28 – Ongoing	LADOTD, LCG Adaptive Traffic Signal System, Lafayette, LA Traffic Engineer. Gresham Smith was selected to develop an Adaptive Traffic Signal network for the Lafayette Consolidated Government, which involved upgrading 190 traffic signal controllers. In addition, 78 traffic signals will be upgraded to become adaptive traffic signals. This will be the largest adaptive traffic signal system installed within the state of Louisiana. This project includes field inspection of 190 traffic signals, design plans for 78 adaptive signals, implementation of a new EVP system, integration support, and before travel studies. Rebecca is responsible for coordinating field data collection, travel time studies and developing design of traffic signals.

(Add rows as needed)

16. Staff Experience			
Firm employed by	Vectura Consulting Services, LLC		
Name	Kristen Gahagan Farrington, PE, PTOE, RSP1	Years of relevant experience with this employer	2
Title	Project Traffic Engineer	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization	B.S. / 2013 / Civil Engineering		
Active registration number / state / expiration date	PE. 0042785 / LA / 3/31/2025		
Year registered	2016	Discipline	Civil
Contract role(s) / brief description of responsibilities	Project Engineer for TMP		
<p>Kristen has performed numerous Stage 0 and other traffic design studies for the LA DOTD. Kristen fully understands the National Environmental Policy Act (NEPA) process as it relates to transportation engineering studies and can deliver traffic studies for federal and state approval. Kristen is also an expert at MicroStation as well other traffic analysis software. Kristen took formal Geographic Information Systems (GIS) training and can utilize the GIS software to present crash data and other environmental information.</p>			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
05/23 – 07/23	<p>H.013722 Morgan City Sidewalks & Shared Use Path (Morgan City, LA) Kristen was the lead engineer as part of a DOTD Safety IDIQ contract to document if an approach at a signalized intersection met the warrants listed in the <i>Traffic Engineering Manual</i> Sections 3B.2.4 and 3B.2.8 for a pedestrian marked crosswalk. The study also included an evaluation of a mid-block crossing based on the criteria set in Section 3B.2.7 of the <i>Traffic Engineering Manual</i>. The study consisted of vehicular and pedestrian counts, spot speed study, a safety analysis and field observations.</p>		
04/21 - current	<p>CP No. 16 CI-US-0032 Bus Rapid Transit (BRT) Improvement Project (Baton Rouge, LA) Kristen a project engineer for a traffic design study and traffic signal design of 19 signals along three corridors: Plank Road, 22nd Street and US 190 (Florida Street). Kristen assisted the prime consultant with the safety analysis as well.</p>		
08/21 – 04/22	<p>H.013267 Downtown to Scotlandville Parkway Trail Safety Enhancement Study (Baton Rouge, LA) Kristen was a project engineer for a design study to evaluate the recommended street crossing treatments of the trail at eight locations. The project consisted of collecting vehicular speed and volume data at the proposed trail crossings. Geometric field checks were also performed to determine if any hazards to pedestrians or cyclists existed. Once the field data was collected and analyzed, appropriate crossing treatments utilizing the <i>FHWA STEP Guide for Improving Pedestrian Safety at Unsignalized Locations</i> were developed that included Rectangular Rapid-Flashing Beacons (RRFB) and Pedestrian Hybrid Beacons (PHB’s). Currently, Vectura is developing plans for the PHB’s at four locations which will be the first implementation of PHB’s in the Baton Rouge area on a state route.</p>		
02/20 – 09/21	<p>MOVEBR College Drive Enhancement Project (Baton Rouge, LA) Kristen assisted with the data collection task of the College Drive project limits. Tasks included in data collection were 7-day tube counts, intersection turning movement counts, approach tube counts, unmet demand observations, driveway counts, travel time runs, pedestrian / bicycle counts, and weaving counts.</p>		
6/19 - 2/21	<p>H.013459 US 167 Improvements Stage 0 Elsie Street to Gilbert Street (St. Landry Parish, LA) Kristen served as project manager for a Stage 0 study to evaluate the addition of a third lane to US 167 from Elsie Street south to a point past Gilbert Drive. Environmental impacts and cost estimates were prepared, as well as a benefit-cost analysis of all improvements considered. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis. Designed high-level concept exhibits and comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.</p>		
6/19 - 2/21	<p>H.013460 US 167 Improvements Stage 0 Enola Street to Ross Road (Evangeline Parish, LA) Kristen served as project manager for a Stage 0 study of a two-lane road to remove a curvilinear section of US 167 from Enola Street near LA 748, southeast for approximately 1.2 miles. The study compared connecting existing property owners to a new roadway with driveways or intersection of old roadway. Environmental impacts and cost estimates were prepared. Civil Engineer responsible for safety analysis including crash rate number method, over-representation, CATScan quality assurance, HSM existing safety analysis, and No-Build Analysis, as well as a benefit-cost analysis. Designed high-level concept exhibits and a comparison matrix to determine best preliminary alternatives moving forward to meet the purpose and need of the project. Compiled meeting agenda materials and minutes.</p>		



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

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Elizabeth Brock	Years of relevant experience with this employer	5
Title	Environmental Specialist	Years of relevant experience with other employer(s)	5
Degree(s) / Years / Specialization		BS / 2010 / Environmental Science	
Active registration number / state / expiration date		N/A	
Year registered	N/A	Discipline	N/A
Contract role(s) / brief description of responsibilities		Environmental Support	
<p>Elizabeth is highly experienced in natural resources investigation and related GIS mapping, and in performing Environmental Site Assessments (ESAs), wetland delineations and evaluations, and Joint Permit Applications. She has conducted Phase I Environmental Site Assessments (ESAs) for projects pursuant to ASTM Standard E1527-13, which involves site inspections, land records reviews, aerial photograph analyses, topographic and geologic reviews, and technical report preparation. In addition, she completes technical reports for review by the USACE for Section 404 permitting purposes.</p>		<ul style="list-style-type: none"> ✓ Highly familiar with conducting wetlands evaluations and delineations in compliance with USACE and related standards ✓ Experienced in performing construction compliance monitoring 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
08/22 - Ongoing	<p>Barksdale AFB Entrance Roads, Bossier Parish, Louisiana. NAVFAC. Environmental Scientist. Responsible for the procurement of environmental permits for the new entrance roads for Barksdale AFB. The project includes a new roundabout at the Air Force Base gates along with new 4-lane divided highway to tie into the new LA 1267 highway constructed by DOTD under the I-20/I-220 Design Build interchange improvements. Additional responsibilities include coordination with the U.S. Army Corps of Engineers and Bossier Parish Engineering Department. The project was broken into two separate construction plans (Rough Grade and Final Design) and required additional coordination with DOTD and USACE. The new roundabout is designed to be a multi-lane roundabout that accommodates the new LA 1267 spur of the I-20/220 interchange.</p>		
09/23 - 09/23	<p>Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program - District 07, Louisiana. DOTD. Environmental Specialist. Supported research on environmental constraints that could serve as a roadblock for the replacement of a bridge structure. The information gathered allowed the engineers to make decisions on which bridges structures should move forward in design based off these environmental constraints.</p>		
09/21 - 08/22	<p>I-59 and US-11 Interchange Feasibility Study, Forrest County, Mississippi. Mississippi DOT. Environmental Scientist. Responsible for GIS services and assisted with the environmental services. Michael Baker prepared a feasibility study for the I-59 and US-11 Interchange, located in Forrest County, Mississippi, near the southwest boundary of Hattiesburg. The feasibility study included desktop and field data collection, traffic analysis, safety analysis, environmental and planning analysis, conceptual engineering design, and planning level cost estimates, as well as agency coordination and stakeholder outreach as required to successfully deliver 3 interchange concepts.</p>		
03/19 - 01/21	<p>Lemoyne Boulevard Erosion Control, St. Martin, Mississippi. Jackson County Board of Supervisors. Environmental Scientist. Responsible for assisting with environmental services. Michael Baker provided professional services associated with performing a detailed drainage study for new erosion control improvements to an existing open channel drainage way located north of Lemoyne Boulevard in the St. Martin Community. The purpose of the drainage and erosion control study was to provide recommendations to the stormwater drainage channel to address channel re-alignment and implement new erosion control measures to mitigation channel migration and sedimentation of channel banks and bottom.</p>		



08/19 – 09/19	Padgett Switch Road Resurfacing, Restoration, and Rehabilitation (RRR), Mobile County, Alabama. <i>Mobile County Engineering Department.</i> Environmental Scientist. Assisted with environmental services. Michael Baker provided engineering services for the rehabilitation of Padgett Switch Road from Highway 90 to Half Mile Road. Michael Baker's services include design, bidding-phase support, and construction services for grading, drainage, base, and paving of the roads. The project was funded by the 2016 Pay-As-You-Go funding program.
03/19 – 06/19	Saline and Caddo River Bridges Design Services, Pike, Howard, and Sevier Counties, Arkansas. <i>Arkansas DOT.</i> Environmental Specialist. Responsible for environmental services. Michael Baker provided roadway and bridge design for the replacement of three bridges in Sevier, Pike, and Howard counties in Arkansas. Individual sites on the project include Highway 70 over the Caddo River, Highway 70 over the Saline River, and Highway 278 over the Saline River. Michael Baker provided plans for the replacement of the bridges and approaches and hydraulic and geotechnical studies and completed the environmental clearance documentation at all locations.
04/19 – 08/19	Bush Lane and Carol Plantation Road Resurfacing, Restoration, and Rehabilitation, Mobile, Alabama. <i>Mobile County Engineering Department.</i> Environmental Specialist. Responsible for assisting with environmental services. Michael Baker is performing engineering services for a resurfacing, restoration, and rehabilitation project on Bush Lane and Carol Plantation Road. Michael Baker is developing reports, plans, and calculations to support 50%, 90%, and 100% design review submissions. Major items of work include preliminary and final design plans; safety audit; preliminary and final cost estimates; and construction administration.
10/19 – 11/19	S.R. 27 over Big Black River Replacement Project, Warren and Hinds Counties, Mississippi. <i>Mississippi DOT.</i> Environmental Specialist. Responsible for conducting environmental investigations necessary to prepare the Wetland Delineation in support of the proposed project to replace the existing bridge (Bridge # 117.9) over Big Black River along S.R. 27, in Hinds and Warren County, Mississippi. Michael Baker provided engineering services to assess potential impacts to wetlands and other waters resulting from the replacement of the bridge on S.R. 27 over Big Black River. For the project, Michael Baker reviewed the project plans for the bridge replacement site as well as aerial photography and other mapping of the project area. Michael Baker conducted field investigations in the project area to locate, identify, and delineate wetlands and waters of the United States in accordance with the USACE 1987 Wetland Delineation Manual and 2010 Regional Supplement guidance. It also mapped jurisdictional wetland areas and prepared technical reports.
09/19 – 11/19	S.R. 12 over Moccasin Creek Bridge Replacement Project, Lexington, Mississippi. <i>Mississippi DOT.</i> Environmental Scientist. Responsible for conducting environmental investigations necessary to prepare the Wetland Delineation in support of the proposed project to replace the existing bridge (Bridge # 69.2) over Moccasin Creek along S.R. 12 in the city of Lexington in Holmes County, Mississippi. Michael Baker provided engineering services to assess potential impacts to wetlands and other waters resulting from the replacement of a bridge over Moccasin Creek on S.R. 12. For the project, Michael Baker reviewed the project plans for the bridge replacement site as well as aerial photography and other mapping of the project area. Michael Baker conducted field investigations in the project area to locate, identify, and delineate wetlands and waters of the United States in accordance with the USACE 1987 Wetland Delineation Manual and 2010 Regional Supplement guidance. Additionally, Michael Baker provided wetland mapping and a technical report.
11/21 – Ongoing	Heart of Georgia Taxiway A Rehabilitation Categorical Exclusion, Eastman, Georgia. <i>Heart of Georgia Regional Airport Authority.</i> Environmental Scientist. Assisted with environmental services. Michael Baker provided engineering and environmental services for the rehabilitation of Taxiway A for Runway 02-20, which has a length of 6,500 feet and a width of 50 feet. Rehabilitation will include milling of the existing surface, crack/joint sealing, placement of new HMA surface, and pavement markings. Michael Baker conducted the technical studies necessary to prepare NEPA documentation, which included a review for wetland impacts.
11/22 – Ongoing	Runway 31 Approach Obstruction and Acquisition, Hammond, Louisiana. <i>City of Hammond.</i> Environmental Scientist. Responsible for environmental services. Michael Baker provided professional services associated with the development and submittal of the necessary NEPA Documentation in the form of a short form Environmental Assessment for the Runway 31 Approach Obstruction Mitigation project at Hammond Northshore Regional Airport.
08/20 – 11/20 01/22 – 02/22	S.R. 601 Canal Road Wetlands Assessment, Harrison County, Mississippi. <i>Mississippi DOT.</i> Environmental Scientist. Responsible for conducting environmental investigations necessary to prepare the Wetland Delineation in support of the proposed project in the City of Gulfport in Harrison County, Mississippi. Michael Baker provided engineering services to assess potential impacts to wetlands and other waters resulting from the construction of a new road to connect southern Gulfport to I-10. For the project, Michael Baker compiled and analyzed preliminary information regarding the project sites, including color infrared aerial photography, soil surveys, design plans for the roadway, and other readily available information. We then performed site investigations to delineate wetlands and other waters of the United States, completed data forms, and took representative photographs of identified resources

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Mary Flynn, PE	Years of relevant experience with this employer	11
Title	Construction Project Manager	Years of relevant experience with other employer(s)	15
Degree(s) / Years / Specialization		BSCE, 1997, Civil Engineering; BS, 1997, Surveying	
Active registration number / state / expiration date		Professional Engineer No. 36931 / Louisiana / exp. 09/2024; Traffic Control Technician/ LA State Specific / 11/2023; Traffic Control Supervisor / LA State Specific / 11/2023; Certified Flagger / 02/2024	
Year registered	2012	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Construction Services Support	
<p>Mary is a local Engineer who will support Brandon in delivering construction administration and inspection services, as needed, for this contract. She brings more than 25 years of experience providing CE&I/OV services, including the last 8 years as PM and Project Engineer on 3 LADOTD CE&I IDIQ contracts, including both full CE&I (8 task orders) and staff augmentation (2 task orders).</p>		<ul style="list-style-type: none"> ✓ Construction Manager on dozens of DOTD task orders ✓ Specialist in bridge design and construction 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
03/20 - Ongoing	<p>IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I) District 61, 62, and 02. DOTD. Project Manager & Project Engineer. As a PM of the IDIQ, Ms. Flynn was responsible for providing job classifications for LADOTD’s Specific Rates of Compensation, developing the QA/QC Plan for the IDIQ, review of engineering drawings and estimates on Falcon for developing consultant fee estimate for labor and direct expenses on each Task Order, and reviewing contract scope from the Project Manager for each Task Order prior to sending to CCS. As Project Engineer, Ms. Flynn is responsible for contract administration/project management, construction engineering, and managing inspection staff for all construction activities under full-service Task Orders (TO). Duties include project and utility coordination, review contractors schedule, manage preconstruction and periodic meetings with contractor, LADOTD, and Entity Responsible Charge, development of TO sampling plan as needed, verifying accuracy of field records and documentation, field inspection audit of work and traffic control, equipping inspection staff appropriately for testing and documentation per needs of TO, verify and approve monthly and final estimates, developing As-Built plans, developing Change Order for LADOTD approval, manage RFI and claims process utilizing LADOTD established forms, disseminating press releases, and performing any other engineering function as requested by the AE.</p> <p>H.013271.6 Task Order 1: Tangipahoa PH Local Road Safety Upgrade, Tangipahoa Parish, Louisiana. The project consists of upgrading signage, refreshing pavement markings, and installation of solar powered flashing beacons, on various local roads in Tangipahoa Parish. Substantially complete.</p> <p>H.013532.6: Task Order 2: Denham Springs Rd Signing & Striping, Livingston Parish, Louisiana. The project consisted of upgrading signage, refreshing pavement markings, closure of two (2) boulevard median turn areas, and related work on various local roads. Project complete.</p> <p>H.012473.6: Task Order 3: Marconi Dr Shared-Use Path, Orleans Parish, Louisiana. The project consisted of, installing a 10’ wide shared-use path and raised composite wood boardwalk, striping and signage within New Orleans City Park. Substantially complete.</p> <p>H.009308.6: Task Order 4: New Orleans DPW SRTS Sidewalk Project, Orleans Parish, Louisiana. The project is part of the “Safe Routes to School” program, involving safety upgrades to five schools in the Orleans Parish area. Components include shared-use path, sidewalks, ADA crossings, traffic signalization and related work. Estimated Completion 09/2022.</p> <p>H.012527.6: Task Order 5: Local Road Safety Upgrades (W. Feliciana), West Feliciana Parish, Louisiana. The project consists predominately of replacing outdated and damaged guardrail, signage and striping on 10 routes within the parish. Substantially complete.</p> <p>H.013082.6: Task Order 6: Bootlegger Road Sidewalk Project, St. Tammany Parish, Louisiana. The project consisted of upgrading open ditch in a residential area with CPVC pipe, backfill and sidewalks with ADA compliant ramps. Project is complete.</p>		



01/12 – 01/13	<p>I-10 Widening, Siegen to Highland, Design-Build OV, Baton Rouge, LA. DOTD. Assistant Project Engineer/Assistant Project Manager. Responsible for contract administration, construction engineering, review of shop drawings and as-built plans, and supervision of OV inspection and materials sampling and testing for all phases of construction, including structural concrete, PCC paving, embankment and base course, and fabrication inspection of girder and pile. Verified inspector daily entries in SiteManager were accurate, thorough, and up to date. The innovative project widened the mainline of I-10 from four lanes to six lanes with PCC Paving, occurring to the inside (median side) of the existing pavement and includes interior widening of the I-10 Bridge of Wards Creek Diversion Canal, and replacement of the I-10 Bridge over the KC Southern Railroad and LaCrete Lane utilizing a combination of AASHTO precast girders and steel plate girders. Mi-jack overhead crane units were utilized to straddle the median from existing deck shoulders to pick and set girders to the interior widening of KCS without impacting rail or traffic in an area with little right-of-way.</p>
10/20 – Ongoing	<p>I-10 TX Line-E of Coone Gully, District 07, LA. DOTD. Project Manager. Managed the project team, assigned resources, and oversaw project budgets. Michael Baker provided staff augmentation services for District 07 inspection and administrative staff. The project involved widening 10.5 miles of I-10 to six lanes from the Texas state line to east of LA 108, replacing and widening 10 bridges, and replacing the eastbound weigh-in-motion system. Michael Baker provided construction inspection for structural work, PCC Paving, and drainage work.</p>
03/19 – Ongoing	<p>IDIQ Contract for CE&I with Majority of Work in District 07, Statewide, LA. DOTD. Project Manager. As a Project Manager of the IDIQ, Ms. Flynn was responsible for providing job classifications for LADOTD's Specific Rates of Compensation, developing the QA/QC Plan for the IDIQ, review of engineering drawings and estimates on Falcon for developing consultant fee estimate for labor and direct expenses on each Task Order, and reviewing contract scope from the Project Manager for each Task Order prior to sending to CCS.</p> <p>H.010916.6 Task Order 1: Prien Lake Re-Deck & Safety Improvements, Calcasieu Parish, LA. As part of a Staff Augmentation Services task order, Ms. Flynn was the Project Manager for this re-decking project. Her responsibilities were to provide the LADOTD with certified inspection staff and qualified office management staff to successfully complete the project. Maintained regular communication with the LADOTD Project Engineer to make sure his needs were met. Task order complete.</p> <p>H.012018 Task Order 2: Adaptive Traffic Signal Design and Implementation, Lafayette Parish, LA. As part of a full services CE&I task order, Ms. Flynn was responsible for Project Management and Project Engineering for this ITS Project. Ms. Flynn is responsible for contract administration/project management, construction engineering, and managing inspection staff for all construction activity. Duties include project, utility and local Entity coordination, providing contractor with NTP, manage preconstruction and periodic meetings, development of TO sampling plan, verifying inspectors maintain accurate field records and material documentation within SiteManager, equipping inspection staff appropriately for testing and documentation per needs of TO, verify and approve monthly and final estimate, developing As-Built plans, developing and circulating Change Orders, manage the RFI process utilizing LADOTD established forms, disseminating press releases as needed, verifying traffic control plans are according to MUTCD, and performing any other engineering function as requested by the Area Engineer (AE). Anticipated field work complete 09/2022.</p> <p>H.003184.6 Task Order 3: I-10: Texas State Line – E. of Coone Gully, Calcasieu Parish, LA. As part of a Staff Augmentation Services task order, Ms. Flynn was the MBI Project Manager for this interstate widening project. Her responsibilities were to provide the LADOTD with certified inspection staff for structures, drainage installation, PCC Paving, and electrical work to successfully complete the project. She maintains regular communication with the LADOTD PM and Project Engineer to make sure project needs are met. Anticipate TO completion 03/2024.</p>
08/23 – Ongoing	<p>Carpenter's Bridge Road over Whiskey Chitto Creek, Kinder, Louisiana. DOTD. Project Engineer. Oversaw construction engineering and inspection services for this off-system bridge replacement project for Allen Parish. As the third task order under the District 03 CE&I IDIQ, the timber Carpenter Bridge over Whiskey Chitto Creek was fully removed and is being replaced with concrete simple span structure, including upgraded roadway approaches.</p>
05/23 – Ongoing	<p>Loc Road over Borrow Pit, St James, Louisiana. DOTD. Project Manager. Oversaw construction engineering and inspection services for this roadway improvement project. As the first task order under the District 61 CE&I IDIQ, a temporary precast bridge was installed at the entrance to St. James Boat Club, the existing timber was removed, and a new simple span concrete bridge is being installed at the original bridge's location.</p>

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Kenny Collins, PE	Years of relevant experience with this employer	39
Title	Associate Vice President	Years of relevant experience with other employer(s)	0
Degree(s) / Years / Specialization		BS / 1983 / Civil Engineering	
Active registration number / state / expiration date		PE No. 33109 / Louisiana / exp. 9/30/2023	
Year registered	2007	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		Construction Support	
<p>Kenny is experienced in the design of steel plate girder bridges, development of roadway plans for highway and bridge projects, and the complexities of major bridge improvement projects crossing over navigable waterways. He oversees a range of transportation projects including preparation of NEPA documents, surveys, right-of-way, preparation of final roadway and bridge plans, contract documents and complete construction management and inspection.</p>		<ul style="list-style-type: none"> ✓ Highly experienced in design of bridges including flat slab bridges, prestressed AASHTO beam bridges, cast-in-place box girder bridges, prestressed box beam bridges, and steel plate girder bridges ✓ Oversees all elements of transportation structure improvements: bridge/ roadway plan preparation, NEPA documentation, surveying, and construction oversight 	
Experience dates (mm/yy-mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
08/22 - Ongoing	<p>U.S. 82 Bypass CE&I Services, Leland, Mississippi. Mississippi DOT. Engineering Manager. Responsible for Phase C reviews, when needed. Michael Baker acted as an extension of client staff to provide construction management for development of U.S. 81 from S.R. - 1 to Leland, Mississippi. Phase C Design included utility coordination, scheduling review, material testing, erosion control, traditional surveying, UAS surveying, traffic control, and public relations.</p>		
01/99 - 12/02	<p>I-55/I-20/ US 49 Rehabilitation; Stack #3 Design Phase, Jackson, MS. Mississippi DOT. Project Manager. Responsible for contract administration and oversight of project; the re-design and updating of previously designed plans for the major interchange of one highway and two interstates in Jackson, Mississippi. Work included updating 15-year old plans to current standards and specifications, modification of alignments, recreating traffic control and all other aspects of this major interchange, including re-design of a curved plate girder "fly-over" bridge. Michael Baker provided engineering services (field surveys, preliminary through final design, and certain construction phase services including public relations assistance) for the rehabilitation of the interchanges of Interstate 20 with both Interstate 55 and U.S. Highway 49 in Jackson, Mississippi. The total project will be built through a series of four separate construction contracts all designed by Michael Baker. Current project is "STACK III". The project was awarded The 2010 Grand Conceptor Award for Engineering Excellence presented by the American Council of Engineering Companies of Mississippi.</p>		
10/17 - 07/22	<p>U.S. 49 Florence to Scales Construction Engineering and Inspection, Rankin County, MS. Confidential Client. Technical Manager. Responsible for the management of Phase C services. This includes review of all submittals from the contractor and answering all RFI's from the contractor. This also includes attending all meetings with the contractor. Michael Baker provided engineering services, including field surveys, preliminary through final design, construction phase services, and public relations support, for the construction of U.S. 49 from Florence to the Scales Area. Working as an extension of client staff, Michael Baker provided construction management, Phase C Design (RFI/submittals), utility coordination, scheduling review (Primavera P6), material testing, erosion control, surveying, traffic control, and public relations support, for the construction of U.S. 49 from Florence to the Scale Area.</p>		
09/19 - 03/21	<p>S.R. 9 Bridge Replacements, Calhoun County, MS. Mississippi DOT. Technical Manager. Responsible for contract administration and project oversight. Michael Baker provided engineering and design services for final bridge construction plans for four bridge replacements: Bridge No. 35.5 over Shutispear Creek, Bridge No. 40.7 over Yalobusha River Relief, Bridge No. 40.9 over Yalobusha River, and Bridge No. 41.2 over Yalobusha River Relief on S.R. 9.</p>		



09/10 - 09/11	Replacement of the S.R. 512 Bridge over the Chickasawhay River, Clarke County, MS. Mississippi DOT. Project Manager & Technical Manager. Served as project manager for overall design and plan development. Michael Baker provided engineering services for the replacement of the S.R. 512 bridge over the Chickasawhay River. Michael Baker's services included a review of previous design plans, field survey, and the development of final construction plans. Also served as Technical Manager responsible for project oversight for this Phase C project, which included review of shop drawings for the replacement of the bridge..
01/07 - 02/07	Loop Roadway, Bridge and Parking Lot Expansion, Jackson-Medgar Wiley Evers Interl Airport (JAN), Jackson, Hinds County, Mississippi. Jackson Municipal Airport Authority. Assistant Engineer. Prepared structural design of airport loading ramp at Jackson International Airport. Checked shop drawings during construction. Ramp was part of airport rehabilitation that included new roads, parking and terminal expansion. Complete engineering services for construction of a bridge and connecting loop roadway at the Jackson International Airport, Jackson, Mississippi, for departing and arriving passengers.
07/18 - 07/19	International Drive Rehabilitation, Jackson-Medgar Wiley Evers International Airport, Jackson, Mississippi. Jackson Municipal Airport Authority. QA/QC Engineer. Assisted with plan development and attended meetings at JMAA. Michael Baker is providing engineering and design services for the pavement rehabilitation of International Drive, the primary public access road at Jackson-Medgar Wiley Evers International Airport (JAN). Michael Baker's services include preliminary and final design, pavement evaluations, cost estimating, bidding assistance, and construction-phase services.
02/19 - 08/19	S.R. 25 J-Turn Intersection Improvements Project, Scott County, Mississippi. Mississippi DOT. Technical Manager. Responsible for contract administration and project oversight. As part of an on-call agreement, Michael Baker provided design and engineering services for intersection improvements to S.R. 25 at River Bend Road, which included a J-turn that required the redesign of the intersection using two median U-turns and adding all necessary turn lanes. For the project, Michael Baker developed preliminary and final right-of-way (ROW) plans, field inspection plans, a constructability review, quality control plans, signing and pavement marking plans, and drainage design.
02/14 - 11/19	S.R. 28 Big Creek, Quinn Creek, and Strong River Bridge Replacements, Simpson County, Mississippi. Mississippi DOT. Engineering Manager. Served as the Engineering Manager to oversee and manage overall aspects of this project. Michael Baker is providing engineering services for the replacement of the S.R. 28 bridges over Big Creek, Quinn Creek, and Strong River. Michael Baker's services included hydraulic analyses, scour assessments, stream bank stabilization evaluations, preparation of hydraulic analysis reports, and conceptual and preliminary design.
09/16 - 03/17	I-55 Widening and Interchange Improvements, DeSoto County, Mississippi. Mississippi DOT. Technical Manager. Responsible for overall technical management and quality review. Michael Baker provided engineering services for the widening of I-55 from the Commerce Street interchange in Hernando to the south ramps of the I-55 interchange with I-69/269, including widening and improvements to the Commerce Street interchange. Michael Baker's services included traffic analysis, field survey, and preparation of Phase A Final right-of-way roadway and bridge plans.
10/92 - 12/96	S.R. 26 Pearl River Bridge Replacement, Bogalusa, LA. Mississippi DOT. Project Manager. Responsible for overall project management. Produced structural design calculations and drawings for S.R. 26 bridge. Michael Baker provided engineering services for a 3,000-foot long bridge having a navigational span using Bulb-T girders and providing navigational clearances for future barge traffic.

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Steven Stuart, PE, PTOE	Years of relevant experience with this employer	18
Title	Senior Associate - Traffic Technical Manager	Years of relevant experience with other employer(s)	7
Degree(s) / Years / Specialization		BSCE / 1999 / Civil Engineering	
Active registration number / state / expiration date		PE No. 70079/ Ohio / exp. 12/31/2025	
Year registered	2005	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities		QA/QC Reviewer (Roundabout Geometrics)	
<p>Mr. Stuart has performed and managed transportation planning studies and traffic engineering design services for hundreds of projects throughout the country. His planning experience includes traffic impact studies, multimodal mobility studies, highway and intersection capacity analyses, deficiency analyses, accident analyses, as well as pedestrian and bikeway safety improvement studies. His technical design expertise includes traffic signals, signal systems, signing/pavement markings, traffic control during construction, and ITS plan development.</p>		<ul style="list-style-type: none"> ✓ Designed numerous single and multi-lane roundabouts located on arterial roadways, within parks, and at ramp termini. ✓ Regularly performs roundabout reviews of other consultants' designs ✓ QA/QC Reviewer or Senior Engineer on 60+ transportation projects 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
04/10 – 07/10	<p>Roundabout Open-End Contract Engineering Consulting Services, Statewide, Pennsylvania. <i>Pennsylvania DOT. Task Manager.</i> Responsibilities include review of roundabout analysis, as well as roundabout geometry, traffic control, signing, and pavement markings. Michael Baker provided engineering consulting services under a roundabout design open-end contract to support the client's roundabout program. Michael Baker's responsibility was to determine optimal design features, which involved inventorying roundabouts within Pennsylvania and evaluating the design-related advantages and disadvantages of each facility, determining the best practices for roundabout winter maintenance, evaluating proposed client and consultant roundabout designs, and providing developmental and policy support.</p>		
04/11 – 07/11	<p>I-10 and Cedar Lake Road Interchange Improvements, Harrison County, Mississippi. <i>Mississippi DOT. Traffic Task Manager/Engineer.</i> Responsible for analysis and conceptual design for a multi-lane roundabout. Michael Baker developed final design plans for interchange improvements for the I-10 and Cedar Lake Road interchange to address existing and projected traffic operational issues. Michael Baker provided field surveys, performed a traffic analysis of the interchange based on volumes, and studied the interchange exit ramps to improve existing queuing conditions. Michael Baker's designs revised the exit ramps from tapered exits to parallel exits; widened the ramps to have two lanes providing dual lefts for the westbound exit and dual rights for the eastbound exit. The designs also revised Cedar Lake Road to accommodate the changes to the ramps and upgraded existing signals to accommodate new intersection improvements.</p>		
09/14 – 05/15	<p>I-35 at 51st Street Schematic Development, Austin, Texas. <i>Texas DOT. Senior Engineer.</i> Responsible for the preliminary and final design of a multi-lane roundabout, including horizontal geometry, pedestrian and bicycle accommodations, signing, pavement markings, and public involvement. Michael Baker developed planning, engineering, and environmental analysis for improvements along the southbound lanes of Interstate 35 in Travis County in the vicinity of the 51st Street interchange. Michael Baker provided advance schematic development for the realignment of the existing Southbound frontage road, the addition of a southbound collector-distributor road under 51st Street, improvement of the frontage road connection to the existing U-turn structure, reversal of the existing Southbound ramps between 51st Street and Airport Boulevard, and a roundabout at 51st Street. The project also included the largest investment in bicycle and pedestrian upgrades for an I-35 project, with improvements designed to meet TxDOT and Federal Highway Administration guidelines and fit within the existing right-of-way.</p>		
03/12 – 03/12	<p>Missing Links Transportation Planning Study, Cleveland, Ohio. <i>City of Cleveland Heights. Traffic Engineer.</i> Responsible for the evaluation of potential roundabout installations and conceptual roundabout designs.</p>		



07/17 – 07/17	Venture Drive and Day Drive Intersection Improvements, Duluth, Georgia. <i>Gwinnet County DOT. Traffic Engineer.</i> Provided peer review and technical guidance for the development of a roundabout concept plan. Michael Baker provided engineering services for improvements to the Venture Drive intersection with Day Drive. Michael Baker's services included traffic analysis, development of concept design alternatives, roundabout concept development and design, wall design, geotechnical investigations, drainage design, preparation of erosion control plans, utility coordination, and preparation of preliminary and final design plans.
09/13 – 08/16	S.R. 15 and Lamey Bridge Road Roundabout, Biloxi, Harrison County, Mississippi. <i>Mississippi DOT. Senior Engineer.</i> Responsible for the analysis and development of horizontal geometry for the proposed roundabout with high-speed approaches. Provided technical oversight for the development of the Maintenance of Traffic (MOT) and the signing & pavement marking plans. Michael Baker provided engineering and environmental services for improvements at the intersection of S.R. 15 and Lamey Bridge Road. The project included removal a two-way stop controlled intersection with a dangerous skew between the intersecting roadways and replacement with a roundabout. Michael Baker's services included Phase I archaeological survey, categorical exclusion environmental document, traffic analysis and impact study, Phase A final right-of-way plans, and Phase B final contract plans.
05/16 – 04/17	U.S. 82 and S.R. 17 Traffic Study, Carrollton, Mississippi. <i>Mississippi DOT. Traffic Task Manager/Engineer.</i> Responsible for the review of traffic engineering analysis and development of conceptual roundabout designs. Michael Baker performed a traffic study of the intersection of U.S. 82 and S.R. 17/S.R. 35 to develop various design alternatives for analysis and construction cost comparisons to address slope failure on the westbound lane of U.S. 82 just east of the intersection, and poor sight distance on the southbound approach to S.R. 17/S.R. 35.
06/12 – 08/13	Millfair Road Bridge Preliminary Engineering and Environmental Studies, Erie County, Pennsylvania. <i>Pennsylvania DOT. Task Manager.</i> Responsible for preliminary roundabout design, roundabout animations, and public involvement related to the proposed roundabouts. Michael Baker provided preliminary engineering and environmental studies for the elimination of two at-grade railroad crossings and construction of two new bridges carrying Millfair Road over the Norfolk Southern and CSX railroads. The project also included roadway and intersection improvements along Millfair Road from S.R. 20 to S.R.5. Michael Baker provided project management, prepared a purpose and need statement, and developed and analyzed preliminary alternatives.
09/17 – 09/17	Windsor Parkway at Osborne Road Intersection Improvements, Georgia. <i>City of Brookhaven. Traffic Engineer.</i> Developed a roundabout conceptual design to identify potential construction conflicts and utility challenges. Michael Baker provided engineering services for improvements to the intersection of Windsor Parkway and Osborne Road. An existing four-way stop, the project improved the intersection's operational function by installing a compact urban roundabout.
07/10 – 04/15	US222 Environmental Impact Statement. <i>Pennsylvania DOT. Traffic Engineer.</i> Responsible for the technical review of the traffic engineering analysis of three proposed roundabouts. Also developed preliminary roundabout concepts to accommodate anticipated design year traffic while minimizing impacts on adjacent land uses.
11/11 – 12/12	S.R. 519 Intersection Preliminary Design, Washington County, Pennsylvania. <i>Pennsylvania DOT. Traffic Engineer.</i> Responsible for an alternatives analysis and conceptual layout for two closely spaced two-lane roundabouts. Michael Baker provided preliminary design for a proposed improvement to the intersection of S.R. 519 and S.R. 1055 located in North Strabane Township. The proposed improvement includes replacement of the skewed intersection with dual, two-lane roundabouts that will be phased to maintain traffic during construction. Michael Baker provided project management; developed preliminary drainage and stormwater management designs; developed the design field view submission; prepared hydrologic and hydraulic reports; prepared a final right-of-way plan; and developed preliminary maintenance and protection of traffic, pavement marking, and signing and sign lighting plans.
07/22 – Ongoing	Complex Intersection Study. <i>City of Pittsburgh. Senior Engineer.</i> Provided technical review of roundabout analysis and developed conceptual roundabout layout.

16. Staff Experience

Firm employed by	Gresham Smith		
Name	Tom Tran, P.E.	Years of relevant experience with this employer	12
Title	Senior Bridge Engineer	Years of relevant experience with other employer(s)	22
Degree(s) / Years / Specialization	Bachelor of Science / 1991 / Civil Engineering		
Active registration number / state / expiration date	PE.0032072 / LA / Exp. 3/31/24		
Year registered	2005 (LA)	Discipline	PE (Civil)
Contract role(s) / brief description of responsibilities	MPR No. 4; QA/QC Reviewer (Bridge)		



Tom's 30+ year career includes a wide variety of design, inspection, and load rating, including multiple complex structures. Tom currently serves as the Gresham Smith Bridge Lead for Georgia, supervising a staff of 7 engineers and technicians.

Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).
6/19 – 03/20	LADOTD, Complex Bridge Inspections, Statewide, LA. QA/QC. Task Orders 1, 3 & 4 - 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. Tom provided quality control reviews on the bridge inspection reports for several truss structures.
07/19 - Ongoing	TDOT, Complex and Standard Bridge Load Ratings, Statewide, TN QA/QC. Bridge load rating for complex structures and standard structures across the state of Tennessee. Complex structures were analyzed utilizing finite element methods and CSi Bridge software. The standard structures were analyzed using the AASHTOWare BrR software. Tom provided quality control reviews on the load rating. Project consisted of complex structures load rated including: <ul style="list-style-type: none"> • Curved Steel Tub Girders • Steel Tubs with Cantilever Approach Spans • Curved Steel I Girders • Steel K-Frames • Steel Arches • Bascule Truss • Steel Through Girder • Steel Trusses • Girder-Floor Beam-Stringers
1996	South Carolina Movable Bridge Inspections, South Carolina DOT, Various Locations, SC Bridge Inspector. Tom performed hands on visual inspection of movable steel truss bridges using bucket trucks. Second phase of project included detailing contract drawings for rehabilitation based on inspection report. Many of the repairs include partial member replacements due to impact damage, heat straightening, painting, and concrete repairs <i>Client. Assigned Role.</i> Insert brief description of role & duties, scope of work (highlighting similarities where applicable), unique challenges/solutions, etc.
1995	Georgia Ports Authority - Megasite Rail Bridge Design Build, Savannah, GA —Project manager working with Rogers Bridge Contractor on this design build project. The design was a steel thru girder railroad bridge over the Savannah Canal in

	Savannah, GA for the Georgia Ports Authority. The structure is a 105' single span steel thru girder bridge. The selection of the steel thru girder superstructure type allowed the rail profile to be set as low as possible.
6/21 – 8/21	FLDOT, Florida DEP, Florida Keys Overseas Heritage Trail Historic Bridge Evaluation, Marathon, FL QA/QC. Florida DEP selected Gresham Smith to inspect and evaluate two historic bridges, the Seven Mile Bridge and the Bahia-Honda Historic Truss. Tom provided quality control review on the report for the possible preservation of the Bahia-Honda truss structure. This historic, former railroad structure includes a 247' Parker truss main span with 24 Pratt truss approach spans as well as 9 plate girder approaches.
8/20 – Ongoing	GDOT, Statewide Engineering On-Call for Bridge Repair, Statewide, GA Project Manager. This contract includes, Inspection, load rating and repair of problematic bridges throughout the state of Georgia. Typical scope includes inspection of bridge, verification of repair needed, development of repair plans, development of special provision, advertisement of project, review of shop drawings and post construction services as needed. Repair includes cathodic pile encasement, carbon fiber wrap strengthening, latex modified concrete overlays.
11/14 – 12/17	MDOT, MS-309 Bridge Replacements, Marshall County MS Lead Bridge Engineer. Tom served as the EOR for this project. The design included replacing full timber structures with AASHTO beam structures supported by either concrete piles or steel pipe piles. Span lengths ranged from 41' to 140'. Structure arrangements varied from 3-span to 6-span structures. Work included Services During Construction, scheduled for completion Fall 2021. Tom led the design effort for development of a link-slab system, the first used in Mississippi to eliminate deck joints.
1/13 – 6/14	LADOTD, ITS Design and Implementation Services, WO#4: I-10 Twin Span ITS-Orleans & St. Tammany Parishes, Statewide, LA Structures Design Lead. 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 a butterfly cantilever to support the new front access LED DMS enclosure. This was the first of each to be installed along the interstate system in Louisiana.
1/18 – 12/18	Signal truss bridge at the US 78 / SR 124 intersection in Gwinnett County, GA. Engineer of Record. This project involved the re-design of the intersection to incorporate a continuous flow intersection (CFI). Due to the severe skew of the CFI and other utility constraints at the intersection, there was a need to span the entire intersection with a 191' long steel truss structure to support all 14 traffic signal heads.
2005	Natchez Trace Parkway over Liberty Road, Design Build; Adams County, MS – Structural project manager and engineer of record responsible for the design of this 3 span 227' long bridge. The 157' long main span is a cast-in-place, post-tensioned arch concrete multi-cell box girder section.

(Add rows as needed)

16. Staff Experience:

Firm employed by		Michael Baker International, Inc.	
Name	Charles "Tony" Hunley, PhD, PE	Years of relevant experience with this employer	1
Title	National Director, Bridge Services	Years of relevant experience with other employer(s)	25
Degree(s) / Years / Specialization		PhD / Structural Engineering; MSCE / Structural Engineering; BSCE / Structural Engineering	
Active registration number / state / expiration date		PE / Louisiana / exp. 09/30/2024	
Year registered	2014	Discipline	PE (Civil, Structural)
Contract role(s) / brief description of responsibilities		QA/QC Reviewer (Bridge)	
<p>Tony will be available for any structures QA reviews as needed. His vast experience with projects of different scales allows our team to assist KYTC in ensuring sound decisions are being made. He provides nationwide technical assistance to the Michael Baker Bridge Practice for complex and unusual projects. Tony can offer valuable insight into the efficient and sound design of DOTD's structures.</p>		<ul style="list-style-type: none"> ✓ Oversees Michael Baker's national bridge program ✓ 25+ years of structural design, review, inspection, and rating experience, covering concrete and steel highway bridges, rail structures, complex bridges, dams, and other hydraulic structures 	
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
01/21 – 09/22	<p>I-49 Lafayette Connector, Lafayette, Louisiana. DOTD. Deputy Structures Lead. Responsible for a conceptual design analysis of the multi-level Kaliste Saloom Interchange. The 3-level interchange connects the new I-49, Evangeline Thruway, and Kaliste Saloom Road. The interchange consists of nine bridges, of which several feature significant flared spans and most on curved alignments. minimum radius = 515-feet. crossing multiple roadways and a BNSF Railroad track. The conceptual design phase included type, size, and span arrangement development. Steel plate girder, trapezoidal steel box girder, and precast segmental box girder superstructure types were evaluated. Span lengths vary up to 210-feet and complex features included integral post-tensioned pier caps and integral straddle caps over the BNSF Railroad.</p>		
02/18 – 01/22	<p>Bridging Kentucky Program General Engineering Consultant, Multiple Locations, Kentucky. Kentucky Transportation Cabinet (KYTC). Program Manager. The Bridging Kentucky Program is an expansive statewide bridge restoration program launched by KYTC in 2018 with an initial mandate to address more than 1,000 bridges across the state over six years with an initial estimated budget of \$700M. The program is rehabilitating, repairing, or replacing critical bridges that are either closed to traffic, weight-restricted, or rated in poor condition. The program focuses on smaller bridges across the state that have historically struggled to get the necessary funding. Tony is the consultant team Program Manager leading a team of 22 firms collaborating with several in-house divisions of KYTC to provide program management oversight. document and process management, scheduling, internal and overall program financial management, information management, and program-level communications services., screening and prioritization of bridges, preliminary and final design, environmental services, utility coordination, right-of-way acquisition, construction procurement support for design-bid-build and design-build projects, design-build owner's engineer services, and construction management and inspection support. During the 120-day kick-off phase to kick-start the program, the team established organization and communication protocols; finalized the program brand and internal/external communication strategies; developed a Program Charter in collaboration with KYTC, FHWA, and various stakeholder and oversight agencies to establish authority and critical streamlining approaches to project development design, environmental studies and approvals, right-of-way acquisition, and utility relocation coordination; established the document and progress management system. utilized e-Builder Program Management Information Software system; screened more than 1,100 bridges to determine recommended scope, preliminary cost, and critical design/schedule challenges, and initiated design of several bridges to be rehabilitated. The program is being delivered utilizing a variety of delivery methods including individual bridge construction projects, bundling of bridge projects, and a design-build bundle contract of 106 bridges.</p>		



04/07 – 06/09	<p>River Road Bridge Widening over Harrods Creek, Prospect, Kentucky. KYTC. Department Manager. Responsible for construction phase engineering services for the widening and rehabilitation of a three-span reinforced concrete filled-spandrel arch bridge. The existing one-lane historical bridge was widened to two lanes by removing the existing concrete balustrade railings and excavating enough of the cobble infill to "hide" a new prestressed concrete beam superstructure with PPC deck panels cantilevered beyond the existing spandrel walls. The concrete arch and spandrel walls were inspected and rehabilitated. This project won the 2010 APWA-KY Chapter "Project of the Year" award in the Historic Preservation Category. over \$1 Million., the 2011 PCI Design award in the Rehabilitated Bridge Category, and the 2012 ACEC-KY Engineering Excellence Grand Award, and the ACEC Engineering Excellence National Recognition Award in the Structural Systems category.</p>
03/05 – 04/06	<p>Relocated US 25E over Cumberland River. KYTC. Construction Inspector. Two sets of twin structures during the widening and relocating of US 25E. The four structures were 10-span PC I-beam bridges with total bridge lengths of more than 1,100 feet. Tony performed materials testing, fields surveying and inspection of construction activities and methods during drilled caisson and pile foundation construction, and substructure and superstructure construction.</p>
10/04 – 07/05	<p>I-75 over Rockcastle River, Laurel and Rockcastle Counties, Kentucky. KYTC. Structural Engineer. Responsible for preliminary and final designs and plans for the widening and rehabilitation of two existing five-span structures. The structures originally consisted of two units; a three-span (160 feet, 200 feet, 160 feet) and a two-span (160 feet by 160 feet) with non-composite 96-inch welded steel plate girder framing. The new structure connects and widens the existing substructures and replaces the existing steel girder superstructures. The 258.036-meter long, five-span continuous 1,975-millimeter composite welded steel plate girder structure has a deck width of 39.01 meters and a 33-degree skew. The removal and construction of the new structure was performed in three construction stages to accommodate maintenance of traffic. The concrete multi-column piers were connected and retrofitted for the new superstructure. Drilled shafts were used on two of the pier in-fills to avoid deep excavations adjacent to the existing piers.</p>
08/04 – 05/06	<p>KY 922. Newtown Pike. over UK Agricultural Station Branch, Newtown Pike Design-Build, Lexington, Kentucky. KYTC. Structural Project Manager. Responsible for preliminary and final design and structure plans for a new three-span. 14 feet, 22 feet, 14 feet. cast-in-place concrete slab bridge. Aesthetic design features incorporated into the structure include a stone veneer and concrete barrier with 4-inch KY River Marble Cut Stone lay on both faces of the barrier. The bridge is situated on a 22.9-degree right skew. Substructures for the bridge included wall piers and breastwall abutments founded on spread footings keyed into bedrock.</p>

16. Staff Experience			
Firm employed by	Vectura Consulting Services, LLC		
Name	Sheelagh Brin Ferlito, PE, PTOE	Years of relevant experience with this employer	8
Title	Principal	Years of relevant experience with other employer(s)	27
Degree(s) / Years / Specialization	B.S. / 1988 / Civil Engineering		
Active registration number / state / expiration date	PE.0025383 / LA 9/30/2025		
Year registered	1993	Discipline	Civil
Contract role(s) / brief description of responsibilities	Traffic Control Design / Temporary Traffic Signal Analysis and Design QC		
<p>Brin co-founded Vectura in 2015 and has focused her career on traffic and transportation engineering. Her professional experience includes the development of regional planning studies, intersection and corridor improvement studies, traffic impact studies, traffic/pedestrian signal equipment design, ITS design and CE&I services for construction projects. She is familiar with Federal Highway Administration (FHWA) and Louisiana Department of Transportation and Development (LA DOTD) traffic guidelines, policies and procedures. Her projects have been located in communities throughout Louisiana for both private companies and public agencies.</p>			
Experience dates (mm/yy–mm/yy)	Experience and qualifications relevant to the proposed contract; <i>i.e.</i> , “designed drainage”, “designed girders”, “designed intersection”, etc. Experience dates should cover the years of experience specified in the applicable MPR(s).		
07/21 - current	<p>H.007160 - EBR Computerized Traffic Signal, Phase VB (Baton Rouge, LA) Brin is the task leader for Vectura for the Construction Engineering and Inspection of 24 traffic signals. Brin oversaw the review of signal mast arm shop drawings to assist the City-Parish of Baton Rouge in accepting the manufactured poles. Brin and Reece, with the DOTD, City-Parish and the Contractor conducted field visits to confirm pole foundation locations.</p>		
07/19 – current	<p>MOVEBR New Capacity Projects Program Management (Baton Rouge, LA) Brin is the lead traffic engineer for entire the New Capacity Projects program management team. All traffic engineering scope of services, traffic / speed data collection, traffic design studies, safety studies, and traffic signal design plans are reviewed by Brin. She is in constant communication with the Traffic Engineering staff of DOTD and EBR Traffic Engineering Department. She understands the current requirements for all aspects of traffic engineering projects.</p>		
07/19 – current	<p>H.004791 DOTD Belle Chasse Bridge & Tunnel Replacement PPP (Belle Chasse, LA) Brin is the project manager for the temporary and permanent traffic signal plans for the intersections of LA 23 at Burmaster St and at Engineers Rd. She based her traffic signal plans on design year volumes that were developed using growth rates from the New Orleans Regional Planning Commission Travel Demand Model. This project is the first ever Public-Private-Partnership performed by Louisiana DOTD.</p>		
04/18 – 06/21	<p>H.011909.5-4 Roundabout: US 171 at Boone St. (Vernon Parish) Brin reviewed 60 Percent Preliminary Signing and Striping Plans and developed documented comments based on LADOTD Road Design Manual, LADOTD Standard Details and MUTCD. She is also the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction at the intersection of US 171 at Boone Street in Leesville, LA. She coordinated access management issues using aerials, aged traffic volumes and Synchro Software.</p>		
09/20 – 12/21	<p>H.010960.5 LA 30 Roundabouts at Tanger I-10 (Ascension Parish, LA) Brin is the project manager for the design of temporary traffic signal plans that will be implemented during the roundabout construction along LA 30 in Gonzales, LA. The project involves replacing three existing signalized intersections with multilane roundabouts along LA 30 at I-10 Interchange ramps and at the Tanger Boulevard. Vectura also developed signal timing plans for each phase of the construction to maintain progression along LA 30.</p>		
07/18 – 04/19	<p>LA 1 Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Design West Baton Rouge Parish, Addis, LA Brin developed a Pedestrian Crosswalk Study and Traffic Signal Construction Plans for the intersection of LA 1 at LA 990 in Addis, LA. The study was based on DOTD Traffic Engineering Manual Crosswalk Guidelines followed by traffic signal design plans based on DOTD requirements. The study included traffic and pedestrian traffic data collection, a speed study, crash analyses, intersection analyses and progression analyses. The signal plans included pedestrian signal equipment, signal timing parameter calculations, crosswalk striping, signs, DOTD pay items, estimated quantities, and construction cost. Brin also assisted with the Parish with the DOTD Permit Request for Intersection Control Devices on a State Right of Way.</p>		
09/17-04/18	<p>US 11 at US 190 Bus. (Fremaux Ave.) Pedestrian Crosswalk Study and Traffic / Pedestrian Signal Equipment Design Slidell, LA Brin developed a formal traffic study for a proposed crosswalk with pedestrian traffic signal equipment and pedestrian clearance timings based on DOTD requirements. Brin assisted with vehicle and pedestrian data collection, spot speed study, analyzed 3-year intersection crash data and developed</p>		



	signal timing for pedestrians to cross the street. From the design study, a set of Traffic Signal Modification Plans were developed to implement the recommended alternative.
02/17-10/17	Stage 0 Judge Tanner Boulevard at N. Causeway Roundabout Study (St. Tammany Parish, LA) Brin developed the safety analyses for a Stage 0 Study for 4 intersections in the Mandeville area. The study was based on EDSMs VI.1.1.1 / VI.1.1.5 and DOTD Traffic Engineering Manual Section 20.2. Brin assisted collecting 7-day, 24-hour counts w/ Classification, turning movement counts for peak periods and speed data for mainlines. She developed signal timing in the PTV Vistro software. The signal timings were then used in Sidra to complete the HCM analyses. Brin provided a quality control review of the traffic report.
06/16-09/17	H.004490 Stage 0 Roundabout Studies (Lafayette Parish, LA) Brin developed sections of a Stage 0 Feasibility Study for roundabouts that conformed to DOTD EDSMs and Traffic Engineering Manual Section 20.2 at ten intersections in the Lafayette area. Brin collected 7-day, 24-hour counts w/ classification, turning movement counts for AM and PM peak periods and speed data for mainlines. Brin provided a QC review of the Sidra analyses and developed traffic signal timing for 3 intersections for Years 2019 and 2039, AM & PM peak hours and developed a crash analyses as defined in Section 20.2 of TEM. Brin provided a QC review of the final draft.
04/14 – 12/14	H.002301 Signal Design for N. Sherwood Forest Dr. Widening Project (Baton Rouge, LA) As the project engineer, Brin was in responsible charge for data collection and design for three signalized intersections as part of a road widening project as per EBR DPW and DOTD requirements. Ms. Ferlito developed the traffic signal equipment, signal timing and communication construction plans, special provision specifications, quantities, and cost estimate. She also performed tasks to develop the striping plans and sequence of construction plans which included temporary signal equipment placement due to lane shifts during construction.
07/12-03/14	EBR 03-TS-CI-0026 CE&I for EBR Traffic Signal Systems Jefferson Highway Construction (Baton Rouge, LA) Brin was the Project Resident Engineer on behalf of EBR for performing CE&I services for the construction of 11 traffic signals . She maintained records of the contractor's daily operations, coordinated significant events that affected construction progress including utility issues, reviewed shop drawings, conducted monthly progress meetings, recorded daily installed quantities, developed change orders and monthly contractor pay estimates. She also coordinated with DOTD ITS division for fiber splicing into interstate I-12 fiber backbone and ATM / EOC building. She processed all monthly tasks in EBR formats as well as well as all items on the EBR project closeout checklist.
07/08-09/09	SPN 013-05-0043 CE&I for EBR Traffic Signal Systems Phase IV Construction (Baton Rouge, LA) Brin was the Project Resident Engineer for DOTD and EBR to perform CE&I services for the construction of 21 traffic signals . She developed the project Sample Plan, maintained records of the contractor's daily operations, coordinated significant events that affected construction progress including utility issues, reviewed shop drawings, conducted monthly progress meetings, recorded daily installed quantities, coordinated concrete sampling for DOTD Materials Lab, developed change orders and monthly contractor pay estimates. She also coordinated with DOTD ITS division for fiber splicing into Airline Highway fiber backbone and ATM / EOC building. She processed all monthly tasks electronically in DOTD Site Manager and in EBR required formats as well as all items on the DOTD Project Closeout Checklist including the 2059 Report.
09/13 – 04/14	S.P. 700-99-0477 Jefferson Hwy. Signal Design (Baton Rouge, LA) Ms. Ferlito designed traffic signal plans for 11 intersections along Jefferson Highway between College Drive and the I-12 On Ramp in Baton Rouge. Design included traffic data collection, traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout . Design also included traffic signal synchronization signal timing and pedestrian signal timing. She prepared estimated quantities, preliminary and final signal construction plans, and specifications.
03/05 – 11/05	Airline Hwy Widening SPN 700-99-0332 (Baton Rouge, LA) Brin designed 8 traffic signals as part of the Airline Hwy. widening project in Baton Rouge. Her design included traffic data collection, traffic signal equipment, signal synchronization timing, fiber communication, storage length calculations based on queues analyses, special provision specifications, quantities, and cost estimate . This project included fiber design to be the first Baton Rouge project to connect video surveillance images and traffic controller information to the ATM / EOC.
02/03 – 01/04	EBR Traffic Signal Systems Phases IV and V SPN 700-17-0172 (Baton Rouge, LA) Brin was the project engineer for the design of 66 signalized intersections on eight arterials in Baton Rouge which included traffic data collection, traffic signal equipment, pedestrian crosswalk equipment, emergency vehicle and railroad preemption equipment, fiber interconnect equipment as well as traffic signal synchronization. Brin prepared traffic signal construction plans, estimated quantities, and specifications.

SECTION
17

FIRM EXPERIENCE



Pictured: Edgewater Park Roundabout

The Michael Baker Team demonstrates our depth of experience with projects of similar scope herein, and have worked on similar projects not only for DOTD but other states DOTs, Counties, and Municipalities.

17. Firm Experience:

Firm name	Michael Baker International, Inc.		Past Performance Evaluation Discipline(s)*	Road, Environmental
Project name	Barksdale Air Force Base Entrance Road Design-Build		Firm responsibility (prime or sub?)	Prime
Project number	N69450-16-D-0100	Owner's Name	NAVFAC Southeast	
Project location	Bossier Parish, LA	Owner's Project Manager	Sarah Reed	
Owner's address, phone, email	334 Davis Ave W, Suite 105, Barksdale AFB, LA 71110 318-243-3902 sarah.m.reed16.civ@us.navy.mil			
Services commenced by this firm (mm/yy)	08/22	Total consultant contract cost (\$1,000's)	\$2,031	
Services completed by this firm (mm/yy)	Ongoing - Construction	Cost of consultant services provided by this firm (\$1,000's)	\$1,918	

Michael Baker is finalizing an alternative delivery design-build for Barksdale Air Force Base's entrance roads, coordinating with the owner and DOTD as well as obtaining the required project permits.

The Michael Baker design team developed construction plans per DOTD Design Guidelines and Standard Specifications. The beginning of the project is a direct tie to LA 1267 where it terminates after the KCS railroad crossing bridge constructed under the DOTD I-20/I-220 Design Build project. LA 1267 will continue as a four-lane divided highway as it enters the base property where it will transition to a new multi-lane roundabout. The roundabout is placed before the new base entrance gates and will allow for motorists that inadvertently exited onto LA 1267 to make a U-turn and return back towards the I-20/I-220 interchange without having to enter the Air Force Base. The new portion of LA 1267 is being built on the base property where a Corporate Endeavor Agreement was developed under the DOTD Design-Build project to allow for the completion of the roadway before entering the gates of the Air Force Base.

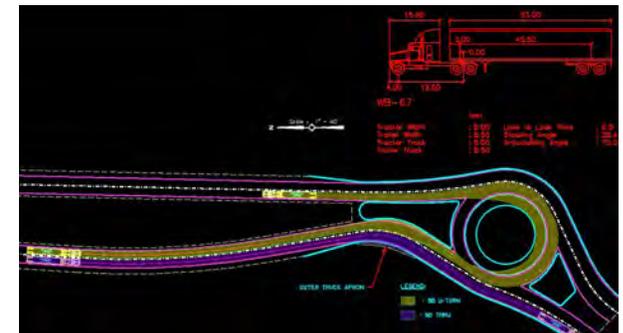
The Michael Baker design team has coordinated directly with DOTD I-20/220 Project Manager, Corey Landry, and with DOTD I-20/220 Owner Verification Consultant Project Manager, Gordon Nelson. Additional requirements by the design team were to develop temporary traffic control (TTC) plans since the I-20/220 project was completed before this project was able to be constructed. The TTC plans identified one construction entry point along Ramp "EB-SB" and two construction exit points along Ramps "NB-EB" and the "C-D" road. Additionally, a project permit will be prepared and submitted to DOTD for approval once the design plans and TTC plans have been approved.

PROJECT SIMILARITIES

- ✓ DOTD Project Experience
- ✓ Roundabout Design
- ✓ Four-Lane Divided Highway
- ✓ Hydraulics/Drainage
- ✓ Environmental Permitting

Team Members Who Worked on This Project:

Daniel Thornhill, PE | Brandon Pitre, PE, RSP | Alexis Harrouch, EI | Marcela Trochez | TJ Holliday, PWS | Elizabeth Brock



17. Firm Experience:

<i>Firm name</i>	Michael Baker International, Inc.	<i>Past Performance Evaluation Discipline(s)*</i>	Road, Bridge, Environmental
<i>Project name</i>	US 371: Railroad Overpasses HBI	<i>Firm responsibility (prime or sub?)</i>	Prime
<i>Project number</i>	H.012030	<i>Owner's Name</i>	Louisiana Department of Transportation and Development
<i>Project location</i>	Sibley & Minden, Louisiana; Webster Parish, LA	<i>Owner's Project Manager</i>	Hamed Babaizadeh, PE
<i>Owner's address, phone, email</i>	1201 Capitol Access Road, Baton Rouge, LA 70802 225-379-1033 Hamed.Babaizadeh@la.gov		
<i>Services commenced by this firm (mm/yy)</i>	11/21	<i>Total consultant contract cost (\$1,000's)</i>	\$694
<i>Services completed by this firm (mm/yy)</i>	Ongoing	<i>Cost of consultant services provided by this firm (\$1,000's)</i>	\$630

Michael Baker is providing bridge, structural, and transportation services for the replacement of three bridges along US 371 at in Sibley and Minden. All bridges span KCS Railroad at two locations along their rail line.

The existing bridge in Sibley was built in 1934 and is currently a three span, steel girder bridge for a total length of 120 feet, resting on concrete substructure. The bridge has sidewalks on both sides and ties to existing sidewalks along the route. US 371 is a rural arterial with roughly 17% truck traffic along the route. The Michael Baker design team is tasked with determining the most efficient and cost-effective bridge to replace the existing structure. A bridge structure report is required to determine if the new bridge will either be concrete or steel girder type. The new structure and road improvements will meet the latest DOTD design guidelines.

One of the **challenges** at this location is the grade difference between the bridge and existing properties with the railroad underneath. Coordination with KCS railroad will help determine the final location of the bridge foundations in relationship with the rail line along with development of a diversion roadway and temporary Acrow Bridge since US 371 is not able to be shut down. The two bridges in Minden serve as part of the I-20 interchange at US 371. The bridges were built at different times around 1930 and both bridges are three span, steel girder bridges. One bridge is normal skew to the roadway while the other bridge was built on a skew aligning with the rail line. US 371 is considered a minor urban arterial with roughly 13% truck traffic at this location.

Similar to the Sibley bridge, the design team will prepare a bridge structure report determining the most efficient and cost-effective bridges while minimizing impact to the local traffic. Being located at an interchange, **additional challenges** for these bridge replacements is the maintenance of traffic, phase construction, and shifting of traffic. At this location, one bridge will be removed and replaced while reducing travel to one-lane on the other bridge to keep roadway open to existing traffic. The design team is tasked with determining if the new bridge will be concrete or steel girder type while maintaining minimal adjustment to the existing roadway grade to reduce the amount of roadway necessary to tie to existing roadway.



PROJECT SIMILARITIES

- ✓ DOTD Project
- ✓ Roadway Design
- ✓ Structural/Bridge Design
- ✓ Hydraulics/Drainage
- ✓ Environmental Permitting

Team Members Who Worked on This Project:

Daniel Thornhill, PE | Brandon Pitre, PE, RSP | Jeff McRae, PE | Shalin Sheth, PE | Alexis Harrouch, EI | Marcela Trochez | TJ Holliday, PWS | Elizabeth Brock

17. Firm Experience:

<i>Firm name</i>	Michael Baker International, Inc.	<i>Past Performance Evaluation Discipline(s)*</i>	Road, Bridge, Environmental
<i>Project name</i>	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program	<i>Firm responsibility (prime or sub?)</i>	Prime
<i>Project number</i>	H.015338	<i>Owner's Name</i>	Louisiana Department of Transportation and Development
<i>Project location</i>	District 07 Parishes, Louisiana	<i>Owner's Project Manager</i>	Kurt M. Brauner, PE
<i>Owner's address, phone, email</i>	1201 Capitol Access Road Baton Rouge, Louisiana 70802 225-379-1933 Kurt.Brauner@la.gov		
<i>Services commenced by this firm (mm/yy)</i>	10/22	<i>Total consultant contract cost (\$1,000's)</i>	\$2,400
<i>Services completed by this firm (mm/yy)</i>	Ongoing	<i>Cost of consultant services provided by this firm (\$1,000's)</i>	\$1,600

Michael Baker was selected by DOTD to provide bridge, roadway and environmental services for the replacement of off-system bridges in the five parishes (Allen Parish, Beauregard Parish, Calcasieu Parish, Cameron Parish and Jefferson Davis Parish) located in DOTD District 07. This off-system bridge program is being 100% funded by the recently passed IIJA bill. DOTD allocated \$30.3 million of funding for District 07 for the implementation cost (construction, design, mitigation, right-of-way acquisition and utility relocation) for the replacement of bridges in this district. Structures will be replaced with Culvert(s), Box Culvert(s), or Slab Span Bridges that are available in DOTD Standard Plan catalog.

The project was broken into two phases: Phase I – Initial Services and Phase II – Plan Development. Phase I – Initial Services Preliminary Bridge Screen Matrix determined which 12 Brides would be carried forward into Phase II. Phase I was completed in early 2023. Phase II – Plan Development began June 2023. Phase II requirements are the survey, hydraulic studies, environmental screening, Preliminary and Final Plans, and ROW plans, if necessary. Hydraulic studies will determine the bridge structures and required hydraulic openings. Based on scope, required bridges can be one of the following three: Culvert, Box Culvert, or Slab Span Bridge. All slab span bridges will have a concrete substructure (prestressed piles and concrete caps).

Currently, 10 of the 12 bridge surveys have been approved, hydraulic studies are ongoing and initial submittals in February 2024, Solicitation of Views have been sent out, and Preliminary Plans have started. The Michael Baker team is providing project status updates to the Parishes and performing coordination with those Parishes in regards to historical hydraulic events. HEC-RAS modeling is being performed to determine the required hydraulic openings and recommendaiton of bridge structure types. Preliminary Plans are expected to begin submittals in late Feburary 2024. Project Schedule is to have all projects design and let for construction by the end of 2025.



PROJECT SIMILARITIES

- ✓ DOTD Project
- ✓ Roadway Design
- ✓ Bridge Design
- ✓ Roadway Drainage
- ✓ Slab Span Bridges
- ✓ Construction Plan Development

Team Members Who Worked on This Project:

Daniel Thornhill, PE | Brandon Pitre, PE | Jeff McRae, PE | Shalin Sheth, PE | Alexis Harrouch, EI | Marcela Trochez | TJ Holliday, PWS



17. Firm Experience:

Firm name	Michael Baker International, Inc.		Past Performance Evaluation Discipline(s)*	Road
Project name	SR 15 Pontotoc Feasibility Study		Firm responsibility (prime or sub?)	Prime
Project number	N/A	Owner's Name	Mississippi Department of Transportation	
Project location	Pontotoc, Mississippi	Owner's Project Manager	Spencer Robinson	
Owner's address, phone, email	401 North West Street, P.O. Box 1850, Jackson, MS 39215 601-359-7682 srobinson@mdot.com			
Services commenced by this firm (mm/yy)	08/23	Total consultant contract cost (\$1,000's)	\$323	
Services completed by this firm (mm/yy)	05/24 (est.)	Cost of consultant services provided by this firm (\$1,000's)	\$323	

This project is a feasibility study for the Mississippi Department of Transportation to identify solutions that will determine the needs for widening of SR 15 from US 278/MS 6 to SR 41/Main Street in Pontotoc, Mississippi to a four-lane boulevard section. The corridor is currently a mix of two-lane, three-lane (with center turn lane), and five-lane (with a center turn lane) sections. The key components of the study include the following:

1. Traffic Analysis including a traffic volume report and future year no-build and build operational analysis
2. Safety Analysis and crash analysis to review crash data and patterns to determine corrections for critical areas.
3. Access management evaluation under a four-lane Boulevard condition to improve safety and mobility of the congested corridor.

The Feasibility study includes desktop and field data collection, traffic analysis, safety analysis, environmental and planning analysis, conceptual traffic engineering, development and high-level design including two build concepts for 26 intersections along the road. It also includes planning level cost estimates, agency coordination, and coordination with the public via a public meeting. The 26 intersections are being studied for traditional signals along with roundabouts at strategic locations that benefit traffic operations. Left turns with bulb-outs (J-turns) are required at certain locations along the corridor to facilitate turn movements and minimize travel times.



PROJECT SIMILARITIES

- ✓ Roadway Widening Design
- ✓ Traffic Analysis & Design
- ✓ Stakeholder Coordination

Team Members Who Worked on This Project:

Daniel Thornhill, PE | Brandon Pitre, PE, RSP | TJ Holliday, PWS | Alexis Harrouch, EI | Marcela Trochez | Kenny Collins, PE



17. Firm Experience:

<i>Firm name</i>	Michael Baker International, Inc.		<i>Past Performance Evaluation Discipline(s)*</i>	Road
<i>Project name</i>	SR 25 - Grants Ferry to SR 471		<i>Firm responsibility (prime or sub?)</i>	Prime
<i>Project number</i>	N/A	<i>Owner's Name</i>	Mississippi Department of Transportation	
<i>Project location</i>	Flowood, Mississippi	<i>Owner's Project Manager</i>	Chris Nail	
<i>Owner's address, phone, email</i>	401 North West Street, P.O. Box 1850, Jackson, MS 39215 601-359-7258 cnaill@mdot.ms.gov			
<i>Services commenced by this firm (mm/yy)</i>	10/23	<i>Total consultant contract cost (\$1,000's)</i>		\$637
<i>Services completed by this firm (mm/yy)</i>	07/24	<i>Cost of consultant services provided by this firm (\$1,000's)</i>		\$637

Michael Baker will develop Phase A: Final Right of Way Plans for widening SR 25 from Grants Ferry Road to SR 471 from four lanes to six lanes, approximately three miles. Our team is designing this project to the latest standards and criteria of the Mississippi DOT, using the latest version of Open Roads Designer.

All unsignalized crossovers will be converted to directional. A No-Rise analysis will be required at six crossings. Preliminary signal plans will be required at four existing intersections and one new signal at Marshall Drive. A roundabout concept for SR 471 ramp termini. This concept proposes roundabouts at each existing interchange intersection, along with a third roundabout at Spillway Road intersection. This configuration will utilize single lane roundabouts with by-pass lanes (where required). MDOT had requested the two interchange roundabouts remove the circulating lane closest to SR 25 overpass, to where the roundabouts operate as a "dog-bone" or "dumbbell" configuration.

The SR 471 Roundabouts were designed to maximize usage of existing interchange pavement where possible. SR 471 is currently asphalt, which will allow for quicker construction with minimum overlays and buildups vs. forming up for concrete. This project is on a fast-track pace to help meet an aggressive schedule for MDOT to let the project in 2026.

PROJECT SIMILARITIES

- ✓ Roadway Plans
- ✓ No-Rise Analysis
- ✓ Drainage Design
- ✓ Signals
- ✓ Lighting

Team Members Who Worked on This Project:

Daniel Thornhill, PE | Brandon Pitre, PE, RSP | Alexis Harrouch, EI | Marcela Trochez | Kenny Collins, PE | Steven Stuart, PE



17. Firm Experience:

<i>Firm name</i>	Gresham Smith		<i>Past Performance Evaluation Discipline(s)*</i>	Road
<i>Project name</i>	Hooper Road at Sullivan Road Roundabout Design		<i>Firm responsibility (prime or sub?)</i>	Sub
<i>Project number</i>	H.002320	<i>Owner's Name</i>	City of Central (LA)	
<i>Project location</i>	Central, Louisiana	<i>Owner's Project Manager</i>	Toby Picard, PE	
<i>Owner's address, phone, email</i>	13421 Hooper Road, Suite 8, Central, LA 225.379.1302 toby.picard@la.gov			
<i>Services commenced by this firm (mm/yy)</i>	04/20	<i>Total consultant contract cost (\$1,000's)</i>		\$195
<i>Services completed by this firm (mm/yy)</i>	12/22	<i>Cost of consultant services provided by this firm (\$1,000's)</i>		\$195

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.

The roundabout design underwent several geometric reviews by DOTD, including a plan-in-hand meeting. The 100% preliminary plans were fully completed. However, construction funding issues led to scope adjustments for the intersection design, and the design reverted back to the signalized intersection for final plans. The project let in December 2022, and the design of the future roundabout is now being considered in a separate CMAR project.

PROJECT SIMILARITIES

- ✓ Development of Preliminary and Final Roundabout Design Plans

Team Members Who Worked on This Project:

Herbert "Bert" Moore, PE, PLS, PTOE | Rebecca Murray, PE, PTOE, RSP₁



17. Firm Experience:

<i>Firm name</i>	Gresham Smith	<i>Past Performance Evaluation Discipline(s)*</i>	Bridge
<i>Project name</i>	Complex Bridge Inspections IDIQ - Various Task Orders	<i>Firm responsibility (prime or sub?)</i>	Prime
<i>Project number</i>	4400013322	<i>Owner's Name</i>	Louisiana Department of Transportation and Development
<i>Project location</i>	Statewide, Louisiana	<i>Owner's Project Manager</i>	Haylye Browne
<i>Owner's address, phone, email</i>	1201 Capitol Access Road, Baton Rouge, LA 225.379.1205 haylye.brown@la.gov		
<i>Services commenced by this firm (mm/yy)</i>	10/19	<i>Total consultant contract cost (\$1,000's)</i>	\$5,767
<i>Services completed by this firm (mm/yy)</i>	01/24	<i>Cost of consultant services provided by this firm (\$1,000's)</i>	\$2,958

As the prime consultant, Gresham Smith oversaw the delivery of this indefinite delivery/indefinite quantity bridge inspection contract for DOTD. Major tasks under this contract have included:

On-System/Off-System Re-Inspections: Gresham Smith was selected to re-inspect multiple bridges in District 62 to establish proper base inspection reports that can be utilized for future in-house District inspectors to ensure consistency and thoroughness. To date, Gresham Smith has inspected more than 35 bridges including timber trestles, concrete slab, railcar bridges, and concrete girder spans. Gresham Smith's re-inspections were classified as QC inspections and added into the AssetWise system to address previous deficiencies. The updated inspection reports will now serve as a benchmark format for these structures, to improve the overall quality of the District staff reports.

Emergency Repairs: 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. 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.

Complex Bridges: Major complex inspections included the Red River Lift Bridge in Alexandria, LA 1 Truss over Atchafalaya River the LA 8 Concrete Segmental Bridge in Boyce, and the I-20 Mississippi River Bridge in Vicksburg. In some cases, the team employed drone inspections to supplement hands-on inspections, and used SPRAT rope access to minimize traffic restrictions.

Movable Bridges: Gresham Smith served as the lead for the in-depth inspection of 10 movable bridges, including mechanical, electrical, and structural tasks. The structural tasks included rope access, manlifts and UBI equipment dependent of span details. Mechanical/Electrical inspections included full testing and assessments.

PROJECT SIMILARITIES

- ✓ DOTD Bridge Standards
- ✓ Identify Deficiencies & Address Retrofits
- ✓ Expedited Design
- ✓ Accelerated Bridge Construction

Team Members Who Worked on This Project:

Herbert "Bert" Moore, PE, PLS, PTOE | John Weres, PE
 | Yun Lin, PhD, PE | Courtney Rome, PE | Tom Tran, PE |
 Rebecca Murray, PE, PTOE, RSP₁



17. Firm Experience:

<i>Firm name</i>	Gresham Smith		<i>Past Performance Evaluation Discipline(s)*</i>	Bridge
<i>Project name</i>	SR 178 Benton County – Replacement of 2 Bridges and a Twin-Cell Box Culvert		<i>Firm responsibility (prime or sub?)</i>	Prime
<i>Project number</i>	N/A	<i>Owner's Name</i>	Mississippi Department of Transportation	
<i>Project location</i>	Benton County, Mississippi	<i>Owner's Project Manager</i>	Scott Westerfield, PE	
<i>Owner's address, phone, email</i>	401 North West Street, Jackson, MS 601.359.7200 swesterfield@mdot.ms.gov			
<i>Services commenced by this firm (mm/yy)</i>	11/17	<i>Total consultant contract cost (\$1,000's)</i>		\$417
<i>Services completed by this firm (mm/yy)</i>	03/23	<i>Cost of consultant services provided by this firm (\$1,000's)</i>		\$417

Gresham Smith holds a multi-year IDIQ Bridge Retainer with MDOT. Under Work Assignment 1, Gresham Smith was tasked for completing Phase B (Final Design) for the reconstruction of two bridges and associated roadway. A third bridge was replaced with a twin-cell box culvert.

To reduce the overall construction costs, Gresham Smith was requested to re-design the previously prepared (by others) Phase A roadway design for Bridge 471 to utilize the existing alignment, rather than an off-line alternative designed by others. To reduce the total structure depth and improve the bridge hydraulics, the superstructures were designed with Florida I-Beam (FIB) shaped prestressed concrete girders. As one of the longer spans in Mississippi to utilize the FIB shapes, Gresham Smith also performed a haul analysis and constructability review to verify that the 135' long, 70-ton girders could be delivered and erected at this rural location. For the multi-span structure, the bridge spans were designed as simply supported beams with a "link-slab" detail utilized to eliminate the deck joints.

The span arrangements are as follows:

- » Bridge 51.3 (Bridge A) – FIB-45; 3 spans = 80' – 100' – 80' = 260'
- » Bridge 471 (Bridge B) – FIB 54; 1 span = 135'

PROJECT SIMILARITIES

- ✓ Utilize Shallower Precast Units to Improve Hydraulics
- ✓ Compared On-line and Off-line Alignments
- ✓ Incorporate Low-Maintenance Details Including Decks Continuous for Live Load

Team Members Who Worked on This Project:

John Weres, PE | Courtney Rome, PE



17. Firm Experience:

<i>Firm name</i>	Vectura Consulting Services, LLC		<i>Past Performance Evaluation Discipline(s)*</i>	Traffic
<i>Project name</i>	Roundabout: US 171 at Boone St.		<i>Firm responsibility (prime or sub?)</i>	Sub
<i>Project number</i>	H.011909.5	<i>Owner's Name</i>	Louisiana Department of Transportation and Development	
<i>Project location</i>	Vernon Parish, LA	<i>Owner's Project Manager</i>	Josh Harrouch	
<i>Owner's address, phone, email</i>	PO Box 94245 Baton Rouge, LA 70804-9245 (225) 242-4640 Joshua.Harrouch@la.gov			
<i>Services commenced by this firm (mm/yy)</i>	04/17	<i>Total consultant contract cost (\$1,000's)</i>	Unknown	
<i>Services completed by this firm (mm/yy)</i>	12/20	<i>Cost of consultant services provided by this firm (\$1,000's)</i>	\$82	

Vectura designed temporary traffic signal plans as part of the sequence of construction plan for a roundabout construction at the intersection of US 171 at Boone Street in Leesville, LA. The purpose of the project was to replace the existing signalized intersection with a multilane roundabout at Boone Street.

Temporary Traffic Signal Design: Vectura performed following design tasks to develop temporary traffic signal plans:

- » Detailed study of sequence of construction plans to determine the optimal traffic signal operation and required traffic signal equipment for each sequence of construction phase
- » Reviewed potential access issues for all the impacted driveways / streets along the project area for each sequence of construction phase
- » Developed multiple traffic signal timing plans by time of day for each sequence of construction phase to maintain progression along main corridor
- » Developed temporary signal plans including pole and span wire layout, signs, striping, power source, signal timings by time of day, vehicle detection, signal head placement, wiring diagram, pole height calculations, clearance calculations, quantities, construction cost estimate
- » Coordinated with DOTD Traffic Section and District Traffic Engineer

Quality Control Review: Vectura provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.

PROJECT SIMILARITIES

- ✓ DOTD Project
- ✓ Traffic Engineering
- ✓ Roundabout Project

Team Members Who Worked on This Project:

Brin Ferlito, PE, PTOE | Laurence Lambert, PE, PTOE, PTP



17. Firm Experience:

<i>Firm name</i>	Vectura Consulting Services, LLC		<i>Past Performance Evaluation Discipline(s)*</i>	Traffic
<i>Project name</i>	LA 30 Roundabouts at Tanger I-10		<i>Firm responsibility (prime or sub?)</i>	Sub
<i>Project number</i>	H.010960.5	<i>Owner's Name</i>	Louisiana Department of Transportation and Development	
<i>Project location</i>	Ascension Parish, LA	<i>Owner's Project Manager</i>	Josh Harrouch	
<i>Owner's address, phone, email</i>	PO Box 94245 Baton Rouge, LA 70804-9245 (225) 242-4640 Joshua.Harrouch@la.gov			
<i>Services commenced by this firm (mm/yy)</i>	04/17	<i>Total consultant contract cost (\$1,000's)</i>	Unknown	
<i>Services completed by this firm (mm/yy)</i>	12/20	<i>Cost of consultant services provided by this firm (\$1,000's)</i>	\$153	

Vectura designed temporary traffic signal plans that will be implemented during construction of the three roundabouts along LA 30 in Gonzales, LA. The project involves replacing three existing signalized intersections with multilane roundabouts along LA 30 at I-10 Interchange ramps and at the Tanger Boulevard. Vectura also provided Quality Control review of construction plans.

Temporary Traffic Signal Design: Vectura performed following design tasks to develop temporary traffic signal plans:

- » Detailed study of sequence of construction plans to determine the optimal traffic signal operation and required traffic signal equipment for each sequence of construction phase
- » Reviewed potential access issues for all the impacted driveways / streets along the project area for each sequence of construction phase
- » Developed multiple traffic signal timing plans by time of day for each sequence of construction phase to maintain progression along main corridor
- » Developed temporary signal plans including pole and span wire layout, signs, striping, power source, signal timings by time of day, vehicle detection, signal head placement, wiring diagram, pole height calculations, clearance calculations, quantities, construction cost estimate
- » Coordinated with DOTD Traffic Section and District Traffic Engineer

Quality Control Review: Vectura provided Quality Control review of signing and striping plans at 30% and 60% plan sets to ensure the roundabouts conformed to the Pavement Markings Details Sheet PM-09 and the Manual on Uniform Traffic Control Devices (MUTCD) details on roundabouts.

PROJECT SIMILARITIES

- ✓ DOTD Project
- ✓ Traffic Engineering
- ✓ Roundabout Project

Team Members Who Worked on This Project:

Brin Ferlito, PE, PTOE | Laurence Lambert, PE, PTOE, PTP



17. Firm Experience:

<i>Firm name</i>	Vectura Consulting Services, LLC		<i>Past Performance Evaluation Discipline(s)*</i>	Traffic
<i>Project name</i>	I-10 ITS Scott to Lake Charles		<i>Firm responsibility (prime or sub?)</i>	Sub
<i>Project number</i>	H.013256.5	<i>Owner's Name</i>	Louisiana Department of Transportation and Development	
<i>Project location</i>	I-10 (District 07)	<i>Owner's Project Manager</i>	Roy Esteven, PE	
<i>Owner's address, phone, email</i>	1201 Capitol Access Road, Baton Rouge, LA 70802 225-379-2527 Roy.Esteven@la.gov			
<i>Services commenced by this firm (mm/yy)</i>	01/21	<i>Total consultant contract cost (\$1,000's)</i>	Unknown	
<i>Services completed by this firm (mm/yy)</i>	03/21	<i>Cost of consultant services provided by this firm (\$1,000's)</i>	\$20	

Vectura performed a Level 2 Traffic Management Plan (TMP) for the construction of ITS equipment along I-10. The plan included the following activities:

- » Safety strategy that included a CAT Scan
- » LOS determination utilizing Citrix data
- » Lane closure recommendations based on a queue analysis
- » Cost estimate
- » Public information strategies.

PROJECT SIMILARITIES

- ✓ DOTD Project
- ✓ Traffic Management Plan
- ✓ Local project along I-10

Team Members Who Worked on This Project:

Brin Ferlito, PE, PTOE | Laurence Lambert, PE, PTOE, PTP | Kristen Farrington, PE, PTOE



SECTION
18

APPROACH AND
METHODOLOGY



Pictured: Routes 1 & 9

Michael Baker's design team have reviewed the LA 44 Corridor and determined potential concerns/issues that may arise during design and have provided recommended solutions in the Approach & Methodology.

18. Approach and Methodology:

Michael Baker International, Inc. (Michael Baker) brings years of successful DOTD experience and has assembled a proven team with design projects following the DOTD Project Delivery Manual, Roadway Design Manual, and the Bridge Design Manual. For the DOTD's LA 44: Pelican Point Roundabout and Widening, our team includes Gresham Smith (GS) and Vectura Consulting Services, LLC (VCS).

PROJECT UNDERSTANDING

There has been significant development along LA 44, southwest of I-10, over the last 20 years. Subdivision and recreational developments along with retail stores and River Parish Community College have increased traffic along LA 44 to the point where a two-lane roadway can no longer provide an acceptable level of service without significant intersection and roadway improvements. In an effort to reduce traveling delays, DOTD has already approved construction plans for the widening of LA 44 from Panama Canal to just west of I-10, SP NO. H.010909. Along with widening LA 44, the plans provide for a new roundabout at LA 941 for better traffic flow. Furthermore, DOTD has concurrently advertised improvements to LA 44 at I-10 interchange and W. Edenborne Parkway with addition of three roundabouts. The scope of work for this advertisement is to improve LA 44 by widening from two to four lanes from the beginning of the H.010909 project to just south of the existing retail stores in front of the Main Street shopping center. To complement the widening, a roundabout will be designed at Pelican Point Parkway and serve as part of the LA 44 roundabout corridor for improving traffic operations.

In addition to roadway improvements, the bridge over Panama Canal will require either widening or total replacement. The bridge design team will review several different criteria and elements to make a determination of which is the most cost effective approach for this project.

APPROACH

Upon selection, the Michael Baker design team will coordinate directly with the DOTD Project Manager to confirm the overall design intent of the project and verify that there haven't been any deviations from the LA 44 Roundabout Justification Report (RJR) from I-10 to LA 22 that was developed in 2018. Michael Baker will continue this communication between design team and DOTD PM throughout the project, and will manage the contract to ensure that deadlines are met in accordance to schedule and that invoices are submitted in a prompt manner to DOTD.



Michael Baker's Project Manager, Daniel Thornhill, PE, is experienced in managing projects that require roundabouts along state corridors. He has over 26 years of transportation design experience, including 14 years of experience with design of roundabouts that meet DOTD requirements. In that time, he has developed more than 140 roundabout alternatives through design, feasibility studies (Stage 0), or Environmental Assessments (Stage 1). Recently, he has worked on roundabouts in Mississippi and Alabama, and his experience includes highway/interchange project management that follow the project delivery methods of multiple state DOTs.

As shown on our Organizational Chart in **Section 14**, Michael Baker has assembled a team of qualified engineers that have many decades of experience in the design of roadways, roundabouts, bridges, and traffic operations similar in nature to this project. Michael Baker will

lead the environmental permit sketches and support on bridge/load ratings. Michael Baker has added Gresham Smith to our team to lead the bridge widening/replacement and support the roadway hydraulics. Our DBE teaming partner Vectura will develop Traffic Management Plans (TMPs), if necessary, and support Michael Baker on roadway/construction signing, striping, and maintenance of traffic.

METHODOLOGY

Michael Baker's design team understands fully the DOTD's Stage 3 project delivery process from initial scoping and kickoff meetings to plan preparations that follow the Preliminary and Final Design milestones. Along with this process, the Michael Baker project manager will be instrumental in not only managing the design team and their efforts but contract management from coordination with the DOTD PM, updating schedules on a monthly basis, and preparing and submitting monthly invoices. The team that has been assembled has the capacity/resources to meet all of DOTD's deadlines to make sure funding will not be put at risk. Michael Baker's team will identify and notify DOTD PM of any issues that may arise from design that may require deviations from scope that is developed during the scoping meeting portion of the project.

Scoping Meeting for Contract: Upon selection, Michael Baker will request a scoping meeting with the DOTD Project Manager (PM) and other required DOTD staff. Our team will use the DOTD-provided traffic operations study as an initial basis for the scoping meeting. This meeting will clearly define any additional project scope not covered in the original advertisement. The final scope will be used as the basis to develop the project manhours and fee proposal.

Defining the project scope early helps to ensure any added items are included with the final contract. Solid, defined scope leads to project efficiency from Stage 3 (Design) through Stage 5 (Construction Support) phases of the project.

Kickoff Meeting for Contract: After execution of the contract and Notice to Proceed is issued, Michael Baker will request a kickoff meeting through the DOTD PM. At this meeting, the Michael Baker PM will request the following existing data, as described by the advertisement, including:

- » Bridge Inspection Reports, Latest Load Ratings and Friction Number (Existing Decks)
- » Hydraulic Analysis
- » Geotechnical Report
- » Topographic Survey
- » Utility Coordination
- » Existing Traffic Counts and latest Sidra Analysis
- » As-Built Plans
- » Pavement design
- » Property Survey/Existing ROW Maps

The kickoff meeting will be used to **1)** establish roadway and bridge design criteria, **2)** determine the frequency for design coordination progress meetings, **3)** coordinate any on-site meeting with the DOTD to determine if there are resources that need to be avoided, and **4)** review any questions that may have arisen after reviewing existing documents. A Critical Path Method schedule with baseline will be submitted to DOTD PM after the kickoff meeting.

POTENTIAL PROJECTS CHALLENGES & SOLUTIONS

During the preparation of this proposal, Daniel studied the provided LA 44 RJR and existing roadway conditions (via Google Maps) and identified some initial potential project issues or concerns and using years of design experience developed potential alternative solutions that would meet the intent of the scope as per defined by this advertisement. Michael Baker has developed a few concepts presented below. These concepts are merely potential solutions and will be modified to meet final agreed upon scope of work.

CHALLENGE - GEOMETRIC CONSTRAINTS AT PELICAN POINT PARKWAY

There are several potential geometric concerns at the Pelican Point Pkwy Entrance that may influence the roundabout layout.

1. Landscaped median for Pelican Point entrance and guard house.
2. Two scenic ponds w/ fountains that are the focal point of the Pelican Point entrance.
3. Impacts from the roundabout to residences directly across from Pelican Point Entrance.

Several alternate solutions are available at this site:

1. Position Roundabout Inscribed Circle to minimize impacts to the ponds.
2. Roundabout position that can reduce the required exit and entry legs at Pelican Point Pkwy.
3. Use minimum Exiting Leg radii that follow DOTD requirements to reduce impacts.
4. Develop Driveway access along roundabout for residential property.

CHALLENGE - PELICAN CROSSING DRIVE DEVELOPMENT

1. Providing/Maintaining full access in/out of development entrance.
2. Minimizing impacts to neighborhood entrance layout/scenic ponds

Several alternate solutions are available at this site:

1. Develop a minimum 16' median on LA 44 to develop left turn lane into development (Current traffic movement) while providing access management with back-to-back curbing along turn lane. This alternative does allow for traffic movements within the exit leg of the roundabout which could create traffic conflict points. **See Sketch 1.**
2. Provide a narrow median to match State Project No. H.010909 typical section and allow for only right-in/right-out traffic movements. Left turns into neighborhood will be handled by making a U-turn at the new roundabout then a right-in. Left turns out of development will either require motorist to drive 0.75 miles to SP No. H.010909 Roundabout at LA 941 and make U-turn. This option creates an inconvenience to the neighborhood which has approximately 500 houses and has only two entrances along LA 44 and one along LA 22. This configuration could cause additional/unwanted traffic flow within the development. **See Sketch 2.**

CHALLENGE - MAIN ST RETAIL SHOPPING CENTER/RALPH'S

1. Providing/Maintaining full access in/out of development entrances (currently 4 entrances).
2. Right-of-Way constraints by widening of LA 44 to 4-Lanes at proximity of retail development with equal widening may impact existing parking spaces.

Several alternate solutions are available at this site:

1. Develop a minimum 16' median on LA 44 to at the first driveway near Ralph's Market to allow left turn into retail development. Retail has connectivity throughout development. This location would allow for a J-turn U-turn for residential property owners across street that will have left turn access restricted by raised median. **See Sketch 3.**
2. Retail development has 3 additional entrances that would be converted to right-in/right-out due to raised median but coordination with DOTD Traffic Section would be necessary not create traffic flow issues within development. Alternative would be to develop a direct left in at Main St. retail entrance to reduce the left turn movements at the Ralph's Market driveway.
3. Widening equally along LA 44 would create ROW impacts along development which would impact retail parking which would create excessive cost to the project. Residential properties across from development have greater than normal building setback which would allow LA 44 alignment to be shifted to that side of the road to develop the left turns for retail shopping center. This option would create required row along one side of LA 44 and reduce number of impacted parcels. **See Sketch 4.**

CHALLENGE - RIGHT-OF-WAY CONSTRAINTS

1. Commercial retail parking lots are very close to existing two-lane edge of pavement.
2. Scenic/Entrance Ponds to both Pelican Point Golf Course development and Pelican Development.
3. Sizable Drainage Ditches adjacent to LA 44.
4. Pelican Point landscaping and fencing parallel to route to provide beautification and privacy to development residents.

Several alternate solutions are available at this site:

1. Do not encroach beyond existing/apparent row of Pelican Point and Commercial Retail development and widen LA 44 to opposite side of roadway with limited residential structures that have greater than normal setback from the existing roadway. **See Sketch 4.**
2. Reduce median widths and use minimum allowable lane widths to reduce the overall project footprint. **See Sketch 4.**
3. Utilize sub-surface storm drainage where practical and feasible.
4. Utilize J-Turns where practical to develop access management practices that will allow the integrity of this system to remain in place years after construction. **See Sketches 3 & 4.**



Roadway/Roundabout Geometrics: Michael Baker will lead the design of the roadway/roundabout improvements. Leveraging his experience with roundabout design, Daniel will oversee the placement and development of the roundabout inscribed circle while limiting impacts to geometric sensitive areas. As addressed in the potential challenges above, there are scenic entrance ponds relatively close to the proposed LA 44 improvements. Stormwater and erosion control measures will be necessary to maintain the appearance and functionality of the ponds. The LA 44 projected/adopted centerline and roadway typical section will be developed to minimize right-of-way takings and limiting the number of parcels affected by the required taking lines. It appears the existing LA 44 centerline from the tie-in with the H. H.010909 project and roundabout can be maintained using a 6' to 8' raised median. As stated earlier, Michael Baker will coordinate with DOTD traffic section to determine impacts to left in/left out of Pelican Crossing with its entrance proximity to the proposed roundabout.

The LA 44 project/adopted centerline may need to be shifted 10'-15' to the east/south side of LA 44 to reduce the impacts to Main St. Commercial properties and Ralph's market. As described earlier, the residential properties have a greater than normal setback to where the roadway can shift in that direction to avoid any takings of the commercial property parking lot.

Gresham Smith will assist Michael Baker's engineers with the hydraulic design for LA 44. Drainage is always a concern in Ascension Parish, due to the flat topography. The main drainage feature adjacent to this project is Panama Canal, with drainage along LA 22. Our hydraulics team, led by **Eric Erikson, PE, CFM**, will use the DOTD Hydraulics manual and HDRYWin software to develop the expected runoff for the project's required rain events. In coordination with DOTD Drainage Section, hydraulic engineers will use the Panama Canal drainage models as the basis for starting water surfaces for any ditch or subsurface drainage design.

Bridge – Widening vs. Replacement: Michael Baker has partnered with Gresham Smith to provide bridge design services for this contract. After NTP, GS will submit a list of bridge design programs to DOTD Bridge Section for approval before starting any bridge design. Michael Baker's Load Rating team will use the AASHTOWare Bridge Rating (BrR) software for Load Rating and Analysis. Michael Baker is one of the nation's leading trainers to DOTs in the use of AASHTOWare BrR.

The existing bridge is a five-span simple slab-span bridge on concrete piles. The bridge design team (BDT), in coordination with DOTD Hydraulics section, will determine the best course of action in regards to widening of existing bridge vs. replacement.

The BDT will review the latest bridge inspection reports and load ratings to determine if **widening** is the most feasible alternative. This alternative will recommend any repairs required to the existing bridge necessary to extend its life while designing necessary bridge width. If widening is carried forward, the BDT will determine the new low chord and report to DOTD Hydraulics section to verify that a no rise condition is met and that there is adequate freeboard between low chord and design water surface.

If **replacement** is the best alternative, the BDT, in coordination with the road design team, will determine the best approach for maintenance of traffic during construction. The BDT will work with the DOTD Traffic section to determine if LA 44 must remain open to traffic during bridge replacement, or if LA 44 can be closed for a particular duration to give the contractor an undisturbed area to perform bridge construction. If LA 44 must remain open during construction, possible solutions could be to use a temporary ACROW or similar bridge offset from the existing bridge with a temporary detour bypass. A temporary bridge would require temporary construction servitude. **The BDT will perform a design/cost benefit matrix to determine what is the best/**

most cost effective alternative, and coordinate with DOTD PM and bridge section.

Bridge – Load Rating: The Michael Baker Team will review existing load ratings and as stated before and determine if any bridge repairs may be necessary to extend the life span of the bridge. Both the superstructure and substructure will be reviewed to make sure they meet DOTD criteria. If bridge widening alternative is selected, bridge load ratings will be performed for the final widened bridge or if new bridge alternative is selected, load ratings will be performed for both the bridge superstructure and substructure.

MOT/Traffic Management Plan: Vectura will provide maintenance of traffic during the sequence of construction and develop a Traffic Management Plan, if determined Level 3 is required. Michael Baker's roadway design team will coordinate directly with VCS during the development of sequence of construction in regards to maintenance of traffic and the required temporary traffic control measures required during construction. VCS will aid in development of the sequence of construction plans for the project.

Not covered by the advertisement, the Pelican Point Parkway/LA 44 intersection currently has an existing signal. Based on the roundabout geometry, this light may have to be replaced with a temporary signal during construction. VCS has many years of experience of designing temporary signals for such occasions. Michael Baker and VCS will coordinate with the DOTD PM to determine what requirements, if any, are needed for temporary signal design during construction.

As per the advertisement if a Level 3 TMP is required, a supplemental agreement will be issued to handle these services on the project. VCS staff is very well versed with the requirements of TMPs and their implementation during the project plan process.

Environmental/Permitting: Michael Baker offers two environmental specialists – **TJ Holliday, PWS** and **Elizabeth Brock** – who are available assist the DOTD environmental section with permitting. Per the DOTD project delivery manual, construction plans can be developed to 100% Preliminary Plans while environmental section is waiting on environmental clearance. This is a critical path of this project, as plans cannot proceed into Final Plans until this milestone has been achieved. **Both TJ and Elizabeth were instrumental in obtaining necessary project/ environmental permits for the Barksdale AFB Entrance Roads new access roads.**

PRELIMINARY PLANS AND FINAL PLANS

As stated previously, the Michael Baker team was assembled for its experience with DOTD's project delivery process. Our team members have developed designs for DOTD projects for many years, following the latest roadway/bridge requirements as set in the minimum design guidelines, roadway and bridge design manuals, EDSMs, hydraulics manual, DOTD standard plans/specifications and other pertinent design manuals/guidelines.

The Michael Baker design team's main focus is meeting deadlines for DOTD funding requirements, and we also embrace the latest design technology to expedite project delivery. Our design team will continue to follow the DOTD Electronic Delivery Process and ensure plans have been approved through the CADConform process. Where applicable, and in coordination with the DOTD PM, we will apply our in-depth knowledge of **Open Roads Designer (ORD)**. By using ORD to expedite project delivery for other DOTs, we have firsthand experience with the benefits of developing plans using this platform. Designing 3D proposed surfaces with Inroads SS2 can be time-consuming; in contrast, ORD creates 3D surfaces on alignment intelligence that update instantaneously as changes are made. Having designed roundabouts with both SS2 and ORD, our staff and our clients can speak to the benefits of seeing the 3D modeling of the roundabout in real time as changes are made and templates are assigned. All surfaces created through ORD can be saved into a format compatible with Inroads SS2.

EXPECTED DESIGN MILESTONES & SUBMITTALS

60% PRELIMINARY PLANS

- » Project & Adopted Horizontal/Vertical Alignments
- » Updated Exist. Drainage Map/Proposed Drainage Map
- » Hydraulics calculations and Prelim. Drainage report
- » Permit sketches for environmental clearance.
- » Initial Cost Estimate
- » *Construction Plans:* Title Sheet, Typical Sections, early Quantities, P&Ps, Drainage P&Ps, exist./proposed Drainage Maps, Geometric Details, initial taking lines, seq. of construction, earthwork computations, cross sections

90% PRELIMINARY PLANS (PLAN-IN-HAND)

- » 60% Prelim. Plans comments/revisions
- » Initial General Bridge Plan
- » Construction Plan Sheets
- » Sheets from 60% Preliminary Plans

- » Striping/Signing Plans
- » Updated Quantities
- » Revised cost estimates
- » Updated permit sketches for environmental clearance.

Once submitted, we will coordinate with the DOTD PM to schedule a PIH meeting with DOTD HQ/District staff, local entities, and design team members. Michael Baker will assist in scheduling and conducting the meeting and documenting comments.

100% PRELIMINARY PLANS

- » 90% Prelim. Plans comments/revisions
- » Final hydraulics report
- » Sheets from 90% Prelim. Plans
 - Graphical grades
 - ROW maps

- » Final taking lines for ROW mapping/acquisition.
- » Revised cost estimates

Design can't move forward to Final Plans until environmental clearance has been received. Once received the Final Plan delivery process is listed below:

60% FINAL PLANS

- » Update 100% Prelim. Plans w/latest comments
- » Sheets from 100% Prelim. Plans
 - Joint Layouts, if required.
 - Temporary signal design, if required,
 - Revision to hydraulics design/report, if any changes are required.
 - Bridge Plans
- » Bridge analysis and bridge design
- » Updated cost estimate

95% FINAL PLANS (ADVANCE CHECK PRINTS)

- » 60% Final Plans comments/revision
- » Final QA/QC Check, Constructability review form, Special Provisions
- » Update Quantities submittal to DOTD
- » Initial PS&E package (special provisions and non-typical pay item specifications)
- » Revised cost estimates

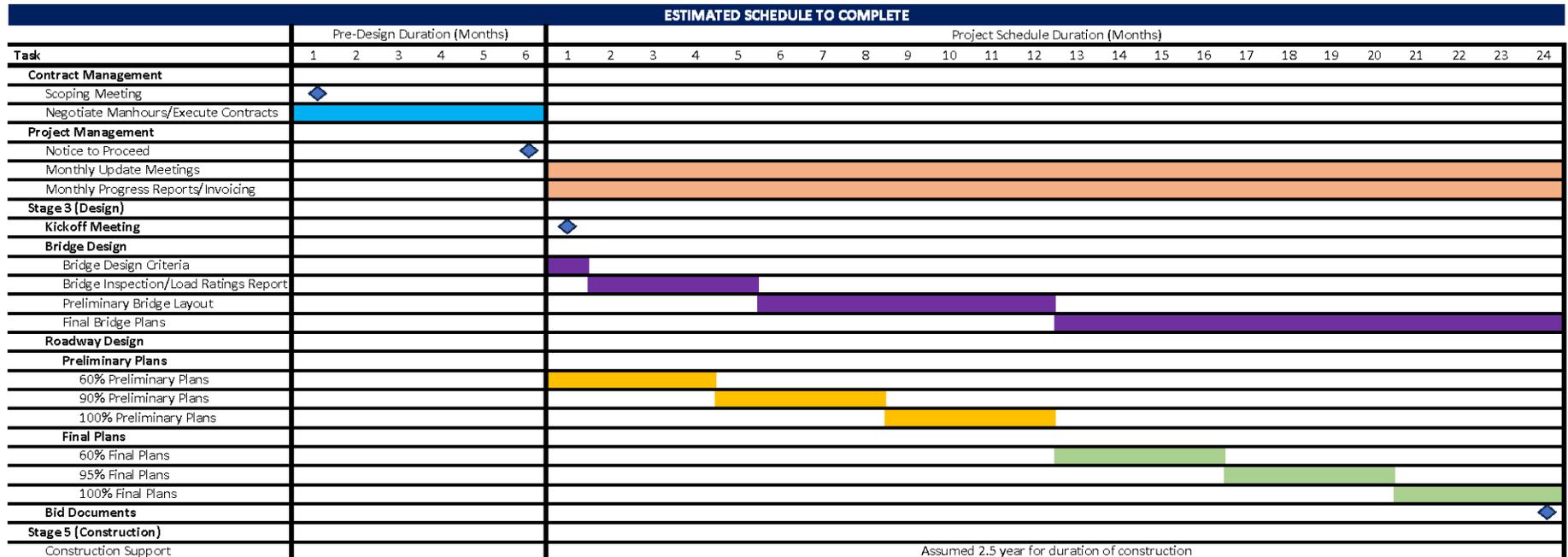
100% FINAL PLANS

- » ACP comments/revisions
- » Final Quantities & Cost Estimates.
- » Revise PS&E Package
- » Final bridge and road design report
- » Stamped and sealed plans

CONSTRUCTION SUPPORT

The Michael Baker team will continue to support DOTD through construction. Once a contractor is awarded the project and under contract, our **Construction Lead, Brandon Pitre, PE, RSP**, will work with Daniel and the DOTD PM to coordinate and document Requests For Information (RFIs) and Shop Drawings from the CE&I Field Engineer. Once RFIs and Shop Drawings are logged, Brandon will submit them to Daniel, who will distribute them to our design team for review and approval in regard to conformance to the construction plans and 2016 LA DOTD Standard Specifications. We understand the need to respond to RFIs and Shop Drawings in a timely manner to avoid additional delays for the contractor, which can lead to requests for change orders for additional compensation.

WORK ZONE TRAINING REQUIREMENTS (WZTR): As an on-going commitment to work zone safety, it is required by DOTD that consultants providing services have personnel that deal with traffic control and flagging be certified as Flagger, Traffic Control Technicians (TCT), Traffic Control Supervisor (TCS) and/or combination of all three. Michael Baker, Gresham Smith, and Vectura key personnel have received this training. As designers, all three firms have personnel that have been trained in all three WZTR. If any additional team members need training, they will receive the necessary training before the execution of the contract. Current Michael Baker's team with WZTR training are shown on the organization chart (Section 15).



All DOTD review time accounted for in durations.

SECTION
19
WORKLOAD



Pictured: West Maple Avenue Bridge

Michael Baker is prepared to address the specific challenges of this project, from the necessary coordination with nearby residents, to the adjacent stormwater detention ponds to the adjacent entrance road and potential roadway realignment. We propose cost-effective, time-saving solutions in our approach.

19. Workload:

<i>Firm(s)</i> ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	<i>Past Performance Evaluation Discipline(s)</i>	<i>Contract Number and State Project Number</i>	<i>Project Name</i>	<i>Remaining Unpaid Balance **</i>
Michael Baker International, Inc.	Road/Bridge	Contract No. 4400021519 S.P. No. H.012030.5 F.A.P. No. H012030	US 371: KCS RR Overpasses HBI	\$279,995
	Road/Bridge	Contract No. 4400025026 S.P. No. H.015338 F.A.P. No. H015338	Infrastructure Investment and Jobs Act (IIJA) Off-System Bridge Program – District 07, Supplemental Agreement No. 1	\$1,200,000
	ITS	Contract No. 4400011253 S.P. No. H.011500.6	Retainer Contract for Intelligent Transportation Systems (ITS), Lake Charles ITS Phase 3	\$60,473
	ITS	Contract No. 4400014845 S.P. No. H.012381.6	IDIQ Contract for Construction Engineering and Inspection Services with majority of work in District 07 Statewide, Fiber Optic Mapping and Management Statewide, Calcasieu Parish	
	ITS	Contract No. 4400024424 S.P. No. H.013256	I-10 ITS Scott to Lake Charles	\$69,824
	Road/Bridge/ Environmental	Contract No. 4400019379 S.P. No. H.013797 F.A.P. No. H013797	LA 30: EBR PL-I-10	\$107,285 \$51,325 \$199,243
	Environmental	Contract No. 4400005484 S.P. No. H.005168 F.A.P. No. DE-9208 (500)	NORG EIS, New Orleans, Louisiana	\$651,241
	Environmental/ Road	Contract No. 4400005484 S.P. No. H.005168	NORG – Avondale PEL Study, New Orleans, Louisiana Supplemental Agreement	\$732,824 \$36,618
	Other (Water Resource)	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	\$345,715
	Other (Water Resource)	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	\$1,316,892
	Other (Water Resource)	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	\$666,577
	Other (Water Resource)	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	\$187,388

<i>Firm(s)</i> ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	<i>Past Performance Evaluation Discipline(s)</i>	<i>Contract Number and State Project Number</i>	<i>Project Name</i>	<i>Remaining Unpaid Balance **</i>
Michael Baker International, Inc.	Other (Water Resource)	Contract No. 4400017067 Task Order No. 1	Collection of Existing Watershed Datasets, Models, and Studies; and Proposition of Modeling Design Approach, Schedule and Costs, Region 1	\$1,888,807
	Other (Water Resource)	Contract No. 4400023101 Task Order No. 1 S.P. No. H.015040.1& H.015041.1	IDIQ Contract for Louisiana Watershed Initiative/ State Projects Program (LWI-SPP) – Group 1 Beauregard, Vernon, and St. Landry Parishes	\$393,909
	Other (Water Resource)	Contract No. 4400023101 Task Order No. 2 S.P. No. H.015044.1	IDIQ Contract for Louisiana Watershed Initiative/ State Projects Program (LWI-SPP) – Group 1 Beauregard, Vernon, and St. Landry Parishes	\$218,411
	Other (Aviation)	Contract No. 4400019130 Task Order No. 1	IDIQ Contract for Statewide Aviation Program Update – Phase II Statewide	\$4,980
	CE&I/OV	Contract No. 4400025536 S.P. No. H.01399	IDIQ Contract for Construction Engineering and Inspection Services in District 61, Loc Rd. over Borrow Pit (Blind RV BT LNCH), St. James Parish	\$363,114
	CE&I/OV	Contract No. 4400014845 Task Order No. H.012018.6 S.P. No. H.012018.6 F.A.P. No. H012018	IDIQ Contract for Construction Engineering and Inspection Services with majority of work in District 07 Statewide Adaptive Traffic Signal and Implementation, Lafayette Parish	\$231,573
	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 Statewide, I-10: Texas State Line - E. of Coone Gully, Calcasieu Parish	\$434,492
	CE&I/OV	Contract No. 440001485 Task Order No. H.013959.6 S.P. No. H.013959.6 F.A.P. No. H013959	IDIQ Contract for Construction Engineering and Inspection Services (CE&I) with Majority of Work in District 07 Statewide Reeds Bridge Road over Calcasieu River Relief, Calcasieu Parish	\$304,327
	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	\$5
	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	\$5

<i>Firm(s)</i> ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	<i>Past Performance Evaluation Discipline(s)</i>	<i>Contract Number and State Project Number</i>	<i>Project Name</i>	<i>Remaining Unpaid Balance **</i>
Michael Baker International, Inc.	CE&I/OV	Contract No.4400013851 Task Order No.H.009308.6 S.P. No. H.009308.6 F.A.P. No. H009308	IDIQ Contract for Construction Engineering and Inspection Services for Safety Projects (CE&I), Statewide New Orleans DPW SRTS Sidewalk Project	\$28,608
	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	\$60,084
	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	\$45,880
Gresham Smith	Road	H.009730.5	LSRP/STRPPP Bonner Street Bridge Pedestrian Improvements	\$1,544
	Road	H.009730.5	LSRP/STRPPP Signs and Striping - St. Landry and St. Martin Parishes	\$ 2,111
	Road	H.009730.5	LSRP/STRPPP Greenwell Springs & Wooddale Sidewalks	\$48,629
	Road	H.013767.5	LRSP/STRPPP Lafourche Signing and Striping	\$ 4,759
	Road	H.013073.5	LRSP/STRPPP Valhi Boulevard Shared Use Path Signing and Striping	\$112,091
	Road	H.015086.5	LRSP/STRPPP DeSoto Signing and Striping	\$42,493
	Bridge	H.009730.5	Complex Bridge Inspection T0#7	\$50,363
	Traffic	H.012018.5	Lafayette Adaptive Traffic Signals	\$ 54,544
	Traffic	H.013720.5	LRSP/STRPPP LA 14	\$70,461
	Planning	H.014629.5	LA 70 at LA 3089 Stage 0	\$118,565
	CE&I/OV	H.009308.6	T0#1 New Orleans DPW SRTS Sidewalk Project	\$ 1,924
	ITS	H.011500.6	Lake Charles ITS Phase 3	\$39,874
	ITS	H.013256.6	I-10 Scott to Lake Charles ITS CEI	\$ 6,881
Vectura Consulting Services, LLC	Traffic	4400017293 H.010616	I-20: LA 544 Overpass Replacement	\$74,429
	Traffic	4400005484 H.005168.2	New Orleans Rail Gateway Avondale EA	\$92,995

<i>Firm(s)</i> <i>ALL FIRMS MUST BE REPRESENTED IN THIS TABLE</i>	<i>Past Performance Evaluation Discipline(s)</i>	<i>Contract Number and State Project Number</i>	<i>Project Name</i>	<i>Remaining Unpaid Balance **</i>
Vectura Consulting Services, LLC	Traffic	H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	\$14,740
	Traffic	4400021519 H.012030.5	KCS RR Overpasses HBI	\$572
	Traffic	4400023075 H.013522	S. Lewis Street Widening	\$7,499
	Traffic	4400018271 H.014746.5	LA 383 Stage 0 Corridor Study	\$22,388
	Traffic	4400018271 H.011242.1	LA 384 (Big Lake Rd to McNeese St)	\$31,827
	CE&I/OV	4400020018 H.007160	EBR Computerized Traffic Signal, Ph VB	\$33,910
	ITS	4400016364 H.015136.4	Northshore Regional ITS Architecture Update	\$11,421
	ITS	4400017922 H.012845.1	C/AV Team and Working Group Support	\$13,949
	ITS	44000020058 H.0115071	Monroe Phase 3 SEA	\$29,217

The Michael Baker team has the resources of a large firm with the familiarity and presence of our Baton Rouge office. We are ready and capable to meet the needs of the DOTD on the local level. **With minimal backlog of road and bridge projects, we are ready to get to work, building on our extensive experience in projects similar in nature, which can be seen in Section 17.**

SECTION
20

CERTIFICATIONS / LICENSES



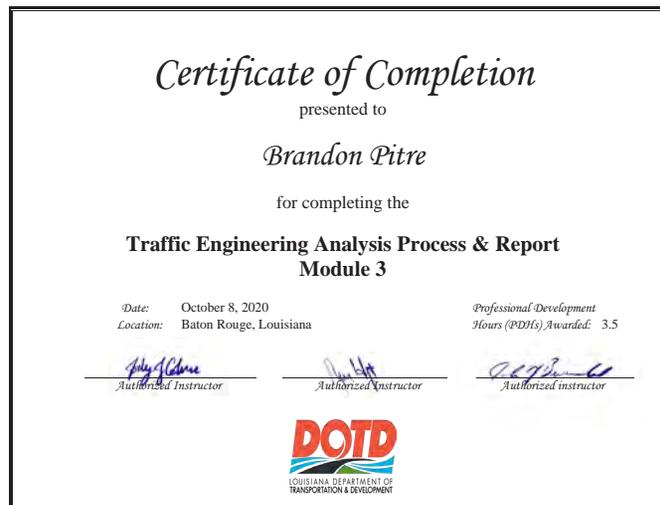
Pictured: West Maple Avenue Roundabout

The Michael Baker Design Team has assigned the necessary resources to achieve success, and each team member has additional depth available to DOTD should needs arise.

20. Certifications/Licenses:

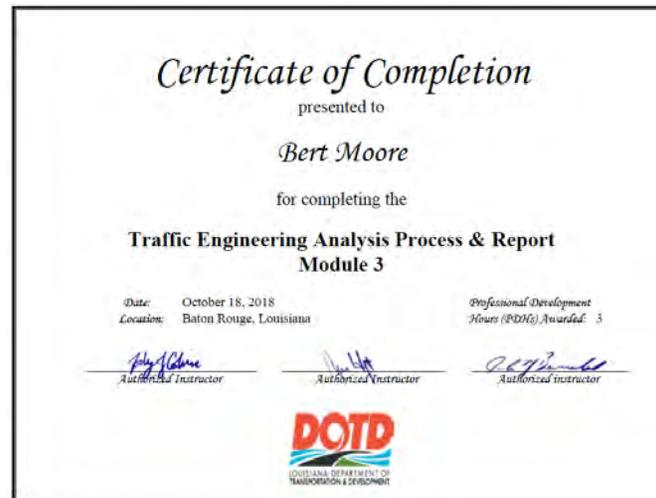
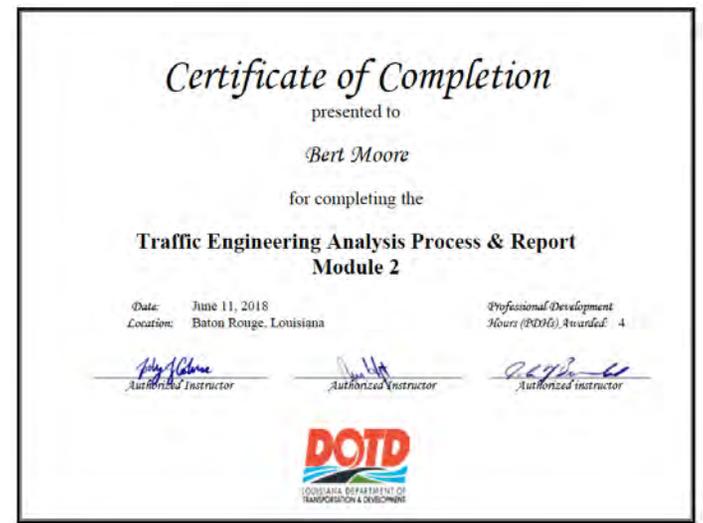
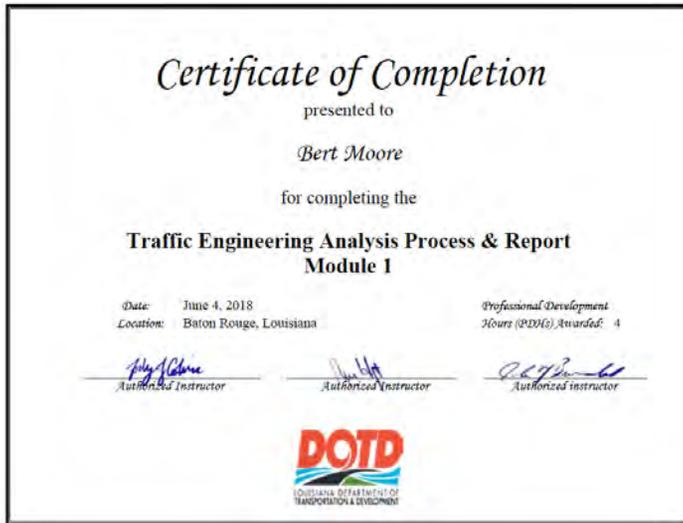
Michael Baker International, Inc.

Brandon Pitre - Traffic Engineering Process & Report Modules 1-3



Gresham Smith

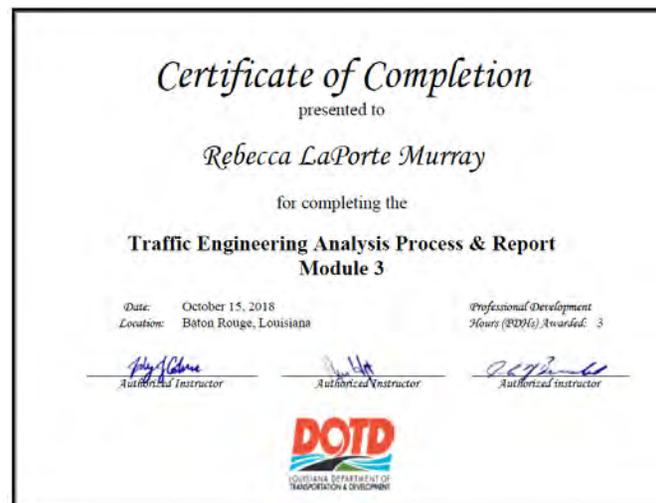
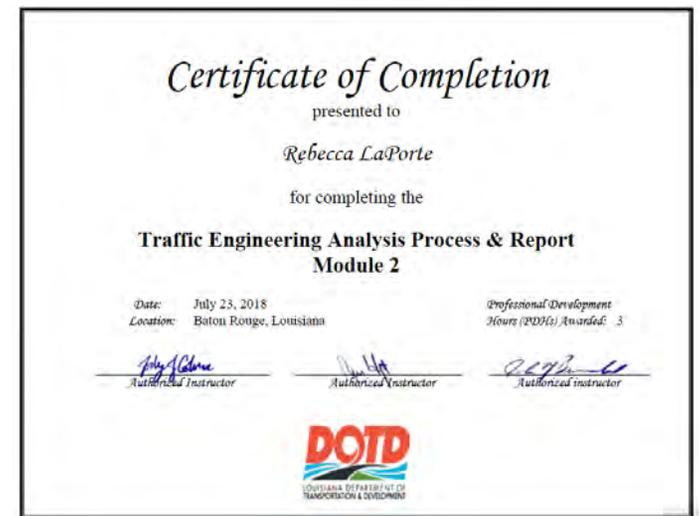
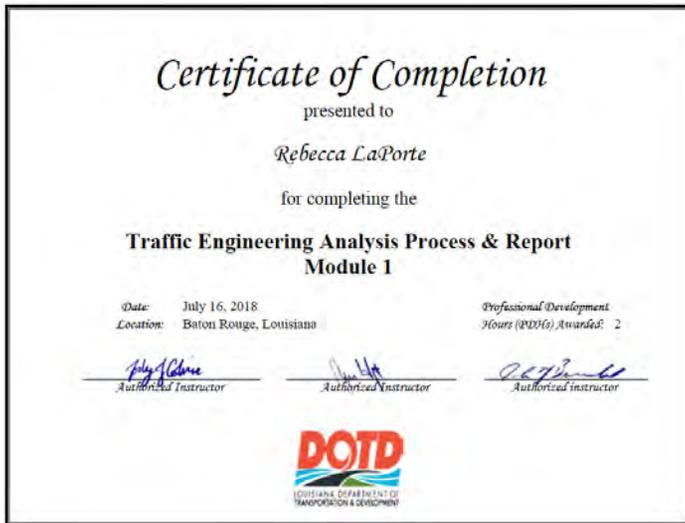
Herbert "Bert" Moore - Traffic Engineering Process & Report Modules 1-3



20. Certifications/Licenses:

Gresham Smith

Rebecca Murray - Traffic Engineering Process & Report Modules 1-3



Vectura Consulting Services, LLC

Laurence Lambert - Traffic Engineering Process & Report Modules 1-3



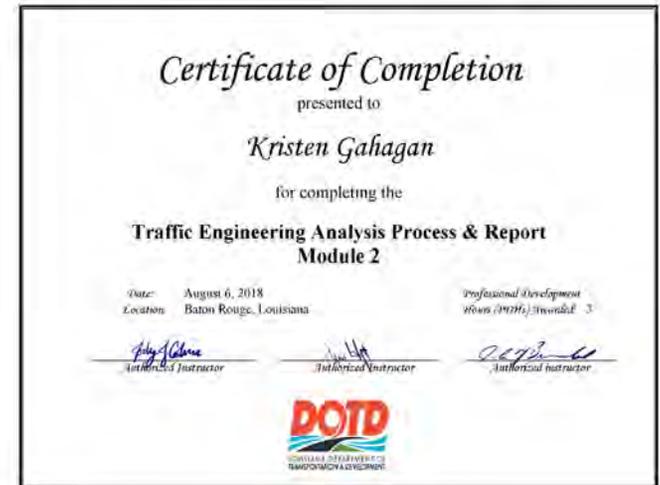
Vectura Consulting Services, LLC

Brin Ferlito - Traffic Engineering Process & Report Modules 1-3



Vectura Consulting Services, LLC

Kristen Farrington - Traffic Engineering Process & Report Modules 1-3



SECTION
21
QA/QC PLAN



Pictured: Paoli Highway and Bridge

Michael Baker has assigned Senior Level Roadway and Bridge engineers to perform QA/QC to meet or exceed DOTD's QA/QC Process.

21. QA/QC Plan

A QA/QC plan prepared by our lead bridge design subconsultant, Gresham Smith, and accepted by Michael Baker, is included on the following pages.



**Gresham
Smith**

DOTD Project No. 44-28434

LA 44: PELICAN POINT ROUNDABOUT AND WIDENING

Bridge Design QC/QA Plan

**Meeting our Client's Needs and Expectations for
TECHNICAL QUALITY, SERVICE EXCELLENCE,
and CONSISTENT PERFORMANCE**

February 2024

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	<ul style="list-style-type: none"> • <i>LA DOTD Final Calculation Book Checklist</i> • <i>LA DOTD Off-System Guidelines – Survey Checklist – Not Anticipated</i> • <i>Gresham Smith DP-7 Checking and Authorization</i> • <i>Gresham Smith DP-10 Developing a Technology Plan</i> • <i>Gresham Smith DPF-71 QC Check Cover Sheet</i> 	
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1.0 INTRODUCTION TO THE BRIDGE DESIGN QC/QA PLAN

A QC/QA program is an essential component of a successful project. The process, when executed properly by a committed bridge team, will eliminate critical errors and conflicts in the ratings and design and improve plan accuracy and quality. Most importantly, the process promotes confidence in the owner and engineer that the rating, design and construction documents reduce liability and financial risk to them. The LA DOTD’s Bridge Design and Evaluation Manual – Revision 9 includes the Department’s *Policy for Quality Control and Quality Assurance* which establishes the process for all bridge designs performed on LA DOTD projects. This QC/QA Plan has been developed with respect to both the LA DOTD and GRESHAM SMITH policies specifically for the LA 44 Pelican Point Roundabout and Widening – Ascension Parish.

1.1 Alignment of LA DOTD and GRESHAM SMITH’S QC/QA Policies

The LA DOTD policy is well aligned with GRESHAM SMITH’S QC/QA program. One key difference in the two policies is that the LA DOTD Bridge QC/QA policy is specific to the design of bridges exclusively, while the GRESHAM SMITH Quality Management System (QMS) is applicable to all disciplines associated with a specific project.

GRESHAM SMITH’S commitment to quality is rooted in our desire to meet our clients’ needs and expectations for technical quality, service excellence and consistent performance. Quality is a pillar within our overall Practice Excellence model and includes a QMS that is built-in to our processes throughout a project life-cycle.

GRESHAM SMITH is a practice-led organization dedicated to the success of our clients and the development of our employees. Through our QMS, we strive for the continuous improvement of our work practices through the consistent application of established processes for the mutual success of GRESHAM SMITH’S clients and the firm. The executive management team is fully committed to our QMS as a means to achieve firmwide operational goals. Our QMS is based on criteria found in the International Standard ISO-9001.

We are committed to accomplishing the following:

- Partnering with our clients to provide them with consistent quality in our deliverables, meeting their needs and expectations, and providing a service experience that results in repeat clients,
- Planning our work so that we deliver on our obligations,
- Providing the tools and processes to our employees to accomplish their work in a consistent and efficient manner,
- Training our employees to meet the requirements of the business and our clients,
- Promoting a practice that fosters collaboration and incorporates innovation,

- Measuring our performance against objectives to confirm we are improving, and communicating results throughout the firm and to our clients,
- Auditing our processes to benchmark new goals, verify compliance through multiple points of feedback, and identify opportunities for improvement,
- Continually improving our QMS to enhance its effectiveness,
- Utilizing a dedicated Quality Director responsible for monitoring the quality system and reporting regularly to the Management Team on the system's implementation, status and effectiveness.

1.2 Responsibility for QC/QA and the LA DOTD's Oversight Role

In conversations with the LA DOTD's staff and from review of the LA DOTD's Bridge QC/QA policy, it is apparent that the primary expectation is that consulting engineers contracting with the LA DOTD take full responsibility for their submittals at all stages of the bridge design process. By the assignment of this responsibility, the LA DOTD's bridge design staff expects to provide oversight on the design process but does not expect to be responsible for the checking of bridge designs and plan documents. Specifically, the LA DOTD's Bridge Task Manager will be responsible for the following project tasks, as described in the LA DOTD's Bridge QC/QA policy:

- Develop the bridge design scope of work, labor estimate, design team personnel requirements, and selection evaluation criteria for preparation of the solicitation.
- Participate in the proposal evaluation committee and the selection of the most qualified design team, evaluating design team qualifications, experience and QC/QA plan.
- Initiate a bridge design/rating kickoff meeting, covering items such as the staffing plan, QC/QA plan, project schedule and budget, share expectations and consultant rating criteria, bridge design criteria, and other project management agenda items per the LA DOTD checklist.
- Review and approve the Design Criteria and TS&L submittals for designs. Coordinate revisions in the Design Criteria with the design team for the project duration.
- Monitor the Design Team's implementation of their QC/QA plan.
- Maintain a Project Log sheet recording all major project activities (Project Meetings, Submittals, LA DOTD Review Comments, Major Decisions, etc).
- Review all Design Team submittals, intended to be a cursory review for constructability, consistency and clarity. These reviews are not intended to be a secondary QC of the Design Team's work.
- Monitor project schedule and milestone deliverables.
- Monitor Design Team effort with respect to scope and budget; process supplemental agreements; monitor claims avoidance.

- Review and approve invoices; verify Design Team staff is consistent with proposal; Review and approve qualifications of replacement staff proposed by the Design Team, if necessary.
- Perform a consultant rating for each formal submittal by the Design Team; share ratings and provide feedback to Design Team.
- Archive final bridge design files.

1.3 Definitions of QC and QA

An understanding of the definition of Quality Control (QC) and Quality Assurance (QA), as well as the responsibilities contained in these processes is an important component of GRESHAM SMITH's QMS and the LA DOTD's Bridge QC/QA policy. These key definitions are summarized below:

- **Quality Control (QC):** This process involves the procedure of checking the accuracy and consistency of calculations and drawings, detecting conflicts, design errors and omissions, and the procedure for resolution of internal comments, correcting and verification of revisions. Also, specific to bridge design, the process verifies that all bridge components are adequately designed for the specified limit stated in the AASHTO LRFD Bridge Design Specifications and the LA DOTD Bridge Design Manual and Memoranda.
- **Quality Assurance (QA):** This process involves the review of the QC documents to verify that the Quality Control (QC) procedure has been completed in accordance with GRESHAM SMITH's QMS and the LA DOTD Bridge QC/QA policy. In addition, the QA process verifies that the QC process was effective in preventing design and plan errors and assuring consistency.

1.4 Evidence/Verification of QC and QA Activities

GRESHAM SMITH's QMS fully documents the QC and QA processes for all intermediate and final submittals, providing evidence to the LA DOTD that our design team has executed the QC/QA procedures in accordance with the policy.

2.0 ROLES AND RESPONSIBILITIES

Meeting or exceeding the provisions of the LA DOTD Bridge QC/QA policy, the GRESHAM SMITH QMS requires that the quality control processes be completed for all design disciplines for all submittals. For this Program, as it pertains to QC/QA, the roles and responsibilities of the design team are described below, with identification of specific staff shown in the Organization Chart.

2.1 Quality Assurance Manager

The QA Manager (Tom Tran, PE) will be responsible for assurance that the QC process has been completed, documented and properly filed in project records. The QA Manager will oversee the communication and training of the QC procedures to the project team, including subconsultants. The QA Manager is responsible for the documentation of this training (sign in sheet, development of the training course) and for filing these documents in the project directory, available for audit. The QA Manager is responsible for certifying that a submittal deliverable has met the requirements of the GRESHAM SMITH QMS and the LA DOTD Bridge QC/QA policy and can be released to the client.

2.2 Original Designers and CADD Design Personnel

The original designers are responsible for preparing original calculations and plan drawings in accordance with the direction provided by the Project Plan and associated pre-planning references and design tools (i.e. – Design Criteria, Technical Task Protocols, Design Tools, Validated Software, etc.). In the QC/QA process, the original designers are responsible for the timely, complete and effective preparation of the calculations and plans, incorporating weekly design coordination directives during the design development. The original designers may be professional engineers or engineering interns.

The original designers are responsible for actively resolving comments received at each level of QC (Discipline, Independent Peer, and Inter-Discipline) and for making the necessary corrections in advance of the next level of QC or QA reviews. All design personnel (Engineering and CADD designers) will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory, available for audit.

2.3 Discipline QC Reviewers

This level of review will be completed by experienced engineers who are responsible for the detailed checking of all calculations, specifications, special provisions and plan documents. For this program, we anticipate this level of review will be performed by GRESHAM SMITH staff or the corresponding subconsultant, as indicated in the organization chart. If the original calculations are prepared by a professional engineer, the Discipline QC reviewer may be either another professional engineer or an

experienced engineering intern. If the original calculations are prepared by an engineering intern, the Discipline Review will be completed by an experienced professional engineer. This approach is in compliance with LA DOTD policy. A LA professional engineer will serve as either the lead design engineer or the QC reviewer.

The Discipline QC reviewer will be responsible for documenting all comments, pursuing resolution with the original designer or detailer and for progressing the QC documents (calculations, plans and QC forms) to completion prior to forwarding to the Independent Peer QC and Inter-Discipline QC reviewers. The Discipline QC reviewers will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory, available for audit.

2.4 Independent Peer QC Reviewers

Independent peer reviews are not anticipated for this project due to the non-complex classification assigned to this project. Should a future supplement or task order require such an evaluation, an amendment to this document will be provided. Standard forms for independent peer reviews are included in the appendix for general reference.

2.5 Inter-Discipline QC Reviewers

This level of review will be completed by Discipline Task Leaders (i.e. – Bridge, Geotechnical, Roadway, MOT, Drainage, Traffic, CADD, etc) who are responsible for an oversight review of the plans intended to identify conflicts between the disciplines and to identify plan consistency issues not identified in the more detailed Discipline QC review. For this project, we anticipate this level of review will be completed by the Discipline Leads, comprising of GRESHAM SMITH and our teaming partners. This level of review is required by GRESHAM SMITH's QMS policy and is not intended to replace the Independent Peer Bridge QC review.

The Inter-Discipline QC reviewer will be responsible for documenting all comments, pursuing resolution with the original designer or detailer and for progressing the QC documents (calculations, plans and QC forms) to completion prior to forwarding to the Quality Assurance Manager for his QA review. All design personnel, including each Inter-Discipline QC reviewer will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory and available for audit.

2.6 Engineer of Record

The Engineer of Record for this project will be assigned by the supervisor or discipline lead on the project team for each task assignment. The Engineer of Record is responsible for the supervision of the calculation, plan and special provision preparation, and is responsible for participation in or oversight of the QC and QA review processes. The Engineer of Record must be licensed to practice engineering in the State of Louisiana; and must have demonstrated experience in the design of



similar structures. In addition to overseeing the calculations and plan submittal thru the QC/QA process, the Engineer of Record is responsible for obtaining the seal and signature of any co-signed sheets in the bridge plans (geotechnical, H&H, etc). The Engineer of Record (EOR) is also responsible for assembling the complete final calculation documents in the format prescribed by the LA DOTD, assuring that all plan sheets include the designer's, design checker's, detailer's and detail checker's initials and for sealing and ensuring special provisions are accurately shown on the construction proposal.

The Engineer of Record will be trained in the QC/QA procedures by the Quality Assurance Manager. Evidence of the training (sign in sheets, copy of training course) will be filed in the project directory, available for audit.

The Engineer of Record for the bridge design related activities for this project is proposed to be John S. Weres, PE, the Louisiana Bridge Manager for GRESHAM SMITH. A separate Engineer of Record may be assigned for a particular bridge project at a later time, but we would consult with DOTD prior to that assignment.

3.0 PRE-PLANNING ACTIVITIES

Both the LA DOTD's and GRESHAM SMITH's QC/QA policies contain careful project execution planning, document control procedures, communication protocols and specific QC and QA procedures.

3.1 Development of the Project Plan

The GRESHAM SMITH team will prepare a Project Plan for distribution to the design team. The plan will contain:

- A project background description and scope summary,
- A design criteria document prepared in compliance with the LA DOTD's checklist. The design criteria document will be submitted to the LA DOTD for review and concurrence,
- Identification of the project team members, organization chart, contact information, and guidance on internal and external communication,
- Identification of all deliverables,
- Project design schedule and task budgets,
- Description of the project directory structure, filing of external communication and file naming conventions, etc.,
- Organization of calculation documents, in compliance with the LA DOTD's QA/QC policy,
- QC and QA procedures, responsibilities and documentation of QC/QA training,
- Specific technical task protocols, design tool templates and design tool validation documentation,
- Templates of all project forms (Letter, Memorandum, Meeting Minutes, Design tool validation forms, Drawing and Calculation QC forms (LA DOTD and GRESHAM SMITH), Quality Assurance forms (LA DOTD and GRESHAM SMITH) to use on the project,
- Description of internal project quality auditing, continual improvement, and client feedback processes.

The project plan is a living document, and will be revised as the design criteria, scope or other internal procedure is revised. As stated in the LA DOTD's QC/QA policy, revisions in the design criteria will be forwarded to the LA DOTD for review and concurrence.

3.2 Project Directory Structure and Bridge Calculation Document Organization

The GRESHAM SMITH QMS policy has established a standardized project directory structure for the documentation of all projects delivered by GRESHAM SMITH. However, this structure may be modified to meet specific requirements of the client and our teaming partners, including the LA DOTD's preferences and file naming requirements as established in the LA DOTD's ProjectWise procedures.

3.3 Development of Technical Task Protocols, Design Tools, and Validation of Software

The design team will prepare technical task protocols for the purpose of documenting and providing detailed direction on specific design tasks. The protocols will provide direction on the specific use of design tools and validated software involved in the completion of the task. The documents will be controlled; revisions to the protocols will be noted by revision number and updated in the Project Plan. All revisions to task protocols will be communicated to design staff. Design Tools (i.e. – Spreadsheets, MathCAD sheets, etc.) will be developed and utilized for specific design calculation functions. All design tools that are prepared will be validated as required by the GRESHAM SMITH QMS, documented, filed and available for audit.

To the extent possible, the design team will select from the pre-approved list of software posted on the LA DOTD Bridge Division website. Before using the pre-approved software, the program will be validated as directed in the GRESHAM SMITH QMS prior to use. For special applications where software not included in the pre-approved list must be used, a synopsis of the software will be provided to the LA DOTD Bridge Design Engineer for approval prior to use. Similar to the pre-approved software, all specialty software will be validated as directed in the GRESHAM SMITH QMS prior to use. It is anticipated that LEAP bridge and MDX will serve as the primary design software with RC-Pier and ConSpan, and /or hand calculations utilized as necessary for various design and analysis components. MIDAS would be utilized for any complex geometry or required finite element analysis, but this is not anticipated for this program.

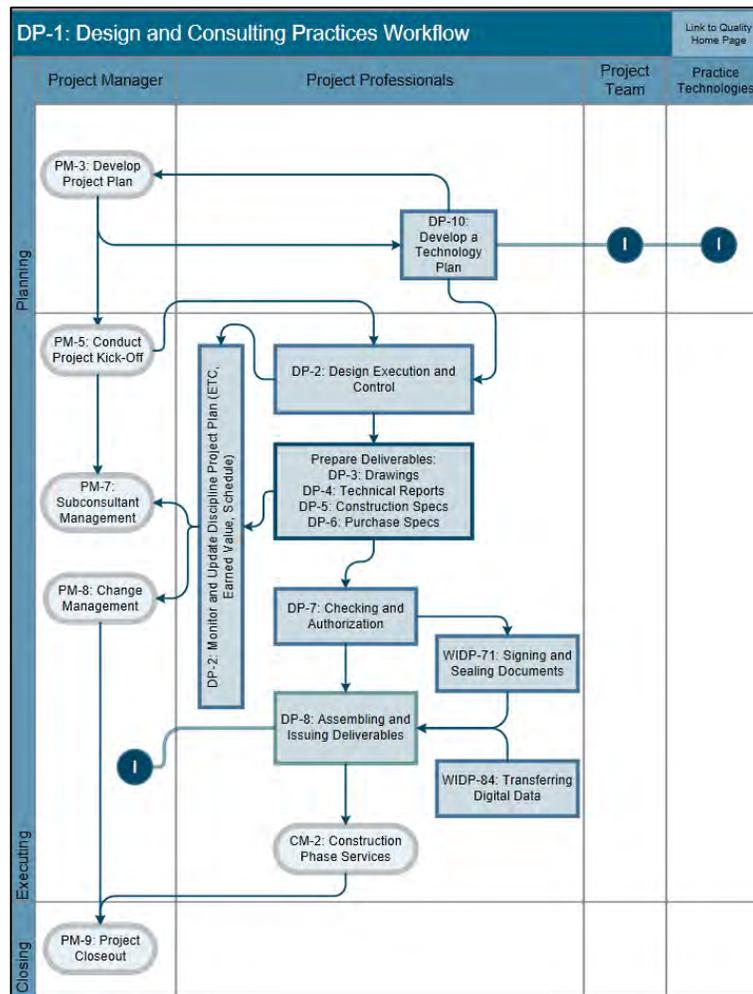
4.0 QUALITY CONTROL AND QUALITY ASSURANCE REVIEWS

4.1 Design Deliverable Activities

The following are the key anticipated milestones for this project:

- Survey
- Hydraulic Reports
- Pre Plan-in-Hand (Prelim Design)
- Plan-in-Hand
- Post Plan-in-Hand
- Environmental & R/W Requirements
- Pre-Advanced Check Prints
- Advance Check Prints
- Borings or Pile Lengths Reviews
- Final Tracings

Specific expectations for each deliverable are summarized in the LA DOTD Bridge QC/QA policy. Prior to each of the formal submittals, a 3-tiered Quality Control (QC) design review will be performed as well as a Quality Assurance (QA) review. The following flow chart represents the GRESHAM SMITH’s design workflow.



4.2 Discipline Level QC Review of Calculations and Drawings

In this first tier of QC review, detailed calculation and drawing review is performed. GRESHAM SMITH's standard Document Checking Process as detailed in Appendix B is supplemented as noted below to blend the standard GRESHAM SMITH process and the DOTD requirements. Preceding the review, design development for the design phase is completed, design activity is in a "pencils down" mode and review sets are produced. In the Discipline QC, each calculation and drawing is thoroughly checked for accuracy, completeness, and for compliance with the project's design task protocols. The reviewer is designated as a senior engineer within the Quality Control Team. The review is documented in the calculations and drawings using a check print stamp and a color-coded mark as indicated below:

- Yellow – Confirmed
- Black – General comment or suggestion
- Red – Correction to be made
- Blue – Indicates correction was made
- Green – Back check and concurrence with comment or other resolution
- Pink – verification by the reviewer that the comment was addressed

Once the Discipline QC review of the calculations is completed, verified and documented using GRESHAM SMITH's-based and LA DOTD-based checklists, the calculations are designated as ready for an independent peer review, as may be appropriate. Similarly, once the Discipline QC review of the drawings is completed, verified and documented using GRESHAM SMITH's-based and LA DOTD-based checklists, the drawings are designated as ready for the Independent Peer QC Review in parallel with an Inter-Discipline QC Review. Issues that cannot be resolved between the Discipline QC reviewer and the original designer will be elevated to the design team leader or deputy project manager for resolution. These processes are described below.

4.3 Independent Peer QC Review of Calculations and Drawings

Refer to Section 2.4 – No Independent Peer Review is anticipated for this project.

4.4 Inter-Discipline QC Review of Drawings

The Inter Discipline Review is a discipline leader and project manager review of the documents; and is intended to be an overall design coordination review to identify potential conflicts in the plans between disciplines (i.e. – Roadway and Geometry, Structures, Drainage, Utilities, Geotechnical, etc.). Preceding the Inter-Discipline review, the Discipline QC review will be completed, design activity is in a "pencils down" mode and a drawing set is produced for review. Similar to the Discipline Review process, comments are provided in black or red, concurrence or other resolution in green, corrections in blue, and verification by the reviewers in pink. Issues that cannot be resolved between

the Inter-Discipline QC reviewer and the original designer will be elevated to the design team leader or deputy project manager for resolution. This review is documented in the Drawing QC checklist form previously discussed.

4.5 Quality Assurance Review of Calculations and Drawings

Once the drawings and calculations have completed the tiered, Discipline QC, Independent Peer QC and Inter-Discipline QC review processes, the submittal is ready for a Quality Assurance review. This review is performed at GRESHAM SMITH by a specifically-trained senior engineer designated to be the Quality Manager for the project. The QA reviewer will examine all documented review materials, including plans, calculations and QC forms for compliance with the GRESHAM SMITH and LA DOTD policies and for completeness. In addition, the QA process verifies that the QC process was effective in preventing design and plan errors and in assuring consistency. Any comments provided by the QA reviewer on the QC process or documentation must be resolved and addressed prior to the QA reviewer approving the design package (plans and calculations) to be submitted.

4.6 Post QA Review Revisions

If for any reason (i.e. – Late inputs or other issue not anticipated) revisions are necessary during or after completion of the QA review, all revisions will be documented on the drawing or calculation check prints and forwarded with revised drawings or calculations to the QA reviewer for a secondary review, prior to submittal.

4.7 Submittal and Filing

Once the QA reviewer has verified that the QC process was completed satisfactorily, they will complete and sign the Document Release Record, allowing the submittal to be released to the client. All calculation, drawing and QC/QA documents will be filed and archived in the project folder, organized and filed by submittal.

5.0 DOCUMENTATION OF COMMENTS/RESPONSES

5.1 Documentation of Internal Comments and Responses

The documentation of all internal comments and resolution will be contained within Discipline QC drawing check prints and forms, calculation review check prints and forms, and in Independent Peer Bridge QC calculation review forms and drawing check prints. Similarly, the documentation of the Inter-Discipline QC comments and resolution will be contained within the drawing check prints and forms. All QC documents will be stored electronically in the project folder and be available for audit.

5.2 Documentation of Client Comments and Responses

At formal submittal client reviews, a comment log will be used to document all comments, by page number. A plan markup may also be provided by the client. The design team will promptly review all comments received and schedule a comment resolution meeting to resolve the comments and set forth an action list to be completed prior to the next formal submittal. Revisions in the action list will be documented on the drawing and calculation Discipline QC review check prints for the next formal submittal.

5.3 Quality Assurance Records

Finally, the documentation of the QA review will be contained within the Document Release Record form at the completion and verification of all QC and QA review activities. All QA documents will be stored electronically in the project folder and be available for audit.

6.0 CONTROL OF SUBCONSULTANT QC PROCESS

GRESHAM SMITH’s approach to project management and delivery is to fully incorporate subconsultants and teaming partners into an integrated project team, as opposed to an approach where subconsultants operate independently, with their deliverables “plugged into” the overall formal submittal. Subconsultants are integrated into the project communication process thru weekly project coordination. Individual subconsultant resources are expected to work as an extension of and inclusive with GRESHAM SMITH’s staff resources. As such, subconsultants are expected to be fully trained in the GRESHAM SMITH QMS policy and to participate in the Discipline QC and Inter-Discipline QC reviews.

As described previously, all project personnel (including subconsultants) will be trained in both the LA DOTD’s Bridge QC/QA policy, as well as GRESHAM SMITH’s QMS policy. The training will be done by the Quality Assurance Manager, or designated Project Manager or Deputy Project Manager familiar with and experienced in the LA DOTD’s Bridge QC/QA policy or GRESHAM SMITH’s QMS policy.

7.0 CLIENT FEEDBACK AND QUALITY AUDITS

7.1 Administrative Oversight and Continuous Improvement

A desired outcome of the GRESHAM SMITH QMS policy is continuous improvement. The process identifies issues where the design team (collectively and individually) can improve design processes and skills. Most importantly, feedback from the client is solicited and incorporated into our process of continuous improvement, for each formal submittal. All project performance issues are discussed internally with the design team in regularly scheduled design coordination meetings throughout the project.

7.2 Internal and External Quality Audits

GRESHAM SMITH's Office of the Risk Management Plan performs independent internal audits of projects to assure that the QC/QA program is being implemented correctly. As all quality records are maintained for each formal submittal in the project directory, all QC and QA documents are available for LA DOTD quality audits at their request.

APPENDIX A – PROJECT PRE-PLANNING GUIDANCE & FORMS

- *LA DOTD Design Criteria Checklist*
- *LA DOTD Project Activity Log Sheet*
- *LA DOTD Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist*
- *GRESHAM SMITH PM-2 Assigning Project Roles & Responsibilities (Page 1 of 12)*
- *GRESHAM SMITH PM-3 Developing/Updating a Project Plan (Page 1 of 9)*
- *GRESHAM SMITH PMF-11 Project Plan Summary*
- *GRESHAM SMITH SS-1 Developing a Safety & Security Plan (Page 1 of 10)*
- *GRESHAM SMITH WIPM-31 Developing a Quality Plan Page (1 of 7)*



THE COVER PAGE OF APPLICABLE GRESHAM
SMITH PROCEDURES AND POLICIES IS
INCLUDED IN THIS DOCUMENT. THE FULL
PROCEDURE WILL BE INCLUDED IN THE
OPERATIONAL VOLUME OF THE QC/QA PLAN

APPENDIX B – DISCIPLINE & INTER-DISCIPLINE QC FORMS

- *LA DOTD Final Calculation Book Checklist*
- *LA DOTD Off-System Guidelines – Survey Checklist – Not Anticipated*
- *GRESHAM SMITH DP-7 Checking and Authorization (Page 1 of 13)*
- *GRESHAM SMITH DP-10 Developing a Technology Plan (Page 1 of 5)*
- *GRESHAM SMITH DPF-71 QC Check Cover Sheet (Pages 1 & 2 of 2)*



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DOTD Project No. 44-28434
LA 44: Pelican Point Roundabout and
Widening – Ascension Parish
Bridge Design QC/QA Plan

APPENDIX C – INDEPENDENT PEER REVIEW BRIDGE QC FORMS

Not Required for this Bridge Project.

APPENDIX D – QUALITY ASSURANCE & DELIVERABLE RELEASE RECORD FORMS

- *LA DOTD QA Information Package Checklist*
- *LA DOTD QC/QA Certification*
- *LA DOTD Consultant Submittal QC/QA Certification*
- *GRESHAM SMITH QM-5 Internal Project Auditing (Page 1 of 11)*
- *GRESHAM SMITH QMF-52 Corrective Action Report Form (Page 1 of 1)*
- *GRESHAM SMITH WIDP-71 Signing and Sealing Documents (Page 1 of 18)*



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PROCEDURE WILL BE INCLUDED IN THE
OPERATIONAL VOLUME OF THE QC/QA PLAN



SECTION 22

SUBCONSULTANT INFORMATION



Pictured: Shier-Rings Road Roundabout

The Michael Baker team includes local bridge design specialists from Gresham Smith, and local traffic engineering specialists from DBE firm Vectura Consulting Services. Each of these team members has a history of working for DOTD, and with Michael Baker, on similar projects.

22. Sub-consultant information:

Firm Name (Name must match as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
Gresham Smith	10000 Perkins Rowe, Suite 280 Baton Rouge, LA 70810	Herbert "Bert" Moore II bert.moore@greshamsmith.com	225-757-5849
Vectura Consulting Services, LLC	4467 Bluebonnet Boulevard, Suite A Baton Rouge, LA 70809-9639	Sheelagh Brin Ferlito bferlito@vecturacs.com	225-223-6685

SECTION
23
LOCATION



Pictured: Scudder Falls Bridge

The Michael Baker Team looks forward to supporting DOTD on this project from our local Baton Rouge offices.

23. Location:

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

Not applicable.

The logo for Michael Baker International, featuring the name "Michael Baker" in a bold, dark blue sans-serif font, enclosed within a white rectangular box. The background of the entire slide is a dark blue color with a large, stylized orange arrow pointing from the top-left towards the bottom-right. A thick orange horizontal bar is positioned at the bottom of the slide, partially overlapping the arrow's path.

Michael Baker

I N T E R N A T I O N A L

PRIME FIRM:

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Baton Rouge, Louisiana 70808