

# IDIQ CONTRACT FOR TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS (TSMO) PROGRAM STATEWIDE, LA

## CONTRACT NO. 4400025921

Prepared for LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT Prepared by STANTEC CONSULTING SERVICES INC.

APRIL 11, 2023



## **DOTD FORM: 24-102**

PROPOSAL TO PROVIDE CONSULTANT SERVICES

(Revised January 1, 2023)

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 IN-ACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

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

1.	Contract title as shown in the advertisement.	IDIQ Contract for Transportation Systems Management and Operations (TSMO) Program
2.	Contract number(s) as shown in the advertisement	No. 4400025921
3.	State Project Number(s), if shown in the advertisement	N/A
4.	Prime consultant name (as registered with the Louisiana Secretary of State where such registration is required by law)	Stantec Consulting Services Inc. Stantec
5.	Prime consultant license number (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	EF.0003506
6.	Prime consultant mailing address	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	1200 Brickyard Lane Suite 400, Baton Rouge, LA 70802
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	Mike Bruce, PE, Senior Principal (225) 765-7400   mike.bruce@stantec.com
9.	Name title, phone number, and email address of the official with signing authority for this proposal	Mike Bruce, PE, Senior Principal (225) 765-7400   mike.bruce@stantec.com



10.	This is to certify that all information contained herein is accurate and true, and that the team presently has sufficient staff to perform these services within the designated time frame. By submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also certifies and agrees that the following information is correct: In preparing its response,	Signature (shall be the same person as #9):			
	and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. DOTD reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.	Signature above shall be the same person listed in Section 9: Date: April 11, 2023			
11.	If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal and each firm(s)' percentage.	Firms(s)Firm(s)'%:Vectura Consulting Services, LLC5%Marmillion/Gray Media, Inc.3%			



#### 12. Past Performance Evaluation Discipline Table:

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

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

Past Performance Evaluation Disciplines	% of Overall Contract	Stantec Consulting Services Inc. (Prime)	Neel- Schaffer, Inc.	ITS, LLC	Applied Research Associates, Inc.	Ventura Consulting Services, LLC (DBE)	Marmillion/Gray Media, Inc. (DBE)	Each Discipline must total to 100%
Road	5%	100%	0%	0%	0%	0%	0%	100%
Bridge	5%	100%	0%	0%	0%	0%	0%	100%
Traffic	5%	25%	25%	25%	0%	25%	0%	100%
CE&I/OV	1%	100%	0%	0%	0%	0%	0%	100%
Planning	20%	10%	45%	0%	45%	0%	0%	100%
ITS	59%	67%	6%	21%	0%	6%	0%	100%
★ Other (Stakeholder Outreach)	5%	25%	0%	0%	5%	5%	65%	100%
Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.								
Percent of Contract	100%	55%	14%	14%	9%	5%	3%	100%

**\*** We anticipate Stakeholder Outreach to be a key component to the success of the Program Implementation

#### 13. Firm Size:

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

Firm Name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Stantec Consulting Services Inc.	Principal	1	3
Stantec Consulting Services Inc.	Supervisor Engineer	1	3
Stantec Consulting Services Inc.	Engineer	15	5
Stantec Consulting Services Inc.	Planner	7	6
Stantec Consulting Services Inc.	Engineer Intern	6	6
Stantec Consulting Services Inc.	Technician	2	1
Applied Research Associates, Inc.	Engineering Aide	1	1
Applied Research Associates, Inc.	Planner	1	1
Applied Research Associates, Inc.	Engineer	1	13
Intelligent Transportation Systems LLC	Principal	2	3
Intelligent Transportation Systems LLC	Supervisor Engineer	1	1
Intelligent Transportation Systems LLC	Engineer	1	1
Intelligent Transportation Systems LLC	Engineer Intern	0	1
Intelligent Transportation Systems LLC	Technician	0	6
		• •	Other
	Project Manager (non-engr)	1	0
Intelligent Transportation Systems LLC	IT Professional	0	2
	Business Development Mgr	0	1
	Senior Advisor	0	1
	Admin/Clerical	0	1
Neel-Schaffer, Inc.	Engineer	2	2
Neel-Schaffer, Inc.	Supervisor - Eng.	1	1
Marmillion/Gray Media, Inc.	Principal	1	2
Marmillion/Gray Media, Inc.	Graphics	1	2
Vectura Consulting Services, LLC	Supervisor	2	2
Vectura Consulting Services, LLC	Engineer	2	4
Vectura Consulting Services, LLC	Technician	1	3

#### 14. Organizational Chart:

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



Stantec Consulting Services Inc.



Reece Rodrigue, PE, PTOE, RSP1

#### 15. Minimum Personnel Requirements:

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

MPR No.	<b>Personnel being used to meet the MPR</b> (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the Advertisement)	Firm employed by	Type of license and discipline meeting MPR/ certification & number (EX: PE # - Civil)	State of license	License / certification expiration date
1.	Mike Bruce, PE	Stantec	PE #20397 - Civil	LA	9/30/2024
2.	Mike Bruce, PE	Stantec	PE #20397 - Civil	LA	9/30/2024
3.	Katherine Thimmesch, PE, PMP	Stantec	PE #41462 - Electrical	LA	09/30/2023
4.	Joey Lefante, PE, PTOE	Stantec	PE #37244 - Civil PTOE #3560	LA	09/30/2024
_	Stephen Mensah, PhD, PE, PTOE, RSP1	Stantec	PE #38591 - Civil PTOE #3960	LA	9/30/2024
5.	Matt Davis, PE, PTOE	Stantec	PE #38947 PTOE #3914	LA	09/30/2024
6.	Derrick Goudeau, PE	Stantec	PE #33288 - Electrical	LA	09/30/2023
7	Kyle Irvin, PE, PTOE, IMSA III	Stantec	PE #31680 - Civil	LA	09/30/2023
/.	Jonathan Fox, PE, PTOE, PMP	INTELLIGENT TRANSPORTATION Systems°	PE #33277 - Civil PTOE #2329	LA	9/30/2023 11/7/2025
8.	Jonathan Fox, PE, PTOE, PMP	INTELLIGENT TRANSPORTATION SYSTEMS®	PE #33277 - Civil PTOE #2329	LA	9/30/2023 11/7/2025
9	Gordon Mosher	Stantec	N/A	LA	N/A
2.	Joseph (Keith) Palermo, PE, PLS	Stantec	PE #27665 - Civil	LA	09/30/2024

#### 16. Staff Experience:

FIRM EMPLOYED	BY	Stantec Consulting Se	rvices Inc.				
NAME	Mike Bruce, PE	1		YEARS OF RELEVANT EXPERIENCE WITH THIS EMPLOYER	37		
TITLE	TITLE Senior Principal			YEARS OF RELEVANT EXPERIENCE WITH OTHER EMPLOYER(S)	7		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1978   Civil Engin	eering			
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 20397   LA   9/	30/2024			
YEAR REGISTERED	1983	DISCIPLINE	Civil Engineering				
Contract role(s) / brief description of responsibilities	Mike will serve as <b>PRINCIPAL-IN-CHARGE</b> for this contract. He has over 40 years of experience in the design and management of transportation related projects, including comprehensive expertise in innovative intersections, the preparation of construction PS&E packages for roadway and bridge projects, master plan projects, and feasibility studies for transportation networks. The complexity of his transportation experience ranges from minor urban street rehabilitation, to rural highways, urban interstate construction, including geometrics for many major interstate interchanges. Mike meets the following Minimum Personnel Requirements (MPRs) as specified in the advertisement for this project: 1.2						
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the time specified in the applicable MPR(s).						
01/13 - 07/16	<b>DOTD RETAINER CONTRA</b> Principal-in-Charge. Under LA 86 & LA 320 Roundabou	<b>CT FOR TRAFFIC ENGIN</b> this retainer, Stantec des ut (New Iberia) and LA 44	<b>EERING ROAD MANAG</b> signed five roundabout p 47 / I-12 Interchange. M	EMENT   DOTD H.4400002748   Statewide, LA projects, including: Cleo Road, US 79 Bypass at LA 9, LA 75 Roundabout ike oversaw the contract and provided oversight during plan developme	s (Plaquemine), nt.		
07/15 - Ongoing	I-49 LAFAYETTE CONNECTOR   DOTD Contract No. H.004273.5   Lafayette, LA Traffic Manager. Mike is responsible for overseeing traffic tasks, coordinating with project management to provide traffic resources for the project. The project includes a comprehensive Vistro model of the Lafayette area, as well as additional analyses using TransCAD, VISSIM, and Sidra software packages. Project follows the Access Justification Request (AJR) guidelines established by DOTD and FHWA, and includes a VISSM model of the core area calibrated to DOTD standards.						
04/15 - Ongoing	LA 30 (NICHOLSON DRIVE) ROADWAY IMPROVEMENTS (LSU TO SOUTH BOULEVARD)   DOTD   Baton Rouge, LA Principal-in-Charge. Mike oversees the Stantec team, including roadway, structural and traffic engineers assigned to the project. The project is part of a City-State road transfer agreement, and as part of this process, Stantec began with a study to identify feasible improvements for the corridor. In addition to the improvement identified along LA30, the I-10 exit ramp terminus will be relocated to facilitate traffic movements and be compatible with development plans along the corridor. Bids for construction were received 3/9/22, and Stantec is providing DOTD Construction Support services during the ongoing construction phase. This includes answering RFI's, reviewing shop drawings, and attending construction progress meetings as requested by DOTD.						
05/13 - 03/19	<b>ESSEN LANE WIDENING   DOTD   Baton Rouge, LA</b> Principal-in-Charge. Mike oversaw traffic signal plans for four intersections along Essen Lane that were impacted by the widening. Traffic signal plans consist of providing all new traffic signal equipment along with fiber optic communications between the traffic signals. Multiple site visits were held to ensure feasibility of traffic signal equipment locations and avoid interference with utilities. Plans were developed according to the latest MUTCD, DOTD and City of Baton Rouge Standards and Specifications. This project required coordination with Stantec's Roadway group, DOTD, and the City of Baton Rouge.						
08/09 - Ongoing	I-49 INNER CITY CONNEC Principal-in-Charge. Mike s final nationwide link of I-49 effort along with developm critical because potential of will also provide input to co	<b>Louisiana Council of Governments   Shreveport, LA</b> Stantec sub-consulting to Providence Engineering. The 3.5 mile route to the existing I-49/I-220 interchange. Stantec is leading the traffic stu he Stage 0 Feasibility Study. Public involvement for the I-49 Inner-City 0 heighborhood where previous efforts to provide this link were not well ro t of environmental investigations, and ultimately the context sensitive	will provide the Idy and impacts Connector is eceived. Stantec design elements.				



05/12 - 12/21	<b>GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN   DOTD   Baton Rouge, LA</b> Principal-in-Charge. Mike oversaw quality assurance and examined improvements to increase safety and access management on Government Street between I-110 and Jefferson Highway. Stantec evaluated traffic data, developed conceptual alternatives, and accounted for the DOTD Complete Street Policy. The project rehabilitates and restripes existing roadway from a 4-lane section to a 3-lane section (Road Diet). Restriping the roadway allows the reclaimed pavement to be used to provide multi-modal and streetscape improvements. Bike lane improvements and vegetative median islands were added to the corridor and sidewalks were brought up to ADA compliance. This project includes a single-lane roundabout with bypass lanes designed for the Lobdell Avenue intersection, complete street improvements, access management and community enhancements. Stantec provided construction support services during construction, which was completed at the end of 2021.
04/01 - 04/02	LA 1 CONNECTOR   DOTD   West Baton Rouge, LA Principal-in-Charge. Mike oversaw the initial corridor study and phase II corridor study used to identify a potential initial corridor that considers evacuation needs, economic impacts, and preliminary project costs.
10/15 - 04/16	<b>CAPITAL REGION INDUSTRY FOR SUSTAINABLE INFRASTRUCTURE SOLUTIONS   CRISIS   Baton Rouge, LA</b> Principal-in-Charge. Mike led TransCAD modeling for 21 regional mega-projects to prioritize and determine their potential impact on the regional roadway network. This analysis compared annual hours saved across the regional network to project construction costs for each option. His team prepared conceptual construction costs based on Stantec's experience building large projects for DOTD and FHWA. Additional analysis on alternative funding sources for the proposed projects were performed, including tolling revenues and the potential impact of toll diversions on each project.
01/07 - Ongoing	<b>BATON ROUGE LOOP IMPLEMENTATION PLAN AND TIER 1 EIS   DOTD Contract No. 700-17-0212   Baton Rouge, LA</b> Principal-in-Charge. Mike oversees Stantec's responsibilities for this ongoing Stage 0 and Stage 1 effort. The project began with developing an Implementation Plan for the Capital Area Expressway Authority. This first phase was a one-year contract to determine possible corridors, impacts and a financial package for the construction of a loop through 5 parishes, including two crossings of the Mississippi River. Serves as Principal-In-Charge for engineering components including corridor selection, traffic improvement benefits, design criteria, typical sections, cost estimates and potential right-of-way required. This project involves extensive coordination with affected agencies including the 5 parishes, DOTD, FHWA, Coast Guard and US Army Corps of Engineers, as well as, public outreach and public participations.
04/11 - 06/15	US 61 - TULANE AVENUE, STAGE 1 – ENVIRONMENTAL ASSESSMENT   New Orleans, LA Principal-in-Charge for this project to assess Tulane Avenue as a candidate for the reduction of roadway lanes to provide for bike lanes, parking lanes and a widened median. He also served as a secondary channel of communication for the RPC and DOTD as they seek to improve visual quality along the corridor and enhance pedestrian and bicycle mobility and safety.



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FIRM EMPLOYED	BY	Stantec Consulting Ser	rvices Inc.			
NAME	Stephen Mensah, PhD, PE,	PTOE, RSP1		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	11	-
TITLE	Associate, TSMO Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	5	
DEGREE(S) / YE	ARS / SPECIALIZATION		PhD   2007   Civil Infrastruct Engineering	ure Systems in Transportation; MS   2002   Civil Engineering; BS	199	8   Civil
ACTIVE REGISTI	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 38591   LA   09/30/20	024		
YEAR REGISTERED	2013	DISCIPLINE	Civil Engineering; PTOE #39	50, 2013		
Contract role(s) / brief description of responsibilities	Stephen is a TSMO engineer, with over 16 years of experience, specializing in TSMO planning, analysis, and performance monitoring. His work experience includes highway safety analysis, traffic impact studies, systems engineering analysis, regional ITS architecture development and traffic signal design. He has a long-standing history of planning for and implementing TSMO strategies with DOTs throughout the country. He has built relationships with agencies and stakeholders throughout Louisiana through his planning work delivering Regional ITS Architectures for nearly every MPO in the state. As a project manager, Stephen has delivered many TSMO- oriented projects collaboratively with his clients to meet their needs while working within budget and schedule. Stephen served as a member of the TRB Committee for Application of Emerging Technologies to Design and Construction, which brings valuable experience and lessons-learned to this contract. Bringing a strong technical TSMO background along with long-standing relationships and proven project implementation experience, Stephen will be the <b>PROJECT MANAGER</b> for this contract. <b>Stephen meets the Minimum Personnel</b>					MEETS MINIMUM LADOTD PERSÓNNEL REQ.
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	cover	the years
2021 - Ongoing	ATCMTD GRANT PROJECT FOR ICM DSS   TENNESSEE DEPARTMENT OF TRANSPORTATION   NASHVILLE, TN   SYSTEM ENGINEERING ANALYST TDOT was awarded an ATCMTD Grant from USDOT with a goal of deploying an integrated corridor management (ICM) decision support software (DSS). Currently, ICM DSS is primarily accomplished utilizing a traffic simulation model specific to the corridor. This project aims to replace the traffic simulation model with artificial intelligence, creating a proof of concept that can be duplicated in other corridors around the United States. Stephen contributed to development of the Data Management Plan, Project Evaluation Plan to help USDOT and TDOT analyze evaluate the benefits of the AI-DSS in ICM applications. Stephen is currently using existing operations data to baseline various performance metrics that will then be used to evaluate the performance of various operation strategies that include variable speed limit signs, lane control signals and surface street signal operations and timing.					
06/11 - Ongoing	<b>LOUISIANA REGIONAL ITS ARCHITECTURES   DOTD   STATEWIDE, LA</b> Project Manager. Developed regional architecture and ITS deployment plans for several metro areas, including Shreveport, Lafayette, New Orleans and Baton Rouge, based on the National ITS Architecture. These regional architectures are important and help metro areas manage traffic and ensure public safety on highway system which directly impacts socioeconomic activities in these areas. Organized and participated in stakeholder meetings/interviews to define project scope and developed planning documents to guide ITS developments for five to ten year time frame. Developed the planning document by identifying current and emerging issues in transportation mobility and safety for the metro areas, proposed systems and requirements to address the issues, developed communication data flow diagrams using Turbo Architecture. Used a structured approach to develop the regional ITS architectures so that the systems implemented are relevant and meet user needs, resilient and adaptable. Stephen is currently developing the Statewide ITS architecture document which will guide DOTD ITS planning for 10 years.					
07/15 - Ongoing	I-49 LAFAYETTE CONNECTOR   DOTD   Lafayette, LA TSMO Engineer. Stephen is responsible for the safety analysis of interchange designs providing inputs for crash mitigation. The scope of the safety analysis included historical crash analysis to understand safety performance within the corridor and how that would impact TMP. Stephen further developed an IHSDM model of the corridor to predict and evaluate safety performance of various geometric alternatives considered for the project, and to guide selection of a build alternative that fosters safety for all road users.					ysis ISDM i build



02/18 - 08/20	ALEXANDRIA ITS PHASE 3   DOTD CONTRACT NO. 011505   ALEXANDRIA, LOUISIANA   SYSTEM ENGINEERING ANALYST Stephen performed the system engineering analysis to guide the successful implementation of the project by reducing risk and ensuring user needs are met to improve mobility and safety on the US 71 and LA 28 corridors in Alexandria, Louisiana. The activities involved traffic signal communications upgrades, traffic monitoring, traveler information and communications. Stephen coordinated with stakeholders to elicit needs, develop the concept of operations and the requirements that had to be met during design to ensure stakeholder needs for operations and maintenance are met. This project will save users time and ensure safer corridors for operation. During emergencies such as fog or icy conditions on I-49, this corridor will be a more resilient detour route to help mitigate congestion.
03/18 - 01/19	<b>TENNESSEE STATEWIDE ITS ARCHITECTURE   TDOT   STATEWIDE, TN</b> TSMO Engineer. Performed gap analysis of existing ITS deployments and assessed opportunities for enhancements. Coordinated and participated in public meetings with diverse stakeholder groups in Tennessee to determine needs in transportation mobility and safety, and proposed TSMO strategies based on existing infrastructure and emerging technologies in ITS. Used the Regional Architecture Development for Intelligent Transportation (RAD-IT) developed by FHWA to develop system requirements, communications flow diagrams, and applicable standards to guide deployment of devices and ensure consistency with the Architecture Reference for Cooperative and Intelligent Transportation (ARC-IT). The statewide planning document detailed needs and requirements to guide ITS developments into the future. Used a structured approach to develop the ITS architectures so the systems implemented were relevant, resilient, and adaptable, and met user needs. This document has gone on to inform the Statewide TSMO Program Plan.
03/16 - 04/16	<b>DOTD TMC STANDARD OPERATING PROCEDURE   DOTD CONTRACT NO. 4400001465   BATON ROUGE, LA  SYSTEM ENGINEERING ANALYST</b> Stephen reviewed and updated the Standard Operating Procedure document to guide TMC Operations for the Louisiana Department of Transportation and Development. This included guidance on traffic monitoring and management, incident management, traveler information and emergency operations procedures. This document defined the roles and responsibilities of TMC operations staff to achieve management objectives especially in the use of specific systems or tools for management of traffic, coordination with first responders and other stakeholders. The document also covered responsibilities of all staff for a safe work environment at the TMC.
03/14 - 06/14	<b>BATON ROUGE ITS PHASE 3 SEA   DOTD CONTRACT NO. H.006831   BATON ROUGE, LOUISIANA   SYSTEMS ENGINEERING ANALYST</b> Performed the requisite system engineering analysis for communications, detection (Bluetooth) and travel time message signs to guide the successful implementation of this project. The analyses provided the performance requirements to meet user needs for mobility and safety. This project will save users time, mitigate congestion especially on the Mississippi River Bridge, and enhance safety in the corridors.
03/14 - 3/15	<b>SOUTH CAROLINA STATEWIDE ITS ARCHITECTURE   SCDOT   STATEWIDE, SC</b> TSMO Lead. Developed the Statewide ITS deployment plan for South Carolina based on the National ITS Architecture. This Statewide document guides the deployment of ITS devices and programs in South Carolina and help metro areas manage traffic and increase public safety on highway system which directly impacts socioeconomic activities in these areas. The document also addressed transit related ITS needs as per Federal Transit Administration requirements. Stephen organized and participated in stakeholder meetings/interviews to define project scope and developed draft planning documents to guide ITS developments for ten year planning horizon. This was achieved by identifying current and emerging issues in transportation mobility and safety for South Carolina and proposed systems and requirements to address the issues, developed communication data flow diagrams using Turbo Architecture. Stephen used the systems engineering analysis approach to develop statewide ITS architectures so that the systems implemented are relevant and meet user needs, resilient and adaptable. The work effort included identifying funding opportunities to carry out the plan.
10/12 - 02/16	US 90Z NEW ORLEANS HOSPITALITY ZONE   DOTD   New Orleans, LA TSMO Engineer. Stephen performed safety analysis to determine the abnormal crash zones and overrepresented crashes in the crash data for the project scope to improve mobility and safety in downtown NOLA by deploying ITS to manage traffic. Analysis yielded inferences on the causative issues for crashes in the corridor and the countermeasures required to mitigate them. Analysis outcomes informed the TMP required to manage traffic during construction and successfully deploy ITS devices to enhance mobility and safety. An effective TMP is required to ensure road user and construction worker safety and reduce client exposure to litigation from crashes.
05/12 - 12/17	<b>GOVERNMENT STREET ROAD DIET: STUDY THROUGH FINAL DESIGN   DOTD   Baton Rouge, LA</b> TSMO Engineer. Stephen was responsible for the safety analysis of implementing a road diet and bike lanes along this corridor. Substantive safety analysis was based on methodology prescribed in the HSM and Human Factors Guide. Safety and traffic analysis outcome helped develop conceptual alternatives to increase traffic safety and improve access management on this corridor. Stephen performed a crash analysis of the existing corridor for the Stage 0 study to identify high accident locations.

FIRM EMPLOYED BY		Stantec Consulting Services Inc.				
NAME	Michael Holt, PE, PTOE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	4	
TITLE	Sr. Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	28	
DEGREE(S) / YEA	ARS / SPECIALIZATION					
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 35451   LA   09/30/20	024		
YEAR REGISTERED	2000 (GA), 2010 (LA)	DISCIPLINE	Civil Engineering			
Contract role(s) / brief description of responsibilities	Michael (Mike) is the <b>QA</b>	/QC MANAGER for th	nis contract.			
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	l cover	the years
04/19-04/23	TENNESSEE DOT ITS ENG Project Manager and QA/QU document to develop the ne conduit and pull boxes, fibe message signs (DMS) and from Caryville to Kentucky S Construction is ongoing.	INEERING SERVICES C Manager for ITS desig eeds analysis for the pro r optic cable, splice clos environmental sensor sy State Line (over Jellico N	n services through a task-orde posed ITS solution. Design for sures, hubs and device cabinet ystems (ESS), as well as require Mountain); I-40 from Newport t	r contract. All projects required preparation of a Systems Enginee all projects utilized Ethernet fiber optic communications systems s. ITS devices included CCTV cameras, radar detection systems ( ed power services. Projects included: SR 115/US 129, Knoxville and o North Carolina state line; I-269 from Mississippi state line to I-4	ring A s, inclu RDS), ea; I-7 0, Mei	nalysis ıding dynamic '5 nphis.
10/13-10/18	<b>GEORGIA DOT ON-CALL SIGNAL AND ITS DESIGN, GEORGIA</b> Project Manager and QA/QC Manager for task-order contract to provide TSMO, signal and ITS design services, including 30 design task orders. All projects included concept reports, surveying, SUE services, environmental documentation, utility coordination, right-of-way coordination, and collaboration between District offices, as well as the Offices of Traffic Operations, Environmental Services, Utilities, Right-of-Way and Program Delivery. Provided design team leadership, including guality control/guality assurance (OC/OA) implementation.					
08/19-04/23	ROCK HILL TRAFFIC MANAGEMENT SYSTEM, ROCK HILL, SOUTH CAROLINA Project Manager and QA/QC Manager for planning and design of a Traffic Management System (TMS) for the City of Rock Hill to provide detour routing around highway-railroad grade crossings using ITS technology applications. Scope included: coordination with Norfolk Southern Railroad; preparation of an ITS implementation plan, Concept of Operations and Systems Engineering Analysis; development of signal timing plans; evaluation of signal phasing and traffic operations; and concept, preliminary and final plans and specifications development. Design included fiber optic communications infrastructure, signal installations modifications, CCTV cameras, dynamic message signs (DMS) and blank-out signs (BOS) that are activated through the signal system software upon railroad pre-emption inputs. Once complete, the system will notify approaching motorists of railroad crossing closures through DMS messaging and route them to grade separated crossings through BOS messaging.					
02/16-02/19	SANDY SPRINGS ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS), SANDY SPRINGS, GEORGIA Project Manager and QA/QC Manager for design and construction administration of an Adaptive Traffic Control System (ATCS) at 50 intersections within the city of Sandy Springs, implemented through two phases. Scope includes concept report, base mapping, and detector design for existing traffic signals for expansion of the City's Split Cycle and Offset Optimization Technique (SCOOT) ATCS deployment. Sensys wireless puck detectors, repeaters, and access points were designed for connection to the city's existing signal cabinets. Mike provided coordination with SCOOT and Sensys vendor to perform a detector survey and evaluate optimal equipment locations.					
07/11-12/12	<b>CENTRAL BROWARD ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS), BROWARD COUNTY, FLORIDA</b> Project Coordinator for a \$9 million Florida DOT TSMO project for design, construction, and integration of 30 miles of arterial ATMS. Project components included fiber communications, closed-circuit television (CCTV) cameras, dynamic message signs (DMS), microwave vehicle detection systems (MVDS), automated vehicle identification (AVI) readers, Bluetooth readers, Transit Signal Priority system, and traffic management center (TMC) integration. Responsible for contract administration, design coordination, field reviews, and constructability reviews.					



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FIRM EMPLOYED BY		Stantec Consulting Services Inc.					
NAME	Jolie Maberry, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	4		
TITLE	Traffic Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	8		
DEGREE(S) / YEA	RS / SPECIALIZATION		BS   2004   Civil Engineering				
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 40513   LA   09/30/20	24			
YEAR REGISTERED	2016	DISCIPLINE	Civil Engineering				
Contract role(s) / brief description of responsibilities	Jolie has 12 years of experience working on major traffic projects. Jolie has been instrumental in managing the facilitation of projects under the MOVEBR program, overseeing other consultants' work. She has conducted and managed feasibility studies, impact studies, coordinated and managed traffic and line grade tasks, and preliminary cost estimates for proposed improvements. Jolie will perform <b>DOTD LIAISON</b> for this contract.						
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc.						
07/19 - Ongoing	MOVEBR PROGRAM MANAGEMENT   City of Baton Rouge   Baton Rouge, LA Delivery Project Manager. Management of all aspects of the Florida Blvd and North Blvd corridor enhancement projects including RFQ development, consultant management, schedule development, meeting setup and coordination, coordination between the consultant, The City and The State, scope review, project updates, project costs, coordination between projects, and communication with MOVEBR Program Team and City. Manage all design, scheduling, budgeting, and City-State coordination of the Synchronization & Communication Project and the Advanced Traffic Management Project. DOTD Traffic liaison for all MOVEBR Enhancement projects which require communication and coordination with DOTD.						
06/19 - 11/19	<b>EXXON MOBIL BRPO TRAFFIC IMPACT STUDY   Exxon and DOTD   Baton Rouge, LA</b> Traffic Engineer. Jolie performed a safety analysis, HCS7 analysis of existing, no build, and build conditions; alternative development, report development, coordination with Exxon and DOTD. This project included preparation of a Traffic Impact Study to determine any potential impacts to Scenic Highway as a result of BRPO maintenance work. Recommendation for any geometric, lighting, or safety improvements.						
01/17 - 12/18	I-10 CORRIDOR STUDY: LA 415 TO ESSEN ON I-10 AND I-12, STAGE 1 ENVIRONMENTAL ASSESSMENT   DOTD   Baton Rouge, LA Project Engineer, Co-Project Manager. Jolie coordinated and managed traffic and line grad tasks, developed line and grade alternatives and preliminary cost estimates for proposed improvements using AASHTO standards and guidelines, public outreach (meetings, materials and presentation), developed public information and agency involvement plans, participated as technical staff at public meetings, coordinated public events, and prepared decision documents. This project included a Stage 1 study of I-10 through Baton Rouge to develop feasible improvements and to obtain an environmental decision to implement improvements to I-10 and I-12 from the LA 415 interchange to the I-10 and I-12 interchanges at Essen Lane.						
06/15 - 12/18	I-49 INNER CITY CONNECTOR, STAGE 1 EIS   DOTD   Caddo Parish, LA Project Engineer, Co-Project Manager. Jolie organized traffic efforts, developed line and grade alternatives and preliminary cost estimates using AASHTO guidelines, assisted with document preparation and project coordination, and public outreach including presentations and public meetings. She performed a traffic analysis utilizing HCS7 for all interchange alternatives. This project included Stage 1 EIS for the proposed I-49 Inner City Connector in Shreveport, LA. Engineering and environmental clearance on construction of a 3.5-mile connector through an inner-city neighborhood.						
06/12 - 10/14	<b>GREEN LIGHT PLAN (GLP), PROGRAM MANAGEMENT   East Baton Rouge Parish, LA</b> Engineering Intern. Jolie assisted in all aspects of the project including master budget review, design contracts and processing through the City-Parish, environmental assessments, plan reviews, conceptual designs, design meetings with the consultant, RFQ preparations, and preparation of bid packages. This project improved roadway infrastructure by constructing new roads, widening existing roads, improving intersections, and upgrading signalization and synchronization.						



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FIRM EMPLOYED BY		Stantec Consulting Services Inc.						
NAME	Katherine Thimmesch, PE,	PMP		YEARS OF RELEVANT EXPERIENCE WITH THIS EMPLOYER	2			
TITLE	Electrical Engineer			YEARS OF RELEVANT EXPERIENCE WITH OTHER EMPLOYER(S)	7			
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2012   Electrical Engi	neering	Mppmg			
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 41462   LA   9/30/2	2023	LADOTD			
YEAR REGISTERED	2017	DISCIPLINE	Electrical and Computer Engi   OSHA 10 Hr. Construction, 2	Electrical and Computer Engineering   Certified Project Management Professional, 2013				
Contract role(s) / brief description of responsibilities	Katherine has 11 years of experience in project management, which includes more than 9 years of design and development of electrical syster PMP and current project manager on ITS contracts, Katherine is well-suited to serve as <b>DEPUTY PROJECT MANAGER</b> for this contract. Kather consistently managed client and stakeholder relations along with project challenges to produce quality deliverables in line with the project's de schedule. As an Electrical Engineer, she is responsible for the preparation of plans and specifications (design and development) of electric pov engineering projects including ITS, roadway lighting design, power systems analysis and pump station design. Katherine is well-versed in Stant and DOTD's Project Management Controls including initiating projects with task order proposals, invoicing, schedule tracking, and project close Katherine will be a second line of defense, working with Stephen to ensure that DOTD's needs are being met, resources are properly allocated t each task order, and that individual task orders as well as the overall contract are staying on schedule. <b>Katherine meets the Minimum Persor</b> <b>Description</b>							
Experience dates (mm/yy - mm/yy)	Experience and qualifications specified in the applicable MP	relevant to the proposed co R(s).	ontract; i.e., "Designed drainag	e", "designed girders", "designed intersection", etc. Experience dates should	cover the time			
07/20 - Ongoing	I-10 WBR QUEUE WARNING ITS DEPLOYMENT   DOTD CONTRACT NO. H.013482   PORT ALLEN, LA Project Manager. Katherine was responsible for manging the delivery of and preparing design plans and specifications for deployment of TSMO strategies in West Baton Rouge to address an area with extremely high rates of crashes and fatalities. This project aims to increase traffic incident monitoring coverage with new CCTV camera sites, flashing beacons, Dynamic Message Signs and radar vehicle detectors. The system will also provide network connectivity to existing ITS devices along the route and provide twenty miles of new fiber optic backbone. When constructed and operational, the project aims to warn drivers in advance of slow and stopped queues leading into Baton Rouge, which may become even more prevalent during the I-10 Widening Construction through Baton Rouge. Katherine will continue working on this project by providing technical support during construction.							
03/20 - Ongoing	I-10 US-61 TO LAPLACE ITS DEPLOYMENT   DOTD CONTRACT NO. H.013710   LAPLACE, LA Project Manager. Katherine was responsible for managing the delivery of and preparing design plans and specifications for expansion of the ITS system betwee Baton Rouge and Laplace. While the TSMO strategy of assigning MAP to patrol the corridor was put in place years prior, a gap has been created through a lack ability for the TMC to identify incidents to dispatch the MAP personnel to as well as a lack of ability to monitor and manage traffic around MAP personnel assis motorists in the corridor. This project aims to increase traffic incident monitoring coverage with 8 new CCTV camera sites and fifteen miles of new fiber optic backbone and connecting new and existing devices to existing fiber optic backbone. Now under construction, Katherine continues to be involved in this project providing technical support during construction.							

07/20 - 06/21	I-12 RAMP METE UPGRADES   DOTD   BATON ROUGE, LA Electrical Engineer. The intent of the project was to implement the TSMO strategy of adaptive operation to the 10 existing westbound ramp meters along the Interstate 12 corridor to further optimize the operations of the ramp meters. Katherine assisted with the effort to analyze new, forward-firing radars at these ramps to test the capabilities of new detection devices as a pilot project. After completion of the pilot testing, Katherine assisted with the design effort to modify the existing sites to support adaptive operation.
09/20 - 06/21	I-110 ITS DEPLOYMENT   DOTD CONTRACT NO. H.013261   BATON ROUGE, LA Electrical Engineer. Katherine is assisting with shop drawing reviews, field inspection and other construction related engineering services during the completion of this project. This project aims to increase traffic incident monitoring coverage with 5 new CCTV camera sites and upgrades to 4 existing CCTV camera sites. The project is also providing network connectivity to 20 existing traffic signal cabinets and 3 existing drainage pumping stations along the 8-mile interstate segment. The communications for the project included three miles of new fiber optic backbone and connecting new and existing devices to existing fiber optic backbone. These improvements will allow DOTD to activate new TSMO strategies such as real-time arterial signal management, integration of freeway and arterial facilities, as well as resiliency with improved monitoring and remote activation capabilities for the pump stations at locations that regularly flood and cause hazardous conditions on I-110.
01/13 - 12/18	<b>RETAINER CONTRACT FOR ITS DESIGN SERVICES STATEWIDE*   DOTD Contract No. 4400009327   Statewide, LA</b> Project Manager. Project Engineer: For the duration of this retainer, Katherine assisted the team performing design and construction services for Intelligent Transportation Systems projects for a \$3M design contract for LADOTD. Design services included preparation of construction plans, specifications and special provisions, feasibility studies, construction cost estimates, and engineering calculations (including voltage drop calculations and structural analysis). Katherine also provided construction related engineering services for several projects including shop drawing and submittal reviews.



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FIRM EMPLOYED BY Stantec Consulti		Stantec Consulting Ser	vices Inc.				
NAME	Eric Plapper, AICP			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1	2	
TITLE	Senior Associate			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	11		
DEGREE(S) / YEA	RS / SPECIALIZATION		Master of City and Regional Bachelor of Arts   2010   His	Planning   2013   Transportation tory			
ACTIVE REGISTE	ATION NUMBER / STATE / E	XPIRATION DATE	AICP No. 33312   N/A   3/31	/2024			
YEAR REGISTERED	2021	DISCIPLINE	N/A				
Contract role(s) / brief description of responsibilities	Eric will serve as the Pillar 2: <b>PROGRAM SUSTAINMENT LEAD</b> responsible for the development of engagement, outreach, training, and policy tasks. He has led major TSMO, ICM, and CAV initiatives for the Federal Highway Administration (FHWA); state DOTs including Florida, lowa, Tennessee, and Virginia; and municipal, transit, and MPO agencies. Eric specializes in helping agencies identify and scope TSMO, ICM, and CAV projects; collaborating with large stakeholder groups; and practical integration of emerging technologies as an extension of traditional ITS strategies.						
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cover the yea	ars	
07/19 - 12/22	TSMO/CAV GENERAL ENGINEERING CONSULTING   FLORIDA DOT   STATEWIDE, FL Eric was the planning lead and served as a strategic advisor to executive leadership on this contract to implement FDOT's \$500M TSMO/CAV program. Led and supported dozens of task orders including: updates to the CAV Business Plan; development of program and project-specific performance measures; needs assessment and feasibility analysis for new CAV and ITS concepts; systems architecture, concept of operations, and requirements documents for 10+ projects; development of project scopes, cost estimates, and procurement materials; development of the Department's vehicle-to-everything data exchange platform; and development of training materials for Department staff.						
10/21 - 12/22	UPDATES TO THE TSMO I Eric was a technical subjec TSMO leaders at state DOT including multimodal trip p	DESK REFERENCE   FHV t matter expert to FHWA s and MPOs; review of th lanning, CAVs, and crowd	VA   WASHINGTON, DC in updating the TSMO Desk Re ne entire document to recomm dsourced traveler information/	eference. Tasks included convening an external advisory panel co end edits and new sections; and developing content to reflect nev big data.	mprised of w industry tre	ends	
06/20 - 12/22	<b>DES MOINES INTEGRATED</b> Eric led the personal mobilit Outputs included the develo services partners; provided	<b>CORRIDOR MANAGEM</b> y work group, which cons pment of concept for an complete trip support to	ENT   IOWA DOT   GREATER D sisted of municipalities, transit integrated mobility data platfor travelers; and integration with r	<b>ES MOINES AREA, IA</b> agencies, MPOs, human services, and economic development stak m that ingested data from Iowa DOT, municipal and transit agencie amp metering bus on shoulder operations.	eholders. s, and humar	n	
05/17 - 09/18	I-24 SMART CORRIDOR   TE Eric contributed to the I-24 dynamic message signage, developing the implementa	NNESSEE DOT   NASHVIL Smart Corridor deploym and upgraded and coord tion plans, including the	<b>LE, TN</b> ent in Tennessee, which includ dinated arterial signals to esta system architecture, concept	ed new fiber connectivity, infrastructure-based connected vehicle blish a smart, integrated corridor management system. Eric's su of operations, and system requirements, for numerous deployme	e technology, pport include nts.	٤d	
01/21 - 07/22	HAMPTON ROADS BRIDGE-TUNNEL   VIRGINIA DOT   NORFOLK, VA Eric supported the development of systems engineering deliverables for all ITS components of the largest highway construction project in state history. His role included conducting an inventory of existing systems and developing a concept of operations covering traffic monitoring and detection, lane use and variable speed limit control, overheight and dangerous cargo intrusion prevention, traffic management center monitoring, and other ITS devices.						
01/19 - 09/19	2020-2040 ITS STRATEGIO Eric led the development of a infrastructure, traffic detection two new programs for smart	C PLAN   TRIBOROUGH all emerging technology c on and incident managem t city initiatives and autom	BRIDGE AND TUNNEL AUTHO components for TBTA's 20-year nent, advanced traffic managem nated vehicle supportive infrast	<b>RITY (TBTA)   NEW YORK, NY</b> funding plan. Specific components included investments in commu ent, and traveler information systems. Additionally, he made recom ructure	nications mendations fo	or	



01/17 - 2/18	AUTOMATED VEHICLES AND SHARED MOBILITY   JACKSONVILLE TRANSPORTATION AUTHORITY   JACKSONVILLE, FL Eric led this project to assist JTA in conceptualizing the incorporation of various transportation technologies into their transit system. This project involved developing a concept of operations for an automated, electric, shared transit; route and station design for a pilot project; developing procurement specifications for vehicles and charging infrastructure; and stakeholder engagement. Supported BUILD grant to fund first phase of Ultimate Urban Circulator.
01/17 - 12/17	<b>OPERATIONS CONTROL AND COMMUNICATION CENTER SYSTEMS FUNCTIONAL REQUIREMENTS   TBTA   NEW YORK, NY</b> Eric led the development a concept of operations for an ITS and connected vehicle system to deliver height restriction warnings to trucks entering TBTA-owned bridges and tunnels. He conducted an inventory of existing conditions, accounted for New York City DOT Pilot applications, and worked with stakeholders to develop a concept that met user needs.
04/16 - 12/16	<b>SMART COLUMBUS   CITY OF COLUMBUS   COLUMBUS, OH</b> Eric was a key contributor to the successful Smart City Challenge application, leading the development of the technology components in the Linden neighborhood which included safety, mobility, and transit CAV and traffic signal enhancements, smart mobility hubs, non-emergency medical transport for expectant mothers, smart street lighting, and the development of an integrated data exchange. He assisted in recruitment of project partners including CAV and ITS technology providers. Following award, he was instrumental in establishing the Smart Columbus Program Office, assisting the City with negotiating cooperative agreement and budget with USDOT, performing consultant evaluation, and assisting with partner and vendor management.
01/15 - 07/16	SMART WORK ZONE INITIATIVE TECHNICAL ASSISTANCE   FHWA   WASHINGTON, DC Eric supported numerous projects under the Every Day Counts initiative to promote work zone safety throughout the country. He developed presentations and white papers and supported peer-to-peer exchanges to promote project coordination and technology application adoption by state DOTs. Additionally, Eric oversaw collection of work zone mobility data throughout the country by performing interviews with state DOTs in order to inform FHWA on the state of the practice. He also reviewed 2 submittals under a university grant program for technical accuracy and quality on behalf of the client.
10/14 - 12/15	ACTIVE TRANSPORTATION AND DEMAND MANAGEMENT   FHWA   WASHINGTON, DC Eric was actively involved in this FHWA initiative to promote active transportation demand management (ADTM) practices at the state and local levels. In support of this initiative he developed presentation modules on key topics for FHWA and others to use in webinars and conferences. Additionally, Eric contributed to journal articles, including identifying the interplay between ATDM concepts and connected vehicle technology.



FIRM EMPLOYED BY		Stantec Consulting Services Inc.				
NAME	Joey Lefante, PE, PTOE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	14	125
TITLE	Senior Associate, Traffic /	ITS Engineer		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0	A Star
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2008   Civil Engineering		J	MEETS
ACTIVE REGISTI	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 37244   LA   09/30/20	024		LADOTD
YEAR REGISTERED	2012	DISCIPLINE	Civil Engineering   PTOE #35	60, 2013		REQ.
Contract role(s) / brief description of responsibilities	With over 14 years of experience working on major traffic and ITS projects, Joey has played an integral role in corridor management throughout Louisiana. He has experience with corridor studies, SEAs, and TMPs, as well as plan design and construction administration. His experience using various analysis software packages, including TransCAD, Synchro, and VISSIM, allows him to determine innovative transportation solutions tailored to each individual situation. Joey will serve as <b>PROJECT MANAGER AND TRAFFIC DESIGN TASK LEAD</b> for this contract. <b>Joey</b> <b>meets the Minimum Personnel Requirements (MPRs) #4</b> .					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates shoul	d cover	r the years
08/08-03/11	I-12 BATON ROUGE RAMP METERING   DOTD CONTRACT NO. 701-65-1308   BATON ROUGE, LOUISIANA Traffic Engineer. Built, calibrated, and ran detailed VISSIM microsimulation models for the I-12 Ramp Metering Pilot study. Investigated the performance and effects of different ramp metering techniques and timing plans. Compiled MOE's including travel time, speed, and volume showing the effects of the ramp metering system on the performance of the I-12 mainline. During the subsequent design and development of detailed signal plans determine the appropriate location of the ramp meter equipment and stop bars, complying with DOTD clear zone requirements, AASHTO required acceleration lengths, and preferred storage lengths. Performed field testing of equipment including tweaking cycle lengths and phase clearance intervals, and adjusting the placement of both stop bar detection and advance detection zones to ensure recognition of individual vehicles.					
09/12-04/16	US 90Z New Orleans Hospitality Zone Ramp Meters   DOTD Contract No. H.010011   New Orleans, LA Traffic Engineer   Joey was responsible for collecting data, including traffic counts and traffic signal inventories. He built a VISSIM model to model existing conditions on the Pontchartrain Expressway corridor in downtown New Orleans and then determined areas for improvement in lane configuration, signal timing, and equipment deployment. Joey also participated in several stakeholder meetings to gain a deeper understanding of the factors contributing to congestion as well as the needs of the different road users. After completing the traffic plan, Joey designed and detailed ramp meter signal plans for seven on-ramps in downtown New Orleans. He determined the location of ramp meter equipment, accounting for queue storage, processing speeds, and length requirements of on- ramps. He also detailed traffic control plans for frontage road lane closures. This project was unique in that all of the signal equipment was structure mounted					ng timing, tion s in ts of on- ounted.
08/14-Ongoing	<b>I-49 LAFAYETTE CONNECTOR   DOTD CONTRACT NO. H. 004273   LAFAYETTE, LA</b> Traffic Task Manager. Joey is responsible for coordination with DOTD traffic staff and managing analysis of various geometric design alternatives. Project include a comprehensive Vistro model and additional analyses using TransCAD, VISSIM, and Sidra software packages. Project follows the Access Justification Request (AJR) guidelines established by DOTD and FHWA. Joey has been involved in the Context Sensitive Solutions (CSS) process, attending community meetings. Feedback from the CSS process has informed changes to ramp layouts and interchange design and has enabled Stantec to redesign several key elements to emphasize urban design principles, including pedestrian and bicycle accommodations.					ct includes Request Igs. Is to
04/11-06/15	I-210 COVE LANE INTERC Traffic Engineer. Joey deve traffic volumes for 28 poss Bridge over Contraband Ba the traffic models.	HANGE AND ROUNDABC loped an Interchange Jus ible design alternatives, you and the Ameristar Ca	<b>DUT   DOTD CONTRACT NO. H</b> stification Report (IJR) for I-21 which took into account and a asino and Hotel development.	.010151   LAKE CHARLES, LA 0 between Cove Lane and Nelson Road interchanges. He develop ccommodated for all future developments in the area, including t Joey coordinated collection of traffic counts and performed field	ed pea he Nel calibr	ak hour Ison Road ation of

FIRM EMPLOYED BY		Stantec Consulting Services Inc.				
NAME	Cindy Hall, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	30	
TITLE	Principal, Transportation I	nfrastructure Engineer		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0	
DEGREE(S) / YEA	RS / SPECIALIZATION		BS   1992   Civil Engineering			
ACTIVE REGIST	ATION NUMBER / STATE / E	XPIRATION DATE	PE No. 27073   LA   09/30/20	023	-	
YEAR REGISTERED	1997	DISCIPLINE	Civil Engineering			
Contract role(s) / brief description of responsibilities	Cindy's 30 years of experience have included the design and project management of various civil and transportation projects. As Roadway Division Manager, Cindy manages the productivity of the roadway staff and oversees the quality of the plans and specifications developed by the Roadway Division. She has also served as project manager on many transportation projects including interstate and interchange improvements, rural arterials, and urban roadways with subsurface drainage and traffic signalization. Cindy has been involved in numerous projects implementing innovative geometric solutions including continuous flow intersections, a diverging diamond interchange and roundabouts. She has also recently been involved in three Design-Build projects for DOTD. In addition to her transportation experience, Cindy has designed and managed many wastewater pipeline and pump station projects over the course of her career. Cindy will provide <b>WORK ZONE</b> <b>MANAGEMENT STRATEGIES</b> for this contract and is current on her Traffic Control Supervisor Training.					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cove	<sup>r</sup> the years
11/12 - 3/23	PERKINS ROAD (SIEGEN TO PECUE) WIDENING TRAFFIC STUDY, ENVIRONMENTAL ASSESSMENT (EA), PRELIMINARY PLANS, FINAL PLANS AND RIGHT-OF-WAY MAPS   City of Baton Rouge Contract 12-CS-HC-0015   Baton Rouge, LA Project Manager. Under the MOVEBR Program, Stantec recently completed Final Plans for Perkins Rd. from Siegen Ln. to Pecue Ln. using MOVEBR design criteria. This 2-lane to 4-lane divided roadway widening project accommodates the increase in traffic and improves travel efficiency along this corridor by introducing access management principles which have been shown to increase capacity and safety. Partial median openings and u-turn movements with bulb outs are being provided along the corridor. Cind managed all final design including roadway and traffic signal plans, subsurface drainage and culvert design, and complex traffic control plans to keep the public moving during construction.					
08/19 - Ongoing	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   DOTD   Kenner, LA Design Manager. Cindy manages this multimillion-dollar project that will improve access and traffic operations to and around the new Northfield Terminal. Cindy is overseeing the design and plan preparation efforts to add two directional ramps, I-10 Westbound to Loyola Southbound & Loyola Northbound to I-10 Eastbound. Cindy has worked with the contractor to develop phased construction plans and design unit plan sets to construct critical path items first. She has worked with the D-B team to implement cost/schedule savings through design modifications and alternative material selections. Cindy's team has worked closely with stakeholders to facilitate lane closures for construction at optimal times in accordance with the project's TMP.					
04/11 - 06/15	I-210: COVE LANE INTERCHANGE AND IMPROVEMENTS PROJECT   DOTD   Lake Charles, LA Roadway Engineer. Cindy was responsible for the sequence of construction and maintenance of traffic plans for this complex tight diamond interchange which required ramps elevated on MSE walls, two new bridges and surface street improvements including a new roundabout. Cindy was also responsible for the Level 2 Transportation Management Plan required for the project including safety and traffic analyses and traffic management strategies.					
11/09 - 08/12	Transportation Management Plan required for the project including safety and traffic analyses and traffic management strategies. I-12 WIDENING DESIGN-BUILD   DOTD Contract No. 454-02-0071   Livingston Parish, LA Lead Roadway Engineer. Cindy was responsible for Stantec's roadway design efforts to widen a four-mile stretch of Interstate, from the Amite River to the Juban Road interchange. Design included widening, removal, overlay and replacement of various pavement sections, ramp deceleration lane improvements, and widening of the Gray's Creek Bridge, and the 4-H Club Road and Range Avenue overpasses. The project required extensive maintenance of traffic and traffic control plans on this heavily traveled stretch of interstate. In addition to designing the construction plans, Cindy was actively involved in the construction phase, assisting the contractor by developing quality, cost-effective solutions that met or exceeded contract scope requirements.					



#### **Stantec Consulting Services Inc.** FIRM EMPLOYED BY NAME Graeme Masterton, MA YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER 4 Co-Lead, Venue and Event Mobility Planning 15 TITLE YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S) BA | 1994 | Urban Planning DEGREE(S) / YEARS / SPECIALIZATION ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE N/A YEAR N/A N/A DISCIPLINE REGISTERED Over the past 35 years Graeme has been involved in the planning, implementation and operations of transit services with a focus on long range Contract role(s) / brief description and corridor planning. Since 2008 he has also been involved with and led mobility plans for venues, resorts and major events ranging from of responsibilities the Olympics to working with the NFL on a league wide review and creation of best practices for mobility operations. As an urban planner, he understands the symbiotic relationship that exists between transport and land use but also brings operational experience from transit services through to mobility services at major events - including the planning and implementation of infrastructure and staffing required to make the plans a reality. Graeme has held leadership positions in three different transit agencies and been the lead for long range plans in communities that range in size from 2,000 people to 2 Million. Graeme has worked throughout North America and the UK on transport projects with an increasing speciality in multimodal systems as solutions rather than single mode plans. Recent long range public transport plans have included transportation demand management, micromobility, transport hubs, autonomous vehicles and mobility as a service as recommendations. Recently he led the formation of a formalized planning processes for venues that received an industry first, SAFETY Act Designation from the Department of Homeland Security. Recently he led the multiyear review of Winnipeg Transit and the creation of a new network for the future that includes high quality transit service to the Winnipeg Airport. Graeme is the transit planning lead for Stantec and co-lead of the Venue and Events Mobility Planning group. Graeme will provide SPECIAL EVENT MANAGEMENT ADVICE for this contract. Experience and gualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years Experience dates (mm/yy - mm/yy) of experience specified in the applicable MPR(s). AMALIE ARENA | SPP DEVELOPER | TAMPA, FL 06/22 -Project Technical Lead on a review and update of the existing operations plan for the Amalie Arena (Tampa Bay Lightening) including traffic operations, signage and Ongoing wayfinding, pedestrian movements, micromobility, parking and staffing to create a new base plan for future development in the surrounding area. 11/22 -LSU JOPP UPDATE | LOUISIANA STATE UNIVERSITY | BATON ROUGE, LA Ongoing Technical Lead for a review and update of the current transportation operations plan for Tiger Stadium (a.k.a. Death Valley) with a capacity of 102,000. This will include the creation of existing operations plan in map format, on site observations, using location based data to analysis, regional and local traffic movement to and from the site, and then update the plan to channel pedestrian movements away from key intersections, traffic movements and parking along with improved wayfinding and signage plans, staffing plan and signal timing plan for events. 06/21 -DOME TRAFFIC STUDY | SYRACUSE METROPOLITAN TRANSPORTATION COUNCIL | SYRACUSE, NY Project Manager working with SMTC (Syracuse Metropolitan Transportation Council the regional planning agency) and Syracuse University to create four Ongoing documents – A review of best practices, a review of existing conditions, a strategic plan and then to create a venue based transportation operations plan for the future post I-81 deconstruction. Multimodal Planning lead and PM working with Populous Architecture, we have completed the first two key documents and have drafted a strategic plan that will lay out the foundational rationale for the operations plan and any proposed interventions. 09/21 - 12/21 PRELIMINARY OPERATIONS PLAN | TAMPA BAY RAYS | TAMPA, FL Working for the Tampa Bay Rays, Graeme was the transportation planning lead for the Phase 1 study of a potential ballpark site. This included a review of the existing transportation network, identification of the existing and needed transportation services and infrastructure to conduct a fatal flaw analysis and determine that the site could function from a transportation perspective.



08/21 - 03/22	<b>BEXAR DISTRICT TRANSPORTATION OPERATIONS REVIEW   SAN ANTONIO SPURS AND RODEO   SAN ANTONIO, TX</b> Phase 1 of a multiphase review of the rodeo lands that contains the AT&T Center (San Antonio Spurs), the rodeo grounds and the Freeman Coliseum. Stantec was contracted to create a design program for development of the site over a long term period with a goal to integrate the site into the community and attract year round audiences. Acted as the Multimodal Transportation Planning lead for a review of the ingress and egress from the site for Spurs games and the rodeo and preparation of short term recommendations for infrastructure that would improve the visitor experience and be used as the basis for a funding request.
04/21 - 07/21	FEDEX FIELD TRAFFIC AND PARKING REVIEW   WASHINGTON COMMANDERS   MARYLAND Multimodal Lead on the team that conducted a review of the existing conditions at FedEx Field for the Washington Football Team to look for short term solutions to parking and congestion issues at the ballpark. Wayfinding and Signage, Parking Pass tiers, and physical layout of the parking areas were considered with short term options created for the 2021-22 season.
01/20 - 03/21	<b>MONMOUTH COUNTY EVENT OPERATIONS PLAN   MONMOUTH COUNTY   MONMOUTH COUNTY, NJ</b> Stantec worked with Monmouth NJ County and the New Jersey Transportation Planning Authority to study a number of destinations including Gateway National Parkway. Graeme was the multimodal planning lead. Our team conducted an in-depth interview with resort area stakeholders to understand the challenges faced managing visitors during the peak summer months. We studied visitation data by mode, hours of operation, transit and rail service access, pedestrian and bike facilities, internal improvements to facilitate beach and fishing access, bike rental locations, ferry pick up and drop off locations, and opportunities to improve services. We then developed a Transportation Demand Management toolbox for the study from which we could draw upon for each of the sites.
03/17 - 10/20	<b>BELMONT GARDENS TRANSPORTATION PLAN   STERLING PROJECT DEVELOPMENT/EMPIRE STATE DEVELOPMENT CORP   NEW YORK, NY</b> Multimodal and Transit lead in the creation of a Transportation Management Plan including three main plans: Demand Management Strategies, Monitoring Plan and Operating Plan for the FEIS process for the new UBS NHL Arena, Hotel and high value retail site. This included creation of regional and local wayfinding signage plans, personnel plans, internal and external shuttle services, parking and communications, revised infrastructure design, queuing options, ride hailing infrastructure, LIRR station connections, parking and ticketing.
06/19 - 02/20	OHIO STATE UNIVERSITY VENUE OPERATIONS REVIEW   OHIO STATE UNIVERSITY   COLUMBUS, OH Co-lead on a review of three separate venues during operations including OSU Football, Schottenstein Center (basketball, concerts), and the Covelli Centre (wrestling, volleyball) for travel patterns, parking, traffic, transit, pedestrian, rideshare and scooter travel patterns for ingress and egress. Identified vehicle, transit and personnel constraints or issues for the venues and created 100+ infrastructure, operational and wayfinding options and evaluated and prioritized them to create a phasing plan for The OSU. This includes mapping of the issues and changes, operational and personnel changes, flow pattern changes, ridehailing infrastructure, transit priority lanes and queuing, along with wayfinding and possible geometric changes to key intersections. Final deliverable included a custom operations plan template.



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FIRM EMPLOYED	FIRM EMPLOYED BY		ec Consulting Services Inc.			(m)
NAME	Pamela Bailey-Campbell	1		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	4	Ê
TITLE	Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	29	
DEGREE(S) / YE	ARS / SPECIALIZATION		Master of Business Administ Bachelor of Science   1990	tration   1990   Business Administration Biology		
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 38947   LA   09/30/20 PTOE No. 3914   2015	024		
YEAR REGISTERED	N/A	DISCIPLINE	N/A			
Contract role(s) / brief description of responsibilities	Pamela will serve as the l experience in providing p lessons learned to create	Program Development ublic-and private secto solutions to overcome	lead for this contract. Pame or clients with executive-level e the constraints and issues	la is a nationally recognized leader with more than 25 years of advisory services, providing her the ability to leverage first-hat all complex projects/programs face.	of and	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cove	r the years
11/18-7/19	<b>INTEGRATED PROJECT DELIVERY PROJECT MANAGEMENT TRAINING   NORTH CAROLINA DOT   STATEWIDE, NC</b> The NCDOT is implementing a comprehensive program to improve their project delivery known as Integrated Project Delivery (IPD). As part of the managing IPD team, prepared an initial Project Management (PM) training program and delivered to all NCDOT project managers across the state. Efforts are underway to further develop a PM Bootcamp and develop various approaches to improve project management such as PM Best Practices and PM Forums.					
8/22 - Present	Jacksonville Transportation Authority Ultimate Urban Circulator Program Bay Street Innovation (BSIC)   Florida Project Manager. Services for this progressive design-build, operate, maintain project led by Balfour Beatty. The BSIC project is developing and deploying an automated vehicle (AV) system to provide transit service to downtown Jacksonville along Bay Street. This is a fully integrated ITS and AV system. Stantec's work includes finalizing the Concept of Operations, Systems Engineering Management Plan, Project ITS Architecture Review, all of the Requirements for the project as well as a detailed safety assessment of the operational domain for the AV.					
8/21-4/22	AUTONOMOUS VEHICLE SURVEY OUTREACH STRATEGY AND DEVELOPMENT   MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION   SENIOR ADVISOR Pamela served as senior advisor for the development of the Maryland Department of Transportation State Highway Administration statewide outreach strategy for an autonomous vehicle (AV) survey. A baseline premise is that the AVs will be electric. The goal was to create an affordable plan to reach a diverse audience of respondents on questions relating to their awareness of AVs and their likelihood of using them in the future. The survey will be fielded in spring 2022, with the results used to quide policy decisions and the precise inputs to the Maryland statewide model					
5/02-12/03	<b>TIMED Program Financial Management   Louisiana DOTD   Statewide, LA</b> The program management assignment for TIMED covered almost \$3 Billion in projects and included strategic and financial assistance that covered developing, implementing and managing the bonding and financial management to assure the timely funding and delivery of the program. Directed the initial financial assessment that were a deciding factor in winning the assignment and oversaw the start-up of the financial services and ongoing feasibility assessments.					
2/21 - Present	<b>Regional Transportation Commission of Southern Nevada Las Vegas Medical District Automated Circulator and Connected Pedestrian Safety Program (GoMed)</b> Deputy Project Manager for the GoMed Program – an advanced mobility program including planning and implementation for the seamless integration of four electric and autonomous shuttles, connected technologies including pedestrian detection, traffic and data management, and analytics platform. The work included analysis regarding the charging requirements including what would be needed at the overnight storage vs. in route charging. Our work is also supporting RTC to comply with all of the requirements of their BUILD grant which is funding the GoMed project.					
12/05 - 6/06	Program Workforce Study   Led an assessment of the W of staff with the appropriate Memorandum, and finally a	Washington State DOT (W /SDOT's workforce To as e skills. The deliverables Transition and Implemen	VSDOT)   Statewide, WA sist the organization in meeting included a Work Force and Core station Strategies report.	its strategic goals through the hiring, training and retention of suff e Capabilities Assessment, an Action Plan for Work Force Developr	icient nent, a	numbers an Options



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FIRM EMPLOYED BY Stantec Consulting Services Inc.				1		
NAME	Matthew (Matt) Davis, PE,	РТОЕ		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	13	E.
TITLE	Senior Associate			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0	AA
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2009   Civil Engineering	ĺ		MEETS
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 38947   LA   09/30/2 PTOE No. 3914   2015	024		ADOTD ERSÖNNEL REQ.
YEAR REGISTERED	2014	DISCIPLINE	Civil Engineering			
Contract role(s) / brief description of responsibilities	Matt has 13 years of exp TSMO Program to life over he brings significant hand this contract, including as modeling for analysis and Matt is currently working assessment projects incl Assessment while having control signals, and varia Synchro, SIDRA, and HCS operations and maintena <b>Requirements (MPRs)</b> #	erience managing and er the past 5 years. Pre ds-on TSMO implemen s the <b>ICM Strategy Lea</b> d public viewing, traffic on a deployment of ICI uding the Nashville Rey g also overseen several ble speed limits. He is 5. Matt has built a stron nce – key for selling th <b>5.</b>	serving on a variety of TSMG viously residing in Baton Ro- tation experience to the tear <b>d</b> . His experience includes I <sup>-</sup> signal and ITS design, as we M strategies along the I-24 S gional Smart Mobility Asses I traffic studies including for well-versed in a variety of tra- tog portfolio of project experies the opportunity that TSMO pro-	O projects and has recently helped bring the Tennessee DOT uge and having worked with Louisiana DOTD his entire caree m, making him a great fit to serve in various roles throughout TS planning, systems engineering analysis, traffic analysis, tra- ell as ATMS integration and Special Provisions development. SMART Corridor in Tennessee. Matt has also worked on seve essment and the Tennessee DOT Traffic Management Center TSMO deployment strategies such as ramp metering, lane affic modeling and analysis software tools such as VISSIM, v ence that includes the complete project life cycle from planni ovides to all stakeholders. <b>Matt meets the Minimum Person</b>	s affic ral istro, ng to <b>mel</b>	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates shoul	d cover the	e years
02/21 - Ongoing	ATCMTD GRANT PROJECT FOR ICM DSS   TDOT   NASHVILLE, TN   PROJECT MANAGER AND TSMO TECHNICAL LEAD USDOT awarded TDOT a grant to revolutionize integrated corridor management (ICM) decision support software (DSS). The project replaces the traditional traffic simulation model to provide decision support with artificial intelligence, creating a transportable concept not tied to a specific corridor or location. TDOT selected Stantec to provide Project Management, Oversight, and Performance Evaluation Services on this innovative and collaborative project that is intertwined with multiple ongoing projects in the I-24 Corridor. Matt is responsible for managing this unique and innovative project, which includes extensive coordination with TDOT, SwRI, Vanderbilt, Contractors, ICM Staff, Transit Agencies, and Municipalities to keep the project on schedule and progressing. Matt has overseen the development of the Concept of Operations, System Requirements, and overall Systems Engineering Analysis for the project. Furthermore, Matt is responsible for coordinating and overseeing the project evaluation and data management conducted by the Stantec team. He has also overseen the software testing and implementation for both the upgrades to the SwRI-developed ATMS and the Vanderbilt-developed AI-DSS. Matt is also providing integration support of the LCS, VSL, RDS, CCTV, DMS, and VDS devices.					
05/22 - 01/23	TSMO CONSULTANT TECHNICAL SUPPORT   TDOT   NASHVILLE, TN   TSMO TECHNICAL LEAD Matt provided on-site technical support as an augmentation of TDOT's Traffic Operations Division Staff. Matt worked from TDOT's offices two days per week to provide technical support on items such as ITS Design Reviews, Construction Support on TDOT's I-24 Smart Corridor Project, Development of a High-Level Cost Estimating Tool for ITS Deployments, Development of Construction Submittal Matrices, and Development of Standardized ITS Special Provisions. Matt provided as-needed technical support to TDOT throughout the duration of the work order and represented TDOT Traffic Operations Division's interests during project-related meetings.					
03/13 - 07/16	BATON ROUGE ITS PHASE Matt was the lead ITS Engin deployment. The project inc building, and 1 travel time m power services, wireless tra and special details. He also components that were cons	BATON ROU eer for our team that des luded the deployment of nessage sign. Matt also p nsmitters and receivers, worked with DOTD to de structed, Matt also design	GE, LA   TSMO ENGINEER signed ITS equipment in six par approx.16 closed circuit televis orepared plans for communicat camera pole foundations, DMS velop special provisions for the ned Ramp Meters for over a doz	ishes surrounding Baton Rouge to fill out gaps in the existing regio sion cameras, 5 dynamic message signs, 30 Bluetooth vehicle dete ions diagrams, fiber optic allocation diagrams, fiber optic terminati foundations and trusses, related conduit and end equipment, gene travel time message sign and Bluetooth vehicle detectors. In addi zen on-ramps along the corridor to implement active traffic manage	nal ITS ctors, 1 H on diagrar ral notes, tion to the ment stra	IUB Ims, e ategies.



03/18 - 09/18	SIGNAL COMMUNICATIONS UPGRADE PHASE 1   DOTD   BATON ROUGE, LA   PROJECT MANAGER Stantec was tasked with designing the first signal communications upgrade project in Louisiana for DOTD, an early implementation of a TSMO strategy in the state. The project consisted of upgrading and connecting 35 existing traffic signal throughout the Baton Rouge area to fiber optic and wireless communications. Furthermore, CCTV cameras were added to select intersections to improve the Baton Rouge TMC's monitoring capabilities. Matt was responsible for managing the project in which the tight 3.5 month timeline to complete the design was met. He was also responsible for design support and plan review. Furthermore, as the project affects both Traffic and ITS equipment, Matt coordinated with the following sections within DOTD to ensure all needs were met with the new system: ITS, Headquarters Traffic Engineering, two District Traffic Engineers, and Traffic Signal Maintenance. The traffic signals are now integrated into DOTD's ATMS.now central software to allow remote timing changes and monitoring of the traffic signals facilitating proactive traffic management and adding a key tool to the TSMO Toolbox for DOTD.
06/12 - 03/16	US 90Z NEW ORLEANS HOSPITALITY ZONE   DOTD   NEW ORLEANS, LA   TSMO ENGINEER Stantec implemented a TSMO project in the heart of New Orleans by developing project plans to install 6 new ramp meters as well as restripe and sign existing pavement with additional ramp extension improvements along US 90Z in New Orleans to help relieve congestion leading up to and during peak traffic periods. Additional traffic monitoring devices were also deployed to aid the detection of incidents and management of traffic from the TMC. Matt worked closely with DOTD to deliver an end product that met industry standards and the stakeholders' desires while staying within budget. He helped design the Ramp Metering System along with the proposed communications system to tie the devices into DOTD's fiber optic network.
08/18 - 04/21	NASHVILLE SMART MOBILITY ASSESSMENT   GNRC   NASHVILLE, TN   LEAD TSMO ENGINEER Matt assisted with developing an emerging transportation technologies framework that serves seven Nashville metropolitan counties. The assessment defined how the system can prepare for and thrive in an environment offering all modes and vehicles that are connected, shared, and even autonomous. He coordinated and conducted stakeholder meetings from each municipality on a county-by-county basis. Stakeholders completed a survey before each meeting and the results facilitated discussions and was compiled into a summary matrix of existing and planned smart mobility policy and infrastructure inventory. Matt also helped develop the regional vision for integrated technology and the memo of transportation-related technology needs. The project also met the goal of laying the groundwork to improve coordination and cooperation of technology assets and data sharing between adjacent municipalities to help the transportation systems operate as a holistic region, rather than as isolated segments. The results of this assessment are being brought to life through projects that Stantec is a part of along the I-24 SMART Corridor.



FIRM EMPLOYED	BY	Stantec Consulting Se	rvices Inc.			
NAME	Frank Domingo, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	18	E.
TITLE	Senior Project Manager, Tr	ansportation		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	18	17B
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1986   Civil Engineering			
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. C46393   CA   03/31/ PE No. 51601   FL   03/31/20	2025 )25		
YEAR REGISTERED	1990	DISCIPLINE	Civil Engineering			
Contract role(s) / brief description of responsibilities	Frank brings over 35 years of comprehensive infrastructure, transportation planning, and development expertise to his projects. His professional experience includes nearly 9 years with the California Department of Transportation and 9 years with Sarasota County as the Mobility General Manager/County Engineer. His skill sets encompass project management, conceptual planning, feasibility analysis, roadway design, right-of-way acquisition, permitting, traffic operations, roadway maintenance, community relations, developer agreement negotiations, and construction contracts. He offers his clients knowledge in the development and implementation of policies and procedures related to transportation infrastructure. Frank will provide <b>PROGRAM SUSTAINMENT SUPPORT, TRAFFIC MANAGEMENT STRATEGIES, AND IMPROVED BIKE AND</b>					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	cover	the years
08/18 - 10/19	SELF-DRIVING SHUTTLE CONCEPT PLAN   PSTA   PINELLAS COUNTY, FL Transportation Engineer. Developed feasibility study and concept plan for deploying Shared Autonomous Vehicles in one or more of Pinellas County's towns (Clearwater and Dunedin). Data driven process to identify infrastructure modifications, operational requirements and route definition. The analysis included the development of bicycle and pedestrian crossing improvements incorporating technologies such as person and vehicle detection and dynamic signage.					
03/17 - 02/20	SARASOTA-MANATEE BARRIER ISLAND TRAFFIC STUDY   FDOT D-1   SARASOTA-MANATEE, FL Project Manager. Developed integrated mobility plan to address the special event nature of the seasonal visitors from November to April for a 20-mile area from Lido Key to Anna Maria Island. The plan addresses congestion relief, park and ride strategies, the use of alternative transit modes such as trolleys, water taxis/ ferries, aerial gondolas, low speed electric shuttles, and intelligent transportation systems to provide traveler/parking information to the traveling public. Over 20 pedestrian crossings were evaluated for safety and operational improvements. Significant outreach to stakeholders and the formation of a Technical Committee were formed to develop and prioritize recommended solutions.					
01/2022 - ONGOING	BAYSHORE DRIVE ACCESS Project Manager. Develope development for lane repur	S MANAGEMENT PLAN d an access managemer posing, on-street parking	<b>BAYSHORE TRIANGLE CRA</b>   nt for a 1-mile corridor that inc g, roundabouts, bicycle/pedest	<b>COLLIER COUNTY, FL</b> luded transportation demand modeling, operational analyses, con rian facilities and public outreach.	cept	

FIRM EMPLOYED BY Stantec Consulting Services Inc.			ľ	AN A			
NAME	Kate Jack			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	5	131	
TITLE	Smart(ER) Mobility Sector	Lead		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	23		
DEGREE(S) / YE	ARS / SPECIALIZATION		BA   1994   Town and Countr	yside Planning			
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	N/A				
YEAR REGISTERED	N/A	DISCIPLINE	N/A	4			
Contract role(s) / brief description of responsibilities	The interconnection between technology, infrastructure, and transportation has the potential to enhance communities by supporting economically viable, resilient, and socially equitable transportation networks that prioritize people, goods and partnerships as we transition to the next generation of mobility. There has never been a more exciting time to make the right decisions, empower change, and realize the new vision of transportation. An experienced professional involved in the mobility revolution., Kate is providing leadership to Stantec's Smart(ER) Mobility global team of experts. Kate believes that, in the face of an unprecedented "perfect storm" of dramatic demographic, economic, technological, and environmental changes, we are in a period of unprecedented opportunity. She is committed to helping communities and clients manage these changes to create economic, social, and environmental value. Her portfolio of work includes experience managing the rollout of new mobility solutions across the globe. Kate will provide <b>PROGRAM ASSISTANCE AND MOBILITY-ON-DEMAND STRATEGIES</b> for this contract.						
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cove	r the years	
08/18 - Ongoing	ULTIMATE URBAN CIRCULATOR   JACKSONVILLE TRANSIT AUTHORITY   JACKSONVILLE, FL Mobility Senior Consultant. The Ultimate Urban Circulator or U2C is the JTA's vision for the conversion and expansion of a Skyway automated people mover (APM) system in Downtown Jacksonville. The three-phase U2C includes the Bay Street Innovation Corridor, the full conversion of the Skyway superstructure, and the expansion into nearby neighborhoods. When completed, the system will expand the current Skyway from a 2.5-mile system to the 10-mile U2C, levering the latest autonomous vehicles and related technologies. Kate is overseeing the provision of a comprehensive ITS Systems Engineering Management Plan, Safety assessment and Operational Design Domain assessment and policy guidance in this phase. The next phase will include Mobility Hubs, MaaS integration and community outreach						
03/17 - Ongoing	LAS VEGAS MEDICAL DISTRICT AUTOMATED CIRCULATORS & CONNECTED PEDESTRIAN SAFETY PROGRAM (GO MED)   LAS VEGAS, NV Smart Mobility Senior Consultant. GoMed – also known as the Automated Circulator and Connected Pedestrian Safety Program – is funded largely through a BUILD program award from the US Department of Transportation (USDOT) and is jointly provided by RTC and the City of Las Vegas. The program demonstrates the ability to apply connected and automated technology in a complex urban setting and will incorporate connected technologies such as automated pedestrian detection to increase safety. As well as acting as a trusted advisor to the client on the project in its entirety, Kate also acted as the Task Leader for the Autonomous Vehicle elements of the project. This included the safety assessment of the routes, ITS infrastructure requirements, AV leasing and procurement requirements, the charging infrastructure, and 0&M dependencies. This project was the first of its kind in North America and enabled Stantec to gain first-hand experience of this new mobility deployment.						
01/2022 - Ongoing	CAMBRIDGE EAST TRANSFORMATIONAL TRANSPORT STRATEGY   CAMBRIDGE COUNTY COUNCIL Smart Mobility Strategist. This study promotes Cambridge East as a strategic economic investment location, while ensuring the infrastructure intervention made now are designed in such as way that they consider the increase in modal share of public and active transport for passengers across Cambridge using the existing throughways as a guide. Maximizing the potential of the city as a key strategic business location and center for economic growth, exploiting the clustering opportunities. Kate was the author of the study, undertaking the ODD assessment and determining the options available to the client. This included a review of the modes most suitable for the project in terms of cost and capability. These requirements included fuel type and ITS infrastructure requirements.						
08/18 - 10/19	<b>BELMONT PARK REDEVEL</b> Major Event Transportation Plan for the DEIS process f internal and external shuttl	OPMENT PROJECT   NE Planning. Creation of a or a new NHL Arena, Hot e services, parking and c	<b>W YORK, NY</b> Transportation Management F tel and high value retail site. T communications.	Plan including Demand Management Strategies, Monitoring Plan a his included creation of regional and local wayfinding signage pla	ind Op ns, pe	perating ople plans,	



FIRM EMPLOYED	OYED BY Stantec Consulting Services Inc.						
NAME	Derrick Goudeau, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	5		
TITLE	Senior ITS Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	15		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2003   Electrical Engine	ering	02453		
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 33288   LA   09/30/2	023			
YEAR REGISTERED	2007	DISCIPLINE	Electrical and Computer Eng	ineering			
Contract role(s) / brief description of responsibilities	Derrick has over 20 years and related systems. He l to design and final constr <b>SUPPORT</b> for this contra	of experience in the de has been responsible f ruction inspection. He i act.	esign and development of In or the preparation of plans a s also well-versed in industr	telligent Transportation Systems (ITS) and electrical power, l and specifications of these transportation projects, from syste y codes and standards Derrick will provide <b>ELECTRICAL A</b>	ghting, control, em engineering <b>ND ITS</b>		
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the a	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	l cover the years		
07/20 - 08/22	H.013482 I-10 WBR Queue Warning System, West Baton Rouge and Iberville Parishes, LA Engineer of Record. Derrick was the lead engineer on this permanent active queue warning deployment in West Baton Rouge Parish. The project focuses on a rural 15-mile segment of I-10 and will deploy vehicle detection, CCTV camera, flashing beacons and Dynamic Message Signs. Derrick designed the new fiber optic communication and 480-volt distributed power with generator backup to all device sites. This project majorly increases DOTD's detection, visual verification and traveler information abilities in the corridor and sets the stage for additional safety projects across the state. Derrick is currently providing construction support under a separate task order.						
09/20 - 06/21	H.013261 I-110 ITS DEPLOYMENT, BATON ROUGE, LA Engineer of Record. Derrick is responsible for expanding the ITS in North Baton Rouge to fully cover the Interstate 110 corridor. This project aims to increase traffic incident monitoring coverage with 5 new CCTV camera sites and upgrades to 4 existing CCTV camera sites. Derrick designed the network to provide connectivity to 20 existing traffic signal cabinets and 3 existing drainage pumping stations along the 8-mile interstate segment. The communications for the project included three miles of new fiber optic backbone and connecting new and existing devices to existing fiber optic backbone. The project also included assisting DOTD with obtaining a Railroad permit for installation of the new fiber. Derrick has provided System Engineering and Design services and is currently providing technical support during construction for this ITS deployment under a separate task order.						
04/19 - 06/21	H.012374 RAMP METER UPGRADES, EAST BATON ROUGE AND LIVINGSTON PARISHES, LA Quality Assurance Reviewer. Derrick applied his ITS experience to test alternate vehicle detection technology as part of a meter upgrade study and design project. The intent of the project is to implement adaptive operation of the 10 existing westbound ramp meters along the Interstate 12 corridor to mitigate congestion. Derrick selected existing devices sites with optimal locations for detector pilot testing and coordinated with vendors to obtain test equipment. The pilot test includes side-fire and forward-fire radar detection to replace the existing video detection system. After completion of the pilot testing, Derrick provided quality review during the design effort to modify the existing sites to support adaptive operation.						
02/19 - 06/21	H.013710 I-10: US 61 TO LAPLACE, ASCENSION, ST. JAMES, AND ST. JOHN PARISHES Engineer of Record. Derrick designed the fiber optic network for this 20-mile project along I-10 which completed a gap in the DOTD fiber link between Baton Rouge and New Orleans. Derrick also led the design of 7 new camera sites for incident management along this major freight corridor and critical evacuation route. Derrick has provided System Engineering and Design services and is currently providing technical support during construction for this ITS deployment under a separate task order.						
02/19 – 05/19	H.011505 ALEXANDRIA I Engineer of Record. Derrick 2 new arterial Dynamic Mes identify and manage traffic coverage with 3 miles of ne	TS PHASE 3, ALEXAND led the effort to expand ssage Signs (DMS), 9 new incidents within the city. w DOTD owned fiber bac	DRIA, LA the ITS coverage to include 1 w CCTV camera sites, and fibe Derrick designed the communication between Derrick also provided	0 miles of US 71 and LA 28 in Alexandria, Louisiana. This deployn r connectivity to 16 existing traffic signal cabinets to allow DOTD nications system to leverage existing permitted fiber in DOTD ROV construction support services.	to monitor, V and extended		



06/18 - 12/22	SR-115 KNOXVILLE SMARTWAY EXPANSION (I-140 TO CHEROKEE TRAIL) PIN 100241.01 AND 100241.03 Derrick worked closely with the lead ITS engineer and roadway widening consultant to provide electrical service to Radar Detection System, CCTV Cameras, and Dynamic Message Signs sites. The project included close coordination with TDOT and the roadway contractors for this muliti-phase roadway widening project to incorporate conduit and pullbox installations from on-going phases of construction.
03/18 - 09/18	<b>H.012749 SIGNAL COMMUNICATIONS UPGRADE PHASE 1, ASCENSION, ASSUMPTION, EAST BATON ROUGE, LIVINGSTON, AND ST. JAMES PARISHES, LA</b> Engineer of Record. Derrick worked closely with DOTD to design and develop plans for providing connectivity at 36 existing traffic signals in Baton Rouge and surrounding areas, focusing on major the arterial moving to and from Interstate 10 and Interstate 12. Derrick designed 10 miles of new fiber optic backbone with 20 traffic signal controller upgrades, 35 new fiber optic communication drops, and 4 wireless links. In addition to supplying communications to the traffic signals, it was also decided to add closed circuit television (CCTV) cameras at 6 traffic signals to provide additional monitoring capabilities for the TMC's and District Traffic Operations Engineers. Derrick also provided construction support services.
03/18 - 04/19	<b>SOUTHWEST REGION WIRELESS DESIGN, MOBILE AND BALDWIN COUNTIES</b> Project Manager. Derrick led the effort with ALDOT to develop a high-level design report for deployment of a wireless communication infrastructure to support existing traffic signals and proposed ITS devices. The analysis initially included 1283 sites in Baldwin and Mobile counties. The ultimate design was pared down to optimize the coverage along the interstates I-10, I-65 and I-165 while maintaining 99.9% system reliability and providing the best value. The design was developed with a phased deployment in mind to allow priority coverage initially and expansion as construction funds were available.



FIRM EMPLOYED BY		Stantec Consulting Se	rvices Inc.			A
NAME	Samaneh (Sama) Khazraei	an		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	5	
TITLE	ITS Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	5	
DEGREE(S) / YE/	ARS / SPECIALIZATION		PhD   2017   Transportation	Engineering		
ACTIVE REGISTI	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 90259   FL   02/28/20	025		
YEAR REGISTERED	2020	DISCIPLINE	Civil Engineering (Transport	ation)		
Contract role(s) / brief description of responsibilities	With a PhD in Transportation Engineering focusing on Connected Automated Vehicle (CAV) technology, Sama adds her expertise to the Stantec's global Intelligent Transportation Systems (ITS) practice. She's worked on several ITS projects including the Dubai World Challenge on Self-Driving Transport, Western Australia Pedestrian Detection Systems as well as the Las Vegas GoMed Autonomous Transport System Design. She has been responsible for preparation of Systems Engineering Analysis (SEA) documentation including ConEX, ConOps and ITS Architecture. Sama will serve as <b>PROGRAM DEVELOPMENT SUPPORT</b> on this contract.				e m S	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates shoul	d cove	r the years
02/23 - 08/23	WRONG-WAY VEHICLE DETECTION AND RESPONSE FEASIBILITY STUDY   ORANGE COUNTY, CA ITS Lead. The Transportation Corridor Agency is taking action to address the wrong way driving issue in the orange county California. Sama is the technical lead for the project. The project aims to identify the best wrong way detection and alerting system to be implemented on Orange County toll roads.				ical lead	
09/21 - 09/23	JACKSONVILLE ULTIMATE URBAN CIRCULATOR (U2C) PROJECT PHASE I - BAY STREET INNOVATION CORRIDOR   JACKSONVILLE, FL ITS Lead. Sama is currently developing the project Systems Engineering document updates and design reviews for various ITS infrastructure along three-mile AV circulator. The BSIC phase will implement a fleet of AV vehicles with V2X application. Along the Bay Street RSUs, smart transit shelters, queue jump priority, pedestrian detection are being designed. In addition, Internet of Things (ioT) sensors for flood and trash can level detection are also being implemented using a hybrid private cell network and fiber optic network using edge switches.				-mile priority, using a	
01/22 - 12/22	ROAD SAFETY CAMERA TRIAL   RAOD SAFETY COMMISSION   PERTH, WESTERN AUSTRALIA ITS Lead. Working closely alongside the Road Safety Commission, Samaneh is the lead researcher and ITS engineer responsible for preparation of an independent technical evaluation report for an Australian first Road Safety Camera trial being deployed in WA. The trial utilizes mobile point-to-point cameras with self-learning AI, CV and process automation for the detection of mobile phone usage, seatbelt usage and speeding. The objective of the study is to understand whether safety camera technology can be used to enforce a wider range of road safety behavior in WA, and whether AI, CV and process automation will facilitate efficient processing. The scope includes stakeholder consultation, development of the evaluation report framework, development of forms and technical evaluation criteria, and preparation of preliminary and final reports analyzing trail results and outcomes.			endent arning Al, ity camera ig. The aration of		
04/21 - 04/22	LAS VEGAS MEDICAL DISTI ITS Specialist. The United S (BUILD) Transportation Dis GoMed Program. The GoMe more efficient ways for peo Transportation Commissio various destinations within vehicles (AV) eco-system in helping with the design and	RICT AUTOMATED CIRCU States Department of Tra cretionary Grant for the l ed Program is a compreh ople to travel to, from, an n (RTC) of Southern Neva the LVMD by using auto ncluding the autonomous d specification developm	LATOR AND CONNECTED PEDE insportation (USDOT) awarded Las Vegas Medical District Aut nensive advanced mobility pro- d within the Las Vegas Medica ada and the City of Las Vegas nomous transit and enhancing s vehicles, AV smart shelters, went effort.	STRIAN SAFETY PROGRAM (GO MED PROGRAM) a Fiscal Year (FY) 2018 Better Utilizing Investments to Leverage comated Circulator and Connected Pedestrian Safety Program, re- gram that involves the deployment of emergent technologies to c I District (LVMD). The goal of the GoMed Program, developed by (CLV), is to enable ecofriendly and sustainable travel by residents pedestrian and bike safety. Stantec was selected to design the a wayfinding kiosk, pedestrian detection sensors, roadside units et	Devel ferred reate the Re patro utono c. Sar	opment to as the safer and egional ons to omous na is

08/20 - 04/21 PERFORMANCE LED INNOVATIONS AT TRAFFIC SIGNALS (PLIATS) | PERTH, AUSTRALIA ITS Lead. Main Roads Western Australia (MRWA) have initiated a new program called "Performance Led Innovations at Traffic Signals" where it looks into innovative technological solutions to improve safety and efficiency performance at traffic signals. The first phase of PLIaTS program focused on pedestrian/cyclist detection systems where it is able to call/cancel pedestrian demand and extend/reduce pedestrian clearance times (flexible pedestrian timings). Sama conducted research to understand what technologies has been trialed / implemented globally and whether it has been successful or not. She created a best practice report for pedestrian/cyclist detection technologies and performed a Multi Criteria Analysis to rank the identified technologies and recommend the best solution to MRWA. She recently developed a test plan for the assessment of the selected sensors. CITY OF NORMAN SYSTEMS ENGINEERING ANALYSIS FOR A TRAFFIC MANAGEMENT CENTER (TMC) INCLUDING A STAFFING NEEDS STUDY FOR THE 02/20 - 12/22 TRAFFIC CONTROL DIVISION AND FINAL DESIGN FOR THE TMC | NORMAN, OK ITS Specialist. This project aims to design, construct, integrate and operate a Traffic Management Center (TMC) to be co-located within the new Emergency Operation Center (EOC). The City plans to obtain and utilize Federal Highway Administration (FHWA) Funding, which requires close coordination with Oklahoma DOT and FHWA. It also requires the use of a formal Systems Engineering methodology associated with federal regulations. Stantec was selected to perform the System Engineering Analysis (SEA) as well as the TMC design for the City of Norman. Sama assisted with the SEA documentation development including baseline data inventory. Concept Exploration (ConEx) and Concept of Operation (ConOps) reports. She also developed the project ITS Architecture using the Regional Architecture Development for Intelligent Transportation (RAD-IT) software. She is now helping with System Requirements document as part of SEA documentation.



FIRM EMPLOYED BY Stantec Consult		Stantec Consulting Ser	rvices Inc.			
NAME	Greg Rodriguez			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	3	0
TITLE	Mobility Policy Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	21	
DEGREE(S) / YEA	ARS / SPECIALIZATION		JD   2007   Law BA   2001   International Rel	ations		
ACTIVE REGISTR	RATION NUMBER / STATE / E	XPIRATION DATE	N/A			
YEAR REGISTERED	N/A	DISCIPLINE	N/A			
Contract role(s) / brief description of responsibilities	With his legal, policy, and legislative experience, Greg provides insights and recommendations on proposed legislation, regulations, and ordinances, and assists clients in navigating and building consensus around complicated and untested governance issues. His approach focuses on collaboration, education, and facilitation to align interests and achieve results. For this project, Greg will bring is knowledge and experience to support policy development and recommendations for updates to support the operational and performance goals of this project. Greg will lead <b>TSMO POLICY DEVELOPMENT AND UPDATES</b> on this contract.					ł
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cove	r the years
06/22 - Ongoing	NCHRP 20-123(12)   NATIONAL ACADEMY OF SCIENCES   WASHINGTON, D.C.   POLICY ANALYSIS AND DEVELOPMENT Research and Technical Lead. Serving as research and technical lead for development of strategic plan and supporting research roadmap for AASHTO joint subcommittee on System Mobility and Emerging Technologies. Scope of work includes literature review, survey development, stakeholder engagement, and development of strategies to support focus on system performance and operations within context of integration of emerging transportation technologies and through lens of state DOTs.					
09/21 - 12/21	<b>ZERO EMISSION VEHICLE ROADMAP   MARYLAND STATE HIGHWAY ADMINISTRATION   WASHINGTON, D.C.   POLICY ANALYSIS AND DEVELOPMENT</b> Principal in Charge. Managed team that provided Zero Emission Vehicle Roadmap to Maryland State Highway Administration. Roadmap includes recommended next steps over the next five years to incorporate Zero Emission Vehicle initiatives within Maryland State Highway Administration's management and operations.					)PMENT nended erations.
01/21 - 06/22	CONNECTED AND AUTOMATED VEHICLE POLICY, REGULATORY, AND LEGAL ANALYSIS   NEW ENGLAND TRANSPORTATION CONSORTIUM   POLICY ANALYSIS AND DEVELOPMENT Principal Investigator. Project and research lead for analysis focused on development of regulatory framework for operation of connected and automated vehicles across state lines in the New England region. Project includes literature and regulatory review, recommendations development, report development, and strategy for dissemination of findings from project.					hicles tegy for
08/21 - 06/22	SELF-DRIVING VEHICLE PUBLIC SURVEY STRATEGY AND IMPLEMENTATION   MARYLAND STATE HIGHWAY ADMINISTRATION   WASHINGTON, D.C.   POLICY ANALYSIS AND DEVELOPMENT Principal in Charge. Managing team that developed a strategy for a public survey focused on acceptance of self-driving vehicles across various modes and use cases. Findings and analysis from survey inform Maryland State Highway Administration strategy and planning around self-driving vehicles. Survey included focus on information gathering and education around self-driving vehicles, in addition to multi-modal considerations.					
11/19 - 03/20	<b>SAE MOBILITY DATA COLLABORATIVE   SAE INTERNATIONAL   WASHINGTON, D.C.   POLICY ANALYSIS AND DEVELOPMENT</b> Technical Lead. Served as technical lead on the development of <i>Guidelines for Mobility Data Sharing and Governance and Contracting</i> . Role included facilitation of cross sector members of collaborative, including public, private, and academic sector. Assisted with outreach and presentations on the Guidelines published. Guidelines addressed complicated and evolving issues around data sharing and governance, including privacy, licensing, consumer trust			litation blished.		
08/20 - 08/21	<b>NEXT GENERATION INFRASTRUCTURE STUDY   CITY OF CENTENNIAL   CENTENNIAL, CO   POLICY ANALYSIS AND DEVELOPMENT</b> Mobility Policy Lead. Led mobility and policy analysis with focus on innovative minded trends for implementation in area of city where new development beginning and with proximity to transit. Role includes completion of trends analysis summary report, advising on pilot projects, and supporting final recommendations focused on city wide development of smart city initiatives focused on mobility and infrastructure.					



FIRM EMPLOYED BY		Stantec Consulting Ser	rvices Inc.			
NAME	Diane Quigley, AICP			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1	the state
TITLE	Senior Project Manager			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	35	Vit
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS  1987   Geology MURP   1995   Urban and Re	S  1987   Geology IURP   1995   Urban and Regional Planning		
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	AICP   National APA   10/15/	2023		
YEAR REGISTERED	N/A	DISCIPLINE	1997   Land Use and Transpo	ortation Planning		
Contract role(s) / brief description of responsibilities	Diane served as an in-house consultant Project Manager at the Florida Department Transportation where she assisted in the development of ITS Master Plans for the states five interstate corridors. She was also responsible for the development of the first ITS Cost Feasible Plan which funded the District's projects for the deployment of ITS systems over a 10-year period for inclusion in the FDOT Work Program. She also assisted in the development of Concept of Operations Plans for the corridors and a statewide ITS architecture. She also developed a tracking system identifying the deployment of ITS devices statewide, including cameras, dynamic message signs, operation centers, ramp metering and fiber optic locations. Diane's role will be policy development and updates. Diane will serve as <b>PROGRAM SUSTAINMENT</b> <b>SUPPORT</b> on this contract.					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cover the ye	/ears
09/00 - 07/04	<b>INTERSTATE ITS MASTER PLANS   FLORIDA DEPARTMENT OF TRANSPORTATION   TALLAHASSEE, FL</b> As a Senior Planner, assisted in the development ITS Master Plans for 5 major interstate corridors which recommended deployment of ITS throughout the corridor Freeway Incident Management System, Advanced Traveler Information Systems, Advanced Transportation Management Systems, Telecommunications Infrastructure and Regional Traffic management Centers, which was subsequently funded in FDOT's ITS 10-Year Cost Feasible Plan and included Concept of Operations, Systems Engineering Plans and various other documents to further support the recommendations.					
09/00 - 07/04	ITS COST FEASIBLE PLAN   FLORIDA DEPARTMENT OF TRANSPORTATION   TALLAHASSEE, FL Project Manager for the development of the first ITS Cost Feasible Plan. A program of projects was created to implement and fund the deployment of ITS projects along the five major interstate corridors in Florida. This effort entailed estimating project costs, coordinating with the FDOT Districts and the Program Development Office in phasing, scheduling, and programming of over \$700 million of ITS projects.					
09/00 - 07/04	ITS DEPLOYMENT TRACKING SYSTEMS   FLORIDA DEPARTMENT OF TRANSPORTATION   TALLAHASSEE, FL Diane assisted in the development and management of a database to track ITS devices deployed across the state. The purpose of this database was to identify device and system implementation locations for interconnectivity potential and for maintenance purposes.				evice	
09/00 - 07/04	<b>DEVELOPING ITS BENEFIT AND COST PARAMETERS FOR USE IN IDAS EVALUATIONS   FLORIDA DEPARTMENT OF TRANSPORTATION   TALLAHASSEE, FL</b> Diane assisted in the development of input parameters, specific to Florida projects for the evaluation of ITS projects in the ITS Deployment Analysis System (IDAS) software. The purpose of this project was to determine the best data to override the default values of ITS device cost and benefit parameters, including unit cost estimates, cost assumptions, benefit module parameters, ITS impacts, and impact dollar values to reflect more Florida-specific project evaluations. This project was published in the Journal of the Transportation Research Board, Transportation Research Record 1910, Transportation Research Board, National Research Council, Washington, ITS Benefit and Cost Parameters for Use in IDAS Evaluations of ITS Deployments in Florida, 2005, pp.57-63 and presented at the TRB conference in 2005.			IDAS) ost ect		
09/16 - 02/17	<b>FDOT TRANSPORTATION ASSET MANAGEMENT PLAN   FLORIDA DEPARTMENT OF TRANSPORTATION   TALLAHASSEE, FL</b> As a representative from the FDOT Freight, Logistics and Passenger Operations Office, served on the Steering Committee for the development of the first Transportation Asset Management Plan for FDOT. This Plan was developed in collaboration with several Offices within FDOT including Maintenance, Roadway Design, Work Program, Policy Planning and Administration to document and identify FDOT service delivery functions and identify potential risks that may disrupt these processes. The project included the development of a risk register, gap analysis and the establishment of targets and performance measures in compliance with the Federal Highway Administrations Asset Management requirements.				/ upt ance	



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FIRM EMPLOYED BY		Stantec Consulting Ser	rvices Inc.		and the second s
NAME	Scott Hoffeld, CEP			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	3
TITLE	Senior Project Manager, En	vironmental		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	26
DEGREE(S) / YEA	ARS / SPECIALIZATION		MS   1994   Resource Manag	ement and Administration; BA   1989   Economics	
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	CEP No. 02040408   LA   3/3	1/2022	
YEAR REGISTERED	2002	DISCIPLINE	Certified Environmental Prac	titioner	
Contract role(s) / brief description of responsibilities	Scott is a Senior Environmental and Transportation Planner with over 29 years of NEPA and permitting experience for DOTD, spanning form environmental assessments and re-evaluations to complete multi-phased and 3rd party environmental impact statements (EIS) and supplemental environmental impact statement (SEIS). His DOTD experience includes 404 wetland, scenic stream and bridge permitting; agency coordination; public outreach; and a variety of corridor and site impact analyses, needs and alternatives justification evaluations, and the communication/presentation of complex information to mixed audiences. Scott will lead the <b>FUNDING AND BENEFIT COST ANALYSIS</b> for this contract.				
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates shoul	d cover the years
07/22 - 08/22	BENEFIT-TO-COST ANALYSIS OF SEISMIC RETROFITS TO SOUTH GRAND ISLAND BRIDGE (I-190) FROM MP 914.3 TO MP 915.0   NEW YORK STATE THRUWAY ASSOCIATION Economist. Lead economist/methodologist for a US BIP Grant application BCA for seismic retrofits to a bridge travelway in Tonawanda, New York. In addition to travel time savings and safety-reduction benefits, methodologies were adapted to estimate the expected annual benefit of providing greater seismic resilience and improving connectivity/mobility for pedestrians and bicycles, resulting in a 2.53 overall BCA ratio.				
07/22 - 08/22	BENEFIT-TO-COST ANALYSIS OF THE EASTBOUND DECK REPLACEMENT FOR CASTLETON-ON-HUDSON BRIDGE (HWY 912M/BERKSHIRE CONNECTOR) FROM MP 800.5 TO 801.6   NEW YORK STATE THRUWAY ASSOCIATION Economist. Lead economist for the application BCA for deck replacement of the eastbound travelway/structure. Travel time savings, safety-reduction benefits, emissions reductions and other benefits were considered, yielding a 1.04 overall BCA ratio.				
05/22 - 06/22	BENEFIT-TO-COST ANALYSIS OF REHABILITATION OF I-190 FORM MP 900.7 TO MP 904.2   NEW YORK STATE THRUWAY ASSOCIATION Economist. Lead economist/methodologist for a US Raise Grant application BCA for a roadway pavement replacement project with incidental safety improvements. Methodology compliant with the USDODT BCA Guidance of 2022 was employed along with adapted methodology to manually estimate avoided maintenance repairs and rider delay. Travel time avoidance, reduction in average vehicle operating costs were the critical benefits components yielding a 1.26 overall BCA ratio.				
12/15 - 01/16 (approx.)	BENEFIT-TO-COST ANALYSIS FOR KANSAS-LANE CONNECTOR*   I-20 ECONOMIC DEVELOPMENT CORPORATION Project manager and Economist for an evaluation of the benefit and cost stream for a new-location roadway in north Monroe, Louisiana. Costs considered capital improvements, right-of-way, utilities, and periodic maintenance and rehabilitation costs. Benefits included avoided operational costs, avoided costs associated with travel time and accidents and a residual value of the investment. Benefits and costs were discounted at a 3 percent rate over a 25-year period under various scenarios.				
09/22 - 10/22	<b>BENEFIT-TO-COST ANALYSIS FOR I-526 RECONNECTING COMMUNITIES GRANT*   SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION</b> Task Manager and Economist for Equitable Opportunities for Underserved Communities - I-526 WEST Multimodal Project Community Infrastructure Mitigation Program (CIMP) the Reconnecting Communities Pilot Program grant application, which evaluated that benefits of improved pedestrian and bicyclists safety and mobility improvements, and stormwater drainage improvements associated with the I-526 corridor improvement.				e Mitigation sts safety and
01/23 - 02/23	<b>BENEFIT-TO-COST ANALYSIS FOR I-526 RECONNECTING COMMUNITIES GRANT*   CITY OF JAL, NEW MEXICO</b> Task Manager and Economist for USDOT RAISE Grant Program application for the City of Jal NM 128 Releif Route. Benefits included reduced congestion, travel time for areas residents, along with safety benefits from railroad safety improvements. Primary benefits of travel time savings, safety improvements and operating costs yielded an analysis period BCA ratio of 2.20.				



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FIRM EMPLOYED BY		Stantec Consulting Ser	vices Inc.		6	
NAME	Amy Broughton			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	15	
TITLE	Senior Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	4	
DEGREE(S) / YEA	ARS / SPECIALIZATION		MBA   2008   Finance			
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	N/A			
YEAR REGISTERED	N/A	DISCIPLINE	N/A			
Contract role(s) / brief description of responsibilities	Amy has over 19 years of experience in the architecture, engineering, and construction services sector. Amy currently is the US West Lead for Stantec's North America Funding Program, a community of practice with more than 150 funding specialists. Amy has helped clients across the United States apply for and manage over \$5.7 billion in funding. Amy will serve as <b>GRANT APPLICATION WRITING AND SUPPORT</b> for this contract.				е	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	cover the year	ırs
09/20 - 02/22	CITY OF CENTENNIAL, COLORADO, NEXT GENERATION INFRASTRUCTURE ACTION PLAN The City of Centennial had a strong vision for a more resilient, connected, and innovation focused future. To achieve their goal of becoming a smart suburban city, the City knew they would need forward-thinking policies focused on future development, design considerations, and future ready infrastructure. In the fall of 2020, the City partnered with Stantec, who could bring the integrated smart city experts they needed, to evaluate local development policies and regulations, and provide an action plan towards not just updating standards, but also rethinking governance approaches to facilitate infrastructure development that will enable a smart and connected future. Amy served as Project Manager for the Study.					
09/21 - Ongoing	CITY OF BOSTON, MASSACHUSETTS, RAISE Stantec collaborated with BTD and BPDA to submit a RAISE grant application for \$25 million in support of multimodal projects in East Boston. Following the robust process associated with PLAN East Boston, the project includes bus lanes, protected bicycle lanes, and redesigns for two key squares. The team was able to complete the grant application on an extremely short deadline and in collaboration with the City. Components included cost estimating, creating a narrative explaining how the project addressed federal "Merit Criteria," and a detailed Benefit-Cost analysis following federal methodology. The short deadline required a rapid response across multiple Stantec teams, including funding experts like Amy, roadway designers, and planners, together with detailed quality control to ensure the grant met federal requirements.					
09/18 - 11/21	<b>CITY OF COLORADO SPRINGS, COLORADO, ENVISION SHOOKS RUN</b> For more than a hundred years the Shooks Run Corridor has served as an important City drainage, but it has also been seen as having tremendous potential. Now referred to as the "Legacy Loop," city founders envisioned the corridor as integral to a "park ring" around the city core. Complementing the development of a Facilities Master Plan, Amy and her team developed a comprehensive funding strategy, and successful grant applications to fun critical revitalization of brownfield properties in key locations along Shooks Run. The efforts initiated private and public investments and accelerated City-wide initiatives in the downtown area.				a eld	
03/20 - 10/20	<b>GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY, 25 CONNECTS</b> The core of our transformative transit-oriented development plan approach included understanding the broader economic opportunity mixed with the localized market conditions; collaborating locally with developers to support a diverse range of development opportunities along the corridor that meet the community's needs; and considering multi-modal mobility infrastructure needs, safety and equitable access to housing, jobs, healthcare and places of culture and community. The plan aligned with community-driven ideas, with a focus on strong, vibrant station areas that will provide catalytic opportunity for investment in the various communities along the corridor. It line. Amy's analysis included development financing models and alternative funding sources, providing useful economic insights to the City on various segments of the corridor and specific parcels.				y. hts	
02/19 - Ongoing	SANTA CLARA VALLEY WATER DISTRICT, CALIFORNIA, FUNDING SUPPORT Since 2019, Amy has worked closely with SCVWD to identify and apply for funding. To-date, the team has successfully secured over \$600 million in state and federal funding. Amy leads the team that continue to support SCVWD apply for more grants and negotiate over \$2.5 billion in already-awarded funding assistance.					



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FIRM EMPLOYED BY		Stantec Consulting Ser	rvices Inc.			
NAME	Brian Johnson, PE	rian Johnson, PE		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	17	125
TITLE	Principal, Bridge Division Leader			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	5	AN
DEGREE(S) / YE/	ARS / SPECIALIZATION		MS   2000   Civil Engineering	; BS   1999   Civil Engineering		
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 31273   LA   9/30/20	24		
YEAR REGISTERED	2004	DISCIPLINE	Civil Engineering; NBIS Cert	ified Team Leader		
Contract role(s) / brief description of responsibilities	Brian brings over 22 years of engineering experience specifically related to structural projects and serves as the Structural Section Manager in the Baton Rouge office. His primary expertise lies in analysis, design, rating, inspection, and rehabilitation of bridges. Brian has managed bridge projects with a variety of structure types such as prestressed concrete girders, steel truss vertical lift bridges, long span steel trusses, horizontally curved steel plate girders, concrete box culverts, and retaining walls. He has overseen several NSBI bridge inspection projects and been involved in several hydraulic studies for bridge replacement projects in both Mississippi and Louisiana. Brian will serve as XXXXX for this contract				he Baton <i>i</i> ith a plate llic studies	
Experience dates (mm/yy - mm/yy)	Experience and qualifications	relevant to the proposed co	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc.		
01/17 - 10/18	LOAD RATING AND POSTING OF 110 ON-SYSTEM BRIDGES   DOTD   Statewide, LA Project Manager. Brian was responsible for managing load rating activities, scheduling progress meetings, managing the status of each bridge, delivering progress submittals, and coordination with DOTD. This project involved the load rating and posting of 110 on-system bridges for DOTD. Bridges were located throughout the state and were load rated in accordance with current DOTD and AASHTO specifications. AASHTOWare BrR, CSI Bridge, and RC-Pier were used to determine rating factors and posting requirements.					
03/13 - 03/17	LOAD RATING AND POSTING OF 630+ ON-SYSTEM BRIDGES   DOTD   Statewide, LA Project Manager. Brian was responsible for managing load rating activities, scheduling progress meetings, managing the status of each bridge, delivering progress submittals, and coordination with DOTD. A monthly meeting was scheduled with the client to assist with addressing incomplete data needs and modeling approaches for more complicated structures. Over 630 bridges statewide were load rated in accordance with current DOTD and AASHTO specifications. Models were developed in AASHTOWare BrR, CSI Bridge, STAAD and RC-Pier to determine rating factors and bridge posting requirements. Structure types included structural steel plate girders and rolled beams, prestressed concrete girders, concrete slab spans, hammerhead and multi-column concrete bents, and steel beam bents.					
02/19 - 11/22	ALDOT BRIDGE LOAD RATING   ALDOT   Statewide, AL Project Manager. Brian managed three different task orders with ALDOT to perform load ratings on 84 bridges. Structure types included steel plate girders, prestressed concrete girders, concrete T-beams, voided concrete slabs, and post-tensioned channel beams. AASHTOWare BrR was used for modeling and analysis. Ratings were in accordance with the AASHTO LFR method and current ALDOT standards. Brian's responsibilities included performing quality assurance on load rating reports and transmitting deliverables to ALDOT.					
10/17 - 01/19	AASHTOWARE BRR BRIDGE LOAD RATING   MDOT   Statewide, MS Project Manager. Brian served as the project manager for the load rating of 120 bridges using AASHTOWare BrR. Structure types included steel plate girders, prestressed concrete girders, concrete T-beams, concrete slab spans, and integral reinforced concrete multi-cell box girders. Ratings were performed in accordance with current MBE standards. Brian was responsible for managing project activities, developing rating criteria, scheduling internal and external progress meetings, performing QC/QA, and delivering final reports.					
08/10 - Ongoing	MISSISSIPPI STATEWIDE COMPLEX BRIDGE INSPECTIONS & LOAD RATINGS   Mississippi Office of State Aid Road Construction   Statewide, MS Project Manager. Brian manages all field and office work for inspecting and load rating over 200 bridges annually throughout the state. Inspections and load ratings are performed in accordance with current NBIS and procedures as outlined in the AASHTO MBE. Brian is responsible for managing project activities, inspection scheduling, and performing QC/QA on field inspections, load ratings, and inspection reports. Structure types include steel trusses, structural steel plate girders, steel railroad flat cars, reinforced concrete girders and slabs, reinforced concrete box culverts, and masonry arches.					



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10/09 - 06/11	US 90 INTERCHANGE AT LA 85 DESIGN-BUILD   DOTD   Iberia Parish, LA Structural QA/QC. Brian managed QC review on the structural elements for this project to elevate the rural arterial to urban interstate standards. These included a cast-in- place concrete deck and rail, Type III and Type IV pre-stressed girders, multicolumn bents with pile footings, pile supported end bents, and bearing pads. All independent designs were in accordance with AASHTO LRFD Bridge Design Specifications and as-designed / as-built load ratings were in accordance with AASHTO MBE.				
12/20 - 04/22	<b>TRUSS BRIDGE INSPECTION AND LOAD RATING   MDOT   Statewide, MS</b> Project Manager. This project consisted of inspecting and load rating four unique steel through trusses. Brian served as project manager and was responsible for coordinating inspection schedules, overseeing report development, reviewing load rating reports, and communications with MDOT. Detailed, arm's length, inspections were performed on the steel truss spans only. Load ratings were performed in accordance with the AASHTO LFR method and MDOT standards. Results from the analyses were used to determine fracture critical members that could not be determined from traditional structural mechanics. Final inspection reports will be used by MDOT to develop repair / rehabilitation plans				
03/14 - 05/15	LA 511 JIMMIE DAVIS BRIDGE REHABILITATION   DOTD H.010662   Bossier, LA Project Manager. Total structure length is 2,823 linear ft., including three main steel truss simple spans crossing the Red River; 610 ft. approach spans at each side consisting of steel, two-girder systems with floor beams. Stantec provided design and plans for complete rehabilitation and repainting. Rehabilitation consisted on total deck replacement, over 200 structural repairs to truss span floor system, replacement of the link joint (hangers) of the approach spans, joint rehabilitation and barrier replacement. Load rating analyses were performed for each superstructure type and gusset plates on the as-rehabilitated bridge.				
04/11 - 03/15	I-210 COVE LANE INTERCHANGE  DOTD H.010151   Lake Charles, LA Lead Structural Engineer. Brian managed the structural design of a single-span, 130-ft long, prestressed concrete girder bridge along I-210 over Cove Lane and twin concrete slab span bridges over Cline Canal. Bridge approaches consisted of an MSE wall system supported by a cast-in-place load transfer platform using over 8,000 timber and concrete piles. Brian provided construction support by reviewing shop drawings, addressing RFIs, and performing construction engineering. All design was performed in accordance with AASHTO LRFD Bridge Design Specifications.				
08/19 - Ongoing	I-10/LOYOLA INTERCHANGE DESIGN-BUILD   DOTD Contract No. H.011670   New Orleans, LA Lead Structural Engineer. Brian leads the structural design efforts of two new flyover ramps (concrete slab spans, prestressed concrete girder spans, twin horizontally curved steel tub girder spans, and complex substructure units), one bridge widening (concrete slab spans), noise barriers, precast box culverts, roadway and pier protection barriers, and miscellaneous structural elements. During design Brian orchestrated a series of meetings with the contractor, fabricators, vendors, and suppliers to optimize and streamline the design. In addition, he oversees construction support which includes shop drawing reviews, addressing RFIs, and providing construction engineering services.				
07/15 - 10/20	I-10 BRIDGE REPAIRS   DOTD   St. Martin & Iberville Parishes, LA Project Manager. Brian managed the design and plan development efforts of repairs on 19 different bridges along the Atchafalaya Floodway Basin. The project included field verification of structure deficiencies, condition findings summary report, development of a traffic management plan, bridge design, and plan development. Repairs consisted of concrete patching, bearing replacements, girder strengthening, and bridge painting. During construction Brian led construction support efforts which included shop drawing reviews and addressing contractor RFIs.				
12/15 - Ongoing	<b>NELSON ROAD EXTENSION AND BRIDGE   DOTD Contract No. H.005967   Lake Charles, LA</b> Structural Engineer. Brian managed the bridge and structural design efforts from preliminary to final plans. He performed quality review of bridge design, plans and specifications for this bridge extension to the surrounding roadway network. Project tasks included design of bridge superstructure, substructure including foundations, median barrier design and as-designed load rating. Other design elements include navigational lighting bridge attachments, steel bracket light supports with concrete anchors to the bridge structure. Structural Design was performed in compliance with AASHTO LRFD Specifications. In addition, he led the inspection of an existing sign truss to ensure it could be reused for the current project.				
05/16 - 12/16	US 82 OVER MISSISSIPPI RIVER IN-DEPTH BRIDGE INSPECTION   MDOT   Greenville, MS Project Manager. Brian was responsible for coordination between six Stantec offices and three sub-consultants, performing the deck surface inspection, and reviewing the inspection report. The inspection included an element level inspection, in-depth inspection of the cables, hydrographic survey of the river channel, and elevation survey of the cable stay spans deck surface.				
04/17 - 08/17	<b>MOVABLE BRIDGE INSPECTIONS (SR 605 OVER THE INDUSTRIAL WATERWAY &amp; SR 609 OVER OLD FORT BAYOU BRIDGE INSPECTIONS)   MDOT   Gulfport, MS</b> Project Manager. Brian was responsible for coordinating inspection activities, developing the inspection plans, and reviewing the draft and final reports. Final reports were submitted 60 days after the inspection. Stantec performed an in-depth inspection of two bascule bridges on the Mississippi Coast. Inspections included an element level inspection, an in-depth inspection on the structural, mechanical, and electrical components of the bascule spans, and fracture critical inspections.				
FIRM EMPLOYED BY S		Stantec Consulting Services Inc.			
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NAME	Gordon Mosher			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1
TITLE	Senior Construction Inspec	tor		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	35
DEGREE(S) / YEA	ARS / SPECIALIZATION		N/A		
ACTIVE REGISTR	RATION NUMBER / STATE / E	XPIRATION DATE	N/A		
YEAR REGISTERED	N/A	DISCIPLINE	N/A		
Contract role(s) / brief description of responsibilities	Gordon serves as a construction inspector and has over 35 years of experience. He performs roadway inspections for East Baton Rouge City Parish road improvement projects and assists with road and street condition assessments for the preparation of new repair projects. Gordon has completed the following training: Autocad Civil 3D 2010, 2011 and Softdesk Civil/Survey S8 Training, 1995. He also holds the following Certifications: LA Traffic Control Supervisor (2022), LA Traffic Control Technician (2022), Certified LA DOTD Asphalt Roadway Inspector (2022), LA DHH Wastewater Collection 1 (2020), LA DHH Wastewater Treatment 1 (2020). Gordon will serve as <b>SUPPORT STAFF</b> <b>FOR PROJECT DEVELOPMENT, TSMO STRATEGY, SOLUTIONS AND PROJECTS</b> on this contract.				
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	'designed girders", "designed intersection", etc. Experience dates should	l cover the years
08/22 - Ongoing	EAST BATON ROUGE CITY PARISH SALES TAX STREET AND ROAD REHABILITATION PROGRAM PROJECT 17-3 CONCRETE STREETS (GARDERE & CORTANA AREAS, OAK VILLA, CEDARCREST, WOODCREST, AUDUBON TERRACE & CAPITAL VIEW SUBDIVISIONS) Lead Construction Inspector. Coordinate with Engineer and Contractor. Oversee concrete and asphalt roadway patching, asphalt milling and overlay, and related items.				
01/22 - 09/22	EAST BATON ROUGE CITY PARISH SALES TAX STREET AND ROAD REHABILITATION PROGRAM PROJECT 17-4 (PRIDE-BAYWOOD, MONTERREY BLVD, 72ND STREET, ROSENWALD, GRAND TETON, STREETS IN FAIRLANE, GLENOAKS PARK AND OAKCREST SUBDIVISIONS) Lead Construction Inspector. Coordinate with Engineer and Contractor. Oversee soil cement and asphalt patching, asphalt milling, asphalt overlay, and related items.				
09-18 - 09/20	TANGIPAHOA PARISH SEWER DISTRICT NO. 1 S.E. SEWER TREATMENT PLANT Lead Construction Inspector. Gordon was responsible for coordination between engineer and supplier to develop plans and drawings. He coordinated with electrical engineers, inspected all phases of construction including installation and setup of ultraviolet disinfection equipment and headworks screening equipment.				
08/17 - 07/18	TANGIPAHOA PARISH SEWER DISTRICT NO. 1 LIFT STATION IMPROVEMENTS           Lead Construction Inspector.         Gordon worked under direction of engineer and coordinated with electrical engineer, inspected installation and setup of multiple sewer lift stations and controls.				
08/17 - 04/18	FOLSOM SEWER TREATME Lead Construction Inspecto new ultraviolet disinfection	<b>INT PLANT IMPROVEMI</b> or / Design Draftsman. G system and discharge p	ENTS ordon worked with the manufa ump station and inspected ins	cturer to help design plans for the upgrade equipment and contro tallation and setup of new equipment and controls.	ols and install
08/16 - 05/17	FRANKLINTOWN SEWER T Lead Construction Inspector install new headworks equi	<b>REATMENT PLANT IMP</b> or / Design Draftsman. G pment and controls. I als	<b>ROVEMENTS</b> ordon worked with the enginee so inspected the installation ar	er to help design plans for the upgrade of ultraviolet disinfection s nd setup of new equipment and controls.	system and
06/18 - 12/18 10/15 - 07/16	<b>INDEPENDENCE SEWER TREATMENT PLANT IMPROVEMENTS</b> Lead Construction Inspector / Design Draftsman. Gordon worked with the supplier to help design plans for the replacement of ultraviolet disinfection system. He also inspected the installation and setup of new equipment and controls.				



FIRM EMPLOYED BY Stantec Consulting S		Stantec Consulting Se	rvices Inc.		
NAME	Joseph (Joe) Cains, III, PE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	19
TITLE	Project Manager			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	0
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2003   Civil Engineering		
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 33670   LA   03/31/20 PE No. 37500-E   AL  PE No.	)24 124729   TN	
YEAR REGISTERED	2008	DISCIPLINE	Civil Engineering		
Contract role(s) / brief description of responsibilities	Joe has over 19 years of experience for various project types, including interstates and interchanges, arterials and collector highways, local roads, bridge replacement projects and other similar transportation systems, on both existing highway alignments and new locations. He also has experience with innovative intersections, including roundabouts, DDIs, CFIs, and has been involved in several major projects involving compressed schedules and quick turnaround deadlines. He has experience in both traditional and alternative delivery types as well as Construction Administration services, allowing him to help lead the charge in the transportation industry for Stantec in the State of Louisiana. Joe will provide <b>SUPPORT FOR PROJECT DEVELOPMENT, TSMO STRATEGY, SOLUTIONS AND PROJECTS</b> on this contract.				
Experience dates (mm/yy - mm/yy)	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
Ongoing	MOVEBR PROGRAM MANAGEMENT   CITY OF BATON ROUGE   BATON ROUGE, LA Deputy Program Manager – Engineering. The MOVEBR Program is focused on roadway corridor capacity improvements as well as Community Enhancement and mobility for all modes of traffic. Joe leads the MOVEBR Enhancement Team's technical side of Program Management for over 50 projects. His duties have involved prioritization of projects, planning, procurement, and project development oversight. Close client and stakeholder coordination, public outreach, and presenting program status updates are some of the tasks involved in his role for this project.				
Ongoing	I-10 / LOYOLA INTERCHANGE IMPROVEMENT DESIGN-BUILD   DOTD   KENNER, LA Lead Roadway Engineer. Joe's duties included full geometric design including an innovative interstate interchange improvement w/flyover ramps, multi-disciplinary coordination, plan development and oversight, and stakeholder coordination for this \$126M project. He was responsible for the development of a Level 4 TMP, Traffic Control Plans, and design of pedestrian and bicycle mobility improvements in a heavily developed commercial roadway corridor. His duties also include construction support and administration.				
2013-2015	US 90Z ON RAMP IMPROVEMENTS   DOTD   NEW ORLEANS, LA Lead Roadway Engineer. Joe's duties included full design of an access ramp improvement for a roadway used to facilitate traffic movements from the Caesar's Superdome. Joe was responsible for the development of a Level 4 TMP that involved close coordination with the SMG Group who was responsible for special event management for the facility.				

FIRM EMPLOYED	MPLOYED BY Stantec Consulting Services Inc.		vices Inc.			
NAME	Joseph Barker, PE, PTOE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	5	
TITLE	Traffic Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	6	
DEGREE(S) / YEA	RS / SPECIALIZATION		BS   2011   Civil Engineering			
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 40664   LA   09/30/20 PTOE No. 4364   11/20/2023	<b>)24</b>		
YEAR REGISTERED	PE - 2016	DISCIPLINE	Civil Engineering			
Contract role(s) / brief description of responsibilities	Joseph has over 10 year transportation planning, Joseph will provide <b>SUPF</b>	rs of experience in trai urban mobility, tactica <b>PORT FOR PROJECT D</b>	nsportation planning and tr al urbanism, equitable plac <b>EVELOPMENT, TSMO STRA</b>	affic engineering. He specifically has interest in sustainable emaking, and the promotion of active modes of transporta ATEGY, SOLUTIONS AND PROJECTS on this contract.	le ation.	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	I cover the	ne years
01/23 - Ongoing	JAL RELIEF ROUTE   CITY OF JAL   JAL, NM The City of Jal has experienced significant traffic growth on the local and state roadway network from the recent increase in economic activity. This infrastructure project is being considered to provide an alternative for traffic using NM 128, between Mile Post 48 on the west side and Mile Post 56 to the east. Joseph was responsible for completing a comprehensive Benefit-Cost Analysis (BCA) for the proposed relief route.					
02/18 - Ongoing	I-49 LAFAYETTE CONNECTOR   DOTD   LAFAYETTE, LA Joseph is responsible for traffic analysis and environmental documentation of various geometric design alternatives. Project includes a comprehensive Vistro model and additional analyses using TransCAD, VISSIM, and Sidra software packages. Project follows the Access Justification Request (AJR) guidelines established by DOTD and FHWA. Joseph has been involved in the Context Sensitive Solutions (CSS) process that has allowed for informed changes to ramp layouts and interchange design and has enabled Stantec to redesign several key elements through a Tiered Analysis approach to emphasize urban design principles, including pedestrian and bicycle accommodations. Joseph is also in charge of documenting the project to follow the DOTD TEPR guidelines.					
06/18 - 06/19	ROUGHEDGE ROAD INTERCHANGE   DOTD   RUSTON, LA Stantec has been contracted to perform a traffic impact study for an upgraded bypass corridor through southeast Ruston and a proposed interchange at the intersection of Interstate Highway 20 (I-20) and Rough Edge Road in Lincoln Parish, Louisiana. The objectives of this study are to describe the existing conditions within the study area, outline the methods of data collection utilized, estimate projected traffic volumes under the implementation year and design year for all No Build and Build scenarios, and provide recommendations for areas of future study. Joseph provided Traffic Engineering services including, but not limited to, growth rate determination, traffic forecasting trip distribution, trip generation, origin-destination analysis, peak period/hour determination, vistro modeling, project research, technical writing/documentation.			ection Idy area, os, and ecasting,		
02/18 - 02/19	SHREVEPORT PHASE 2B IMMEDIATE ITS DEPLOYMENT SYSTEMS ENGINEERING ANALYSIS   DOTD   SHREVEPORT, LA The proposed is an expansion of the Shreveport Regional ITS and is envisioned to expand the existing ITS to provide the Louisiana Department of Transportation and Development (DOTD) with the capability to monitor traffic, provide en-route traveler information and enhance signal controller communications. The project goals are to improve mobility, enhance safety for all users, and infrastructure preservation. The additional ITS field equipment proposed, and communications will complement existing systems and enhance DOTD's ability to detect, verify, and manage traffic incidents and/or congestion, and provide traveler information to enhance smart travel in the area. Joseph's role in this project included completing field assessments, technical writing/documentation, alternative analysis of potential technologies to implement, constraints and device location analysis, procurement analysis, and review of existing area ITS operations.			nd are to existing ne nent,		
08/18 - 09/19	ALEXANDRIA PHASE 3 S <sup>1</sup> The proposed is an expansi and Development (DOTD) w goals are to improve mobili will complement existing sy to enhance smart travel in t potential technologies to in	YSTEMS ENGINEERING ion of the Alexandria Reg vith the capability to mon ty, enhance safety for all ystems and enhance DOT he area. Joseph's role in nplement, constraints an	ANALYSIS   DOTD   ALEXAN gional ITS and is envisioned to itor traffic, provide en-route tra- l users, and infrastructure pres ID's ability to detect, verify, an- this project included complet d device location analysis, pro-	<b>DRIA, LA</b> expand the existing ITS to provide the Louisiana Department of T aveler information and enhance signal controller communications ervation. The additional ITS field equipment proposed and comm d manage traffic incidents and/or congestion, and provide travele ing field assessments, technical writing/documentation, alternatio curement analysis, and review of existing area ITS operations.	ransport . The pro unication r informa ve analys	tation oject ons ation vsis of



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FIRM EMPLOYED BY Stantec Consulting		Stantec Consulting Se	rvices Inc.		
NAME	Joseph (Keith) Palermo, P	E, PLS		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1
TITLE	Construction Manager			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	28
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1993   Civil Engineering		
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 27665   LA   09/30/2	024	
YEAR REGISTERED	1998	DISCIPLINE	Civil Engineering; PLS No. 4	791   LA	
Contract role(s) / brief description of responsibilities	Keith has 29 years of engineering experience in the maintenance and construction of highways, roads, and bridges within the state of Louisiana, the majority of which was working directly for DOTD. He has been responsible for all aspects of construction projects from project development to construction administration to project closeout. He has had extensive experience working with local, state, and federal officials, as well as the local communities. Keith will provide <b>SUPPORT FOR PROJECT DEVELOPMENT, TSMO STRATEGY, SOLUTIONS AND PROJECTS</b> on this contract.				e of Louisiana, development as well as the this contract.
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cover the years
07/22 - Ongoing	MOVEBR PROGRAM MANAGEMENT   City of Baton Rouge   Baton Rouge, LA Oversee construction contract administration of multiple construction projects for the MovEBR program. Coordinate with City/Parish officials, engineers, inspectors, and contractors to ensure projects are completed in a timely manner and within budget. Review plans of projects in the design phase for constructability, cost estimate verification, and submit comments to the designer.				
11/12 - 07/22	2 DOTD, DISTRICT 61   LA Area Engineer responsible for all maintenance, construction, and contract maintenance in a four-parish area, including all aspects of construction, contract administration, and maintenance programming needs. Oversaw multiple DOTD Project Engineer offices and multiple parish maintenance offices. Direct project development and delivery according to local transportation needs.				
07/99 - 11/12	<b>DOTD, DISTRICT 61   LA</b> Project Engineer. Supervised a team of inspectors and office personnel while performing Construction Contract Administration for many types of highway and bridge construction projects including PCC pavement, bridges, driven pile foundations, drilled shaft foundations, sound walls, asphaltic pavement, drainage structures, retaining walls, embankment and base course, repairs to movable bridges, traffic signals, traffic cameras, striping, and other incidental types of work. Compiled monthly pay estimates, change orders, and all aspects of sampling and testing work associated with project inspection, and the completion of a successful project.			ighway and drainage types of work. tion of a	



FIRM EMPLOYED BY		Stantec Consulting Services Inc.				
NAME	Kyle Irvin, PE			YEARS OF E	XPERIENCE WITH THIS FIRM/EMPLOYER	7
TITLE	Senior ITS/Systems Engine	eer		YEARS OF E	XPERIENCE WITH OTHER FIRM(S)/EMPLOYER	x(S) 36
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1987   Civil Engineering			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE		PE No. 12541   AK   12/31/20 RCE No. 53337   CA   06/30/ PE No. 24441   OK   04/30/20 PE No. 31680   LA   09/30/20 PE No. 39415   MD   05/31/2 PE No. 24GE04881700   NJ	003 2023 024 023 023 023 04/30/2024	PE No. 46726   WA   04/19/2023 TE No. 2022   CA   06/30/2023 PE No. 84283   TX   09/30/2023 PE No. 67981   FL   02/28/2025 PE No. 87987   NY   03/31/2024 PE No. 20984   KS   04/30/2024		
YEAR REGISTERED	1993	DISCIPLINE	Civil Engineering			
Contract role(s) / brief description of responsibilities	Kyle has over 36 years of extensive ITS and Transportation operation field deployment. This includes planning, ITS design, development, signal design and system coordination projects, to ITS system des and design, to ATMS systems software deployment and integration Certified Senior Traffic Signal Technician. Kyle will provide <b>ITS AND</b>			owledge and oyment, oper ojects, mana is also an In <b>STRATEGY,</b>	d experience along with hands on ITS/Syst ations, integration and maintenance rangin ged toll lanes, traffic management center ternational Municipal Signal Association ( <b>DESIGN, AND DEPLOYMENT SUPPORT</b> on	ems Integration ng from traffic operations (IMSA) Level III this contract.
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girde	rs", "designed intersection", etc. Experience dates sh	nould cover the years
05/20 - Ongoing	I-90 CORRIDOR STUDY AND PS&E DESIGN - EXITS 32-40   SDDOT   RAPID CITY, SD The initial project included a Systems Engineering Analysis for placement of ITS Devices along the corridor between Exits 32 and Exit 40 in Sturgis, SD. The SEA included preparing a Concept Exploration, Concept of Operations, User needs workshops, incident management workshop, and ITS architecture review and recommended update if needed, and PS&E plans development. The project included the design of fiber trunk line, DMS, CCTV, RWIS, Variable Speed Limits, Que Detection / Warning Systems, Vehicle Detection Stations, and fiber integration with the Tilford Port of Entry / WIM station reconstruction (by others). As the design of this project progressed and operations of the VSL system were discussed it was decided by SDDOT staff to increase the limits to between MRM 28 ar MRM 42. Kyle provided field engineering and site walks, and authored the ConEx, assisted in the ConOps development, participated in the user needs and incid- management workshops, and is the Engineer of Record for the ITS PS&E portion of the project			rgis, SD. The cture review and peed Limits, Queue hers). As the ween MRM 28 and r needs and incident		
01/21 - Ongoing	US 550 / US 160 HIGHWAY RELOCATION DESIGN BUILD ITS & WEATHER MONITORING   CDOT   DURANGO, CO Kyle is the ITS Design Engineer for the 10-mile roadway US 550 relocation design build project that includes design of 7-CCTV cameras, 1-MVDS, 1-Dynamic Message Sign, 1-Radar Vehicle Detector Station, 2-Roadway Weather Information Systems. These devices will all be connected by a fiber optic trunk line tha being designed with this project and all devices will ultimately be integrated with the CDOT ATMS system located in Golden, CO.			S, 1-Dynamic trunk line that is		
03/19 - 03/22	2 STATEWIDE ATMS UPGRADE, SYSTEMS ENGINEERING ANALYSIS & SYSTEMS INTEGRATION   TDOT   NASHVILLE, TN Kyle provided ITS Systems Engineering support during the SEA phase of the project for the development of the Concept of Operations, and the Requirements Traceability Verification Matrix. During the ATMS deployment phase Kyle was the lead Systems Integrator worki provider to deploy the new software in each of the TMC's and integrate all of the legacy field devices and systems into the new software			<b>TDOT</b>   <b>NASHVILLE, TN</b> lopment of the Concept of Operations, Functior was the lead Systems Integrator working with the vices and systems into the new software.	nal Requirements, he ATMS software	

06/21 - 12/22	<b>TRUCK SAFETY IMPROVEMENT SYSTEM   CDOT FREIGHT OFFICE   DENVER, CO</b> Kyle provided ITS Systems Engineering support during the Systems Engineering Analysis(SEA) phase of the project. The goal of the project was to take static broadcast roadside messaging that is currently available and develop and deliver a targeted safety / warning message to a specific CMV at a user defined location(s) along the corridor in Near Real Time utilizing a combination of existing ITS / Roadway infrastructure with the addition of few additional sensors and roadside edge computing.
	This involved meeting with stakeholders including: CDOT ITS, CDOT Freight, EMJT staff, Colorado Motor Carriers Association, Colorado State Patrol, IRD, and Drivewyze. This proposed concept was to utilize as much of the existing equipment as possible along the heavily instrumented corridor including the Port of Entry / Electronic Screening / WIM stations on I-70, Automated License Plate Readers, Electronic Credentialing systems, Road Side Units(RSU), and in-cab Electronic Logging Devices (ELDs). This first phase produced a SEA containing the Concept Exploration, Concept of Operations, High Level Functional Requirements, and High Level (30%) design plans for the westbound I-70 corridor from Dumont, through the Eisenhower Tunnel, to Silverthorne, Colorado.
	The next phase of the project is to develop the proof of concept by working with CDOT Freight, CSP, CMCA volunteers, Drivewyze, and Panasonic (RSU vendor) to determine the best way to accomplish this by utilizing the existing ELD Data Elements Dictionary and the FHWA work done on Work Zone Data Exchange (WZDz) in Maricopa County. The goal would be to reuse similar defined roadway / messaging elements from the smart work zone into a smart safety messaging based upon the ELD dictionary to push the specific message(s) into the specific CMVs at user defined locations along the roadway network.



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FIRM EMPLOYED BY Vectura Consulting Services, LLC				0		
NAME	Brin Ferlito, PE, PTOE			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	7	KE)
TITLE	Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	27	
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   1988   Civil Engineering			
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 25383   LA   09/30/20	023		
YEAR REGISTERED	1993	DISCIPLINE	Civil Engineering   PTOE			
Contract role(s) / brief description of responsibilities	Traffic Control Design, Tra contract.	affic Signal Analysis an	d Design / TMPs / Peer Rev	iews. Brin will perform <b>PROGRAM SUSTAINMENT SUPPOR</b>	<b>RT</b> for	<sup>·</sup> this
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates shoul	d cove	r the years
07/21 - Ongoing	H.007160 - EBR COMPUTERIZED TRAFFIC SIGNAL, PHASE VB   Baton Rouge, LA Brin is the task leaders 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.					
07/19 - Ongoing	<b>MOVEBR NEW CAPACITY PROJECTS PROGRAM MANAGEMENT   Baton Rouge, LA</b> 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					
07/19 - Ongoing	H.004791 DOTD BELLE CHASSE BRIDGE & TUNNEL REPLACEMENT PPP   DOTD   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 DOTD.				er traffic project is	
09/20 - 12/21	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.			s, LA. The . Vectura		
07/18 – 04/19	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 Reguest for Intersection Control Devices on a State Right of Way.			sed c and ignal sted with		
09/17-04/18	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 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.				, <b>LA</b> ) timing for ative.	

08/15-05/17	<b>ENHANCING GUIDANCE FOR EVACUATION TIME ESTIMATE STUDIES</b>   (Nuclear Regulatory Commission Rockville, MD) Brin conducted an applied research study of U.S. Nuclear Regulatory Commission guidance for developing evacuation time estimate studies and produced a technical basis for revision of NUREG/CR-7002 "Criteria for Development of Evacuation Time Estimate Studies" in support of the 2020 update of ETEs. Specifically, Brin was the lead VISSIM modeler for the "large" population models, which consisted of a 20-mile radius model. The VISSIM model input included traffic volumes distributed over 8 hours, highway and intersection lane geometry using links and connectors, conflict areas, traffic signal and stop control and speed. Brin also developed Dynamic Traffic Assignment code to simulate that fastest route out of the evacuated zone.
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	<b>EBR 03-TS-CI-0026 CE&amp;I FOR EBR TRAFFIC SIGNAL SYSTEMS JEFFERSON HIGHWAY CONSTRUCTION   Baton Rouge, LA</b> 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 Brin 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	<b>EBR TRAFFIC SIGNAL SYSTEMS PHASES IV AND V SPN 700-17-0172   Baton Rouge, LA</b> 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.

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FIRM EMPLOYED BY		Vectura Consulting Services, LLC			
NAME	Laurence Lambert, II, PE, F	PTOE, PTP		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	7
TITLE	Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	18
DEGREE(S) / YEA	ARS / SPECIALIZATION		MS   2006   Civil Engineering	-Transportation Focus; BS   1997   Civil Engineering	
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 29901   LA   03/31/20	024	
YEAR REGISTERED	2002	DISCIPLINE	Civil Engineering   PTOE		
Contract role(s) / brief description of responsibilities	Traffic Control Design, Tra contract.	affic Signal Analysis ar	nd Design / TMPs / Peer Rev	iews. Laurence will perform <b>PROGRAM DEVELOPMENT SU</b>	<b>PPORT</b> for this
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates shoul	d cover the years
10/21-03/22	H.013256.5 I-10 ITS SCOTT TO LAKE CHARLES   LA Lead Traffic Engineer. 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.				
09/18 – 02/19	H.013261.1 I-110 ITS DEPLOYMENT SYSTEMS ENGINEERING ANALYSIS Project Manager. As a sub-consultant, Laurence was the task leader for the Constraints & Alternatives Analysis as well as the Projects & Procurement Strategy portion of the project. The goal of the project was to deploy Close Circuit Television (CCTV) cameras and one Dynamic Message Sign (DMS) along the I-110 corridor from US 190 to US 61. To communicate with the field devices from the Traffic Management Centers (TMCs), installing fiber optics along the I-110 corridor was recommended. The fiber optics also allow communication to the traffic signals at the interchange ramps along I-110 to the TMC.				tegy portion of from US 190 to ded. The fiber
08/15-05/17	ENHANCING GUIDANCE FOR EVACUATION TIME ESTIMATE STUDIES   Nuclear Regulatory Commission Rockville, MD Laurence conducted an applied research study of U.S. Nuclear Regulatory Commission guidance for developing evacuation time estimate studies and produced a technic basis for revision of NUREG/CR-7002 "Criteria for Development of Evacuation Time Estimate Studies" in support of the 2020 update of ETEs. Specifically, Laurence was the lead VISSIM modeler for the "medium" and "small" population models, which consisted of a 20-mile radius model. The VISSIM model input included traffic volumes distributed over 8 hours, highway and intersection lane geometry using links and connectors, conflict areas, traffic signal and stop control and speed. Laurence also developed Dynamic Traffic Assignment code to simulate that fastest route out of the evacuated zone.			duced a technical Laurence was affic volumes rence also	
06/12-12/12	RAMP METERING STUDY OF I-10 SEGMENT   East Baton Rouge and Ascension Parishes, LA Project Manager. Laurence conducted a feasibility study to deploy ramp meters along the Interstate 10 (I-10) Corridor in Baton Rouge between Dalrymple Drive and LA 73. The study consisted of analyzing 17 on-ramps under differing design conditions, which include the following: 2010 Existing, 2012 Without Ramp Meter, 2012 Ramp Meter, and 2012 Ramp Meter with Recommendations. Laurence's role in this project as project manager was to oversee all QA / QC measures and interpret the results from the model. Laurence coordinated with the local agencies to obtain all current proposed projects in the area, which included DOTD I-10 Widening Project Phases 1 and 2, the Green Light Plan (GLP) Essen Lane Widening Project, and the GLP Highland Road Widening Project.			Drive and LA 73. 12 Ramp Meter, esults from the es 1 and 2, the	
07/11 - 07/15	H.4400001465 RETAINER CONTRACT FOR LTS TRAFFIC INCIDENT MANAGEMENT (TLM) PROGRAM TRANSPORTATION MANAGEMENT CENTERS (TMC'S) OPERATIONS STAFFING SUPPORT AND SYSTEMS ENGINEERING (SE)   Statewide, LA Laurence was the overall project manager of this multi-year, \$15,000,000 contract that included providing staffing support, developing Standard Operating Procedure Manuals, Traffic Incident Management program support, ramp meter feasibility and design, TMC Concept of Operations, ITS system requirement documentation and Systems Engineering Analysis and Documentation. Laurence coordinated with the DOTD and TMC staff at the following TMC locations: DOTE Headquarters Annex Building, Baton Roue TMC on Harding, New Orleans, Shreveport, and Houma.			CENTERS verating uirement ocations: DOTD	

03/10 - 06/10	<b>BONNET CARRE SPILLWAY SPEED STUDY</b>   New Orleans, LA Project Manager. DOTD asked Laurence to analyze the existing speeds on this facility and various forms of enforcement to ensure safety. Laurence led our efforts for this project, which consisted of a speed study to provide data to the DOTD managers to examine the current speed limit on the Spillway. We investigated other means of speed-limit enforcement, variable speed limits applicability, and managed lane options. 50%, 85%, and 95% speed analyses were performed with the speed data.
08/09 - 12/09	I-12 RAMP METERING PUBLIC OUTREACH   Baton Rouge, LA Project Manager. Laurence prepared exhibits and 3-D models and facilitated three public meetings to educate the public about ramp metering and its implementation. Several stakeholder meetings were held to educate the elected officials and civic groups. Laurence gave a formal presentation at each meeting to describe the benefits of ramp meters and the project specifics.
07/08 – 07/11	SPN 700-99-0413 RETAINER CONTRACT FOR LTS TRANSPORTATION MANAGEMENT CENTERS Laurence was the overall project manager of this 3-year contract that included providing staffing support, developing Standard Operating Procedure Manuals, Traffic Incident Management program support, ramp meter feasibility and design, TMC Concept of Operations, ITS system requirement documentation and Systems Engineering Analysis and Documentation. Laurence coordinated with the DOTD and TMC staff at the following TMC locations: DOTD Headquarters Annex Building, Baton Roue TMC on Harding, New Orleans, Shreveport, and Houma.
01/07 - 08/07	I-12 RAMP METERING STUDY   Baton Rouge, LA Project Manager. Under the ITS retainer contract, Laurence provided analysis and evaluations of potential ramp metering at six interchanges along this corridor. The scope also included analysis of existing traffic conditions, evaluation of proposed solutions, and creation of micro-simulation models of existing and proposed conditions. An existing micro-simulation model was obtained from DOTD to analyze and visually represent the existing traffic conditions. The existing conditions model was calibrated and used as a base to develop models of ramp metering. Laurence presented the findings to DOTD, including an overview map of the interchange area, a schematic of existing volumes, a Micro-simulation of the existing conditions, a summary table of LOS for existing conditions, micro- simulations of proposed solutions, and a summary table of LOS for each solution. Laurence also submitted a formal report of the findings.
03/06 - 10/06	<b>NEW ORLEANS REGIONAL TRANSPORTATION MANAGEMENT CENTER SEA</b> Laurence served as the project manager for the Laurence ITS Design Team that handled the New Orleans Regional TMC project. Laurence provided the Systems Engineering Analysis (SEA) for the operations of the new TMC, which included a conceptual layout of the RTMC data, audio / video, personal computers, and computer equipment including wiring.
03/06 - 09/06	<b>SPN 700-99-0304 TMC DESIGN FOR THE DOTD ANNEX BUILDING</b> Laurence was the project manager to provide design work to supplement the statewide traffic management center within the DOTD ITS Division Office. Design included the development of plans, specifications, and cost estimates for three video walls, communications equipment, equipment control consoles, and equipment hardware and software related to connection to existing fiber optic cable truck line. A technical memorandum was developed for equipment approval. Deliverables included the following: Technical Memorandum, Preliminary, Advance Check Prints, and Final cost estimates, technical specifications, and plans.
02/05 - 07/05	I-10 ATCHAFALAYA BASIN INCIDENT MANAGEMENT PROGRAM   Baton Rouge to Lafayette, LA Project Manager. The primary focus of this project was to evaluate ITS equipment and communications needs and design signing plans to redirect I-10 traffic via US 190 when incidents occur on I-10 over the Atchafalaya Basin. The evaluation included communication system needs, incident history and frequency, ITS equipment needs, radio frequency terrain analysis, alternate route evaluation and systems engineering analysis. Design included incident management signs and conceptual ITS equipment layout. As Project Manager, Laurence was responsible for all aspects of the project.
10/04 - 01/05	I-10 / I-12 HURRICANE EVACUATION STUDY   LA Project Manager. Due to unprecedented congestion related to the evacuation from Hurricane Ivan in 2004, DOTD consulted Laurence to develop strategies to improve the existing hurricanes evacuation plan. Under the ITS retainer contract, Laurence analyzed data collected during the evacuation to develop alternate routes and strategies. These strategies were then modeled using VISSIM to evaluate viability. Results were presented to the Secretary of DOTD and the Colonel of the Louisiana State Police. The outcomes of this project provided the basis for a new evacuation plan that is still utilized today. Project limits included the I-10 / I-12 split in Baton Rouge.

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FIRM EMPLOYED BY		Vectura Consulting Services, LLC			
NAME	Reece Rodrigue, PE, PTOE,	RSP1		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	3
TITLE	Project Traffic Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	7
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2013   Civil Engineering		
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 42074   LA   03/31/20	024	
YEAR REGISTERED	2017	DISCIPLINE	Civil Engineering   PTOE		
Contract role(s) / brief description of responsibilities	Project Engineer for Traffi TSMO STRATEGY, SOLU	c Control Design, Traff	ic Signal Analysis and Desig <b>S</b> for this contract.	n / TMPs / Peer Reviews. Reece will <b>SUPPORT PROJECT DE</b>	EVELOPMENT,
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	'designed girders", "designed intersection", etc. Experience dates shoul	d cover the years
04/21 - Ongoing	<b>MOVEBR DIRECT SELECT FOR TRAFFIC SIGNAL DESIGN   Baton Rouge, LA</b> Reece is a project engineer for the design of traffic signal upgrades at 10 intersections. This projected included a traffic design report, preliminary and final plans for traffic signals that included traffic signal layout, fiber interconnect layout, fiber splicing diagrams, pedestrian crosswalk layout, and sign layout. The design also included traffic signal synchronization signal timing and pedestrian signal timing.				
07/21 – Ongoing	H.007160 - EBR COMPUTE Reece is part of the team res Baton Rouge in accepting the	<b>ERIZED TRAFFIC SIGNA</b> ponsible for Construction manufactured poles. Re	L, PHASE VB   Baton Rouge, LA Engineering and Inspection. Re ece, with the DOTD, City-Parish a	ece has reviewed the signal mast arm shop drawings to assist the C and the Contractor conducted field visits to confirm pole foundation	ity-Parish of locations.
01/21 - 05/21	H.013256 - I-10 ITS SCOTT TO LAKE CHARLES   Lafayette, Acadia, and Jefferson Davis Parishes, LA Reece was a member of the subconsultant team who was tasked with reviewing the ITS plans for 15 sites along I-10 where CCTV cameras were being installed. Reece was responsible for measuring anticipated construction guantities and producing a cost estimate for said guantities by using DOTD's Bid Tabulation and Cost Estimating Tool.			talled. Reece was Estimating Tool.	
09/20 - 12/21	H.011909.5-4 ROUNDABOUT: US 171 AT BOONE ST.   Vernon Parish, LA Reece was a project engineer, who participated in the production of the temporary signal design associated with the sequence of construction for the roundabout at US 1 at Boone St. He conducted a thorough analysis of the US 171 corridor's existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			ndabout at US 171 ted during the	
09/20 - 12/21	H.010960.5 LA 30 ROUNDABOUTS AT TANGER I-10   Ascension Parish, LA Reece was a project engineer, who assisted in the production of the temporary signal design associated with the sequence of construction for the roundabouts on LA 30 in Gonzales, LA. This project consists of eight proposed construction phases. He assisted in calculating the temporary pole heights, determining the placement location for the temporary poles for each phase, measuring and calculating clearance intervals. Reece conducted a thorough analysis of the LA 30 corridor's existing allowable movements and identified the movements that would be restricted during the proposed construction process and how it would impact the typical traffic patterns.			roundabouts ermining the of the LA 30 v it would impact	
04/20 - Ongoing	H.004791 BELLE CHASSE BRIDGE & TUNNEL REPLACEMENT PUBLIC-PRIVATE PARTNERSHIP PROJECT   DOTD   Belle Chasse, LA Reece is the project engineer who designed the temporary traffic signal for the intersection of LA 23 at Engineers Rd. The design of the temporary signals is set for eight phases of construction per the anticipated sequence of construction. Temporary pole location and heights were recommended for placement for use for all construction phases. Vehicle clearance interval calculations were conducted for each phase in accordance with DOTD and ITE guidance. Reece is responsible for producing the traffic impact analysis portion of the Traffic Management Plan, which were also used in planning for the permanent and temporary signal timing plans. Reece was also produced permanent signal plans for the LA 23 intersections at Engineers Road and at Burmaster Street. He evaluated STOP bar locations, calculated vehicle, and pedestrian clearance intervals, designed the railroad preemption sequence for both at-grade crossings, designed the wiring layout, and developed the interconnect plan. Reece maintains correspondence with the fellow design engineering team for product consistency. In addition, Reece reviewed and approved shop drawings that were submitted by the contractor.			signals is set nent for use for is responsible ry signal timing P bar locations, g layout, and eece reviewed	



02/20 - 09/21	<b>COLLEGE DRIVE CORRIDOR ENHANCEMENT FROM PERKINS ROAD TO I-10   Baton Rouge, LA</b> Reece was the task leader for organizing and formatting the data collection 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.
07/19 – 12/19	BURGESS AVENUE AT DUFF ROAD TRAFFIC SIGNAL DESIGN   Walker, LA Reece was responsible for the design of a fully actuated signalized intersection in the city of Walker, LA. The traffic signal was determined to meet signal warrants upon completion of the Foxglove subdivision in Livingston Parish, LA. Plans included road widening, signal face indication schedule, signal sequence chart, sign schedule, detector schedule, controller timing, wiring diagram, and free operation phasing diagram. Reece met with city officials to discuss the feasibility of constructing a traffic signal as opposed to other alternative measures for improving the intersection.
02/16 - 12/16	<b>H.005733.5 US 190 SUPERSTREET TASK ORDER   St. Tammany Parish, LA</b> Reece was a team member responsible for the layouts for the US 190 Superstreet signal designs. He created the preliminary plans using CAD software program MicroStation V8i. He aided in the technical design of each intersection. He conducted field inspections to verify locations of existing equipment as well as observing the area for feasible proposed utility locations. He attended project team meetings to discuss the project details as well as the plan-in-hand walk- through.
01/16 – 11/17	<b>OCHSNER MAIN CAMPUS TRAFFIC SIGNALS   Jefferson Parish, LA</b> Reece served as a design engineer for the traffic signal plans for the two Ochsner Main Campus access traffic signals with US 90 (Jefferson Hwy). The goal of the design was to implement updated pedestrian timings as well as optimize progression through the US 90 corridor. He reviewed traffic data and assigned time of day coordination timing parameters for the two intersections so that they may be included in the coordinated system west of the intersections. He used TruTraffic determine the appropriate offset parameters so that vehicles may progress efficiently through the coordinated system. Plans for the two intersections were drafted in the form of DOTD's latest version of the TSI format. He was responsible for estimating construction quantities using DOTD's 2016 Spec Item list.
10/16 – 05/17	<b>LOYOLA INTERCHANGE MODIFICATION REQUEST   Kenner, LA</b> Reece was a team member in the production of an Interchange Modification Report (IMR) for the I-10 at Loyola Dr. Interchange. He was an active member in collecting vehicle travel time data and processing the data. He also aided in collecting vehicle queues at the study intersections. He also assisted in the Vissim model calibration.
02/15 - 12/15	H.011646 RETAINER CONTRACT FOR DOTD DISTRICT 02 TRAFFIC SIGNAL INVENTORIES - NOLA 3 Reece served as the lead engineer in the production of the traffic study for the District 02 Traffic Signal Inventories. The objective was to effectively correct the progression of traffic through the US 90 (Broad St) corridor. He reviewed vehicle crash data at all intersections in the study scope. He conducted travel time runs. He created a model with existing traffic signal timing information using Synchro 8 Software. He recommended traffic signal pedestrian clearance times and yellow and red clearance times for each intersection. He used MicroStation V8i when designing traffic signal plans in DOTD's TSI format.

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FIRM EMPLOYED BY		Applied Research Associates, Inc.			
NAME	Erin J Flanigan, P.E., PMP			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1
TITLE	Principal, Transportation C	perations and Safety		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	27
DEGREE(S) / YEA	RS / SPECIALIZATION		MS   1994   Civil Engineering	; BS   1987   Civil Engineering	
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	PE No. 14263   KS*   04/30/2	2024	
YEAR REGISTERED	1992	DISCIPLINE	Civil Engineering   Project M	anagement Professional #121207 (Project Management Institut	e)
Contract role(s) / brief description of responsibilities	With over 27 years of experience, Erin leads research and analysis work in the areas of transportation operations, intelligent transportation systems (ITS) planning, transportation systems management and operations (TSMO) planning and program development, and benefit cost analysis. She led a team to implement the research of the SHRP 2 L06 program by conducting capability maturity model (CMM) self-assessment workshops and developing implementation plans for State Departments of Transportation (DOT). This work began with the development of a Primer document on the basic functionality of the CMM framework (FHWA-HOP-12-003). Erin has led CMM workshops for more than 37 State DOTs and regional agencies. If this role she facilitated self-assessment workshops with executive management of State DOTs that resulted in plans to advance operations at these agencies. After the series of workshops were completed, she developed White Papers for FHWA summarizing the overall maturity trends specific to each of the six dimensions of capability. Furthering the work and outputs from the workshops, she led NCHRP 20-07/365 which developed the unifi TSMO Program Planning framework. This NCHRP research conducted a survey with participants of the CMM workshops to determine important elements in developing a framework for TSMO planning programs. Erin was also a primary author of an FHWA guidebook on developing a TSMO Business Case Guidebook of Institutional, Organizational, and Procedural Changes (FHWA-HOP-19-017) needed for a more effective TSMO program In 2020, she led a peer exchange that focused on how agencies with using the outputs of their CMM assessments in advancing their TSMO program (FHWA-HOP-20-046). She has developed TSMO Program Plans for over nine State DOTs and is a member of the TRB Committee for Regional TSMO (ACP10). Erin is a skilled facilitator and has led numerous workshops, webinars, and breakout sessions. Erin will lead the CMM assessment for this project work as well as support outreach ad awareness building of			on systems sis. She (shops and cument on the agencies. In ons at these s specific to bed the unified nportant a TSMO VO program. MO programs jional TSMO ient for this <b>PABILITY</b> <b>ACH, AND</b>	
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).				d cover the years
08/2015- 05/2022	MICHIGAN STATEWIDE TSMO STRATEGIC PLAN AND TSMO BUSINESS CASE. MICHIGAN DOT. STATEWIDE. Erin led the team and developed a TSMO Strategic Plan which included five persuasive business case tailored to various stakeholder audiences to advance transportation operations in Michigan. This work included developing tactical work plans across ten subject areas to advance operations in the state. Specific work elements included developing and conducting a work session to assess current Michigan DOT funding templates to see where TSMO fits into their current processes. She is currently managing the maintenance phase of this work where the strategic plan was updated in January 2020 to account for agency advancements in implementing the plan.				advance ate. Specific their thor agency
1/2018-5/2022	UTAH STATEWIDE TSMO BUSINESS CASE. UTAH DOT. STATEWIDE Erin developed the Utah DOT TSMO business case to advance operations throughout Utah. The project conducted interviews with senior leaders to document TSMO awareness, collaboration, gaps, and priorities in the agency and provide a framework on how to further integrate TSMO in the Utah DOT organization. In implementing this work she developed processes and resources, such as an Operations Review Checklist, to advance the operations mindset. This work resulted in Operations bein added to the UDOT project development process.				cument TSMO n implementing Operations being
2/2020-5/2022	TENNESSEE STATEWIDE TSMO PROGRAM PLAN. TENNESSEE DOT. STATEWIDE         Erin worked with the state of Tennessee to document how the state will advance operations over the next decade. This work began with a peer scan of what other states were doing to advance TSMO followed by documenting the business case for TSMO. She then developed the TDOT TSMO Program Plan detailing how to institutionalize TSMO and tactically advance eight TSMO applications. This plan was completed in January 2022.				at other states nstitutionalize

6/2018-5/2022	MARYLAND DOT-STATE HIGHWAY ADMINISTRATION (SHA) TSMO PLAN UPDATE. MARYLAND DOT SHA. STATEWIDE Erin is supporting Maryland DOT-SHA's TSMO program. She provided materials in the revisions to their 2018 TSMO Statewide Plan and supports the TSMO Executive Committee with updates and materials as needed. As part of this support, she drafted policy language to advance TSMO at SHA.
3/2017-3/2018	ARIZONA STATEWIDE TSMO PLAN. ARIZONA DOT. STATEWIDE Erin was part of a team to develop a statewide TSMO Program Plan for the Arizona DOT. This work included the development of a project selection prioritization process where ITS projects and strategies were scored and ranked for potential funding by the agency.
3/2017-5/2022	<b>MISSOURI STATEWIDE TSMO PLAN. MISSOURI DOT. STATEWIDE</b> Erin developed the Missouri DOT TSMO Program Plan based on the agency's CMM workshop assessment in 2017 and was selected to help update the plan in 2020. This work has included crafting a business case to better position TSMO throughout the department and a strategy for educating Missouri DOT staff and key stakeholders on projects and the interrelationship to advancing TSMO in Missouri. This plan focuses on the rural aspects of TSMO, including work zone applications, incident management, and the connected and automated vehicle (CAV) future.
5/2017-12/2017	<b>IOWA DOT STRATEGIC ITS AND COMMUNICATIONS PLAN. IOWA DOT. STATEWIDE</b> Erin was part of a team that developed a tactical analysis and presentation for statewide deployment and operations of ITS and communication assets in the State of Iowa. This work supported the ITS service layer plan defined in the Statewide TSMO Program.
9/2017-9/2018	<b>FHWA OFFICE OF OPERATIONS. FHWA GUIDELINES FOR APPLYING CMM ANALYSIS TO V2I DEPLOYMENT (FHWA-JPO-18-629)</b> Erin managed a task to develop foundational guidelines to support State and local agency effort to ensure they have the business/technical processes and institutional framework needed to adopt V2I technology into their transportation systems. The guidelines were developed following the CMM framework approach to facilitate discussions that will help identify the institutional and organizational needs associated with developing and sustaining V2I capabilities.
08/2014-8/2018	<b>FHWA OFFICE OF OPERATIONS. CMM WORKSHOPS</b> Erin led this four-year program that developed materials and conducted over 40 CMM workshop to State DOTs and metropolitan planning organizations. Twenty of the workshops included the development of CMM Implementation Plans. She was a primary facilitator of CMM workshops and led the delivery of all work products to FHWA.
08/2017 - 08/2019	FHWA OFFICE OF OPERATIONS Guidance document on Making the TSMO Business Case for Institutional, Organizational, and Procedural Success. Erin was the primary author of this guidebook for State DOTs to institutionalize TSMO and provide for effective TSMO programs. This guide was published in 2019 as FHWA-HOP-19-017
08/2019- 08/2020	FHWA OFFICE OF OPERATIONS 2020 TSMO Peer Exchange. In 2020, Erin led a peer exchange that brought together over 14 national TSMO leaders to discuss their TSMO successes. The peer exchange focused on how agencies were using the outputs of their CMM assessments in advancing their TSMO programs and resulted in a final report (FHWA- HOP-20-046).

FIRM EMPLOYED BY Applied Research		Applied Research Asso	ciates, Inc.		60		
NAME	Jason Bittner, PMP	-		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	8		
TITLE	Principal, Transportation P	lanning and Policy		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	14		
DEGREE(S) / YE	ARS / SPECIALIZATION		MPA   2000   Energy Analysis	s and Policy; BA   1995   Public Administration			
ACTIVE REGISTRATION NUMBER / STATE / EXPIRATION DATE			N/A				
YEAR REGISTERED	2016	2016 DISCIPLINE Project Management Professional #1928285 (Project Management Institute)					
Contract role(s) / brief description of responsibilities	Jason has more than 20 years of experience in freight transportation policy, planning, and research. He has a particular interest in freight transportation policy and development and has completed a range of projects for state and federal Departments of Transportation on freight and goods movement. He launched the University of South Florida's strategic freight transportation research program in 2013 and facilitated a first-of-its-kind peer exchange among freight focused researchers that attracted over 50 participants. He helped found the Mid-America Freight Coalition and was a Research Scientist and Deputy Director at the National Center for Freight and Infrastructure Research and Education. He has developed implementation guidance for automated and connected vehicles and prepared multi-state plans for the movement of freight Plan and has instructed courses on freight policy and operations for the University of South Florida and the University of Wisconsin. He manages delivery contracts for National Highway Institute Courses in Value Engineering and Utility Coordination. His NHI instructor number is 0672. For this project work Jason will lead the representation of Freight aspects in the TSMO planning effort. Jason will perform <b>FREIGHT MANAGEMENT STRATEGIES</b> for this contract, and also <b>SUPPORT</b>						
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	I cover the years		
09/19 - 08/21	NCHRP SYNTHESIS 20-05/51-12 NIGHT AND WEEKEND MOVEMENT OF OSOW LOADS Jason was the primary author of the NCHRP synthesis product published in 2021. This report included a state of the practice, literature review, and case studies on permitted movements during nights and weekends. The synthesis included a survey of existing practice, literature review, and detailed case reviews of five states.						
04/14 - 01/16	EVALUATION OF LOGISTICS LED ECONOMIC DEVELOPMENT   FLORIDA DOT Jason supported this effort which included and analyzed several considerations for siting, evaluating, and investing in freight activity centers.						
01/14-12/14	<b>COSTS AND BENEFITS OF INCREASING LOAD SIZE FOR CERTAIN CIRCUMSTANCES OF FREIGHT IN WISCONSIN   WISCONSIN DOT</b> The focus of this project was to identify and quantify the impacts in Wisconsin of increasing the gross vehicle load limit for international containers to above 80,000lbs. The current gross vehicle weight limit of all axles is 80,000 lbs. except for non-divisible loads such as heavy machineries on the interstate system. This limit especially proves to be constraining to shipments slightly higher than 80,000lbs. Wisconsin adjusted its current policy in certain situations for divisible loads. The focus of this project was to identify and quantify the impacts in Wisconsin of increasing the gross vehicle load limit for international containers to above 80,000lbs. This project: 1) quantified issues associated with increasing allowable weight for international containers, 2) examined the container vehicle load limit regulations within Wisconsin and its neighboring states, 3) identified key barriers and motivations for modifying allowable load limits, and 4) conducted three case studies on select freight corridors and select commodities of local/regional interest, including soybeans.						
03/13 - 01/15	MISSISSIPPI VALLEY FREIGHT COALITION LOW COST STRATEGIES FOR TRUCK PARKING   MAFC This project developed an inventory of existing and needed truck parking locations across the multistate region. Jason provided the base research for the analysis and supported final work products. This project developed an inventory of existing and needed truck parking locations across the multistate region. Jason, while with the National Center for Freight and Infrastructure Research and Education, collaborated on efforts to survey truck drivers from various industry segments across the 10-state Mississippi Valley Conference region. This project included direct trucker survey and data collection techniques, including in-person and web-based survey mechanisms. The innovative web survey mechanism created a Google Mashup to collect necessary project data. Jason was part of the research team to complete this project, completing surveys and analyzing the resultant information						
03/11 - 01/12	WISCONSIN DEPARTMENT As part of a team, Jason and process for evaluating and a	SCONSIN DEPARTMENT OF TRANSPORTATION TRUCK SIZE AND WEIGHT STUDY part of a team, Jason analyzed and reviewed changing business practices and economic forces related to heavy hauling industries and developed a performance-based pcess for evaluating and administering Wisconsin's truck size and weight regulations.					



09/18 - 12/20	<b>POWER PROJECTION PLATFORM ROUTE ASSESSMENTS</b> For the Federal Highway Administration and the Surface Deployment and Distribution Command Transportation Engineering Agency, Jason led the desk review and assessment of PPP Routes between military installations and ports of embarkation. The project involved planning, pavement, bridge, and risk assessments and visual inspections.
08/10 - 08/11	UNDERSTANDING THE CONSEQUENCES OF THE PANAMA CANAL EXPANSION ON MIDWEST GRAIN AND AGRICULTURAL EXPORTS. NATIONAL CENTER FOR FREIGHT AND INFRASTRUCTURE Jason led this study that explored the implications and impacts of expanding the Panama Canal. The study examined public and private sector stakeholders' expectations, and considered the environmental and economic impacts the expansion may cause in the grain and agriculture sectors.



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FIRM EMPLOYED BY		Applied Research Asso	Applied Research Associates, Inc.			
NAME	Neil Janes			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1	
TITLE	Junior, Staff Researcher			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	2	
DEGREE(S) / YEA	ARS / SPECIALIZATION		MS   2022   Urban and Regio	nal Planning; BS   2000   Internal Studies		
ACTIVE REGISTR	RATION NUMBER / STATE / E	XPIRATION DATE	N/A			
YEAR REGISTERED	N/A	DISCIPLINE	N/A			
Contract role(s) / brief description of responsibilities	Neil recently graduated from the University of Wisconsin Madison in the Urban and Regional Planning program with a focus on transportation planning and policy. He will join ARA in February 2023 as a Staff Analyst. He formerly worked for the Greater Madison MPO to assist with an update to the regional transportation plan, and with the Center on Wisconsin Strategy, a national think-tank, to draft policy briefs on innovative city policy measures. Neil joined the staff of ARA in 2022 while working as a teaching assistant at the University of Wisconsin. For this work Neil will support the project team in research and writing. Neil will perform <b>PROGRAM SUSTAINMENT SUPPORT</b> for this contract.					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	Experience and qualifications relevant to the proposed contract; i.e., "Designed drainage", "designed girders", "designed intersection", etc. Experience dates should cover the years of experience specified in the applicable MPR(s).				
09/21 - 06/22	<b>GREATER MADISON METROPOLITAN PLANNING ORGANIZATION (MPO) CONNECT GREATER MADISON REGIONAL TRANSPORTATION PLAN 2050</b> <b>UPDATE</b> While with the MPO, Neil assisted the effort to provide communications, outreach, marketing, and public involvement to a regional transportation plan update. This plan focused on defining goals, vision, and recommendations for the regional transportation system. As part of his responsibilities, Neil was responsible for analyzing public survey data to understand the role of telework on transportation demand management activities in the Madison region.					
04/22 - 06/22	MID CONTINENT REGIONAL SCIENCE ASSOCIATION 52ND ANNUAL CONFERENCE EAs a graduate student in Urban and Regional Planning at the University of Wisconsin Madison, Neil conducted and presented a literature review on electric vehicle technologies, adoption, and policy to distinguished researchers and practitioners in the regional sciences field.					
09/20 - 12/22	<b>DEPARTMENT OF PLANNING AND LANDSCAPE ARCHITECTURE. UNIVERSITY OF WISCONSIN</b> While at the University of Wisconsin Madison, Neil assisted with the teaching, delivery, and facilitation of two courses related to urban planning, leadership, and resilience. He was invited to give a presentation on global planning perspectives and urban development and helped facilitate a lecture on introduction to transportation demand management, transportation innovations, and current city of Madison transportation projects.					
12/20 - 09/21	CENTER ON WISCONSIN STRATEGY MAYORS INNOVATION PROJECT As a metropolitan policy research associate with the Mayors Innovation Project, Neil authored multiple policy briefs for city staff on innovative policy measures including on topics such as resilience, sustainability, and public health.					

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FIRM EMPLOYED BY Marmillion/Gray		Marmillion/Gray Media	lia, Inc.			
NAME	Rannah Gray			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	17	
TITLE	Public Involvement Lead			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	22	
DEGREE(S) / YEA	RS / SPECIALIZATION		MS   1979   Journalism; BS	1977   Journalism		
ACTIVE REGISTR	RATION NUMBER / STATE / E	XPIRATION DATE	N/A			
YEAR REGISTERED	N/A	DISCIPLINE	N/A			
Contract role(s) / brief description of responsibilities	One of the state's most experienced public engagement professionals for transportation projects, Rannah has developed and implemented successful strategies for public and stakeholder outreach in Louisiana, Texas, Mississippi, Alabama and Florida. She serves as the communications lead and public engagement co-lead for MOVEBR, and the public outreach and marketing lead for Commuter Krewe, a project of the Capital Region Planning Commission (CRPC) and DOTD to reduce traffic congestion by promoting alternatives to single occupied vehicle travel. Rannah has worked on environmental studies for the proposed Baton Rouge Loop project and the proposed Nicholson Corridor High-Capacity Transit System, which is now the Bust Rapid Transit project. She is a graduate of the 2013 Louisiana Leadership Class and her work has won over 20 national marketing and communications awards. Rannah will perform Engagement, outreach and stakeholder training.					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the a	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	d cover the years	
07/19 - Ongoing	MOVEBR TRANSPORTATION AND INFRASTRUCTURE IMPROVEMENTS PROGRAM   City of Baton Rouge   East Baton Rouge Parish, LA Rannah is the communications lead and public involvement co-lead. She wrote the program's strategic communications plan, created the MOVEBR brand; manages media outreach, public events, in-person and online stakeholder outreach. The MOVEBR program is the largest transportation and infrastructure initiative in East Baton Rouge Parish history, providing an investment of over \$1 billion in capacity projects, existing corridor enhancements, community improvements and traffic signal synchronization.					
09/19 - Ongoing	LOCAL PUBLIC AGENCY DOCUMENTED PLANNING PROCESS FOR DOTD   DOTD   Baton Rouge, LA Rannah was the public outreach consultant for this project. She wrote the plan's public and stakeholder involvement chapters, including strategies for gathering in-person and online public input. She led development of toolkit templates and resources for to be used by smaller cities, towns and parishes for transportation planning. The project will be piloted in three communities and the consulting team will use lessons learned to revise the final planning document.					
12/18 - 2021	BATON ROUGE BUS RAPID TRANSIT FEASIBILITY STUDY   East Baton Rouge Parish, LA Rannah served as public outreach lead. She was responsible for the planning and implementation of stakeholder and public meetings to gather input for proposed bus routes on Nicholson Drive and Plank Road. This project and its funding has been brought into the MOVEBR program for more efficient management where she will continue to manage public engagement strategies for the project.					
04/18 - 10/18	ADA TRANSITION PLAN FOR BATON ROUGE PARKS AND RECREATION COMMISSION (BREC)   Baton Rouge, LA Rannah was the lead for public outreach. She was responsible for the planning and implementation of stakeholder and public outreach activities, development of a database of advocacy organizations and people living with disabilities; management of accessible public meetings, surveys and stakeholder outreach; and creation of outreach materials. This project evaluated BREC facilities, gathered public and stakeholder input to determine priorities and developed a plan for bringing facilities into compliance with the Americans with Disabilities Act (ADA).					
07/17 - Ongoing	BATON ROUGE TRAVEL DEMAND MANAGEMENT PROJECT (COMMUTER KREWE OF LOUISIANA) FOR CRPC   Baton Rouge, LA Rannah serves as the public outreach and marketing lead. She is responsible for development of the Commuter Krewe brand, marketing plan, and promotional strategies to help reduce single-occupied vehicles. The Commuter Krewe program was developed to help reduce traffic congestion in the Capital Region.					
03/09 - 03/16	IMPLEMENTATION PLAN Rannah served as the lead for official briefings and public	AND EIS FOR THE BATC for public outreach. This hearings. The Baton Rou	<b>DN ROUGE LOOP PROJECT FO</b> included building stakeholder uge Loop was a proposed by-p	<b>DR THE CAPITAL AREA EXPRESSWAY AUTHORITY (CAEA)</b>   Ba databases, managing stakeholder workshops, public meetings, s ass around Baton Rouge to help reduce traffic congestion in the (	t <b>on Rouge, LA</b> surveys, elected Capital Region.	



FIRM EMPLOYED BY		Neel-Schaffer, Inc.				
NAME	Said El Said, PE, PhD			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	1	
TITLE	Transportation Systems Pr	ogram Manager		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	19	
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS / 2002 / Civil Engineering	; MS / 2006 / Civil Engineering; PhD / Transportation Engineerin	g / 2022	
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 0047227 / LA / 03-31	-2025		
YEAR REGISTERED	2022	DISCIPLINE	ISCIPLINE Civil Engineering			
Contract role(s) / brief description of responsibilities	Said will provide <b>STRATE</b> <b>SUPPORT.</b> Additionally, he	GIC PLAN DEVELOPM e will support PROJEC	ENT AS PART OF PROGRAM T DEVELOPMENT, TSMO ST	I DEVELOPMENT. He will also provide PROGRAM SUSTAINN RATEGY, SOLUTIONS AND PROJECTS.	<b>/IENT</b>	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the a	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	l cover the years	
10/22 - 12/22	The project deploys Active Arterial Management (AAM), Active Traffic Management (ATM), Traffic Demand Management strategies (TDM), ramp meting system, traveler information enhancements, and connected vehicle/autonomous vehicle (CV/AV) applications. The project limits for the I-24 SMART Corridor include approximately 28 miles along I-24, 28 miles along SR 1 within Metro Nashville, LaVergne, Smyrna, and Murfreesboro, and 30 miles of connector routes between I-24 and SR 1. The project is the first of its kind in the state of Tennessee with an estimated construction budget of over \$110 million, including all the planned phases. The project is located across five transportation systems to include: TDOT, Metro Nashville, La Vergne, Smyrna, and Murfreesboro. The technology deployed, in the first two phases, includes major upgrades to approximately 130 signalized intersections along the arterial (SR 1) and connector routes, 150 Connected Vehicle Roadside Units, 67 Active Lane Management gantries, 31 CCTV systems, and 23 Dynamic Message Signs. With different levels of complexity between the networks. Center to Center connectivity between the 4 TOCs and TDOT/TMC has been coordinated to allow for short- and long-term solutions.					
08/18 - 05/22	SMARTWAY CENTRAL SOFTWARE ATMS, STATEWIDE, TN ActiveITS is the Central Software used in the Transportation Management Centers initially in Florida and Texas. Tennessee DOT chose the software to be deployed in the four TMCs to manage the operations of the ITS devices and provide a single interface to the operators for Active traffic Management.					
07/18 - 05/22	I-24 SMART CORRIDOR DECISION SUPPORT SYSTEM, NASHVILLE AND MURFREESBORO, TN Multiphase project to instrument the regional corridor for Active Traffic Management. The project deployed: 54 miles of conduit and cable, 336 Active Lane Management signs, 23 Dynamic Signs, 31 CCTVs, 138 Detection cameras, 297 Radar Detection Sensors, 146 DSRC CV Roadside Units, and 256 switches.					
09/22 - Ongoing	<b>REGIONAL ITS ARCHITECTURE UPDATE, LAFAYETTE, LA</b> Updating of the Regional ITS Architecture document and RAD-IT file for the city of Lafayette, LA. Conducted stakeholders' workshops and interviews to identify User Needs, Services, and Requirements. Updated the project document and files using the Turbo and RAD-IT software.					
10/20 - 12/22	<b>I-24 MOTION TESTBED PROJECT, NASHVILLE, TN</b> The MOTION project is one of a kind on the international scale. With the deployment of 40 camera poles standing at 110 feet and higher, 276 CCTVs (4K) cameras are deployed on I-24 between Bell Road and Waldron Road. The deployed cameras will serve the testbed project to capture the traffic behavior on I-24. The 4K streams are used to capture vehicle by vehicle trajectories (x, y, z, time) to allow for the analysis of traffic behavior under different conditions along the monitored stretch of the interstate. The first research using the testbed is led by Vanderbilt University using automated vehicle technology to provide a solution for the "Phantom Jam." The testbed is located within the I-24 Smart Corridor and provides a fully instrumented real-life environment for transportation research and technology developers. This initiative has the potential to change transportation research by providing the opportunity to analyze the traffic behavior in real time without dependency on simulation programs.					
11/18	I-75 INTERCHANGE MODIFICATION AT I-24, HAMILTON COUNTY, TN Acted as the ITS Program Manager to coordinate with Neel-Schaffer as a consulting firm to ensure complete ITS project design and deployment for the project. This included inventory of ITS items requiring relocation, identifying relocation procedures, ensuring continuation of ITS services during construction, upgrading specifications and special provisions to procure adequate ITS and communication devices, and coordinating with TDOT TMC/IT staff for integration of devices.					



12/18 - 06/19	I-40/I-840 TRAVEL TIME SIGNS, LEBANON AND DICKSON, TN This project displays the travel times for drivers bypassing Nashville. With the ability to travel along I-40 and I-840, travel times change based on traffic conditions. While the approximately one-hour drive along I-40 is the shorter of the two routes, the longer route along I-840 becomes the best alternative during congested traffic conditions. The project includes four Dynamic Message Sign inserts deployed on I-40 near Lebanon and Dickson, TN. The travel time signs allow drivers to choose the best alternative route to bypass Nashville. The project was a unique prototype that was performed using in-house resources to plan, design, test, and support the deployment. Cellular communication was used to connect the remote locations to TDOT/TMC while coordinating with local utilities to establish power connections.
06/21 - Ongoing	<b>TENNESSEE STATEWIDE DYNAMIC MESSAGE SIGNS END-OF-LIFE CYCLE REPLACEMENT</b> The four SmartWay Systems in Tennessee started with major deployments since 2002. The ITS systems include aging technology that requires upgrades across the state. Starting with two of the four regions, this project includes the full replacement and upgrade of DMSs installed prior to the year 2012. Region 1 and Region 3 (Knoxville and Nashville) SmartWay systems will receive replacement and upgrade to full color high resolution message signs. The project includes the installation of 65 DMSs in the two regions.
Career History	Said joined Neel-Schaffer in 2022 and serves as a Transportation Systems Program Manager, based in the firm's Nashville office. He received a Philosophy Doctorate in Transportation Engineering from Vanderbilt University. In May 2022, Said joined Neel-Schaffer following an 19-year career with the Tennessee Department of Transportation.
	Mr. El Said founded TDOT's Intelligent Transportation Systems section for the inception of the Transportation Operations Division within the department. As part of the Top-To-Bottom review initiative in TDOT, the TOD was created and the ITS section started to plan, design, procure contracts, inspect, provide technical support,
	<ul> <li>maintain, and upgrade the ITS SmartWay networks in Tennessee.</li> <li>As TDOT ITS Program Manager, Said: <ul> <li>Provided ITS Planning for the major SmartWay networks centered around the four major urban areas (Knoxville, Chattanooga, Nashville, and Memphis).</li> <li>Led the ITS Technology Working Group to decide on traffic and operations needs and define functional requirements to select ITS technology for the SmartWay networks.</li> <li>Coordinated the programing process for ITS development on TDOT projects.</li> <li>Conducted System Engineering Analyses for TDOT projects, including ITS technology.</li> <li>Managed the design process for ITS projects.</li> <li>Developed and updated construction specifications for ITS technology.</li> <li>Supported and managed the contract procurement processes to include lowest bid, invitation to bid, best and final offer, sole source, qualification-based section, design build, and CMGC. Assisting in resolving legal claims.</li> <li>Provided Technical support to regional operations offices on the deployment and maintenance of ITS devices.</li> <li>Supported and/or led multiple grant writing proposal applications.</li> <li>Acted as TDOT lead on multiple research projects.</li> </ul> </li> </ul>

FIRM EMPLOYED BY		Neel-Schaffer, Inc.				
NAME	Vijay Kunada, PE, PTOE, PT	P		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	16.5	
TITLE	Vice President			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	4.5	
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS / 1999 / Civil Engineering	; MS / 2001 / Civil Engineering; MS / 2002 / Computer Science		
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	PE No. 0032145 / LA / 03-31	-2024; PTOE No. 2868		
YEAR REGISTERED	2006	DISCIPLINE Civil Engineering				
Contract role(s) / brief description of responsibilities	Vijay will provide <b>PROGR</b>	AM DEVELOPMENT SU	<b>IPPORT</b> on this contract.			
Experience dates (mm/yy - mm/yy)	Experience and qualifications r of experience specified in the a	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	'designed girders", "designed intersection", etc. Experience dates should	I cover the years	
04/18 - Ongoing	LA 328 (REES STREET) CORRIDOR STUDY AND PLAN, S.P. NO. H.013023 Project Manager, Managed the feasibility study of improving La. Hwy. 328/Rees Street within the corporate limits of the City of Breaux Bridge, Louisiana from Latiolais Road to E Bridge Street including the intersection of E Mills Ave at LA 328 improvements considering the impacts of the proposed E Mills Ave extension to Doyle Melancon Ext. Along with overall project management, Mr. kunada lead the traffic and safety study in accordance with DOTD's TEPR, three public meetings and stakeholder outreach. VISSIM was utilized to develop a video rendering of the proposed corridor concept operations to present at the public meetings. A locally preferred corridor concept was also developed.					
09/20 - 06/21	MOVE 2046 DEMOGRAPHICS AND TRAVEL DEMAND MODEL (TDM) UPDATE (State Project No. H.972353): Mr. Kunada managed the development of tour based regional travel demand model (TransCAD) along with a land use allocation model for scenario planning and development of regional demographics. This is the latest model that should be used for all traffic forecasting within the Baton Rouge MPO area. Mr. Kunada also managed the development of all TDMs for the Baton Rouge MPO area since 2006.					
10/18 - 03/21	<b>2045 MISSISSIPPI UNIFIED LONG-RANGE TRANSPORTATION INFRASTRUCTURE PLAN (MULTIPLAN)</b> Mr. Kunada was the Task Manager for developing three Metropolitan Transportation Plans (Jackson, Gulf Coast, and Hattiesburg). This planning effort continues the previous 2040 plan initiative of coordinated statewide public engagement process that is being used to identify and prioritize projects and by placing greater emphasis on all transportation options, especially transit, bicycle, pedestrian, and freight modes. Mr. Kunada is also managing the development of the statewide and regional travel demand models.					
09/19 - 08/20	MONROE (LA) 2045 METROPOLITAN TRANSPORTATION PLAN Mr. Kunada lead the update of the region's long-range transportation plan and travel demand model (TransCAD) utilizing innovative, performance-based approach to address the region's multi-modal needs and meet new FAST Act requirements. Public outreach is conducted using an all-inclusive public engagement platform (PublicInput.com) platform combining online surveys, map input, social media, text messaging and news articles outreach. TDM was updated using Big Data sources (Streetlight and NPMRDS). A regional transit ridership forecasting model was also developed using FTA's STOPS modeling platform to assist with transit planning.					
04/19 - 06/20	HOUMA-THIBODAUX (LA) 2045 METROPOLITAN TRANSPORTATION PLAN As Project Manager, Mr. Kunada led the update of the region's long-range transportation plan and travel demand model (TransCAD) that utilized an innovative, performance-based approach to address the region's multi-modal needs and meet new FAST Act requirements. TDM was updated using Streetlight and NPMRDS datasets by calibrating and validating network attributes, trip generation, trip distribution, mode choice, and traffic assignments components. External trip module was redone with observed trip data provided by Streetlight dataset. A regional transit ridership forecasting model was also developed using FTA's STOPS modeling platform to assist with transit planning.					
11/20 - 03/22	ACADIAN MPO 2050 MET (State Project No. H.972323 plan. Tasks included latest alternative analysis, project	ROPOLITAN TRANSPOI 3.1): As Project Manager regional travel demand r prioritization and assist	<b>RTATION PLAN</b> r, Mr. Kunada assisted the MPC nodel (TransCAD) developmen ance with robust public and st	) with development of performance based multi-modal long range t using big data sources, demographic forecasting, traffic forecas akeholder engagement element and plan development.	e transportation sting &	

2020	MOVING TOGETHER 2050: REGIONAL TRANSPORTATION PLAN FOR MEMPHIS MPO AREA As Project Manager, Mr. Kunada oversaw the development of a performance-based multi-modal long range transportation plan with detailed regional freight component and robust public and stakeholder engagement. This project also included detailed corridor level conceptual plans with complete street and access management concepts, and roundabout conceptual layouts at intersections with right-angled/left-turn crashes.
10/21 - Ongoing	<b>MOVEBR'S COLLEGE DRIVE ENHANCEMENT PROJECT, BATON ROUGE, LA</b> Mesoscopic Modeling (Dynameq) Lead to analyze several off and on corridor concepts considered in the vicinity of College Drive between Perkins Road and I-10. These concepts were modeled to determine which concept, or group of concepts, would result in the most improvements within the study area.
08/20 - Present	I-10 & I-12 COLLEGE DRIVE FLYOVER RAMP DESIGN BUILD, BATON ROUGE, LA Mesoscopic Modeling Lead for the analysis of Transportation Management Plan (TMP) for the proposed College Drive Ramp improvements. TMP was prepared for the various maintenance of traffic (MOT) phases. Vijay is leading the Dynameq (Mesoscopic Modeling) modeling for evaluating various MOT strategies and completed the modeling of MOT Phase 1.
08/16 - 10/18	I-10 MOBILE RIVER BRIDGE AND BAYWAY WIDENING, MOBILE, AL (DPI-0030(005)) As IMR Lead, Mr. Kunada oversaw the development of IMR from data collection phase through the approval of IMR by FHWA on October 3, 2018. Tasks included traffic forecast for toll and non-toll options, analysis of the proposed Mobile River Bridge and the widening of the Bayway using Synchro/HCS, as well as the proposed modifications to the interchanges within the study area including Diverging Diamond Interchange (DDI) configurations at three locations, VISSIM modeling for analyzing complex weave conditions and the development of IMR in accordance with ALDOT guidelines and FHWA Policy Points.
03/17 - 12/17	I-210 BRIDGE TRAFFIC IMPACT STUDY, CALCASIEU PARISH, LA Project Manager. Managed a traffic study to develop a preferred alternative by analyzing the impacts of various I-210 bridge closure alternatives, and to develop recommendations to manage the expected congestion related to the planned rehabilitation of I-210 bridge over Prien Lake in Lake Charles, Louisiana. Developed project specific travel demand model.
11/15 - 03/19	I-49 INTERCHANGE IMPROVEMENT AT US 190 AND LA 31, ST. LANDRY PARISH, LA Tasks included the development of existing and future traffic projections and the development of corridor concepts using the Access Management (AM) strategies, road diet options and innovative intersection configurations such as R-Cuts, J-turns and Roundabouts. LA (DOTD Project No: H.011243.1): Role: Project Manager
09/20 - 06/21	MOVE 2046 DEMOGRAPHICS AND TRAVEL DEMAND MODEL (TDM) UPDATE (State Project No. H.972353): Mr. Kunada managed the development of tour based regional travel demand model (TransCAD) along with a land use allocation model for scenario planning and development of regional demographics. This is the latest model that should be used for all traffic forecasting within the Baton Rouge MPO area. Mr. Kunada also managed the development of all TDMs for the Baton Rouge MPO area since 2006.
11/15 - 02/19	<b>SOUTHCITY PARKWAY EXTENSION, PHASE 1, ROBLEY DRIVE TO KALISTE SALOOM ROAD, LAFAYETTE PARISH, LA</b> Environmental Assessment developed in conformance with USCG guidance, engineering line and grade and technical environmental studies supporting the design and construction of Southcity Pkwy extension from current terminus west of the Vermillion River to Kaliste Saloom Road including a crossing of the Vermillion River, which is a navigable waterway. Project Engineer responsible for traffic forecast and analysis, including three roundabout geometry intersections.
09/19 - 12/20	MONROE (LA) 2045 METROPOLITAN TRANSPORTATION PLAN (CONNECTING OUACHITA 2045) (State Project No. H.972323.1): As Project Manager, Mr. Kunada oversaw the development of performance based multi-modal long range transportation plan with detailed regional freight component. Tasks also included travel demand model development using big data sources, demographic forecasting, detailed multi- modal operational and safety needs analysis with robust public and stakeholder engagement element.



FIRM EMPLOYED BY		Neel-Schaffer, Inc.			
NAME	Jonathan Duhe, PE, PTOE,	RSP		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	10
TITLE	Project Engineer			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	1
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS / 2011 / Civil Engineering		
ACTIVE REGISTR	RATION NUMBER / STATE / E	XPIRATION DATE	PE 0041047 / LA / 03-31-202	23; PTOE No. 4418 / 03-18-2024; RSP No. 282 / 07-17-2025	
YEAR REGISTERED	2016 DISCIPLINE Civil Engineering				
Contract role(s) / brief description of responsibilities	Jonathan will provide sup	port for <b>PROJECT DEV</b>	ELOPMENT, TSMO STRATE	GY, SOLUTIONS AND PROJECTS on this contract.	
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the a	elevant to the proposed co applicable MPR(s).	ntract; i.e., "Designed drainage", '	designed girders", "designed intersection", etc. Experience dates should	cover the years
09/22 - Ongoing	<b>REGIONAL ITS ARCHITECTURE UPDATE, LAFAYETTE, LA</b> Updating of the Regional ITS Architecture document and RAD-IT file for the city of Lafayette, LA. Conducted stakeholders' workshops and interviews to identify User Needs, Services, and Requirements. Updated the project document and files using the Turbo and RAD-IT software.				
08/22 - Ongoing	<b>LRSP ARDENWOOD DR ROAD DIET (CONTRACT NO. 4400013850, T.O. NO. H.013622.5), BATON ROUGE, LA</b> Project Engineer, Responsible for Data Collection (Traffic Counts and Peak Hour Observations), Traffic Forecasting, Safety Analyses, Corridor Operational Analyses (HCS, Sidra), Safety Analyses, Traffic Report Preparation.				
07/21 - Ongoing	FYA SIGNAL IMPROVEME Project Engineer. Responsib	NT (LCG) (CONTRACT	NO. 4400013850, T.O. NO. H of signal plans to upgrade 28 in	.014579.5) LAFAYETTE, LA htersections to include flashing yellow arrow signal heads as well	as backplates.
03/21 - Ongoing	MOVEBR SYNCHRONIZATION AND COMMUNICATION SIGNAL REBUILDS – GROUP 3 (CITY OF BATON ROUGE; PROJ. NO. 20-TS-HC-0081 – 0086) BATON ROUGE, LA Project Engineer. Responsible for traffic signal design of 6 intersections within the city of Baton Rouge including data collection (TMCs, peak period observations, etc.), traffic signal analysis (Synchro), signal timing determination utilizing Synchro and Tru-Traffic softwares, and design plan preparation.				
06/20 - Ongoing	I-10/12 COLLEGE DRIVE FLYOVER DESIGN BUILD (H.013897.1), BATON ROUGE, LA Traffic Engineer. Performing a traffic study at the I-10/12 merge in an effort to improve capacity and safety. Assisted with uncalibrated VISSIM model. Assisted with safety analysis. Assisted in preparation of new signal timing plans for detour plans during construction.				
09/21 - Ongoing	HARDING BLVD AT I-110 (CP PROJ. NO. 20-CP-HC-0016), BATON ROUGE, LA Traffic Engineer. Performing a traffic study along Harding Boulevard between Rosewood Street and Merle Gustafson Drive including the I-110 Ramps in an effort to improve capacity. Responsible for data collection and Initial Data Collection Report.				
03/21 - 03/22	HIGHWAY 6 SIGNAL TIMING UPDATE (CITY OF MISSOURI CITY, CP PROJ. NO. 906-04), MISSOURI CITY, TX Project Engineer. Responsible for Data Collection (TMCs, Observations, Inventory, Travel Runs, Speed Studies, etc), Intersection Operations Analyses (Synchro), Developed new signal timing and TSIs				
09/20 - Ongoing	COLLEGE DRIVE ENHANCEMENT PROJECT (CP PROJ. NO. 20-CP-HC-0033), BATON ROUGE, LA Traffic Engineer. Performing a traffic study along College Drive between Perkins Road and Bawell Street/Bankers Avenue including the I-10 Ramps in an effort to improve capacity and safety. Responsible for data collection including peak period observations and travel time runs. Also performed safety analysis along the College Drive corridor.				
12/19 - 03/22	US 80: INTERSECTION @ BELLEVUE RD (S.P. NO. 44-10504, T.O. NO. H.014044.1), BOSSIER PARISH, LA Project Engineer. Responsible for Data Collection (including traffic counts, peak period observations, queue counts, and speed studies), Intersection Operational Analyses (HCS), safety analysis, alternative development, and traffic report preparation.				



FIRM EMPLOYED BY		Intelligent Transportation Systems LLC (ITS LLC)				
NAME	Christopher Dodt			YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	0.25	
TITLE	Project Manager			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	20	
DEGREE(S) / YEA	ARS / SPECIALIZATION		N/A - See below for listing o	f certifications		
ACTIVE REGIST	RATION NUMBER / STATE / E	EXPIRATION DATE	N/A - See below for listing o	f certifications		
YEAR REGISTERED	N/A DISCIPLINE N/A					
Contract role(s) / brief description of responsibilities	<ul> <li>Chris has over ten years of experience with Transportation Management Systems and Operations (TSMO) components, namely with the management and operations of Traffic Management Centers (TMCs). Over those ten years of working in TMC Operations, Chris was responsible for the full day-to-day operations of the centers including coordination with municipalities, law enforcement, EMS, fire, and various DOTD sections and districts. Chris has achieved a variety of specialty certifications related to TSMO, including: <ul> <li>TSMO Planning and Implementation (Center for Advanced Transportation Technology; School of Engineering: University of Maryland, 2023)</li> <li>CMM: Assessing Agency Capabilities (Center for Advanced Transportation Technology; School of Engineering: University of Maryland, 2023)</li> <li>Managing a Corridor (Center for Advanced Transportation Technology; School of Engineering: University of Maryland, 2023)</li> <li>Operations Performance Management (Center for Advanced Transportation Technology; School of Engineering: University of Maryland, 2023)</li> <li>Program Planning for TSMO (Center for Advanced Transportation Technology; School of Engineering: University of Maryland. 2023)</li> <li>Program Planning for TSMO (Center for Advanced Transportation Technology; School of Engineering: University of Maryland. 2023)</li> <li>Program Planning for TSMO (Center for Advanced Transportation Technology; School of Engineering: University of Maryland. 2023)</li> <li>Program Planning Certificates (US Dept. of Homeland Security Emergency Management Institute, annually from 2007-2017)</li> <li>NIMS Training Certificates (US Dept. of Homeland Security Emergency Management Institute, annually from 2007-2017)</li> <li>Chris' extensive experience in with DOTD TMC operations and ITS Maintenance Engineering will give him a keen advantage as part of the TSMO contract team. Chris will provide TRAFFIC INCIDENT MANAGEMENT, ROAD WEATHER MANAGEMENT, AND TRAVELER INFORMATION STRATEGIES for this contract</li> </ul></li></ul>					
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	l cover the years	
01/23 - Ongoing	DOTD ITS MAINTENANCE (44-7102. 44-16811), STATEWIDE LOUISIANA   PROJECT MANAGER Chris serves as a project manager for the ITS ME&I IDIQ Contract. He performs routine maintenance on emergency crossover gates, travel time message system, CCTV camera sites, RVD sites, ramp meter sites as well as DMS sites. His skills include device troubleshooting, communication and network troubleshooting, parts replacement, site cleaning, insect extermination, traffic control setup, as well as coordinating with law enforcement, TMC operations staff, and DOTD. Chris manages the firm's ME&I technicians including scheduling, training, and OA/OC of work.					
2017 - 2022	CONTRACT FOR TRAFFIC MANAGEMENT CENTER (TMC) OPERATIONS, NEW ORLEANS   TRAFFIC MANAGEMENT CENTER SUPERVISOR & TRAFFIC INCIDENT MANAGEMENT ASSISTANT COORDINATOR Chris managed a staff of ten TMC Operators between the New Orleans and Houma TMCs in a 24/7 emergency operations call center. He was responsible for ensuring that operator staff properly disseminated traffic conditions via email and web applications to the media and the motoring public in accordance with the DOTD TMC standard operations. Chris reviewed and approved traffic incident plans for large scale planned events and emergency conditions due to weather. He coordinated initial training and ongoing assistance to operator staff to ensure all DOTD requirements were met. He conducted meetings with individuals from all Traffic Incident Management (TIM) responder disciplines, including law enforcement, fire/rescue, emergency medical service, towing and recovery, emergency management, communications, highway/transportation and dispatch within the Louisiana and neighboring states, regions, and local municipalities.					
2014 - 2017	CONTRACT FOR TRAFFIC MANAGEMENT CENTER (TMC) OPERATIONS, STATEWIDE   TMC OPERATIONS MANAGER & TRAFFIC INCIDENT MANAGEMENT COORDINATOR Chris managed the overall operations of five Traffic Management Centers (TMCs). He produced and updated policies within the standard operating procedures and training documents. He managed a staff of approximately 30 employees statewide in 24/7 emergency call operations centers. Chris provided detailed monthly billings to client and ensured that all client expectations were met or exceeded. He actively researched different avenues to maintain efficient operation of TMCs with a high level of accuracy and accountability. He conduct meetings with individuals from all TIM responder disciplines, including law enforcement, fire/rescue, emergency medical service, towing and recovery, emergency management, communications, highway/transportation and dispatch within the Louisiana and neighboring states, regions, and local municipalities.					



2012 - 2014	CONTRACT FOR TRAFFIC MANAGEMENT CENTER (TMC) OPERATIONS, NEW ORLEANS   TRAFFIC MANAGEMENT CENTER SUPERVISOR & TRAFFIC INCIDENT MANAGEMENT ASSISTANT COORDINATOR Chris managed a staff of ten TMC Operators between the New Orleans and Houma TMCs in a 24/7 emergency operations call center. He was responsible for ensuring that operator staff properly disseminated traffic conditions via email and web applications to the media and the motoring public in accordance with the DOTD TMC standard operations. Chris reviewed and approved traffic incident plans for large scale planned events and emergency conditions due to weather. He coordinated initial training and ongoing assistance to operator staff to ensure all DOTD requirements were met. He conducted meetings with individuals from all Traffic Incident Management (TIM) responder disciplines, including law enforcement, fire/rescue, emergency medical service, towing and recovery, emergency management, communications, highway/transportation and dispatch within the Louisiana and neighboring states, regions, and local municipalities.
2009 - 2012	CONTRACT FOR TRAFFIC MANAGEMENT CENTER (TMC) OPERATIONS, NEW ORLEANS   TRAFFIC MANAGEMENT CENTER OPERATOR/SENIOR OPERATOR Chris actively monitored the roadway for abnormal traffic patterns, vehicle crashes, debris, etc., by use of Closed Circuit Televisions (CCTV). He disseminated traffic conditions via email and web applications to the media and the motoring public. He also produced traffic incident plans for large-scale planned events and emergency conditions due to weather. He provided initial training and ongoing assistance to operator staff to ensure all requirements of the DOTD were always met.
2000 - 2009	LAW ENFORCEMENT FOR KENNER POLICE DEPARTMENT, KENNER   POLICE OFFICER Chris performed uniform patrol duties in a community with a population of 75,000 people. He investigated felony and misdemeanor criminal offenses, performed traffic control services, and investigated automobile crashes. In the course of his duties, he obtained statements, conducted surveillance, searched for and collected evidence, wrote detailed investigative and arrest reports, issued summonses, made arrests, and executed search and arrest warrants. Chris conducted DWI enforcement patrols and performed a variety of specialized duties during hurricanes and other disasters or emergencies. He served as the Armorer and Field Training Officer (FTO) for Squad of 18 officers. As a Correctional Peace Officer, Chris operated various criminal history databases and video surveillance equipment setups, provide accurate booking and comprehensive care, custody, and control of the inmate population at the municipal jail. As a Property Management Officer, he installed specialized video and audio surveillance equipment, installed and repaired emergency equipment on police vehicles, scheduled and performed general and technical maintenance on the police fleet, and conducted inventory of specialized police equipment, uniforms, and weapons. Throughout his time as a law enforcement officer, Chris regularly provided court testimony in City, Parish, and State courts. He was awarded the 2008 Police Officer of the Year by the Kenner Rotary Club and received numerous commendations from the Department for exemplary performance as a police officer and for his investigative skills and achievements.



FIRM EMPLOYED BY		Intelligent Transportation Systems LLC (ITS LLC)					
NAME	Erik Smith, PE		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER		0.2		
TITLE	Project Manager			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	27		
DEGREE(S) / YEA	RS / SPECIALIZATION		Bachelor of Science   1995	Civil Engineering			
ACTIVE REGISTE	RATION NUMBER / STATE / E	XPIRATION DATE	PE 0029085   LA   9/30/2024	1			
YEAR REGISTERED	2000 (PE)	DISCIPLINE	Civil				
Contract role(s) / brief description of responsibilities	<ul> <li>Frik has over 27 years of engineering experience, particularly in the specialty area of Intelligent Transportation Systems (ITS) Maintenance. Prior to joining ITS LLC, Erik had a prosperous career at DOTD where he managed the ITS Maintenance Section for many years. His extensive knowledge of of Transportation systems, traffic management center operations, incident management, and the inner workings of the Louisiana Department of Transportation and Development will be integral to the team for the TMSO program. The relationships he built during his time at DOTD will enhance the team's ability to communicate effectively as the TSMO program develops and is deployed. Erik will be able to help identify potential challenges and develop solutions in advance to keep the project moving forward. In addition to his experience, Erik also achieved the following certifications related to TSMO:</li> <li>TSMO Basics (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>Communicating the Value of TSMO (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>Integrating TSMO into Your Agency (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>Introduction to Operations Performance Measures and Management (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>Introduction to Operations Performance Measures and Management (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>National Traffic Incident Management Responder Training (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>National Traffic Incident Management Responder Training (Center for Advance Transportation Technology, School of Engineering, University of Maryland, 2023)</li> <li>TSMO 101: What is thi</li></ul>						
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the a	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage",	"designed girders", "designed intersection", etc. Experience dates should	l cover the years		
06/12 - 03/16	<b>DOTD ITS MAINTENANCE</b> Erik served as the Project M and approved the project m	STATEWIDE (44-2500 Manager for DOTD for the anagement plan, equipm	, H.007026)   PROJECT MAN e retainer contract. His roles in nent maintenance plan, and tra	<b>NAGER</b> ncluded project management, quality control checks, and site revi affic control plans.	ews. Reviewed		
07/16 - 03/19	<b>DOTD ITS MANAGEMENT, OPERATIONS, AND MAINTENANCE STATEWIDE (44-7102, H.011537)   PROJECT MANAGER</b> Served as the Project Manager for DOTD for the retainer contract. Roles included project management, quality control checks, and site reviews. Reviewed and approved the project management plan, equipment maintenance plan, traffic control plans, and performance indicators.						
01/20 - 01/23	DOTD ITS MANAGEMENT, OPERATIONS, AND MAINTENANCE ENGINEERING AND INSPECTION (ME&I) STATEWIDE (44-16811, H.013868)   PROJECT MANAGER Served as the Project Manager for DOTD for the retainer contract. Roles included project management, quality control checks, and site reviews. Reviewed and approved the project management plan, project communication plan, equipment maintenance plan, traffic control plans, and performance indicators. Erik's knowledge of the ITS from planning, maintenance, operations, and communications has made him a highly valuable asset to the ITS Maintenance team especially his knowledge of the ITS as it was designed and constructed.						
01/06 - 01/23	<b>DOTD ITS MAINTENANCE</b> Erik developed and manage throughout the US. He led detectors, queue detection, interstate ramp meters for	E PROGRAM (LOUISIAN ed the DOTD ITS Mainten a staff of 25 DOTD emplo and emergency crossov traffic demand managem	A, STATEWIDE)   PROGRAM ance Program. In this role he byees to perform ITS Maintena er gates for traffic incident ma nent. Erik served as the state's	MANAGER performed extensive research of ITS Maintenance policies and be ance activities statewide on traffic cameras, dynamic message sig anagement. Additionally, he led the maintenance activities statew s subject matter expert on ITS Maintenance throughout this time.	est practices Jns, vehicle Vide on		



01/06 - 01/23	<b>DOTD TELECOMMUNICATIONS PROGRAM (LOUISIANA, STATEWIDE)   PROGRAM MANAGER</b> Erik managed the DOTD Telecommunications Program. In this role, he performed extensive research of telecommunications policies, products, services, and best practices throughout the US. He led a staff of 25 DOTD employees to perform telecommunications selection, procurement, installation, and maintenance activities statewide on telephones, radios, fiber optic cable, Ethernet cable, Ethernet routers, Sonet Regens, microwave radio towers, tower buildings, and many other telecommunication devices. Erik planned, deployed, and managed the voice and internet circuits for DOTD's traffic management centers used for traffic incident management, road weather management, special event management, and traveler information. He planned, deployed, and managed the internet circuits for DOTD's traffic management centers used for interstate ramp meters for traffic demand management. Erik served as the chair of DOTD's Infrastructure sub-committee of the Connected and Autonomous Vehicle (CAV) Committee and the state's subject matter expert on communications products, services, and technology throughout this time.
06/08 - 09/09	<b>DOTD NEW ORLEANS REGIONAL TRAFFIC MANAGEMENT CENTER (ORLEANS PARISH, LA)   PROJECT MANAGER</b> Erik served as the project manager for DOTD for the communications, inside and outside plant wiring, video display, and video distribution portions of the TMC construction project. His work on the communications circuits and video display system facilitated the traffic incident management performed by the TMC staff.
01/06 - 07/06	<b>DOTD STATEWIDE TRAFFIC MANAGEMENT CENTER (EAST BATON ROUGE PARISH, LA)   PROJECT MANAGER</b> Erik served as the project manager for DOTD for the communications, inside and outside plant wiring, video display, and video distribution portions of the TMC construction project. His work on the communications circuits and video display system facilitated the traffic incident management performed by the TMC staff.
07/00 - 01/06	<b>DOTD INTERSTATE PAVEMENT PRESERVATION PROGRAM (LOUISIANA, STATEWIDE)   DESIGN ENGINEER</b> Erik served as the Design Engineer in the DOTD Interstate Pavement Preservation Program. In this role he performed extensive research of Concrete Pavement Preservation policies, techniques, and best practices throughout the US. He designed and drafted DOTD's Concrete Pavement Restoration details, shoulder underdrain details, and shoulder rumble strip details. He reviewed 50+ interstate pavement preservation plans prepared by DOTD district design staff and checked the quantities and design computations. Concrete projects included jointed concrete pavement, jointed concrete patching, continuously reinforced concrete patching, bonded concrete overlay, and unbonded concrete overlay. Asphalt projects included mill & overlay, saw and seal, crack and seat, break and seat, and rubblization. Erik prepared and reviewed construction cost estimates, conducted life cycle cost studies, and performed traffic queue studies. He conducted Plan-In-Hand inspections and prepared PIH reports. He provided letting status updates and recommended changes in project delivery dates. He served as the state's subject matter expert on Concrete Pavement Restoration, shoulder underdrains, and shoulder rumble strips throughout this time.



FIRM EMPLOYED	Intelligent Tran		on Systems LLC (ITS LLC)				
NAME	Jonathan Fox, PE, PTOE, P	MP		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	8		
TITLE	Principal			YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	13		
DEGREE(S) / YEA	ARS / SPECIALIZATION		BS   2003   Civil Engineering				
ACTIVE REGIST	RATION NUMBER / STATE / E	XPIRATION DATE	P.E.0033277 / LA / Exp. 09/3 PTOE 2329 / Exp. 11/07/202	0/23 5   PMP 1812148 / Exp. 04/27/2024	MEETS MINIMUM LADOTD		
YEAR REGISTERED	2007 (PE) 2007 (PTOE)	DISCIPLINE	PE - Civil, PTOE		REQ.		
Contract role(s) / brief description of responsibilities	Jonathan has over 20 years of experience in traffic engineering and intelligent transportation systems. He currently serves as Principal at Intelligent Transportation Systems LLC (ITS LLC). His background includes traffic studies and assessments, traffic signal design, and ITS systems engineering. Jonathan's ITS-related experience includes system diagnostics and troubleshooting, system testing, management and operations, and systems maintenance. Jonathan's varied experiences in design, ITS, traffic engineering, and program management make him an asset to the team managing the TSMO program development and implementation. Jonathan will provide <b>SUPPORT FOR PROGRAM DEVELOPMENT AND PROGRAM</b> <b>SUSTAINMENT</b> . He will also support <b>PROJECT DEVELOPMENT, TSMO STRATEGY, SOLUTIONS AND PROJECTS</b> . Jonathan meets the Minimum <b>Personnel Requirements (MPRs) #7 and 8</b> .						
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the a	relevant to the proposed co applicable MPR(s).	ntract; i.e., "Designed drainage", '	'designed girders", "designed intersection", etc. Experience dates should	l cover the years		
08/15 - 07/19	SASOL LAKE CHARLES CHEMICAL PROJECT – ADAPTIVE TRAFFIC SIGNAL SYSTEMS (WESTLAKE)   LEAD TRAFFIC ENGINEER Jonathan was the lead traffic engineer on new traffic signal designs, upgrades, communication design, and integration. He oversaw developing traffic signal plans, simulation models, communication layouts, network design, surveillance, travel time management, and permit applications. Six of these intersection upgrades were integrated by Jonathan's team as the first Adaptive Traffic Signal System deployed in the state of Louisiana (System A). Jonathan has overseen the design, implementation and integration of the Sasol System B (LA 108 signal corridor) as well as LA 27 (Beglis Rd.) @ LA 379 (Houston Rive Rd.). These were constructed and the adaptive functionality was turned on in July of 2019. These intersection designs used stop bar and setback radar detection as well as wireless and cellular communications. Efforts for Sasol also included design and construction support for a temporary traffic signal on Old Spanish Trail at Prater Poad						
06/18 - 07/19	US 90 ADAPTIVE CORRIDOR (WESTLAKE)   PROJECT MANAGER & DESIGN LEAD Jonathan has served as the project manager and overall design lead for the US 90 adaptive traffic signal corridor in Westlake, LA. Designs included preparing updated traffic signal inventory (TSI) forms as well as communications support of two isolated traffic signals. Equipment included in the design consisted of new radar detection and unlicensed wireless communications. Jonathan oversaw the integration of the intersections into the adaptive system in Lake Charles.						
06/18 - 07/19	US 90 ADAPTIVE CORRIDOR (WESTLAKE)   PROJECT MANAGER & DESIGN LEAD Jonathan served as the project manager and overall design lead for the US 90 adaptive traffic signal corridor in Westlake, LA. Designs included preparing updated traffic signal inventory (TSI) forms as well as communications in support of two isolated traffic signals. Equipment included in the design consisted of new radar detection and unlicensed wireless communications. Jonathan oversaw the integration of the intersections into the adaptive system in Lake Charles.						
12/14 - Ongoing	<b>DOTD ITS MAINTENANCE (44-2500, 44-7102. 44-16811) (STATEWIDE)   SUPERVISOR ENGINEER</b> Jonathan served as supervisor engineer for ITS LLC under the existing ITS Maintenance Retainer contract. Roles include project management support, quality control checks, site reviews, as well as investigating options and developing concepts to improve sites. Jonathan's knowledge of the ITS from planning through operations has made him a highly valuable asset to the ITS Maintenance team especially his knowledge of the ITS as it was designed and operated.						
2007 - 2010	I-12 RAMP METERING DE Jonathan provided signal la layouts, fiber allocations, ar This was the first implemen	SIGN AND IMPLEMENT yout design support, qua nd technical specification tation of ramp metering	TATION (EAST BATON ROUG ality control and fiber optic cor n. He also handled constructio in the state.	<b>E PARISH)   ENGINEER</b> nmunications design for 16 ramp meters in the Baton Rouge area on administration, fiber inspection, fiber test review, and integration	ı, including plan on coordination.		



10/12 - 12/14	<b>BATON ROUGE ITS PHASE 3 (BATON ROUGE)   PROJECT MANAGER &amp; DESIGN LEAD</b> Jonathan oversaw the System Engineering Analysis (SEA) document for the project in compliance with the FHWA Rule (23 CFR Part 940.11) to determine project scope and analyze implementation constraints including minimizing the impact of construction on the traveling public and using existing fiber optic communications. Several ITS deployments projects were solely focused on the core urban area, leaving gaps. The solution to meet the DOTD's goal of the Baton Rouge ITS Phase 3 project was to supplement the area with 16 additional closed circuit television video cameras, 5 dynamic message sign sites, 1 HUB site, 30 Bluetooth detection sites, 1 travel time message sign (first in the state), and 8 ramp meters that cover five parishes over 50 miles to help with blind areas. He led the development of the plan set from conception to Final Plans.
11/12 - 12/14	H.010138 SUNSHINE BRIDGE ITS DEPLOYMENT (SORRENTO)   PROJECT MANAGER Jonathan managed all tasks from system engineering through deployment of final design package. He oversaw the development of the project level SEA for the deployment of a closed-circuit television camera system along LA 22 and LA 70 including the Sunshine Mississippi River Bridge. He overcame project challenges including determining how permitted fiber communications assets would be used, structure mounted conduit systems, and handling ongoing bridge painting construction. He developed a conceptual design to have the camera support mount directly to the bridge pier cap instead of the bridge's steel members to reduce maintenance. He also oversaw the analysis report, developed plans, specifications, and provided cost estimates.
04/16 - 07/18	ALABAMA DEPARTMENT OF TRANSPORTATION (ALDOT) ITS SPECIFICATIONS (STATEWIDE AL)   DESIGN LEAD ALDOT desired an upgrade of their special provisions into a standard specification in order to bring consistency throughout the state on ITS equipment. Jonathan's vast experience in design of ITS deployment projects as well as firsthand knowledge of what works from being part of ITS maintenance, made him the ideal project manager. The specifications developed included material and construction for a plethora of items: fiber optic communications infrastructure, network switches and wireless radios, CCTV cameras, dynamic message signs, vehicle detection systems, ITS cabinets, environmental sensors, and an assortment of miscellaneous related ITS items. This required assessing multiple manufacturers and models for each device type. Further, Jonathan oversaw and supported the development of material lab test provisions for the equipment as well as acceptance testing provisions.



FIRM EMPLOYED BY		Intelligent Transportation Systems LLC (ITS LLC)					
NAME	Kimberly D. McDaniel, PE,	PTOE, PTP		YEARS OF EXPERIENCE WITH THIS FIRM/EMPLOYER	0.5		
TITLE	Principal   Chief Executive	Officer		YEARS OF EXPERIENCE WITH OTHER FIRM(S)/EMPLOYER(S)	19		
DEGREE(S) / YE	ARS / SPECIALIZATION		BS   2003   Civil Engineering MS   2005   Civil Engineering				
ACTIVE REGISTI	RATION NUMBER / STATE / E	XPIRATION DATE	PE 0032973 / LA / Exp. 9/30/ PTOE 2072 / Exp. 10/02/202 PTP 802 / Exp. 03/14/2025	/23 5			
YEAR REGISTERED	2007 (PE); 2007(PTOE); 2022 (PTP)	DISCIPLINE	PE/Civil, PTOE, PTP				
Contract role(s) / brief description of responsibilities	Kimberly currently serves as Principal and Chief Executive Officer for Intelligent Transportation Systems LLC (ITS LLC). Most of her 20 year career has been spent in the private industry as an engineering consult; however, she served six years in public service at the Louisiana Department of Transportation and Development. While at DOTD, Kimberly played a lead role in the development of state laws (Revised Statutes), policies, and programs related to Access Management, Traffic Impacts, and Complete Streets. All of these required extensive coordination with a variety of internal DOTD stakeholders, as well as external elected officials, municipalities, private developers, and the general public. Kimberly spent much of that time traveling the state and working with stakeholders in both the development of these policies and programs as well as educating stakeholders on the implementation of such. Her experience integral in these processes make her a key asset to this team for the development and implementation of a TSMO program in Louisiana. Kimberly will provide <b>SUPPORT FOR PROGRAM SUSTAINMENT</b> and also <b>SUPPORT PROJECT DEVELOPMENT, TSMO</b>						
Experience dates (mm/yy - mm/yy)	Experience and qualifications of experience specified in the	relevant to the proposed co applicable MPR(s).	ontract; i.e., "Designed drainage", "	"designed girders", "designed intersection", etc. Experience dates should	l cover the years		
10/08 - 08/14	<b>DOTD ACCESS MANAGEMENT PROGRAM, LOUISIANA STATEWIDE   ENGINEER VI</b> Kimberly developed and managed the DOTD Access Management Program. In this role, she performed extensive research of access management policies and best practices throughout the US. Kimberly led multiple focus groups and policy development teams consisting of DOTD employees, consulting engineers, commercial developers, residential developers, real estate agents, attorneys, municipal employees, and elected officials from around the state to develop a policy for DOTD which would regulate the granting of access to state highways. The policy was adopted as Louisiana Administrative Code Title 70, Part I, Chapter 15. Kimberly authored the Access Connections Policy, a document expanding the criteria of the code. She developed training courses for DOTD employees, consultants, contractors, real estate professionals, and elected officials and conducted trainings throughout the state of Louisiana. Once implemented, she chaired and managed the Access Management & Traffic Impacts Appeals Board, coordinating appeals submitted by landowner/developer applicants whose requests for access ware denied by the District. Kimberly acrived as the state?						
06/12 - 08/14	<b>DOTD TRAFFIC IMPACTS POLICY &amp; PROGRAM, LOUISIANA STATEWIDE   ENGINEER VI</b> Kimberly assisted with the development of a revised Traffic Impacts Policy to be used throughout the state for studies related to commercial or large-scale residential development. The program was integral to the success of the Access Management Program as it sought to outline the requirements to study the potential traffic impacts of proposed developments and determine effective mitigation strategies for the additional traffic. Denials of these studies at the District level were also appealed to the Access Management & Traffic Impacts Appeals Board which Kimberly chaired. Kimberly coordinated traffic impact reviews with DOTD District and Headquarters staff.						
2009 - 2014	<b>DOTD COMPLETE STREETS WORK GROUP, LOUISIANA STATEWIDE   ENGINEER VI</b> Kimberly served on the Complete Streets Work Group for DOTD representing the Traffic Engineering Management Section. The main goal of the task force was to research and evaluate best practices in the area of complete streets and to use that information to develop a Complete Streets Program for the Louisiana Department of Transportation and Development. A final report of the work group was published in July 2010, but Kimberly remained on the work group as policies and other program elements were developed until her departure from DOTD in Sentember 2014.						



07/22 - Ongoing	DOTD TASK ORDER - CONNECTED & AUTONOMOUS VEHICLES (C/AV) TEAM AND WORKING GROUP SUPPORT, LOUISIANA STATEWIDE   POLICY DEVELOPMENT Kimberly is assisting with the policy development part of the Connected & Autonomous Vehicles Team. The goal of this task order is to bring various practitioners together to begin developing projects, programs, infrastructure, statutes, and other mechanisms necessary to prepare the State of Louisiana for the integration of connected and autonomous vehicles on the state's highways and roadways.
07/22 -	<b>CONTRACT FOR REPLACEMENT OF 16 BRIDGES DISTRICT 08, NORTHERN LOUISIANA   PRINCIPAL</b>
Ongoing	Kimberly is serving as the Principal for this project. The project includes the replacement of 16 rural bridges in northeast Louisiana. Kimberly is leading a team to develop Traffic Management Plans to be used to maintain or detour traffic during construction. For some of the bridge replacements, the Traffic Management Plans will employ the use of a temporary traffic signs, and others will utilize a temporary bypass roadway.



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17	Firm Experience
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FIRM NAME	Stantec Consulting Services Inc. F				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	ITS, Traffic, CE&I/OV, Planning, Road
PROJECT NAME	DOTD IDIQ CONTRACT FOR ITS DESIGN AND IMPLEMENTATION SERVICES					FIRM RESPONSIBILITY (prime or sub?)	Prime
PROJECT NUMBER	4400010670 OWNER'S NAME			AME	Louisiana Departn	nent of Transportation and Develo	pment
PROJECT LOCATION	Statewide, Louisiana					OWNER'S PROJECT MANAGER	Lucy Kimbeng
OWNER'S ADDRESS, PHONE, EMAIL         1201 Capital Access, Baton			Baton I	Rouge, LA 70808	225-379-2528   lucy.kimbeng@la.	gov	
SERVICES COMMENCED BY THIS FIRM (MM/YY) 10/17 TOTAL		TOTAL CONSULTANT CONTRACT COST (\$1,000's)		\$5,000			
SERVICES COMPLET	ED BY THIS FIRM (MM/YY)	10/22	C	OST OF	CONSULTANT SERVIC	CES PROVIDED BY THIS FIRM (\$1,000's)	\$5,000

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

# Stantec has performed services under 22 task orders covering all phases of planning, design and construction through this IDIQ contract for DOTD.

Throughout this contract, Stantec has proactively managed each task order, typically multiple task orders concurrently. By completing this work, Stantec has improved traffic safety around the entire state; we have performed regional architectures in three major areas of Louisiana, completed six project planning reports (typically Systems Engineering Analyses), seven sets of design plans and specifications and is closing out most of the design projects by providing technical support during construction services. We rise to the challenge to deliver unique projects featuring robust solar powered camera sites in remote areas, ramp metering upgrades for adaptive operation, advance queue warning system. These projects are already helping DOTD implement TSMO Strategies and Solutions such as traffic signal coordination, traffic incident management, and traveler information management

## TASK RELEVANCE:Program Development

- Strategic Planning
- Stakeholder Engagement
- Stakeholder Outreach
- ☑ TSM0 Implementation

across the state. Stantec has even completed several pilot installations of devices not previously used for Louisiana DOTD Roadways; these devices will allow DOTD to improve the safety of motorists on our roadways even more.

Typically, each federal aid project issued under this retainer begins with performance of a Systems Engineering Analysis to mitigate risks and enhance the chances of success for the project. During this process, Stantec identifies stakeholders and documents their needs and preferences as related to the project purpose and scope. During this process, Stantec often discovers and cost-saving measures, such as utilizing existing fiber already along the project backbone, and identifies major risks that could derail the project timeline, such as railroad permit requirements or Federal Aviation Authority restrictions on vertical structures. At this time, Stantec locates preliminary pole locations and engages the services of unmanned aerial vehicles or "drones" to check camera visibility at multiple heights for each location. Stantec delivers preliminary ITS plans to DOTD to assist with the environmental clearance process and in determining a more refined project cost. Once the SEA is completed by Stantec or another firm, Stantec then quickly moves to preparing interim Final Plans (60%, 95%, 100%). One of Stantec's primary goals during design is eliminating unknowns in order to produce a clear and concise set of construction plans.

Stantec strives to deliver these designs on time and under budget amidst an increase in scope of work and a global pandemic. Once design plans and specifications are submitted, Stantec continues to provide design services. After the bid process is completed and a contractor is selected, Stantec provides technical support during construction. These services vary from answering Contractor RFI's during construction to conducting periodic field inspection to ensure the work is progressing timely and according to the plans and specifications. One of the most critical items on any ITS project is the selection of components that will create the overall System. Stantec closely reviews each of the contractor's proposed equipment submittals against the project plans, specifications and design intent. Our team's experience in ITS design and construction is coupled with knowledge of the available technology, allowing our evaluation of the equipment and installation to go beyond face value. Upon completion of construction, we aim to ensure that DOTD receives a system that is both functional and designed to be compatible with DOTD maintenance practices.

TEAM MEMBERS INVOLVED: M. BRUCE, M. DAVIS, J. BARKER, D. GOUDEAU, C. HALL, B. JOHNSON, M. HOLT, J. LEFANTE, S. MENSAH, L. OVERN, K. THIMMESCH



FIRM NAME	Stantec Consulting Service	s Inc.		PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	ITS, Traffic, Planning	
PROJECT NAME	TDOT TSMO DESIGN	IDIQ			FIRM RESPONSIBILITY (prime or sub?)	Prime	
PROJECT NUMBER	E2003 and E2201 OWNER'S NAME			Tennessee Depar	Tennessee Department of Transportation		
PROJECT LOCATION	Statewide, Louisiana				OWNER'S PROJECT MANAGER	Brad Freeze	
OWNER'S ADDRESS, PHONE, EMAIL		James K.	Polk Building, S	uite 1800, 505 Deade	rick Street, Nashville, TN   615-74	1-5017   phillip.b.freeze@tn.gov	
SERVICES COMMENCED BY THIS FIRM (MM/YY) 05/12		05/17	TOTAL	TOTAL CONSULTANT CONTRACT COST (\$1,000's)		\$5,000	
SERVICES COMPLETED BY THIS FIRM (MM/YY)		Ongoing	COST	OF CONSULTANT SERVIC	CES PROVIDED BY THIS FIRM (\$1,000's)		

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

Stantec is in the midst of completing two consecutive ITS Engineering Services On-Call Contracts with TDOT: Contracts E2003 and E2201.

Under these contracts, Stantec has supported ITS Architecture Maintenance, Systems Engineering Analysis, ITS Design and Plan Development, Standards and Specifications Development, Traffic Management Center Training and Support, Software Development, Software Integration and Deployment, Network Design, and Management of Federal Grants.

We collaborated with TDOT to develop a new ATMS software in alignment with TDOT's Transportation Systems Management and Operations (TSMO) objectives to reduce the frequency and severity of crashes on the transportation system, minimize traffic delays originating from recurring and non-recurring congestion, and improve travel-time reliability of the transportation system. The framework of the project began with site visits to each of the TMCs, where we gained a holistic understanding of TDOT's operations and established relationships with each of the TMC managers, their staff, and the ITS staff. This resulted in an updated ATMS software solution that meets their needs. This project was, ultimately, the beginning of the Systems Engineering approach to the project. In addition to the SEA development and software integration, we evaluated and revised the TMC Operations Manual, Software User's Manual, and Version Description Document as well as lead training for TMC Operators and IT Administrators at all four TMCs. The updated documents illustrated the new software and enhanced capabilities and new workflow. Furthermore, Stantec utilized Crystal Reports to develop new Report Templates that helps TDOT track performance measures related to the overall operations. In 2021, the Traffic Management Center Central Software Project was awarded **ITS Tennessee Project of the Year** as well as a **Tennessee ACEC Honor Award**.



**TASK RELEVANCE:** Program Development

With grant funding from Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD), TDOT tasked Stantec with supporting an artificial intelligence (AI) based decision support system (DSS). Stantec provided project management, systems engineering, and project evaluations alongside Vanderbilt University and the Southwest Research Institute. This new AI DSS will allow DSS to be implemented in nearly any corridor at a much lower cost than traditional methods that require a corridor-specific traffic simulation model to run various scenarios. Stantec has also provided planning support under these contracts with ITS architecture updates completed for Nashville's Regional Architecture and TDOT's Statewide Architecture. Stantec employed a robust stakeholder engagement to drive the updates to the ITS Architectures, such that the needs could be clearly identified to set the basis for federal funding to support solutions that address the user needs. The stakeholder engagement consisted of several stakeholder engagement meetings and targeted follow-up conversations and meetings to review the draft versions of the documents. We have also performed significant ITS Design services for TDOT with a focus on rural corridors. Design projects across the state have included the deployment of new CCTV, RDS, DMS, RWIS, TTMS, Fog Warning Beacons, and fiber optic communications. Stantec is currently designing seven SmartWay ITS Expansion projects across the state, working closely with TDOT and the local TMC staff to ensure the deployed projects meet the needs of the TMCs and provide value to the traveling public. TEAM MEMBERS INVOLVED: **M. BRUCE, M. DAVIS, S. MENSAH, K. THIMMESCH, D. GOUDEAU, M. HOLT, K. IRVIN, S. KHAZRAIEN, L. OVERN, B. JOHNSON** 

Stakeholder Outreach

Policy Guidance

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FIRM NAME	Stantec Consulting Service		PAST PERF	PAST PERFORMANCE EVALUATION CATEGORY(IES)*		Other (Stakeholder Outreach, Training)		
PROJECT NAME	NCDOT INTEGRATED	PROJEC	T DELIVERY I	NITIATIVE		FIRM RESPONSIBILITY (prime or sub?)	Sub to KPMG	
PROJECT NUMBER			OWNER'S NAME	North Card	olina De	partment of Transportation and De	evelopment	
PROJECT LOCATION	Statewide, North Carolin	а				OWNER'S PROJECT MANAGER	Derrick Weaver	
OWNER'S ADDRESS,	PHONE, EMAIL	1501 Mail	Service Center, R	aleigh, NC 27699	9-1501	919-707-6253		
SERVICES COMMEN	CED BY THIS FIRM (MM/YY)	01/20	TOTA	TOTAL CONSULTANT CONTRACT COST (\$1,000's)			Unknown	
SERVICES COMPLET	ED BY THIS FIRM (MM/YY)	12/20	COST	OF CONSULTAN	T SERVIC	ES PROVIDED BY THIS FIRM (\$1,000's)	\$ 750,000	
Describe the project in	cluding the firm's role and memb	ers involved	(Highlight member	s to be used in this	proposal.	)		
Stantec worked with NCDOT to assess current practices and institutionalize a new project development process for the Department.       TASK RELEVANCE:         The Integrated Project Delivery (IPD) initiative included a Project Delivery Process Assessment focused on the four phases of a project at the NCDOT: Planning, Environmental, Final Design and Construction. Stantec's goals were to 1) analyze existing project development practices, 2) identify and implement process improvements for the successful delivery of projects, and 3) integrate them into practice throughout the Department.       Stakeholder Engagement								

Stantec developed several training products to institutionalize the new IPD process within the Department. The Project Development Roles and Responsibilities class focused on organizational change management issues as the NCDOT transitions to operating as a matrix organization. Sessions including Team Building, Issue Resolution, Project Team Communications, and Key Performance Indicators were designed to help attendees maximize their effectiveness by leveraging NCDOT project delivery resources.

The core Project Management 101 training elements were based on the Project Management Institute approach and adapted to the needs of NCDOT. Topics included Scoping, Scheduling, Project Management Plan, Risk Management, and Change Management. Core PM techniques and soft skill topics were covered, including Seven Nuances of Effective Project Managers, Communications, Partnering and Working as a Team, and Understanding and Working with Consultants. All sessions were designed to be hands-on and engage participants through group exercises and class interaction. Attendees were provided take-home tools for immediate use including data sheets (with key resource hyperlinks), samples, and templates. Throughout the training our team gathered input on existing challenges, what's working well, missing tools, and where support is needed. This data became the basis for a recommended Project Manager Enhancements program designed to develop PM skills and provide useful tools, including PM Forums, a comprehensive Project Delivery website, and the creation of a PM Best Practices team.

TEAM MEMBERS INVOLVED: ED: P. BAILEY-CAMPBELL



FIRM NAME	Stantec Consulting Service	s Inc.		PAST PERFORMAN	ICE EVALUATION CATEGORY(IES)*	ITS, Traffic, Planning,	
PROJECT NAME	SOUTH DAKOTA DEP (SDDOT) I-90 CORRIE	Prime					
PROJECT NUMBER	IM 0901(194)28 PCN 05W7		OWNER'S NAME	South Dakota De	partment of Transportation and Dev	velopment	
PROJECT LOCATION	Sturgis, South Dakota				OWNER'S PROJECT MANAGER	Sam Gilkerson	
OWNER'S ADDRESS, PHONE, EMAIL 700 East Broadway Avenue,				ue, Pierre, SD, 5750	605-773-3292   Samuel.Gilkerson@s	tate.sd.us	
SERVICES COMMENCED BY THIS FIRM (MM/YY) 04/18 TOTAL CC			TOTAL CONSULTANT CONTRACT COST (\$1,000's)		\$1,200		
SERVICES COMPLETED BY THIS FIRM (MM/YY) Ongoing COST OF			F OF CONSULTANT SERV	ICES PROVIDED BY THIS FIRM (\$1,000's)	\$1,200		
Describe the project includion the final rate and membrane involved. (Limblight membrane to be used in this prepared)							

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

# While Interstate 90 (I-90) through the Black Hills of South Dakota provides beautiful vistas, it also contains a variety of issues that created safety and operational concerns for South Dakota Department of Transportation (SDDOT) staff related to seasonal tourism traffic including large events such as the Sturgis Motorcycle Rally.

When this stretch of I-90 needed pavement rehabilitation, the DOT decided to utilize this construction project as an opportunity to **implement TSMO strategies** to address the recurring challenges along the corridor. As part of their effort to improve safety, the SDDOT will implement a pilot variable speed limit (VSL) system to lower speeds at appropriate times while additional ITS devices will be deployed to provide resiliency and improve operations during challenging conditions. Furthermore, two interchanges will be upgraded as part of the project to provide capacity improvements.

 TASK RELEVANCE:

 Program Development

 Change Management

 Strategic Planning

 Stakeholder Engagement

 Stakeholder Outreach

 Policy Guidance

 TSMO Implementation

Based on the recommendations of our study team, the overall project limits were increased to encompass a total of fourteen miles of I-90 (MRM 28 to MRM42) to provide additional benefits to all classes of roadway users moving through the area using

TSMO strategies. Stantec completed an ITS Concept of Operations (ConOps) for the project corridor, which included a review of existing ITS devices within the corridor followed by coordinated stakeholder meetings to identify existing issues, concerns, and user needs along the corridor to enhance and improve operational safety. Participants included SDDOT, the Federal Highway Administration, emergency service agencies from Sturgis, Rapid City, and Meade County, and the South Dakota Highway Patrol. The team also aggregated the ITS devices into logical HUB locations in order to address the limited access to power and communication sources in this rural area. The analysis completed for the ConOps also revealed the need for the following components:

- Placement of CCTV cameras to monitor roadway conditions
- Additional DMS signs to support VSL, Queue Warning, traveler information, and road weather messages
- Roadway Weather Information System (RWIS) stations
- Queue warning ramp detectors on the I-90 off ramps to monitor traffic levels and queues spilling back onto the interstate travel lanes
- Reduced speed limits during special events where allowed by legislation
- Remotely activated automatic snow gates to assist SDHP and SDDOT Maintenance with closing of the interstate during hazardous weather conditions

Final design is nearing completion with construction planned through two projects beginning in late summer or early fall 2023 through 2025. The new system is currently being proposed to be constructed using the a spoke type system building out in both the east and west directions from a main HUB that connects to existing state facilities allowing devices such as the RWIS, CCTV, DMS, and Queue Warning locations to be activated using temporary fiber that terminates from HUB to HUB until the permanent 96 strand backbone fiber is installed once all the duct bank is installed. The TSMO strategies being implemented along this corridor are a testament to the collaborative effort of several agencies working together to improve safety and mobility with solutions that are strategically targeted at the present challenges. TEAM MEMBERS INVOLVED: **K. IRVIN, S. KHAZARAEIAN** 



FIRM NAME	Stantec Consulting Services Inc.				PAST PERFORMANC	CE EVALUATION CATEGORY(IES)*	Road, Bridge, Traffic, Planning, ITS
PROJECT NAME	MOVEBR PROGRAM	MANAGEMENT				FIRM RESPONSIBILITY (prime or sub?)	Prime
PROJECT NUMBER	N/A		OWNER'S NAME		City of Baton Rouge		
PROJECT LOCATION				1	OWNER'S PROJECT MANAGER	Tom Stephens	
OWNER'S ADDRESS, PHONE, EMAIL 1100 Laurel St., Baton Rouge, LA 70802   225-389-3186   tstephens@brgov.com							
SERVICES COMMENCED BY THIS FIRM (MM/YY)		07/19 TOTAL C		TOTAL CO	CONSULTANT CONTRACT COST (\$1,000's)		\$1,100,000
SERVICES COMPLETED BY THIS FIRM (MM/YY)		Ongoing		COST OF CONSULTANT SERVIC		CES PROVIDED BY THIS FIRM (\$1,000's)	\$5,600
Describe the project including the firm's role and members involved. (Highlight members to be used in this proposal.)							
Stantec was recently selected as one of two Program Managers to oversee a specific group of approved projects that       Image: Program Development         Stantec was recently selected as one of two Program Managers to oversee a specific group of approved projects that       Image: Program Development         Louisiana. MOVEBR comprises 70+ projects, 40+ new capacity improvements, and 30+ corridor and mobility enhancements.       Strategic Planning         As part of the overall program, the Stantec Team is focusing on projects that address three different categories: existing corridor improvements, community enhancement, and parishwide signalization/synchronization. The intent of these projects is to improve traffic flow, safety, pedestrian and bicycle mobility, and transit accessibility. The program base value is \$312.6 million, with opportunities to pursue additional funding to optimize the dollars appropriated for this program.       Stakeholder Engagement         The program is currently transitioning from the "Quick Start" phase into the implementation phase, which includes beginning construction on "Ready-To-Go" projects, as well as procuring designers to develop construction plans for new projects that have not been initiated yet. Work will include stakeholder engagement, funding assistance, design and construction contracting and oversight, and program controls to efficiently and responsibly manage safety, quality, budget, and schedule.       Funding							
In addition to program management, the Stantec team of subject matter experts provides peer review for quality and consistency at every milestone submittal as projects are developed from concept the final construction plans. Another major component of this program is to implement a Small Business Outreach Program, targeted at increasing participation for eligible small businesses in the local area and beyond who have not been able to fully take advantage of business opportunities with East Baton Rouge Parish in the past. Stantec is leading this effort for the entire program based on our Program Management experience combined with local community leaders on our team. Currently, the prioritization of more than 50 MOVEBR projects has been released, along with the locations where traffic signal synchronization and sidewalk construction projects are currently underway.							
TEAM MEMBERS INVOLVED: M. BRUCE, C. HALL, J. CAINS, M. DAVIS, J. MABERRY B. JOHNSON, J. LEFANTE, S. MENSAH, D. GOUDEAU, K. THIMMESCH, S. HOFFELD							


FIRM NAME	Marmillion/Gray Media, Inc.				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Other - Public Engagement			
PROJECT NAME	MOVEBR TRANSPORTATION & INFRASTRUCT				IRE PROGRAM	FIRM RESPONSIBILITY (prime or sub?)	Sub			
PROJECT NUMBER	19-CS-HC-0005		OWNER'S NAM	ME	East Baton Rouge Parish					
PROJECT LOCATION	East Baton Rouge Parish, LA					OWNER'S PROJECT MANAGER Fred Raiford				
OWNER'S ADDRESS,	PHONE, EMAIL	1100 Lau	irel St., Baton	n Roug	e, LA 70802   (225)	289-3158   fraiford@brla.gov				
SERVICES COMMENCED BY THIS FIRM (MM/YY) 07/19 TOTAL CO					ONSULTANT CONTRAC	T COST (\$1,000's)	\$5602			
SERVICES COMPLETED BY THIS FIRM (MM/YY) Ongoing COST C					CONSULTANT SERVIC	\$445 (to date)				
Describe the project in	cluding the firm's role and memb	ers involved.	(Highlight mem	bers to b	be used in this proposal.	)				

### Firm's Role: Lead for public outreach, stakeholder engagement, communications.

Rannah serves as the Communications Workgroup lead and co-lead of the Public Outreach Workgroup for the MOVEBR program. She manages communications, stakeholder meetings, and digital media. Marmillion/Gray Media coordinated communications for the program kick-off, designed the program logo, wrote a detailed Communications Plan, coordinates media outreach, newsletter production and public meetings and outreach for projects that provide community enhancement, improvement of existing corridors and traffic management/signalization projects. Rannah Gray is the Communications lead, Sarah Powell provides graphic design and videography for the MOVEBR program.

#### TEAM MEMBERS INVOLVED: R. GRAY









FIRM NAME	Vectura Consulting Services, LLC				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Traffic
PROJECT NAME	SHREVEPORT IMMEDIATE ITS PHASE 2B					FIRM RESPONSIBILITY (prime or sub?)	Sub
PROJECT NUMBER	H.006474.1		OWNER'S NA	AME	DOTD		
PROJECT LOCATION	Shreveport, LA					OWNER'S PROJECT MANAGER	Lucy Kimbeng
OWNER'S ADDRESS,	PHONE, EMAIL	1201 Cap	oitol Access	Road, E	Baton Rouge, LA 70	)802   (225) 379-2528   lucy.kimbe	ng@la.gov
SERVICES COMMENCED BY THIS FIRM (MM/YY) 03/18 TOTAL CONSULTAI				ONSULTANT CONTRAC	CT COST (\$1,000's)	Unknown	
SERVICES COMPLETED BY THIS FIRM (MM/YY) 06/18 COST OF CONSULTANT					CONSULTANT SERVIC	CES PROVIDED BY THIS FIRM (\$1,000's)	\$18.302
Describe the project in	cluding the firm's role and memb	pers involved	. (Highlight men	nbers to k	be used in this proposal	.)	

As a subconsultant, Vectura was the task leader for Procurement and Alternative Analysis Configuration portions of the Systems Engineering Analysis (SEA) taht complied with Code of Federal Regulations (CFR), Title 23, 940.11).

The Alternatives Analysis Configuration consisted of analyzing three possible project configurations. The pros and cons of the needed equipment and communication options were documented. This task consisted of a field visit with DOTD staff to verify fiber optic lines, junction boxes and traffic signal controller types. The Procurement task consisted of investigating the methods of procurement for the deployment project where the procurement options the pros and cons for each method were documented. This project was 100% performed in Louisiana.

TEAM MEMBERS INVOLVED: L. LAMBERT



FIRM NAME	Vectura Consulting Service	s, LLC			PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Traffic
PROJECT NAME	I-110 ITS DEPLOYME	NT SEA				FIRM RESPONSIBILITY (prime or sub?)	Sub
PROJECT NUMBER	H.013261.1-1		OWNER'S NAME				
PROJECT LOCATION	Baton Rouge, LA					OWNER'S PROJECT MANAGER	Alaa Shams
OWNER'S ADDRESS,	, PHONE, EMAIL	1201 Ca	oitol Access Ro	oad, I	Baton Rouge, LA 70	)802   (225) 379-1497   alaa.sham	s@la.gov
SERVICES COMMENCED BY THIS FIRM (MM/YY) 09/18 TOTAL CONSU				ALCO	ONSULTANT CONTRAC	CT COST (\$1,000's)	Unknown
SERVICES COMPLET	ED BY THIS FIRM (MM/YY)	12/18	COS	\$16.363			
Describe the project in	cluding the firm's role and memb	pers involved	. (Highlight membe	ers to l	be used in this proposal	.)	

Firm's Role: Vectura provided an Alternatives Analysis Configuration and Procurement Analysis as part of a Systems Engineering Analysis (SEA) for I-110 CCTV Cameras and DMS deployment to comply with Code of Federal Regulations (CFR), Title 23, 940.11.

The alternative analysis consisted of a field visit along the I-110 corridor to examine CCTV and DMS locations. As part of the field visit, drones were flown at the proposed heights of the CCTV's and DMS's to determine if any sight line issues were present. Also included in the site visit was the evaluation of connecting three pump stations and traffic signals to the proposed fiber optic line. Three possible project configurations were developed for this task along with pros and cons of the needed equipment and communication options.

Vectura also investigated the methods of procurement for the deployment project. Procurement options were documented with the identification of the pros and cons for each method.

This project was 100% performed in Louisiana.

TEAM MEMBERS INVOLVED: B. FERLITO, L. LAMBERT





FIRM NAME	Vectura Consulting Services, LLC				PAST PERFORMANC	CE EVALUATION CATEGORY(IES)*	CE&I
PROJECT NAME	EBR COMPUTERIZED	TRAFFIC	SIGNAL, PH	VB		FIRM RESPONSIBILITY (prime or sub?)	Sub
PROJECT NUMBER	H.007160		OWNER'S NAME		DOTD		
PROJECT LOCATION	East Baton Rouge, LA			Desmond Sam, PE			
OWNER'S ADDRESS,	PHONE, EMAIL	8100 Air	line Highway, B	aton	n Rouge, LA 70815	(225) 231-4123   desmond.sam@	)la.gov
SERVICES COMMENCED BY THIS FIRM (MM/YY) 01/21 TOTAL CONSULTANT CONTRACT COST (\$1,000's)						CT COST (\$1,000's)	\$603.989
SERVICES COMPLETED BY THIS FIRM (MM/YY) Current COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000'						\$93.368	
Describe the project in	cluding the firm's role and memb	pers involved	. (Highlight membe	rs to i	be used in this proposal	.)	

Firm's Role: Vectura is a sub-consultant to provide traffic signal equipment for 24 traffic signals under the following scope below.

- Signal Equipment Inspection (2 visits per intersection), Tracking the Sampling and Testing of required Traffic Signal Materials / Attend and Review Fiber Optic Test Results
- Coordinate Review and Approval of all Shop Drawings
- Provide Traffic Signal Support Services / Troubleshoot traffic signal equipment related problems such as foundation / utility conflicts / Field visits (10 months)
- Assist in preparing Change Orders for DOTD / City Parish (2 Separate Forms)
- Attend Monthly Progress Meetings / Assist with Monthly Progress Meeting Agenda & Minutes (10)
- Compile As-built Plans from Contractor
- Final Inspection Field Visit to all intersections / Assist with developing punch list / Final Field Visit verification

This project was 100% performed in Louisiana.

TEAM MEMBERS INVOLVED: B. FERLITO, L. LAMBERT, R. RODRIGUE



FIRM NAME	Neel-Schaffer, Inc.				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Planning
PROJECT NAME	MULTIPLAN 2045: LONG RANGE TRANSPORTA				TION PLAN	FIRM RESPONSIBILITY (prime or sub?)	Prime
PROJECT NUMBER	XXXX		OWNER'S NAM	ИE	MDOT		
PROJECT LOCATION	Statewide, MS			Sammy Holcomb			
OWNER'S ADDRESS,	PHONE, EMAIL	401 N We	est St, Jacksoi	on, Mis	ssissippi 39201   (6	01) 249-5282   sholcomb@mdot.r	ns.gov
SERVICES COMMENCED BY THIS FIRM (MM/YY) 10/18 TOTAL CONSULT					ONSULTANT CONTRAC	CT COST (\$1,000's)	XXXX
SERVICES COMPLETED BY THIS FIRM (MM/YY) 03/21 COST C				ST OF	CONSULTANT SERVIC	CES PROVIDED BY THIS FIRM (\$1,000's)	XXXX
Describe the project in	cluding the firm's role and memb	pers involved	. (Highlight memb	pers to l	be used in this proposal	.)	

Neel-Schaffer led the update of the combined Statewide Transportation Plan and the update of the plans for three MPOs in the state, known as MULTIPLAN 2045. This was the sixth consecutive MULTIPLAN NS has completed for the state, either as prime or major-sub roles.

A major component of this project was a combined public outreach process for both statewide and MPO plans. The goal was to maximize public engagement opportunities and help the public better understand the comprehensive nature of transportation planning between the MPOs and MDOT.

This project evaluated long-term economic, demographic, and transportation trends in Mississippi; updated standardized travel demand models for state and MPOs; evaluated the existing conditions and future deficiencies of all modes of transportation; developed a tradeoff analysis for future spending and performance across transportation assets and modes; developed revenue projections and conducted investment tradeoff / scenario analysis to inform state plan recommendations, and the performance-based scenario outcomes into funding targets for key investment programs.

NS worked with the Jackson, Gulf Coast and Hattiesburg MPOs and developed financially constrained and federally compliant MPO plans.

TEAM MEMBERS INVOLVED: V. KUNADA

### **ADEQUATE FUNDING**





FIRM NAME	Neel-Schaffer, Inc.				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	Planning
PROJECT NAME	MOVE 2046: METROP	OLITAN	TRANSPO	RTATIO	N PLAN	FIRM RESPONSIBILITY (prime or sub?)	Prime
PROJECT NUMBER	H.97238		OWNER'S N	IAME	CAPITAL REGION	PLANNING COMMISSION	
PROJECT LOCATION	Baton Rouge, LA					OWNER'S PROJECT MANAGER	Sooraz Patro
OWNER'S ADDRESS,	PHONE, EMAIL	14734 S	Harrell, S H	arrells F	erry Rd STE B, Bat	on Rouge, LA 70816   (225) 383-52	203   SPatro@crpcla.org
SERVICES COMMENCED BY THIS FIRM (MM/YY) 09/20 TOTA					NSULTANT CONTRAC	CT COST (\$1,000's)	\$560
SERVICES COMPLETED BY THIS FIRM (MM/YY) 03/22 COST O				COST OF	CONSULTANT SERVIC	CES PROVIDED BY THIS FIRM (\$1,000's)	\$383
Describe the project in	cluding the firm's role and memb	ers involved.	(Highlight me	mbers to b	be used in this proposal	)	

Neel-Schaffer provided planning, modeling, and community engagement for the Capital Region's 2025, 2032, 2037 and 2042 plan updates and currently developing the latest plan for the region called MOVE 2046.

NSI was selected to assist in developing a new Metropolitan Transportation Plan (MTP) for the Baton Rouge Metropolitan Area. The CRPC is coordinating the project. Under a separate but complementary project, Neel-Schaffer is developing a state-of-the-art tour based regional travel demand model using the latest household travel survey results and big data sources to realistically reflect the local travel patterns. A land use allocation model is also being developed to forecast future growth in the region using scenario-based planning principles.

Neel-Schaffer is a leading a public and stakeholder engagement process which was built upon the process that resulted in the highest levels of public participation ever experienced by the MPO during the 2042 plan update. The engagement process includes scenario planning tasks, where Neel-Schaffer works with the MPO to consider the impact of different growth, unforeseen scenarios (virus/pandemic) and transportation investment scenarios. Air Quality Conformity analysis is also being conducted as part of the project.

Final fiscally constrained plan will include strategies for all modes, robust freight component and will reflect the most recent federal regulations (FAST Act) including the demonstration of plan impact on future performance measures.

TEAM MEMBERS INVOLVED: V. KUNADA



Example Suitability Analysis for Growth Scenarios in MOVE 2042 Attractiveness Residential Growth Urban Balanced Suburban Urban core and town Both urban and **Outlying suburban** suburban living are centers are most areas are most attractive highly attractive attractive Low

Stantec Consulting Services Inc.

FIRM NAME	Intelligent Transportation Systems LLC (ITS LLC)				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	ITS, Traffic		
PROJECT NAME	CALCASIEU POINT LNG DEVELOPMENT					FIRM RESPONSIBILITY (prime or sub?)	Sub		
PROJECT NUMBER	R N/A OWNER'S NAME				Lake Charles LNG				
PROJECT LOCATION	Lake Charles, LA     OWNER'S PROJECT MANAGER						John Kelly		
OWNER'S ADDRESS,	PHONE, EMAIL	1300 Ma	in Street; Ho	uston,	TX 77002   (713) 9	89-7411   john.kelly@energytrans	fer.com		
SERVICES COMMENCED BY THIS FIRM (MM/YY)         09/15         TOTAL CONSULTANT CONTRACT COST (\$1,000's)					CT COST (\$1,000's)	(confidential)			
SERVICES COMPLETED BY THIS FIRM (MM/YY) 10/17 COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000						CES PROVIDED BY THIS FIRM (\$1,000's)	(confidential)		
Describe the project in	cluding the firm's role and memb	pers involved.	(Highlight mem	bers to l	be used in this proposal	)			

ITS LLC's responsibility on this contract: Sub-Consultant; Responsible for all traffic engineering tasks including studies, design, and communications

The new Lake Charles LNG plant was constructed to provide new liquification facilities as well as non-liquification support facilities to expand LNG processing at existing facilities in Lake Charles, LA. Because of the significant increase in workforce to support these operations, traffic in and around the new plant was expected to also see significant increases. Additionally, during construction, there would be a need for routes to transport oversized load with large and heavy equipment that was constructed offsite and brought in for the facility.

**Traffic Study**: ITS LLC was initially tasked with performing an updated traffic study along three major corridors crossing I-210 in Lake Charles, LA, to determine the impacts of the facility development, both during and after construction, and identify areas for improvements. Because at that time the region was undergoing unprecedented industrial growth, and subsequently residential and commercial growth, the traffic study was expansive and changed scope throughout the process as more information was known about future developments in the area. The study mainly focused on three plant construction projects with different levels, phasing, and timelines of construction. The study ultimately led to proposed signal improvements along the three corridors as well as some additional isolated and temporary signals. ITS LLC was also tasked with creating permit plans for almost 30 unique traffic signals including along coordinated corridors, isolated permanent, and isolated temporary signals which were fully actuated.

Adaptive Traffic Signal Design: ITS LLC was later tasked with accommodating some of the planned construction activities. For site prep, one developer intended to bring multiple loads of dirt from one side of the facility to the other, crossing LA 384 (Big Lake Rd.). ITS LLC performed an additional separate traffic impact study for the addition of a signal for the temporary haul road at a state highway crossing. This was a unique situation that required ITS LLC to manipulate intricate defaults of the analysis software to accurately portray the size, startup time, and top speed of these oversized, articulating dump trucks. Factors evaluated in the analysis included safety, quantifying volumes, designing signal timings, and evaluating the long-term duration of these activities as well as the daily schedule of activities. Ultimately, the traffic study provided adequate signal warrant data and resulted in a temporary signal waiver. As a result, ITS LLC produced a TSI plan set for this intersection for permitting.

TEAM MEMBERS INVOLVED: J. FOX



FIRM NAME	Intelligent Transportation Systems LLC (ITS LLC)				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	ITS
PROJECT NAME	IDIQ CONTRACT FOR SYSTEMS (ITS) MANA MAINTENANCE ENGI	INTELLIG AGEMENT NEERING	ENT TRA , OPERAT AND INS	NSPOR FIONS, A PECTIO	TATION AND N (ME&I)	FIRM RESPONSIBILITY (prime or sub?)	Sub
PROJECT NUMBER	H.013868		OWNER'S I	NAME	DOTD		
PROJECT LOCATION	Statewide, LA					Joshua Harrouch	
OWNER'S ADDRESS,	PHONE, EMAIL	1201 Cap	oitol Acces	s Rd, Bat	ton Rouge, LA 7080	02   joshua.harrouch@la.gov	
SERVICES COMMENC	SERVICES COMMENCED BY THIS FIRM (MM/YY) 04/20 TOTAL CONSULTANT CONTRACT COST (\$1,000's)						\$12,000
SERVICES COMPLET	CES COMPLETED BY THIS FIRM (MM/YY) Ongoing COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's)						Ongoing
Describe the project in	cluding the firm's role and memb	ers involved.	(Highlight m	embers to l	be used in this proposal	.)	

ITS LLC's responsibility on this contract: Sub-Consultant

ITS LLC has been a chosen partner of LADOTD for ITS Maintenance, Engineering, and Inspection since the inception of the first retainer contract awarded in 2012. Since that time, ITS LLC has enjoyed a continuous relationship with LADOTD's ITS Section and has participated on all subsequent retainers since (44-2500 & 44-7102). Since the first contract, ITS LLC's services have been expanded to include more defined roles for project management, operations, engineering, and inspection. ITS LLC is proud of its ongoing commitment to the maintenance of LADOTD's ever-growing ITS infrastructure.

On this contract, ITS LLC is responsible for both ongoing routine maintenance as well as responsive repairs for outages that occur. The ongoing maintenance includes visiting 236 camera sites to provide checking, testing, inspecting, cleaning, and periodic repair and replacement of components as required by the routine ME&I schedule. Technicians ensure that cameras are working properly, that all equipment – including all wiring and connections – is in good working order, that the site is cleaned and free of debris of unwanted insects and vegetation, and that the operations meet LADOTD standards. This results in limited downtime of the equipment and the best level of service for the motoring public. This work includes devices such as traffic cameras, dynamic message signs, vehicle detectors, ramp meters, emergency crossover gates, and queue warning systems.

The responsive ME&I activities are performed to correct any reported failures of ITS equipment. When an outage occurs at one of the 236 sites assigned to ITS LLC, it is reported to the firm. ITS LLC technicians respond to the site within 24 hours to troubleshoot the problem, perform system testing, and make necessary hardware repairs to get that site back up and running as quickly and safely as possible. This sometimes involves coordination with equipment manufacturers' tech support personnel in addition to ITS LLC's in-house technicians.

TEAM MEMBERS INVOLVED: J. FOX

FIRM NAME	Intelligent Transportation Systems LLC (ITS LLC)				PAST PERFORMANC	E EVALUATION CATEGORY(IES)*	ITS, Traffic
PROJECT NAME	LAKE CHARLES CHEMICALS – ADAPTIVE TRAF SYSTEMS A & B				FIC SIGNAL	FIRM RESPONSIBILITY (prime or sub?)	Sub
PROJECT NUMBER	L2CC-990-11-DW-24						
PROJECT LOCATION	Westlake and Sulphur, L	Α			~	OWNER'S PROJECT MANAGER	Eric Flemming
OWNER'S ADDRESS,	PHONE, EMAIL	2201 Old	Spanish Trail,	Wes	tlake, LA   eric.fler	mming@worleyparsons.com	
SERVICES COMMENCED BY THIS FIRM (MM/YY)         08/15         TOTAL CONSULTANT CONTRACT COST (\$1,000's)					CT COST (\$1,000's)	(confidential)	
SERVICES COMPLETED BY THIS FIRM (MM/YY) 07/19 COST OF CONSULTANT SERVICES PROVIDED BY THIS FIRM (\$1,000's						(confidential)	
Describe the project in	cluding the firm's role and memb	pers involved.	(Highlight membe	ers to l	be used in this proposal	.)	

ITS LLC's responsibility on this contract: Sub-Consultant; Responsible for all traffic engineering tasks including studies, design, and communications

ITS LLC worked with the Louisiana Department of Transportation and Development and Trafficware, the system manufacturer, to turn on the first Adaptive traffic signal system in the State of Louisiana. The system has eased travel along the corridor, allowing better progression and more efficient operations.

Getting to the point of turning on the system took a lot of project management, planning, coordination, design and integration. ITS LLC performed signal design for six traffic signals on the Sampson St. corridor (System A) and four traffic signals on the LA 108 corridor (System B). The design included upgrading controllers to ATCs, upgrading detection for increased accuracy and traffic data collection, as well as PTZ CCTV camera for remote monitoring (see picture) and seven BlueTOAD units for travel time and speed data collection. In addition to determining the network allocations and communications paths, ITS LLC also designed, configured, and implemented the communications equipment.

A private cellular network connection was originally chosen as an alternative to fiber optic communications. ITS LLC was retained to provide ongoing maintenance support which has included troubleshooting server, network, and detection issues. Since DOTD's ITS Section completed the Lake Charles ITS Phase 2, it allowed ITS LLC to move the cellular communications system over to an unlicensed wireless radio system. ITS LLC conducted wireless assessments, designed, configured and installed 18 radio units between the two systems. This has resulted in fewer adaptive nuisance alarms as well as removed ongoing monthly cellular charges. This project ultimately brought 12 adaptive signals online and established the infrastructure needed to continue to add adaptive systems in the area. Sasol and the design team were recognized for their efforts by receiving the 2018 Louisiana Transportation Conference award for "Use of Innovative Product or Technology."

TEAM MEMBERS INVOLVED: J. FOX



# 18. Approach and Methodology: UNDERSTANDING

The objective of this contract is to increase the institutionalization of transportation systems management and operations (TSMO) within the Louisiana Department of Transportation and Development (DOTD). TSMO is often defined by strategies, applications, and infrastructure projects; but at its core, advancing TSMO requires a cultural shift for the agency from the primary mission of building infrastructure to the role of operating and managing the system. DOTD will require a combination of quick wins, such as effective management of the I-10 widening project in Baton Rouge and Calcasieu River Bridge replacement in Lake Charles, along with a more systemic investment in the processes, tools, and plans required to sustain TSMO in the long-term. Enacting this systemic cultural shift will require the following critical components:

- 1. Building internal and external consensus around the definition of and need for the program.
- 2. Performing a rigorous capability maturity model (CMM) assessment to identify gaps and opportunities.
- 3. Developing tactical TSMO actions to advance the capabilities of each District and Section within DOTD.
- 4. Identifying the tools and processes each office will require to advance their TSMO capabilities.
- 5. Forming a DOTD working group to champion and institutionalize TSMO processes well beyond the life of this contract.

DOTD is in the midst of a paradigm shift. Infrastructure is aging and nearing end of life, construction costs have risen significantly with inflation, and the number of employees eligible for retirement is outpacing the addition of younger staff. These challenges present the perfect opportunity to meet the paradigm shift with a new approach to doing business – a TSMO approach, which facilitates DOTD to maximize the performance of the infrastructure already in place while strategically improving safety and mobility through capital projects and enhanced processes. With ITS Engineer Administrator Josh Harrouch's long-standing history of working in various departments throughout DOTD including Structures, Traffic Engineering, Geometrics, and now ITS, he is the ideal candidate to champion this cultural shift across DOTD, leveraging his long-standing and diverse relationships as well as inter-working knowledge of the DOTD departments.

# **PROJECT APPROACH**

Dr. Stephen Mensah will lead this project, leveraging his extensive background in planning, safety engineering, traffic engineering, ITS, and performance evaluation along with his established relationships with DOTD Headquarters staff, District offices, and MPOs and cities throughout Louisiana. Stephen's passion for TSMO is contagious and has been evident throughout his career, making him an ideal

spokesperson to work hand-in-hand with Josh to support the implementation of a true TSMO Program within DOTD. Stephen will be supported by Katherine Thimmesch to effectively and efficiently manage the project. A registered Project Management Professional and longstanding supporter of DOTD's ITS Program, Katherine will utilize Stantec's ISO 9001-certified Project Management Framework to keep the program on track and provide rigorous project controls. Our team has a strong institutional knowledge of DOTD based on our leadership of over a dozen Indefinite Delivery/Indefinite Quantity (IDIQ) contracts throughout various Departments at DOTD. Stephen will manage our team as a single, cohesive entity based on our project history working together (ITS, LLC and Vectura supporting Stantec's current ITS on-call contracts and Rannah Gray Communications serving as our outreach and engagement partner for MOVEBR).

Stantec proposes a matrix organizational chart for this program which will pair subject matter experts and internal DOTD champions from each relevant office with program workstreams. For example, during the development of training materials, Cindy Hall and DOTD engineering, construction, operations, and communications staff will collaborate with task lead Erin Flanigan to develop training materials on work zone management. This approach will allow Stantec to cost-effectively spread technical experts across tasks while minimizing the burden on DOTD staff. Stantec also recognizes the need to balance quick wins with a long-term and sustainable agency cultural shift. We propose to fast-track building relationships between planning and operations staff to apply our overall program management approach as a case study. Not only is linking these two functions foundational to TSMO, but it will serve as a tactical demonstration of how TSMO strategies can be applied at the program and project level, culminating in a co-developed federal grant application that will benefit Louisiana. As shown in our proposed schedule, we suggest this case study be conducted during the first six months of the program. (See Quick Win / Long-Term Culture Shift chart on next page.)

In parallel we will build out the programmatic infrastructure to enact the agency cultural shift required to sustain the program in the long-term. With this Program being developed using an IDIQ contracting mechanism, we will execute the work under a number of task orders. We have organized our anticipated task orders around three primary pillars:

- **1.Program Development:** CMM assessment, strategic plan development, and supporting program assistance activities including contract management and performance reporting.
- **2. Program Sustainment:** Engagement, outreach, training, and policy updates to institutionalize TSMO across DOTD and provide practitioners with ownership of the program.
- **3.Project Development:** Tools, procedures, and best practices to incorporate TSMO into existing DOTD project development activities and identification of eligible formula and discretionary funding streams.



Quick Win: Linking Planning and Operations	Long-Term Culture Shift
<ol> <li>Establish small working group with planning and operations staff.</li> <li>Develop consistent talking points on the DOTD definition of TSMO goals and objectives.</li> <li>Identify top 2-3 planning processes that would most benefit from including an operations perspective (and vice-versa).</li> <li>Develop a quick hitting "Planning for Operations" training curriculum that can be adapted and expanded throughout the life of this contract.</li> <li>Co-develop federal grant application with planning and TSMO features</li> </ol>	<ol> <li>Assemble TSMO task force made up of cross-functional agency managers.</li> <li>Perform CMM assessment across the six dimensions of capability.</li> <li>Develop a tactical TSMO strategic plan that breaks down specific actions, timelines, roles, responsibilities, and agency owners.</li> <li>Identify DOTD business process changes with supporting engagement and training to implement the plan.</li> <li>Implement sustainable TSMO funding source.</li> <li>Foster internal agency champions to institutionalize the TSMO program beyond this contract.</li> <li>Establish buy-in from FHWA and partner agencies.</li> </ol>

# Pillar 1: Program Development

**TSMO Business Plan:** Stantec will develop a preliminary draft of the DOTD TSMO business plan, which will serve as the externally facing program management plan for this contract. The business plan will focus on the overall program schedule, proposed activities and deliverables, stakeholders and required inputs, and performance measurement strategy. The business plan will be a living document that gets updated throughout the contract.

**TSMO Task Force:** Jolie Maberry will work with DOTD to assemble a task force of frontline managers from the DOTD divisions and offices that will implement the TSMO program. This is a role that Jolie is a perfect fit for as she has done this with a number of entities, including DOTD, as part of MOVEBR. Early primary activities will include demonstrating the benefits of TSMO based on its success in peer states and regions, consultation on the business plan, and review of applicable deliverables. Stantec will equip this group to sustain TSMO beyond the contract through the deliverables developed in Pillar 2: Program Sustainment.

**Capability Maturity Model (CMM) Assessments:** This will be one of the most important tasks of this program and will focus on assessing the agency's current capabilities and maturity levels, and defining the actions required to institutionalize TSMO solutions and processes as core DOTD functions. Applied Research Associates Inc.'s Erin Flanigan, a nationally recognized TSMO expert, will lead CMM assessment and training tasks based on **her authorship of several FHWA TSMO guidance documents and leadership of CMM workshops with executives at over 37 state DOT and regional agencies** (including the December 2018 CMM hosted by the Capital Region Planning Commission). Stantec will utilize a combination of workshops, surveys, focus group interviews, and TSMO Task Force meetings to collect data, synthesize it, and develop consensus around the outputs and results for each of the six dimensions of capabilities (business process, systems and technology, performance measurement, workforce, culture, and collaboration). The CMM Assessment will be performed annually, with results informing "living documents" within each Pillar.

**Strategic Plan Development:** An effective TSMO program requires transforming TSMO strategies and applications from a collection of "ad hoc" activities into an integrated, formal program. Our team has worked for over ten state DOTs to establish successful TSMO Programs. Bringing lessons-learned from building Tennessee DOT's TSMO Program on the public sector side, Neel-Schaffer's Said El Said will leverage his experience and lessons learned developing and implementing Tennessee DOT's TSMO Program during his time at the agency to lead the development of the TSMO strategic plan for DOTD. In addition to building the agency's TSMO program, Said oversaw the development of the I-24 SMART Corridor – a corridor ripe with the implementation of integrated corridor management and active traffic management strategies – with project development support from Stantec's Stephen Mensah, Matt Davis, Kyle Irvin, and Eric Plapper.

The strategic plan will integrate the results of the CMM and develop a timephased plan for advancing capability maturity for each dimension. Actions will be incremental (e.g., advancing the maturity level), doable, measurable, and assigned to an owner with an input process from relevant stakeholders. The Strategic Plan will include a scan of DOTD agency policies and business practices that will be impacted by the action plan and a roadmap for developing the engagement, training, and documentation products required to *implement and institutionalize* the plan.

**Program and Project Management:** Stantec recognizes that as an IDIQ contract, program needs and priorities will change. We will communicate regularly with DOTD to plan upcoming task orders and manage workload and resource availability. Principal-in-Charge Mike Bruce and Quality Lead Mike Holt will apply Stantec's International Standards Organization 9001-cerified quality management system for each deliverable. This executive engagement will allow our team to redirect specialized resources throughout the company to focus on this program as needed for each task order. We will also utilize company-wide and industry organization (i.e. ITS America Chapters and National Operations Center of Excellence) resources and contacts to facilitate scanning tours with other state DOTs throughout the country.

### Pillar 2: Program Sustainment

**Engagement, Outreach, and Training:** As DOTD's TSMO program advances, an understanding of the roles and responsibilities throughout the organization will be needed. DOTD staff will require engagement, training, and awareness building so that each staff and office understands and "owns" their role in advancing the TSMO vision. For example, the Planning Division will need to understand



the role of operations in the planning identification and development process. In Utah, for example, our team worked with every division in the DOT to craft specific opportunities to advance TSMO. As DOTD advances in capability, the Stantec team will transition to "train the trainer" opportunities to sustain the TSMO program in the long term so that every staff person at the agency understands their role in advancing operations.

Our organizational chart includes a subject matter expert with experience implementing each potential TSMO strategy identified by DOTD, allowing the program to leverage lessons learned and best practices from peer agencies. We will utilize our subject-matter experts to educate both engineering and executive management throughout the state on the benefits of each TSMO strategy. Collectively the Stantec team has developed dozens of federal TSMO guidance products. For example, Program Sustainment Lead Eric Plapper recently worked with FHWA to update their TSMO Desk Reference to reflect new and emerging strategies including big data, connected and automated vehicles (CAVs), and multimodal trip planning. Our grasp of these guidance products will allow us to quickly determine what resources are available to answer questions, avoiding the need to expend contract funding to rewrite material that already exists.

# What role do CAVs play in a TSMO Program?

The recent re-allocation of the dedicated short-range communications (DSRC) spectrum has left many ITS practitioners wondering what the future will hold for CAVs. This inflection point in the industry presents DOTD with an opportunity to consider your exact role in this ecosystem. Stantec's philosophy on emerging technology is simple: **avoid the temptation of a solution in search of a problem.** A holistic review of DOTD's transportation challenges and available TSMO strategies will be performed to identify promising and narrow use cases for which CAV technology can be used to supplement existing roadside detection technology and provide a communication platform that enables the deployment of numerous safety and mobility applications for transportation systems in Louisiana. The TDOT I-24 SMART Corridor project led by Said El Said with support from Matt Davis and Eric Plapper provides an ideal model for practical integration between a state DOT and local agencies using CAV infrastructure as an extension of ITS rather than a standalone strategy.

**TSMO Policy Development and Updates:** The Strategic Plan will highlight DOTD policy and business practice gaps and a proposed roadmap for closing them. Policy Lead Greg Rodriguez, an attorney by training and Stantec's national mobility policy principal, will work with DOTD on a plan to map out the required changes. At one end of the spectrum, some may be a simple matter of changing internally facing documents describing business practices. At the other end, some policy recommendations such as changes to the parameters of funding programs may require action by the Louisiana State Legislature. In these cases, Greg will work with DOTD's Legislative Liaison to provide recommended text and organize the preparation of committee testimony if needed.

### Pillar 3: Project Development

**TSMO Strategy and Solution Projects:** Stantec recognizes that as the TSMO program progresses with institutional mindset change, tactical implementation of

TSMO projects will become part of the normal day-to-day business of DOTD. We will use these projects as an opportunity to identify missing links in the project development process and work collaboratively with the many agency divisions which will be impacted. Leading this task will be Joey Lefante, who has led the development of numerous innovative and large scale projects including the first ramp meters and the first diverging diamond interchange in Louisiana. Examples of our approach include:

- Planning: We will leverage existing TSMO planning activities, including project manager Dr. Stephen Mensah's work over the past decade by educating Technical Advisory Committees at MPOs across the state. This groundwork has led to the implementation of connected and coordinated traffic signal systems in Alexandria, ramp metering in Baton Rouge and New Orleans, queue warning in West Baton Rouge I-10, and Motorist Assistance Patrol support for quick clearance rural areas such as I-10 between Baton Rouge and New Orleans.
- **Systems Engineering:** Our team will utilize a systems engineering analysis (SEA) process to organically assess the ideal solutions to each challenge with buy-in and input from impacted stakeholders. A robust SEA process is required for federal funding and will provide a clear scope for all DOTD divisions prior to starting detailed design. Further, the SEA defines roles, responsibilities, software integration needs, the need for memoranda of understanding (MOUs) among partner agencies, how the deployed system will be maintained, and the anticipated benefits of the system.
- Design: During detailed design, we will utilize our expertise of working across all DOTD design divisions including Bridge, ITS, Roadway, and Traffic to deliver quality Construction Plans utilizing DOTD's design standards and specifications. Detailed design efforts will utilize Microstation and InRoads, but we are also prepared to move to OpenRoads and OpenBridge upon direction by DOTD. Detailed design may be facilitated through DOTD's Project Management Division for complex projects. Whether that is the case or not, Stantec will assign a task lead for each discipline and will engage early and often with each applicable DOTD Department to provide streamlined communications between our team and DOTD. The detailed design effort will also include quantities, cost estimates, and bid document support.
- Construction: After a project is let for construction, our team that is made up of subject matter experts in design, construction, operations, and maintenance will provide construction support to review shop drawings, participate in construction meetings, and support commissioning efforts. Stantec can also support the implementation and operation of Smart Work Zones. An early win of this could be implementing a portable queue warning system for a work zone with lane closures that is fully integrated into the Regional TMC, rather than just operating as a stand-alone system.
- **Operations:** A more robust example of a Smart Work Zone could be a coordinated temporary corridor implementation amongst agencies in West Baton Rouge



Parish and East Baton Rouge Parish during the I-10 Widening Project through Baton Rouge. This type of Smart Work Zone would go beyond just adding additional infrastructure and dive into establishing policies such as quick clearance and implementing strategies for existing infrastructure such as new coordinated traffic signal timings on key alternative routes. In general, coordination with MAP and TMC Operations to identify bottlenecks and crash hot spots is key to informing planning efforts for new capital projects.

Performance Measurement: In order to showcase the value of TSMO, we need to be able to measure how the transportation system reacts to the implementation of TSMO strategies. A data driven approach to analyzing system performance, evaluating TSMO strategies and tactics, and making requisite adjustments will be a cornerstone for all phases of this TSMO program. Stantec can support DOTD to develop performance measures and metrics for the different phases of this program. For instance, with the plethora of data available from diverse sources, including agency operations data and crowdsourced data, Stantec can support the implementation of systems that can positively impact real-time operations and move agency operations from reactive to predictive. Ultimately, archived data will be used to develop life cycle costs and benefit-cost analysis to inform the next steps in this continuous evolution. The tangible outcomes from this will provide a compelling case for funding decisions and sourcing new funding into this program.

# Funding and Benefit Cost Analysis

Scott Hoffeld will lead this task based on his wide range of expertise including the leadership of many NEPA documents. This will involve three primary components:

- Business Case: Stantec will develop a business case for TSMO that can be used internally and externally, which will include a brief review of nationally observed benefits such as projects in other states with robust performance evaluation studies. Stantec also recommends identifying an upcoming TSMO project that is about to be constructed and then develop a methodology for assessing its individual performance. This will provide a case study DOTD staff and executive leadership can relate to while serving as a capacity building exercise.
- Funding Screening: Once the business case is made, Stantec will work with the TSMO task force to analyze DOTD funding programs to identify opportunities to incorporate TSMO components. One such opportunity could be to implement DOTD's first integrated corridor management (ICM) project in a strategic location such as I-10 in Baton Rouge or I-12 on the North Shore. While supporting the Florida DOT Strategic Intermodal System (SIS) Office, Eric worked with staff to include TSMO and CAV as eligible for funding allocated to capacity expansion based on their demonstrated benefits.
- Benefit-Cost Analysis (BCA) Tool: Stantec will develop a BCA tool to use on individual projects. Benefits will be derived from federal guidance products or, if available, traffic modeling outputs for an individual

project. The tool will allow planning staff to consider TSMO strategies alone or in combination with each other and weigh the costs and benefits compared to other alternatives such as capacity expansion. The tool will also facilitate easier discretionary grant development for programs requiring a BCA.

# **Grant Application Writing and Support**

Over time, all components developed in this TSMO program will streamline the screening of projects for funding and the ability for DOTD to make a strong case in federal grant applications. Amy Broughton, with support from the 150+ funding experts in Stantec's North American Funding Program, will work with DOTD to develop a screening process that 1) identifies every federal program that can be used for TSMO projects (such as the PROTECT grants, Carbon Reduction Program, and ATTAIN grants to name a few), 2) identifies upcoming DOTD projects with features that would make them eligible for these programs, and 3) ranks projects within each funding stream based on their competitiveness. Stantec has a very strong track record helping clients secure over \$6 billion in funding from 150+ programs. Our relationships with funding agencies, deep knowledge of each department and program's priorities, and existing tools/templates allow us to complete grant applications cost-effectively and with a high success rate.

# SCHEDULE

Stantec proposes to initiate the TSMO Business Plan, Linking Planning and Operations Case Study, and CMM Assessment in parallel. The CMM Assessment will be performed annually, with results informing "living documents" within each Pillar. We recognize that as an IDIQ contract, the scope and timing of task orders may shift based on operational need. We will work with DOTD during project initiation to refine this schedule based on your input.

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Ongoing Tasks throughout Program



#### 19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where a) the consultant selection was made by DOTD, and b) a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

1) one of the team's firms is responsible for the performance of the work;

2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;

3) the work has not yet been performed and invoiced; and

4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually. List only the portion of the fees attributable to the firms on the team.

FIRM(s) All firms must be represented in this table	Past Performance Evaluation Discipline(S)*	CONTRACT NUMBER AND STATE PROJECT NUMBER	PROJECT NAME	REMAINING UNPAID BALANCE**
Stantec Consulting Services Inc.	Bridge	S. P. No. 700-99-0430	Retainer Contract for Bridge Preservation [Statewide, Louisiana]	
			T.O. 701-65-1018 Bayou Tech Bridge	\$1,053
Stantec Consulting Services Inc.		Contract No. 4400024629	Nelson Road Ext. Bridge [Calcasieu Parish, Louisiana]	
	CE&I/OV	S. P. No. H.005967.6	CE&I and Construction Support	\$500,896
	Roadway		Striping Pln. Changes	\$4,610
	Other/Lighting		Roadway & Nav. Lighting	\$44,962
Stantec Consulting Services Inc.		Contract No. 440004128	Lafayette Regional Airport to I-10/I-49/US 167 Interchange [Lafayette Parish]	
	Planning	S. P. No. H.004273.5	Prog. Mgmt.; Context Sensitive Design Process; Impl. Strategies	\$1,410,213
	Traffic		Traffic Engineering	\$178,948
	ITS		ITS	\$16,585
	Road		Geometric Design/Analysis	\$245,008
	Bridge		Structure & Bridge	\$538,078
	ROW		ROW Acquisition	\$85,420
	Survey		Survey	\$22,731
	Other/PR; Ltg; Av.		Public Relations/Comm.; Lighting; Aviation	\$83,284
Stantec Consulting Services Inc.	Other/Lighting	Contract No.4400011353	IDIQ Contract for Electrical Services (Sub to Buchart Horn, Inc.) [Statewide, LA]	
		S. P. No. H.014302.6	H.014302.6 US 165 Roadway Lighting [Ouachita Parish]	\$22,368
Stantec Consulting Services Inc.	Right-of-Way	Contract No. 1	State of LA, DOTD versus 2845 Loyola Blvd., LLC ET AL [Jefferson Parish]	
		S. P. No. H.0116/0	Right-of-Way Expert Witness	\$6,700

Stantec Consulting Services Inc.		S. P. No. H.011670	Loyola Dr./I-10 Interchange to New Airport Terminal Design Build (Sub to Gilchrist Co., LLC) [Jefferson Parish]	
	Road		Roadway	\$206,326
	CE&I/OV	1	CE&I/OV	\$295,424
	Bridge		Bridge	\$95,263
	Other/Lighting		Aesthetic Lighting	\$273,727
Stantec Consulting Services Inc.		Contract No.4400020058	IDIQ Contract for Intelligent Transportation Systems (ITS) Design and Implementation Services [Statewide, Louisiana]	
			H.013710.6 I-10: US-61 to Laplace ITS Deployment [Ascension, St. James & St. John Parishes]	\$12,340
			H.001234.6 LA 1: Port Allen Canal BR REPL (PHI) (HBI) [WBR Parish]	\$1,396
			H.002424.5 LA 70: Sunshine Bridge - LA 22 [St. James & Ascension Parishes]	\$427
	Traffic/ITS		H.015136 Statewide ITS Architecture Update [Statewide]	\$86,113
			H.013261.6 I-110 ITS Deployment [EBR Parish]	\$24,771
			H.011152.6 I-12: US 190 to LA 59 [St. Tammany Parish]	\$38,290
			H.013866.6 I-12: LA 21 to US 190 [St. Tammany Parish]	\$36,056
		H.003047.6 I-10: Pecue Lane/I-10 Interchange Phase III [EBR Parish]	\$52,746	
			H.002424.6 LA 70: Sunshine Bridge - LA 22 [St. James & Ascension Parishes]	\$30,878
Stantec Consulting Services Inc.		Contract No. 4400020064	IDIQ Contract for Electrical Services [Statewide, LA]	
	Other		H.014286.5 I-10: LA 26 (Jennings) Interchange Lighting [Jefferson Davis Parish]	\$1,207
	(Lighting)		H.014272.5 I-10: LA 97 (Jennings) Interchange Lighting [Jefferson Davis Parish]	\$59,123
			H.014287.5 I-10: LA 99 (Welsh) Interchange Lighting [Jefferson Davis Parish]	\$134,056
Stantec Consulting Services Inc.		Contract No. 4400024461	LA 385: Ryan Street Intersection Improvements [Calcasieu Parish]	
	Traffic	S. P. No. H.012685.5	Traffic Study; Signal Design	\$169,560
	Road		Roadway Design	\$300,691
Stantec Consulting Services Inc.		Contract No. 4400022901	LA 3094: Hearne Ave. Bridge and US 80: KCS RR Overpass (HBI) [Caddo Parish]	
	Road	S. P. Nos. H.011094.5	Roadway	\$360,976
	Bridge		Bridge	\$398,025
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.013256.6	I-10 ITS Scott to Lake Charles - Construction	\$13,679
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.014515	511 & ATMS SEA	\$4,315
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.013710.6	I-10: US61 to LaPlace Deployment	\$26,808



Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.011152	I-12- US 190 to LA 59	\$49,382
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.007160	EBR Computerized Signal Phase VB	\$19,995
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.001234.6	LA1 Port Allen Canal BR Replacement	\$14,291
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.013868.6(A)	ITS Routine Maintenance Engineering and Inspection (ME&I)	\$83,853
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.013868.6 (B)	ITS Responsive/Emergency ME&I Statewide	\$75,196
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.013868.5	ITS Maintenance Program Management and Operations	\$17,029
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.011504	Alexandria Phase 2	\$83,043
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.012676	I-10 Ramps at LA 3019 Interstate Improvements	\$4,970
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.002424.6	LA 70: Sunshine Bridge – LA 22	\$19,734
Intelligent Transportation Systems LLC (ITS LLC)	ITS	H.003047	Pecue Lane/I10 Interchange Phase III	\$25,364
Intelligent Transportation Systems LLC (ITS LLC)	Traffic	44-24461	LA 385 – Ryan St Intersection Improvements	\$180,000
Intelligent Transportation Systems LLC (ITS LLC)	Traffic	44-21887	Replacement of Fifteen Bridges	\$79,573
Marmillion/Gray Media, Inc.	Other – Public Involvement	4400015733 / H.972374.1	Local Public Agency Documented Planning Process-Statewide	\$60,302
Marmillion/Gray Media, Inc.	Other – Public Involvement	4400021094	Update Statewide Transportation Plan	\$55,867
Marmillion/Gray Media, Inc.	Other – Public Involvement	4400022830	DOTD Americans with Disabilities Act (ADA) Transition Plan Update, Phase 1 - District 3 Pilot Study	\$61,470
Marmillion/Gray Media, Inc.	Other – Public Involvement	4400017531	Statewide Aviation Program Upgrade - TO #3 IDIQ	\$71,500
Neel-Schaffer, Inc.	Planning	SPN 736-99-1548	Travel Demand Model Support Services Statewide (PRIME)	\$56,469
Neel-Schaffer, Inc.	ITS	440005459, H.004780.5 EWL No. 6, H.004780.5	Kansas Lane Connector	\$5,644
Neel-Schaffer, Inc.	Traffic	4400010428 S.A. 4, H.004774; H.007300.6	Kansas Lane - Garrett Road Connector and I-20 Improvements (SUB)	\$3,501
Neel-Schaffer, Inc.	ITS	4400010428 EWL #3; H.004774.5, H.007300	Kansas Lane - Garrett Road Connector and I-20 Improvements (SUB)	\$4,292



Neel-Schaffer, Inc.	Road	4400013850, H.009290.5	LSU Lab School SRTS Project	\$23,000
Neel-Schaffer, Inc.	Planning	4400015733, H.972374.1	Local Public Agency Documented Planning Process, Statewide	\$256,188
Neel-Schaffer, Inc.	Road	4400017293, H.010616	I-20: LA 544 Overpass Replacement	\$26,300
Neel-Schaffer, Inc.	ITS	4400016364, H.013256.6	ITS: I-10 ITS Scott to Lake Charles Technical Support Services During Construction	\$19,658
Neel-Schaffer, Inc.	ITS	4400016364, H.011504.5	Alexandria ITS Phase 2	\$128,707
Neel-Schaffer, Inc.	Traffic	44-17438, H.013284	MRB South GBR: LA 1 to LA 30 Connector, Ascension, EBR, Iberville & WBR	\$21,269
Neel-Schaffer, Inc.	Traffic	4400013850, H.014579.5	FYA Signal Improvements (LCG)	\$2,365
Neel-Schaffer, Inc.	Traffic	4400013850, H.013622.5	LRSP Ardenwood Dr. Road Diet	\$42,063
Neel-Schaffer, Inc.	Traffic	4400018271, H.014746.1	LA 383 Corridor Study	\$48,005
Neel-Schaffer, Inc.	Planning	4400018271, H.014746.1	LA 383 Corridor Study	\$62,000
Neel-Schaffer, Inc.	Road	4400013850, H.013751	Downtown Greenway LA Connector	\$306
Neel-Schaffer, Inc.	Road	4400013850, H.013770	LSRSP Signing and Striping - Iberia Parish	\$15,900
Neel-Schaffer, Inc.	Safety	440023689, H.015148.5	District 03 Safety Investment Plan	\$326,392
Neel-Schaffer, Inc.	Planning	4400021094	Update Statewide Transportation Plan and Travel Demand Model	\$498,434
Neel-Schaffer, Inc.	Safety	4400023689. H.015227.5	US 61 @ Victoria Dr. Ped Crossing	\$129,002
Vectura Consulting Services, LLC	Traffic	H.010616	I-20: LA 544 Overpass Replacement	120,664
Vectura Consulting Services, LLC	Traffic	H.005168.2	New Orleans Rail Gateway Jefferson Highway EA	15,067
Vectura Consulting Services, LLC	Traffic	H.005168.2	New Orleans Rail Gateway Avondale EA	124,383
Vectura Consulting Services, LLC	CE&I	H.007160	EBR Computerized Traffic Signal, Ph VB	47,412
Vectura Consulting Services, LLC	Traffic	H.004791	Belle Chasse Bridge & Tunnel Replacement PPP	14,740
Vectura Consulting Services, LLC	Traffic	H.012030.5	KCS RR Overpasses HBI	28,026



Vectura Consulting Services, LLC	ITS	H.011504.5	Alexandria ITS Phase 2	14,305
Applied Research Associates, Inc.	N/A	N/A	N/A	N/A

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(Add rows as needed)

\*The only past performance evaluation disciplines to be used are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other (please specify). If a firm has more than one past performance evaluation discipline for any single project, the firm can use multiple rows to express the remaining unpaid balance per evaluation discipline.

\*\* Round to the nearest dollar. **Do not** round to the nearest thousands. If there are no active contracts with a remaining unpaid balance, please place N/A in the remaining unpaid balance column. NOTE: ALL FIRMS MUST BE REPRESENTED IN THIS TABLE. LEAVING THE "REMAINING UNPAID BALANCE" COLUMN BLANK IS NOT ACCEPTABLE.



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

Cransportation Professional Certification Or certifies that Stephen A. Mensah has not all of the requirements established by the Certification Bis to use the title of PROFESSIONAL TRAFFIC OPERATIONS ENGL Antessacithatmum by the Certification Beard and subject to the provisions of Carteficate number 3360 issued in Washington D.C. W. Hu Nevermber 18, 2015	eard INFER For our add The Certificate Harder Account as that INFERE For our add Through Valid Through V	Certificate of Completion presented to Stephen Mensah for completing the Traffic Engineering Analysis Process & Report Module 1 Data: July 30, 2018 Location: July 30, 2018 Location: July 30, 2018 Methodication: Development July 30, 2018 Authorized Instructor Methorized Instructor
Image: Control Supervises Harding         Traffic Control Supervises         Application Date         Application Date         Turber Traffic Control Supervises         Aread to Provises         Aread to Provises         Aread to Provises         Aread to Provises         A	Contribution of the second of	Certificate of Completion presented to Stephen Mensah Gor completing the Traffic Engineering Analysis Process & Report Module 3 Date: February 28, 2019 Location: Baton Rouge, Louisiana Professional Overdeptment Houre (PDHS) Awarded: 3 Mathematical Instructor Authorized Instructor

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Date of Initial PE

PE License Issuing

PE License Number

PE License Expiration Date Type of ID Unique Number Passed







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	Joey Lefante	
	for completing the	
Traffic Engine	ering Analysis Proc Module 1	ess & Report
Date: July 16, 2018 Location: Baton Rouge, I	Louisiana	Professional Development Hours (PDHs) Awarded: 2
Joly J Chrie Autorized Instructor	Authorized Instructor	Authorized instructor
Certific	cate of Comp	oletion
	Joey Lefante	
	for completing the	
Traffic Engine	ering Analysis Proc Module 2	ess & Report
Date: July 23, 2018		a ( : (a ( .
Location: Baton Rouge, I	Louisiana	Hours (PDHs) Awarded: 3
Location: Baton Rouge, I Joly Johnson Rutherized Instructor	Louisiana Authorized Instructor	Hours (PDHs) Awarded: 3
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Transportation Professional Certification Board Inc. 1627 Eye Street, NW - Suite 600 - Washington, DC 20006 USA - Tel: 202-785-0060 - Fax: 202-785-0609 - www.tpcb.org

Joseph Michael Lefante Stantec 4604 Neyrey Drive Metairie, LA 70002 USA

Thank you for renewing your certification as a Professional Traffic Operations Engineer<sup>(4</sup> (PTOE). The Transportation Professional Certification Board (TPCB) congrats you for your continued commitment to your profession. As a PTOE you will be recognized as one of a specialized group of professional Traffic Operations Engineers with the set of skills and expertise needed to build better communities. Your certification is renewed through 11/20/2022.

You will not be receiving a new certificate as the one sent to you does not indicate an expiration date and can be displayed as long as you are a certified PTOE. Note that your certificate shows your original certification date.

At the end of the three-year period, your certification will be renewed without examination provided you have met the continuing education requirements described in the enclosed attachment.

Prior to the expiration of your PTOE, you will be notified of your renewal deadline. Additional examinations are not required if you renew within three-months of your expiration date 11/20/2022. Failure to renew within the 3-month grace period will result in a certified in active letter and penalty fees for renewal. Visit our website for more information. <u>http://www.tpcb.org/PTOE/feeschedule.asp</u>

TPCB seeks to maintain the highest level of quality for its certification programs. Since its inception, the TPCB mas required its certificants to maintain records with regard fulfilment of continuing education or the strength of the set of

The TPCB continues its efforts to grow and enhance the value of the PTOE and its other certifications. In 2019 the TPCB web site was redesigned and a new certification – the Road Safety Professional – was launched. Going forward the TPCB is committed to expanding the awareness of its certification programs, encoursging jurisdictions to give preference to certificants and growing the number of certified professionals.

The TPCB distributes a quarterly newsletter and highlights the value of the its certification programs through the tpcb.org website. If you would like to contribute to the newsletter or website, please send any items of interest to: certification @tpcb.org.

Thank you for your continued PTOE certification and best wishes in the coming years. Sincerely,

Diare W. Morals 5

Diane W. Morabito, P.E., PTOE Chair, Transportation Professional Certification Board Inc. Attachments

7/22, 12:55 PM		Profile	
View			
Certification Type Professional Traffic Ope	rations Engineer®	TPCB Status	Active
Certification Number	3560	Application Status	
Application Date Received		Audit	Yes
Certification Date	11/20/2013	Expiration Date	11/20/2025
Agreed to Privacy Policy	No	Examination Date	
Ethics Statement of Renewal	No	Results	Passed
Signed Obligation Statement	No	Date of Initial PE	
Reasonable Testing Accommodati		PE License Issuing State	
Don't Share My Information EU	No	PE License Number	0
		PE License Expiration Date	

https://ecommerce.ite.org/imis/TPCB/My\_Profile/TPCB/ContactManagement/Profile.aspx





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	ATSSA TRAINED
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Traffic Co	Derrick Goudeau has attended ntrol Technician-LA State Specific Training Course
8/4/2020 to 8/4/2020 Date Baton Rouge, LA Location	Jon 11. Conten Vice President of Education and Technical Service Johans, Technican President, CEO
ATSSA provides trains	ing and corrification but neither contributes anylogoneal by ASSA.



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

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



#### 22. Sub-consultant Information:

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

Firm Name (Name must match as registered with Louisiana's Secretary of State)	Address	Point of Contact and Email Address	Phone Number
Vectura Consulting Services, LLC	4467 Bluebonnet Blvd., Suite A, Baton Rouge, LA 70809-9639	Sheelagh Brin Ferlito bferlito@vecturacs.com	225-223-6685
Neel-Schaffer, Inc.	1018 Harding Street, Suite 103 Lafayette, LA 70503	Jerry Trumps jerry.trumps@neel-schaffer.com	337.232.6111
Applied Research Associates, Inc.	100 Trade Center Dr., Champaign IL, 61820	Jason Bittner, jbittner@ara.com	N/A
Marmillion/Gray Media, Inc.	838 North Boulevard Baton Rouge, LA 70802	Rannah Gray, President rannah@rannahgray.com	225-381-3036
Intelligent Transportation Systems LLC	20405 Highland Road Baton Rouge, LA 70817	Kimberly D. McDaniel, PE, PTOE, PTP kimberly@itsanswers.com	225-751-9300



#### 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.





Design with Community in Mind