Jefferson Parish
State of Louisiana

ARCADIS

SOQ 23-037 RESOLUTION NO. 143314 PROVIDE PROFESSIONAL TRAFFIC ENGINEERING SERVICES FOR TWO YEARS

SOQ: 23 - 037
January 25, 2024

Ms. Shanna Folse
Purchasing Specialist II
Jefferson Parish Council
200 Derbigny St., Suite 4400
Gretna, LA 70053

Arcadis U.S., Inc.
3850 N Causeway Blvd.,
Suite 990
Metairie, LA 70002
www.arcadis.com

Date: January 25, 2024
Subject: *SOQ 23-037 Resolution No. 143314 Provide Professional Traffic Engineering Services for Two Years*

Dear Ms. Shanna Folse,

From the East Bank to the West Bank, the infrastructure demands within Jefferson Parish are ever-changing and require a variety of services to meet the needs of its travelers. Jefferson Parish is the most populous parish within the State of Louisiana and thus traffic engineering solutions are imperative to keep users and commerce moving.

Arcadis has built a team who is ready to serve as an extension of your staff to provide scalable solutions to traffic problems – both occurring in the present and planning for the future. We will bring our extensive experience and knowledge to every project.

WHY ARCADIS	VALUE TO JEFFERSON PARISH
Local **Project Manager**	Kester Hollier is from Jefferson Parish and has over 19 years of experience working on transportation engineering projects including traffic engineering, roadway design, complete street improvements, safety analysis, and construction management and inspection. Kester has worked alongside Jefferson Parish leaders and personnel to deliver transportation projects for the Parish including such projects as the **Causeway Widening Traffic Study**, **Jefferson Parish Submerged Roads Program**, and the **Causeway Blvd./I-10 Interchange.** Kester has successfully delivered a variety of projects for local clients with ties to Jefferson Parish including the City of Gretna, City of Kenner, Louisiana Department of Transportation and Development, and the New Orleans Regional Planning Commission. Kester will be supported by our Principal, **Akhil Chauhan**, who brings a full cycle of experience and interaction with stakeholders at various levels of public agencies to provide a comprehensive understanding of needs and requirements on projects. ***As project manager, Kester Hollier provides Jefferson Parish with a zero-learning curve when it comes to this contract.***
Capacity	Arcadis is your local transportation engineering firm with a national base of expertise. Our national experts work seamlessly with our local professionals to collaboratively support critical projects. We have completed projects in over a dozen states for a variety of clients, including multiple DOTs, regional planning commissions, municipalities, and parishes. This national experience allows our team to incorporate best practices and lessons learned within the framework of Jefferson Parish's guidelines and requirements. ***From studies to construction, Arcadis has the resources and personnel available to deliver any project successfully on a compressed timeline.***

Jefferson Parish Purchasing Department
January 25, 2024

Local Delivery	Our team is comprised of staff that lives and works within Jefferson Parish. With nearly 100 professionals located in Louisiana, our staff can meet an expedited schedule on a project of any size. Our traffic engineering staff – Tony Moore, Ari Deitch, Thomas Montz, Ravi Gudishala, and Jose M. Rodriguez – bring years of experience in traffic modeling, roadway safety analysis, traffic signal design, traffic signage design, and design field implementation to provide quality results. This team has proven this through our work on the **East Baton Rouge Signal Detection Upgrades, US 90 Signal Timing Upgrades, and US 61 Access Management and Corridor Improvements.** Arcadis consistently has the best evaluation scores in the state of Louisiana and has shown it can provide quick and quality results. ***Arcadis has a tight-knit team of personnel that works together seamlessly to deliver a quality, sustainable solution to Jefferson Parish. The staff listed in this proposal will be available to work on any Jefferson Parish project.***
Diverse, Scalable Solutions	Arcadis has a team experienced in identifying potential traffic and safety improvements with modeling and crash-related dashboard tools. Our dashboards locate problem areas and plan solutions that will be effective in both the short and long term. Our team incorporates these solutions into many different traffic engineering designs including signal design, sign layouts, pedestrian and bicycle paths, safety improvements and information transportation systems. The Arcadis team will also identify problems in the field and provide real time suggestions to improve operations. ***Our team represents every discipline and specialty required for turnkey project delivery.***
Strategic Partnerships	Arcadis selects our teaming partners based upon the value they bring to a project. For this project, Arcadis has teamed with Alliance Transportation Group (ATG) to provide redundancy in qualified staff available to support any project Jefferson Parish requires. Over the past 26 years, **ATG has completed over 1,900 traffic engineering projects** for a variety of clients across four states. They have an established office in Jefferson Parish (Causeway Boulevard, Metairie), staffed with project engineers and transportation planners ***Based upon our range of experience and our selected teaming partners, Jefferson Parish will receive high-quality yet cost effective traffic engineering services.***

The Arcadis team can provide Jefferson Parish a design team with local roots that has the experience and training to successfully deliver a diversity of traffic engineering project types and provide support from the alternative/conception phase to design to construction for small, large, or fast-paced projects.

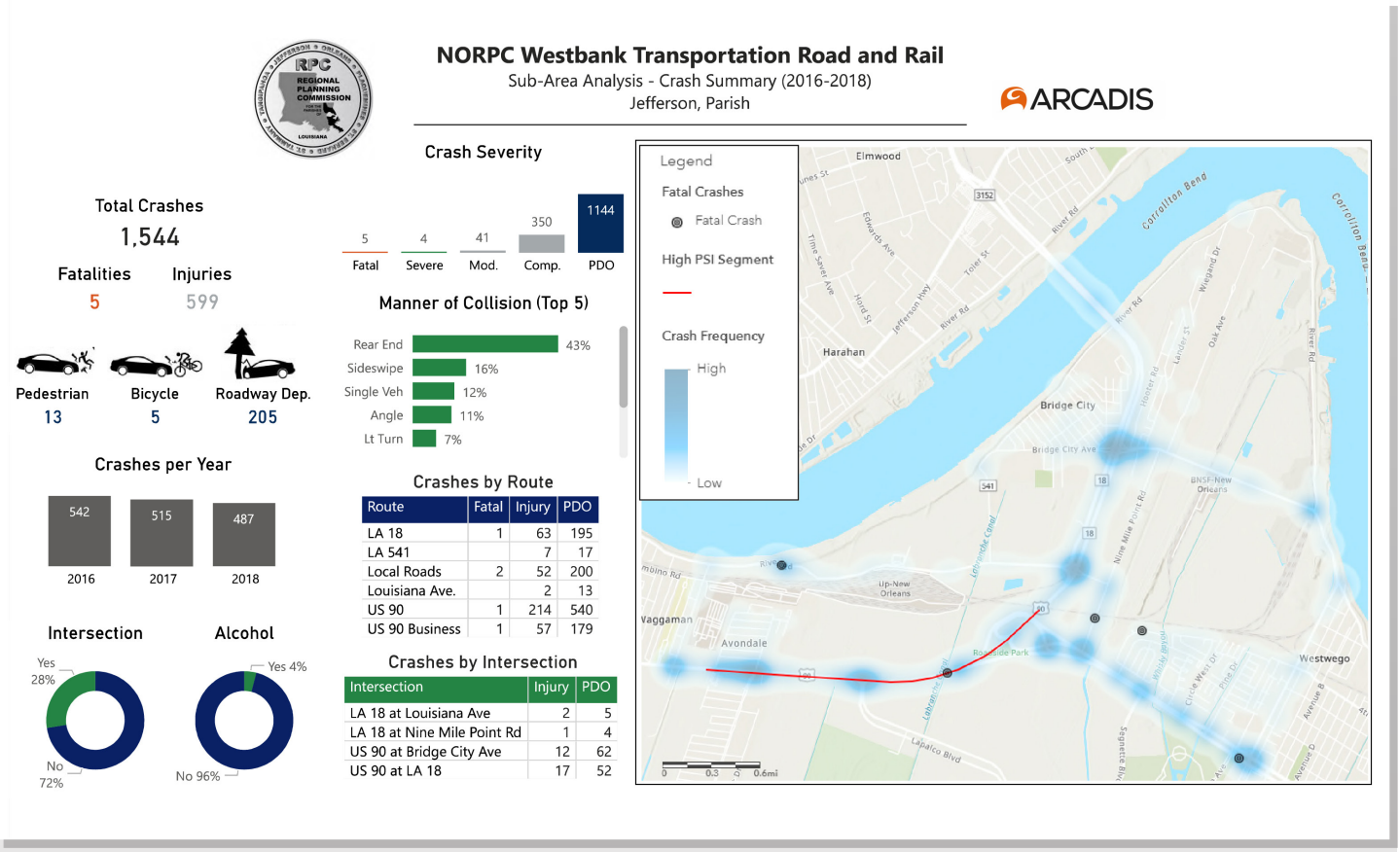
We thank you for your consideration and for the opportunity to provide our services. Please advise us if you have any questions or require any additional information.

Sincerely,
Arcadis

Kester Hollier, PE, PTOE
Project Manager
Email: kester.hollier@arcadis.com
Phone: 504.343.9579

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

Section 1



Safety Dashboard

Arcadis will provide dynamic dashboards that will provide existing crash data that will identify high-risk locations. These dashboards can be tailored to display different crash types and severity depending upon Jefferson Parish's needs.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Statement of Qualification (SOQ) 23-037 Provide Professional Traffic Engineering Services - RES. NO. 143314

B. Firm Name & Address:

Arcadis U.S., Inc.
3850 North Causeway Blvd. Suite 990
Metairie, LA 70002

C. Name, title, and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Akhil Chauhan, PE, PTOE, PTP, PMP
Email: akhil.chauhan@arcadis.com
Contact Number: 1 225.292.1004
License: Professional Engineer (Civil) – LA (#33703), 2008

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Kester Hollier, PE, PTOE
Email: kester.hollier@arcadis.com
Contact Number: 1 504.343.9579
License: Professional Engineer (Civil) – LA (#34304), 2009

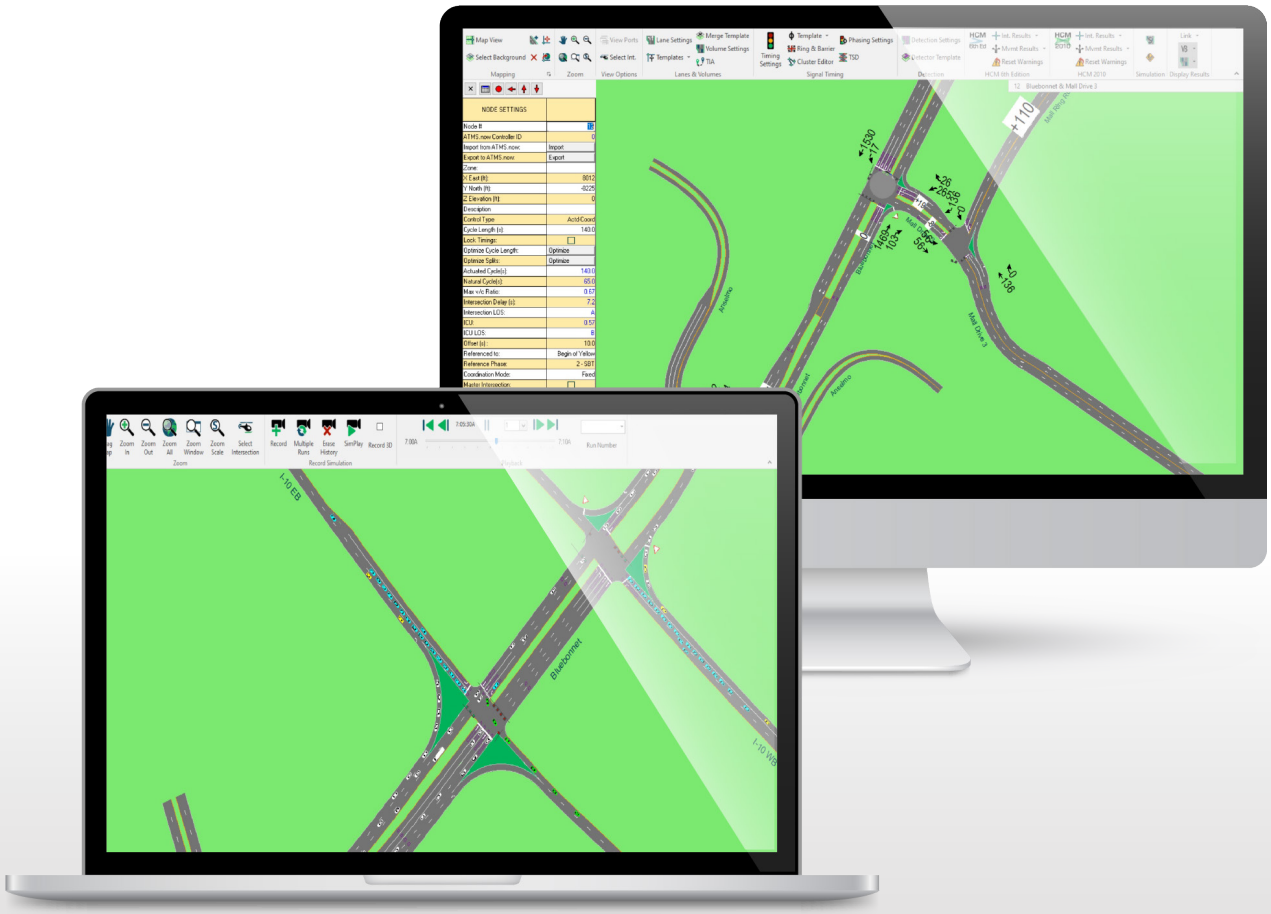
E. Please provide the number of employees whose primary function corresponds with each category:

660 Administrative	48 Estimators	2 Specification Writers
13 Architects (Licensed)	559 Geologists	69 Structural Engineers
64 Chemical Engineers	0 Geotechnical Engineers	0 Graduate Engineers
513 Civil Engineers	2 Interior Designers	550 Project Managers
97 Construction Inspectors	1 Landscape Architects	0 Clerical
65 Ecologists	28 Land Surveyor	0 Grant/Funding Specialist
118 Electrical Engineers	85 Mechanical Engineers	0 Sanitary Engineers
0 Engineer Intern	638 Environmental Engineers	1203 Other
0 Professional Land Surveyors		5602 **TOTAL**

F. Is this submittal by a JOINT-VENTURE? Please check:
If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

YES _____ NO ___X___

Section
2



Traffic Simulation & Visualization

Arcadis has many local experts that have training and have performed decades of software analysis to analyze traffic patterns using Synchro, SimTraffic, Vissim, Sidra, Vistro, and HCS. Arcadis is well adept to utilize any of these platforms for any Jefferson Parish traffic analysis needs.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.
1. N/A
2. N/A

H. Has this JOINT-VENTURE previously worked together? Please check:
YES _____ NO ___X___

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Alliance Transportation Group, LLC 3421 N. Causeway Blvd. Suite 500 Metairie, LA 70001	Traffic Engineering Analysis & Design Support	Yes
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:
135

Section
3

Construction Support

Arcadis provides more than just safety analysis and design. We are there to support the project through construction using a variety of tools and expertise including temporary traffic control certified personnel, aerial imagery of construction zones utilizing drones to evaluate queue lengths and potential conflicts, and IMSA certified traffic signal technicians.

Arcadis will see the project through from beginning to end.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Akhil Chauhan, PE, PTOE, PTP, PMP

Project Assignment:

Principal-in-Charge/QAQC

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 15
Total – 22

Education: Degree(s)/Year/Specialization:

MS, Transportation Engineering, Massachusetts Institute of Technology, 2003
BS, Civil Engineering, Indian Institute of Technology, 2001

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#33703), 2008
Professional Traffic Operations Engineer – #2544
Professional Transportation Planner – #246
Project Management Professional – PA (#1444676)
LADOTD Traffic Engineering Process and Report Training

Other experience and qualifications relevant to the proposed Project:

Mr. Chauhan brings unique and diverse experience in the field of transportation engineering including feasibility studies, roadway safety analysis and design, traffic engineering, transportation planning, pedestrian, and bicycle improvement projects, NEPA studies and environmental permitting, roadway design, transportation planning, ITS maintenance and design, and GIS. From planning to design and construction to operations and maintenance, this full-cycle experience and interaction with stakeholders at various levels of public agencies and DOTs have given him a comprehensive understanding of needs and requirements on projects and programs, and how different pieces can come together to deliver positive outcomes. From a single intersection to complex urbanized multi-modal corridor improvements (ped, bike, transit, vehicular), he has successfully led, managed, and mentored numerous projects related to multi-modal mobility and safety improvements for public agency clients located across the country.

- New Orleans Pedestrian Traffic and Safety Study | **LADOTD, Orleans Parish, Louisiana** - Principal and technical advisor responsible for the preparation of Stage 0 pedestrian safety feasibility study (in accordance with DOTD Stage 0 Manual of Standard Practice) of 20 intersections with high occurrence of pedestrian safety issues - especially between motorized and non-motorized travel modes. Scope of services include data collection (for both vehicles and pedestrians), analysis of existing traffic conditions, historic crash data evaluation, investigation of safety deficiencies at each intersection, recommendation of improvements such as traffic signal improvements, intersection striping improvements, signing improvements, lighting improvements, sidewalk / crosswalk improvements, curb extensions, traffic calming, ADA compliance including curb ramps, and parking modifications, analysis of alternatives and conceptual layout development, cost estimates, and Stage 0 checklist.
- East Baton Rouge Signal Detection Upgrade | **LADOTD, East Baton Rouge Parish, Louisiana.** Principal engineer responsible for technical oversight and supervision of the development of design plans for upgraded signal detection at 39 signalized intersections from video detection systems to wireless vehicle detection systems (magnetometers).

- **Canal Blvd. Bus/Streetcar Terminal Improvements | NORTA, New Orleans, Louisiana** - Principal and technical advisor. Project involved traffic analysis of several intersections surrounding the proposed streetcar transfer terminal in New Orleans, Louisiana. The main responsibility was to use traffic software HCS and Synchro to determine intersection level-of-service (LOS) under both existing and future year conditions. A 3-D VISSIM animation was developed and showcased for client, city officials, federal officials, and the general public to understand the effects any changes would have on future traffic conditions.
- **LA 3235 Safety and Access Management Study | LADOTD, Lafourche Parish, Louisiana** - Project manager responsible in the preparation of a formal traffic and access management Stage 0 study, in accordance with DOTD Stage 0 Manual of Standard Practice, that analyzed alternatives and enhanced mobility and safety on LA 3235. Main tasks included traffic data collection, warrant studies, traffic analysis, safety analysis, development of conceptual layouts, and public outreach. Intersections found to warrant signalization were also modeled in unconventional designs including U-turns, J-turns, and RCUTs. A preliminary cost estimate and conceptual layout drawings were also produced.
- **Florida Avenue – Traffic Study and Alternative Analysis | LADOTD, Orleans Parish, Louisiana** - Principal traffic engineer responsible for QA/QC and documentation for the project that includes traffic, environmental, line and grade, and public outreach and involvement services for one of the last projects funded by Louisiana's TIMED program.
- **US-61 Access Management and Corridor Improvements | LADOTD, East Baton Rouge Parish, Louisiana. -** Principal engineer. Scope of services include existing traffic data collection and analyses, safety data analyses, future traffic projections considering corridor growth rates, assessment of access management improvements (implementing "Superstreet" concept), and evaluation of concept using HCM methodologies. The need for pedestrian and bicycle improvements was also evaluated based on historical crash data, traffic counts, and location of associated facilities.
- **East Lacombe Land Use and Transportation Study | NORPC, St. Tammany Parish, Louisiana** - Principal and technical advisor. Project involved client/stakeholder coordination, project set up, develop, and implement the Project Management Plan, update schedule, and provide monthly progress updates to clients, overall project quality review and quality control.
- **LA 434 Environmental Assessment (EA) | NORPC, St. Tammany Parish, Louisiana** - Principal and technical advisor responsible for providing QA and reviews for EA for the widening and improvements of LA 434 between LA 36 and the anticipated new junction with LA 3241 near Lacombe, Louisiana. Responsible for collecting noise samples in the field. Performed field work necessary to complete a wetland delineation and biological findings report. Other responsibilities included preparing materials for public outreach and performing demographic analysis for the EA.
- **Chef Menteur Bridge and Approaches EA | LADOTD, Orleans Parish, Louisiana** - Principal traffic engineer. High-priority bridge replacement EA and Line and Grade Study, responsible for coordinating traffic impact study and supervising traffic noise impact assessment.
- **Joe Sevario/Roddy Road Roundabout Feasibility Study | LADOTD, Ascension Parish, Louisiana** - Project manager responsible for the evaluation of roundabouts at 10 stop-controlled intersections along Joe Sevario/Roddy Road, from US-61 to LA 42, a length of approximately 7.2 miles. Main tasks included traffic data collection, crash analysis, capacity analysis, safety analysis, review of existing pipelines and other municipal utilities, alternatives analysis, design development, and cost estimates.
- **US-11 Corridor Environmental Assessment (EA) | LADOTD, St. Tammany Parish, Louisiana** - Principal Engineer. Responsible for crash analysis, operating speed tabulations, intersection and corridor analysis, line and grade, and public outreach for the proposed widening of US-11 between US-190 (Gause Boulevard) and I-12 in Slidell. Proposed improvements include the replacement of a bridge crossing the Norfolk Southern Railroad. Critically, this project includes analysis of several innovative alternatives for the proposed corridor, including "superstreets" and J-turn concepts.
- **Traffic Study Review- I-10/Loyola Interchange Improvement | LADOTD, Kenner, Louisiana** – Principal and technical advisor responsible for QA reviews of VISSIM and Synchro model calibration as well as interchange modification report for the modifications to I-10 and Loyola interchange for the new north terminal at the New Orleans international airport.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Kester Hollier, PE, PTOE

Project Assignment:

Project Manager

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 3
Total – 19

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, Louisiana Tech University, 2004

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#34304), 2009
Professional Traffic Operations Engineer – #3928, 2015
LADOTD Traffic Engineering Process and Report Training

Other experience and qualifications relevant to the proposed Project:

Mr. Hollier possesses a wide breadth of experience in the field of transportation engineering including traffic engineering, roadway design, complete street improvement projects, roadway safety analysis and design, and construction management and inspection. Working on a wide variety of projects from the planning and conceptual phases to the design and construction phases has given him the experience to help identify the needs and requirements for projects. This experience allows him to understand stakeholders ranging from local public agencies to state DOTs and help provide expertise in achieving successful solutions for a variety of projects.

- **Causeway Boulevard Widening Traffic Study | Jefferson Parish, Metairie, Louisiana -** Project manager and traffic engineer responsible for the traffic study for the proposed widening of Causeway Boulevard between Metairie Rd. and West Esplanade Blvd. in Jefferson Parish, Louisiana. Tasks included data collection, traffic volume redistribution, left-turn placement and turn bay storage length design, and existing traffic analysis and future traffic analysis of a preferred alternative.
- **Williams Boulevard Traffic Signal Improvements | City of Kenner, Kenner, Louisiana -** Project manager and traffic engineer responsible for providing traffic signal layout, design, and signal re-timings for three traffic signals along LA 45 (Williams Boulevard) in Kenner, Louisiana for traffic signal improvements concerning pedestrians. Also oversaw the development of the pedestrian path along LA 45 from I-10 to Airline Highway.
- **LA 466 (5th Street) Improvements Traffic Study | City of Gretna, Gretna, Louisiana –** Project manager and traffic engineer responsible for the traffic study and impacts for the proposed complete streets improvements along the LA 466 corridor between LA 23 and Richard St. in Gretna, Louisiana. Tasks included data collection along the corridor and at designated intersections, safety, and crash analysis along the corridor, and performing existing and future traffic analysis for the proposed final alternative. The traffic study was prepared to follow the LADOTD's Traffic Engineering Process and Report Guidelines. The project also included a standalone pedestrian study along the corridor at designated intersections and the design of accessible pedestrian signals at signalized intersections.
- **City of Gretna Citywide Bike Path Developments | City of Gretna, Gretna, Louisiana –** Traffic engineer responsible for the design, safety analysis, pavement marking layout, and signage along the proposed designated bike route through the City of Gretna from the Rose Park Subdivision to Downtown.

- **Jefferson Parish Submerged Roads Street Repair Program | Jefferson Parish, Metairie, Louisiana -** Project manager and civil engineer responsible for site inspection, FEMA representation, review of change orders, review of contractor quantities and invoices, and program management for the repair of concrete and asphalt streets on the Westbank of Jefferson Parish for the Submerged Roads Program.
- **Replace Belle Chasse Tunnel and Bridge Stage 0 Feasibility Study and Stage 1 EA | LADOTD/NORPC, Belle Chasse, Louisiana -** Traffic engineer responsible for the traffic analysis along LA 23 (Belle Chasse Highway) between LA 428 (Behrman Highway) and LA 406 (Woodland Highway) for multiple six-lane bridge alternatives that would be proposed to replace the existing Belle Chasse Tunnel and lift bridge over the Intercoastal Waterway. These alternatives included 3%, 4%, and 5% bridge grades that modified roadway geometry and intersection locations. Responsible for the review of the roadway portion and costs for the Line and Grade Study along with the review of the construction sequencing and traffic maintenance of the constructability review.
- **Causeway Blvd. Earhart Expwy. Interchange | LADOTD, Jefferson, Louisiana -** Traffic and civil engineer responsible for the design of traffic control and construction sequencing, pavement marking layout, quantity analysis, and quality control for a new interchange at LA 3139 (Earhart Expwy.) and LA 3046 (Causeway Blvd.) in Jefferson, Louisiana. Provided review for the interchange traffic sign and traffic signal layouts. Identified all necessary design waivers and design exceptions required for LADOTD approval. Provided geometric layout design, typical section design and review, and joint layout design for several interchange ramps, roadways, and underpasses.
- **City of Mandeville Pedestrian and Bicycle Plan | NORPC, Mandeville, Louisiana -** Project manager and traffic engineer responsible for the development of an updated pedestrian and bicycle plan for the City of Mandeville, including proposed projects, routes, and identifying funding sources. Also developed an updated Complete Streets Policy for the City to implement with the proposed Plan.
- **Marathon Petroleum US-61 Access Improvements | LADOTD/Marathon Oil, Garyville, Louisiana -** Traffic engineer responsible for the traffic forecasting and analysis for the traffic impact study for the expansion plans for the Marathon Oil Refinery in Garyville, Louisiana. Performed traffic analysis and signal design for the new main entrance to the refinery as well as the required turn lanes from US-61 to different points of entry to the refinery site.
- **SR-180 (Canal Rd) Widening from Foley Beach Express to SR-161/Wolf Bay Bridge and Connecting Roads Project | ALDOT/City of Orange Beach, Orange Beach, Alabama -** Traffic engineer responsible for the existing and future traffic analysis, traffic forecasting, and distribution along Alabama SR-180 between Foley Beach Expressway and SR-161. Responsible for the development of existing and future traffic analysis of multiple intersection alternatives at the intersection of SR-180 and SR-161 for the addition of the proposed Wolf Bay Bridge. Alternatives included different signal phasing alternatives, lane restrictions, by-pass routing, and roundabouts for the intersection including traffic forecasting and redistribution for each alternative.
- **LA 22 Traffic Circulation and Corridor Analysis | NORPC, Slidell, Louisiana -** Traffic engineer responsible for the development of three future alternatives along Northshore Boulevard between I-12 and US-190 in Slidell, Louisiana. Managed the data collection process and peak period observations to determine existing traffic patterns as well as the safety analysis along the corridor. Developed three alternatives that used a combination of traffic signal retiming, J-turns, and roundabouts to provide better access management along Northshore Blvd., as well as improve traffic flow in the corridor for current and proposed future conditions with consideration given to proposed future developments.
- **Causeway Boulevard Interchange Improvements Phase I and II | LADOTD, Metairie, Louisiana –** Civil engineer responsible for the traffic signal layout and design of the intersection at Veterans at Causeway. Performed sequence of construction, permanent sign layout, and typical section design for the interchange modifications at the Interstate 10 and Causeway Blvd. interchange in Metairie, Louisiana. Performed quantity takeoff and cost estimating for project both Phase I and Phase II. Also performed the update to the plans for the LADOTD specifications changes from the 2000 red book to the 2006 blue book.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Anthony Moore, PE

Project Assignment:

QA/QC and Traffic Control Devices Design

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 6
Total – 27

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, University of Missouri, 1994

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#37887), 2013

Other experience and qualifications relevant to the proposed Project:

Mr. Moore is a transportation engineer specializing in traffic and ITS applications. He has more than twenty-six years of experience in the fields of traffic and safety analysis, signal design, and ITS design. Mr. Moore has experience conducting a variety of traffic studies, including speed studies, high crash location incident analysis, cost-benefit analysis, pavement marking, signing, and highway lighting analysis. He has extensive experience evaluating and updating all aspects of traffic operation systems as well as recognizing and evaluating traffic incident management scenarios. He has varied traffic signal system expertise in several jurisdiction in the southeast. He has developed Arterial Signal Timing in Missouri, Alabama, and Florida and has worked on Signal system Communication and Ramp Metering Operations in Missouri, Kansas, Louisiana, Alabama, and Florida. He has performed intersection incident analysis using FHWA safety review criteria, intersection level of service, stop sign warrants, and signal warrants using Highway Capacity Software and *MUTCD*. He has written numerous technical reports regarding intersection and roadway safety analysis reviews and prepared reports defining roadway operations and traffic signal levels of service.

- US-190 ITS Deployment | **LADOTD/West Baton Rouge, Pointe Coupee and Landry Parishes, Louisiana** - Project engineer responsible for providing construction management services to LADOTD on ITS project in West Baton Rouge, Pointe Coupee, and Landry parishes. The ITS expansion project includes the installation of fiber optic communications cable, two communication HUB buildings and the upgrade of CCTV lowering devices. As construction manager, responsibilities include overseeing all aspects of construction and inspection including providing engineering support and quality control oversight to the contractor during construction, directing field inspectors, and maintaining project documentation required by LADOTD.
- US-90 Traffic Signal Timing Upgrade | **LADOTD, Lafayette, Louisiana** - Senior engineer responsible for traffic data collection and analysis; signal inventory; peak period determination and observations; warrant analysis; travel time runs; traffic signal analysis using Synchro 10 software; and development of updated TSI forms following the latest LADOTD standards.
- US-90 Business Signing Design and Layout | **LADOTD, Orleans and Jefferson Parishes, Louisiana** - Senior engineer responsible for assisting with review of contractor submittal including Request for Information (RFI) and contractor and fabricator produced shop drawings for conformance to design plans and Louisiana Standard Specifications for Roads and Bridges. The project consists of construction of permanent signing on US-90 Business and I-10 in New Orleans central business district and surrounding areas.

- **Gainesville ATMS Upgrade | City of Gainesville, Gainesville, Florida** - Senior engineer responsible for traffic data collection and analysis; signal inventory; peak period determination and observations; warrant analysis; travel time runs; traffic signal analysis using Synchro 10 software; and development of updated signal timing to improve flow on the five major arterials servicing the University of Florida. The coordination timing included Off peak, AM peak, PM peak, Weekend, and Special Event timing plans for 55 signalized intersections.
- **Lee County, Traffic Signal Inventory | Lee County, Florida** - Project engineer responsible for overseeing the inspection and evaluation of the Lee County traffic signal control systems. The evaluation included on-site inventory of 430 signalized intersections and assessment of intersection deficiencies. The inventory included inspection and documentation of all traffic signal hardware, signal poles, signal heads, signal cabinets, vehicle and pedestrian detection devices, pedestrian ramps and crosswalks, and signal cabinet components. The signal cabinet components include signal controller, detectors, conflict monitors, UPSs, and cabinet communication interfaces. The inventory identified signal phasing and intersection orientation and signal operational performance. An MS Access database was developed to document all inventory items by intersection. Experience also included providing analysis of alternative central system software systems and signal controllers to allow deployment of an ATMS.
- **On-Call ITS Construction Engineering and Inspection Services | LADOTD, Statewide, Louisiana** - Construction management responsibilities include reviewing and approving daily work report entries in Site Manager by construction inspectors for accuracy and construction progress, preparing and approving construction change orders, preparing and leading monthly progress meetings, reviewing and tracking contractor submittal documents and Requests for Information documents, preparing and approving monthly construction pay estimates in Site Manager, tracking contract quantities, observing equipment commission testing and monitoring system integration activities to verify successful operation.
- **Intelligent Transportation Systems (ITS) Maintenance Engineering and Inspection (ME&I) | LADOTD, Statewide, Louisiana -** Associate project manager of this TSMO project, responsible for program and project management, maintenance engineering and inspection, and related services for the LADOTD ITS ME&I program. Mr. Moore assists in managing the routine and responsive/emergency ME&I of CCTV cameras, dynamic message signs (DMS), vehicle detectors (VD), ramp meter sites, and crossover gates located throughout the state of Louisiana. Monitors field device statuses and reviews trouble tickets in the MMS system. Provide responsive emergency ME&I operations support during incidents and severe weather events. Assists LADOTD department staff in identifying ITS infrastructure needs. Developed Traffic Control Plans (TCP) and worked with the LADOTD project manager to determine safety class and critical level assignments for all ITS sites. Performed training for and installation of the maintenance management system (MMS). Worked on the development of a performance measures reporting system, ITS Maintenance Plan, Program Management Plan (PMP) and Health and Safety Plan (HASP) for the project. Performed site inspections, validation and quality control checks for ME&I activities performed under the contract.
- **Assistant Traffic Operations Engineer | Missouri Department of Transportation, District 4, Kansas City, Missouri -** Responsible for conducting traffic studies based on the *Manual on Uniform Traffic Control Devices (MUTCD)* and MODOT standards, including speed studies, high crash location analyses, pavement marking, and signing. Determined intersection level of service, stop sign warrants, and signal warrants using Highway Capacity Software and *MUTCD*. Reviewed MODOT and consultant developed plans for signals, highway lighting, signing, striping, and traffic control. Performed routine observation and evaluation of 210 existing signalized intersections, including 17 coordinated systems. Updated and implemented signal timing, using Synchro and TRANSYT-7F as needed. Supervised new signal installations by MoDOT and outside contractors, making sure the work and equipment complied with *MUTCD* and MODOT standards.
- **Assistant Traffic Engineer | City of Olathe, Kansas -** Responsible for developing traffic studies to determine the impact of new development on existing traffic flows and proposing appropriate mitigation to reduce traffic impacts. Plan, coordinate, and write technical memorandums regarding traffic studies on existing conditions, such as traffic signal coordination, traffic safety studies, crossing guards, and traffic circulation programs. Prepare cost-benefit analysis on traffic study findings and prepare technical reports for presentation to local pollical representatives. Manage the traffic-related geographic information system (GIS) applications and the collection of traffic accident, traffic count, sign inventory, street light inventory, and other city traffic engineering assets. Oversee the installation and operation of the Red-Light Running Pilot program in cooperation with Kansas State University, sponsored by the Kansas Department of Transportation. Manage 53 traffic signals within the city limits including developing maintenance plans, review and optimize corridor signal timing and coordination plans, and attend bi-weekly city council meetings to provide updates on traffic issues in the city.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Ari Deitch, PE, PTOE, PTP, RSP

Project Assignment:

Traffic Control Device Design and Safety Analysis

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 9
Total – 11

Education: Degree(s)/Year/Specialization:

BS, Biological Engineering, Louisiana State University, 2012

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#41842), 2017
Professional Traffic Operations Engineer – #4346
Professional Transportation Planner – #690
Road Safety Professional – #37
LADOTD Traffic Engineering Process and Report Training

Other experience and qualifications relevant to the proposed Project:

Mr. Deitch is a transportation engineer specializing in traffic engineering and design, traffic safety, transportation management and conceptual roadway design. Mr. Deitch has experience managing and performing projects for state agencies including LADOTD, MDOT, TxDOT, and GDOT as well as local agencies and municipalities. Project experience includes planning and feasibility studies, NEPA studies, traffic and safety studies including corridor studies, access management studies, pedestrian and bicycle improvements projects, signal design, and signing and marking design. He has experience and proficiency in SYNCHRO, VISTRO, VISSIM, HCS, SIDRA, and MicroStation software and is intimately familiar with evaluation methodologies contained in the Highway Capacity Manual and Highway Safety Manual.

- Bluebonnet Boulevard (Perkins Road to Picardy Avenue) Preliminary Engineering and Final Design | **City of Baton Rouge – East Baton Rouge Parish, Louisiana** – Project manager responsible for overseeing all project subtasks, QAQC, and client coordination. Project scope is to conduct preliminary engineering services including a traffic design study to develop and evaluate corridor improvement alternatives. Signal design and timing plans are also being prepared for the preferred alternative.
- New Orleans Pedestrian Traffic and Safety Study | **LADOTD, Orleans Parish, Louisiana** - Assistant project manager responsible for assessing existing and future safety deficiencies related to pedestrian and bicycle modes and selecting countermeasures for 20 high-risk locations. An in-depth analysis of historical crashes was conducted for each location to identify the cause of safety issues, and countermeasures were selected that would provide the greatest impact to safety. Countermeasures were divided into short-term and long-term phases so that low-cost improvements could be implemented quickly. Developed design drawings for proposed improvement phases and conducted benefit-cost analysis to inform project prioritization.
- Florida Avenue – Traffic Study and Alternative Analysis | **LADOTD, Orleans and St. Bernard Parish, Louisiana** - Traffic engineer responsible for traffic data collection, travel demand forecasting, and analysis of existing and future no-build conditions. Project scope was to perform a traffic study and environmental assessment of proposed Florida Avenue bridge replacement alternatives and corridor improvements.

- **US-90 Business Signing and Design Layout | LADOTD, Orleans and Jefferson Parishes, Louisiana** – Project manager responsible for taking inventory of existing signs and structures, developing a signing layout plan for the project area in accordance with the latest state and federal policy guidance, developing signing plans through 100% final design stage, developing a Transportation Management Plan to be used during construction of the project and coordinating reviews and submittals with LADOTD Traffic Engineering Design Section. Currently serving as project manager for engineering support services during construction.
  The project scope includes developing signing and structural design plans to replace all existing signs within the project area, which includes sections of Interstate-10 and US-90 Business in and around New Orleans' Central Business District.
- **US-71 Corridor Improvements Phase III | LADOTD, Rapides Parish, Louisiana** - Assistant project manager responsible for leading all project tasks including data collection, existing conditions development and analysis, future year scenario development and analysis, historical crash analysis, build alternatives development, construction cost estimates, and Stage 0 documentation. Build improvements included lower cost solutions that maximize the efficiency of the existing roadway footprint, including access management, removal of traffic signals, formalizing side street and service road approaches, and reduced phase intersection concepts. Higher-cost alternatives were also developed to address significant long-term operational and safety deficiencies identified through the study. All improvement alternatives considered complete streets requirements and provided accommodations for pedestrian and bicycles including buffered bike lanes on service roads, pedestrian refuge areas, pedestrian signals, and minimum shoulder requirements.
- **LA 3235 Safety and Access Management Study | LADOTD, Lafourche Parish, Louisiana** – Traffic engineer responsible for review of existing crash data and traffic operations analysis, development of safety countermeasures, conceptual drawings, and Stage 0 documentation. LADOTD Stage 0 Safety Study to develop access management strategies and roadway improvements that will maintain and improve mobility, improve safety, support existing and future development along the LA 3235 corridor.
- **US-61 Access Management and Corridor Improvements | LADOTD, East Baton Rouge Parish, Louisiana** - Traffic Engineer responsible for evaluating the need for pedestrian and bicycle accommodations based on historical crash data and adjacent land use. Project purpose was to evaluate the effectiveness of proposed access management improvements along US-61 and identify refinements to maximize operational and safety benefits.
- **US-90 Traffic Signal Timing Upgrades | LADOTD, Lafayette Parish, Louisiana** –Technical lead and traffic engineer responsible for project tasks involving traffic data collection and analysis, signal inventory, peak period determination and observations, warrant analysis, travel time runs, traffic signal analysis using Synchro 10 software, and development of updated TSI forms following latest LADOTD standards.
- **Burbank Drive (LA 42) – Highland Road Connector Traffic Signal Analysis and Design | East Baton Rouge Parish, Louisiana** - Transportation engineer responsible for design study to evaluate north-south connector and associated capacity and access management improvements. Alternatives considered restricted intersection types in addition to conventional treatments. Developed preliminary signal design and timing plans, including cycle lengths, green times, and clearance intervals.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Thomas Montz, PE, PTOE, PTP

Project Assignment:

Traffic Engineering Studies and Traffic Simulation and Visualization

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 12
Total – 15

Education: Degree(s)/Year/Specialization:

MS, Civil Engineering, Louisiana State University, 2011
BS, Civil Engineering, Louisiana State University, 2009

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#39128), 2014
Professional Traffic Operations Engineer – #4093, 2016
Professional Transportation Planner – #599, 2017
LADOTD Traffic Engineering Process and Report Training

Other experience and qualifications relevant to the proposed Project:

Mr. Montz is a project manager and transportation engineer specializing in transportation planning, modeling, and design. He has 13 years of experience leading and working on traffic studies, signal timing, signal design, and ITS design; and has led various multi-disciplinary projects including traffic studies, design studies and environmental assessments.

- Mobile Regional Signal Operations Program | **Alabama Department of Transportation (ALDOT), Mobile, Alabama -** Signal Engineer responsible for leading delivery of this active signal and ITS management program for ALDOT Southwest Region and development of upgraded signal timings using Synchro modeling software and recommending improvements based on modeling results. Also responsible for developing signal parameter programming sheets, standardizing TOD plans, and providing on-call assistance at the RTMC to assess signal plans to improve operations during seasonal traffic patterns. Work also includes uncovering signal operation deficiencies such as time clock drifts, pedestrian timing issues, wiring issues, and detection anomalies, and field verification of upgraded timings in response to citizen complaints.
- New Orleans Pedestrian Traffic and Safety Study | **LADOTD, New Orleans, Louisiana -** Project engineer and data collection lead responsible for oversight during the preparation of this Stage 0 pedestrian safety feasibility study concerning 20 intersections with high occurrence of pedestrian safety issues. Scope of services included data collection (for both vehicles and pedestrians), analysis of existing traffic conditions, historic crash data evaluation, investigation of safety deficiencies at each intersection, recommendation of improvements such as signal modifications and signing/striping improvements.
- Baton Rouge Signal Detection Upgrades **| LADOTD and City of Baton Rouge, East Baton Rouge Parish, Louisiana -** Project engineer responsible for supervisory tasks and oversight of this project involving field signal inventory and the creation of updated signal plans and quantities. 39 locations identified in East Baton Rouge Parish to be upgraded from video detection to magnetometer detection. All signalized intersection on Florida Boulevard from I-110 to Airline Highway were included for signal detection upgrades under this project.

- **Highland-Burbank Connector at Kenilworth | City of Baton Rouge, East Baton Rouge Parish, Louisiana. -** Traffic analyst responsible for performing analysis of a proposed connector between two major aerials in the City of Baton Rouge. Responsible for calibrating and performing trip assignment with local MPO's TransCAD model to develop volumes for existing and future scenarios. Other services included reviewing existing traffic studies and data, signal timing analyses as well as traffic design report development.
- **US-90 Traffic Signal Timing Upgrade | LADOTD, Lafayette, Louisiana -** Signal Engineer responsible for supervisory tasks and oversight of this project involving traffic data collection and analysis; signal inventory; peak period determination and observations, warrant analysis, travel time runs, traffic signal analysis using Synchro 10 software, and development of updated TSI forms following latest LADOTD standards.
- **Florida Avenue – Traffic Study and Alternative Analysis | LADOTD, New Orleans, Louisiana -** Project engineer responsible for review of travel demand model runs for a screening analysis of build alternatives for the environmental assessment in the New Orleans metropolitan area. A feasibility study was previously performed that did not include an assessment of travel demand among alternatives. One of the main pieces to complete the environmental assessment was to screen alternatives based on their transportation utility: VMT, VHT and the ability to draw demand to a proposed bridge along the expressway. The local MPO TransCAD model was obtained, and various scenarios coded and ran to assess the impacts of each build alternative at a high-level before detailed traffic analysis commences along with the completion of the environmental assessment.
- **Canal Boulevard Streetcar Terminal EA | NORTA, New Orleans, Louisiana.** Traffic analyst responsible for the traffic analysis of several intersections surrounding the proposed streetcar transfer terminal in New Orleans, Louisiana. The main responsibility was to use traffic software HCS and Synchro to determine intersection level-of-service (LOS) under both existing and future year conditions. A 3-D VISSIM animation was developed and showcased for client, city officials, federal officials, and the general public to understand the effects any changes would have on future traffic conditions.
- **LA 3235 Stage 0 Safety Study | LADOTD, Lafourche Parish, Louisiana -** Project engineer responsible for developing access management strategies and roadway improvements that will maintain mobility and improve safety along the LA 3235 corridor. Also responsible for review of existing crash data, traffic operations analysis, development of safety countermeasures, conceptual drawings, public outreach materials, and Stage 0 (feasibility) documentation.
- **Mesoscopic Model Development for I-10 Widening | LADOTD, Baton Rouge, Louisiana -** Project engineer responsible for development of mesoscopic traffic model used for this project. The object of the study was to develop an existing conditions model. Responsibilities included defining study area, assessing data needs, developing data collection plan, preparing calibration documentation, and preparing model documentation.
- **East Lacombe Land Use and Transportation Study | NORPC, St. Tammany, Louisiana -** Project Engineer responsible for traffic analysis related to this land use and transportation study. Study required coordination with many stakeholders including the MPO, City of Slidell, LADOTD, and St. Tammany Parish Planning Department. The purpose of the study was to develop and quantify land use scenarios for a mega-site located near the town of Lacombe in St. Tammany Parish. In addition to coordination with other sub-consultants, was responsible for editing employment and population numbers in representative TAZs of the MPO's TransCAD model. The results of the runs were used to populate updated traffic flows and assess traffic impacts for development scenarios.
- **Metropolitan Transportation Plan Update | South Central Planning & Development Commission (Houma MPO), Houma, Louisiana -** Project engineer responsible for review of deliverables and technical oversight. Technical work consisted of development of regional demographic datasets including population, employment, and school enrollment for existing and future years. Also responsible for the review and development of comprehensive Transportation Systems Management and Operations (TSMO) documentation for the region.
- **Freeway Lane Closure Analysis using FREEVAL | LADOTD, New Orleans, Baton Rouge, and Shreveport, Louisiana -** Project manager and engineer responsible for oversight of this project involving data collection and modelling of freeway facilities in the FREEVAL-WZ application. Led development of web-tool enabling users to compute speed, capacity, density, level of service, delay, and queue length for a given work zone scenario. The intent was to easily select a work zone location and analyze resulting traffic impacts, providing an easier way to schedule lane closures during construction and maintenance activity on interstate facilities.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Jose M. Rodriguez, RSP

Project Assignment:

Safety Analysis

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 7
Total – 9

Education: Degree(s)/Year/Specialization:

MS, Civil Engineering, Louisiana State University, 2014
BS, Civil Engineering, Julio Garavito Colombian Engineering School, 2006

Active registration: Year first registered/discipline:

Road Safety Professional - #12, 2019

Other experience and qualifications relevant to the proposed Project:

Mr. Rodriguez's experience includes safety & traffic analysis for corridor feasibility studies on major highways and interstates, as well as intersection feasibility studies including pedestrian and bicycle considerations. Mr. Rodriguez has extensive experience in crash analysis, highway safety analysis using the Highway Safety Manual, Crash Modification Factors, and Safety Performance Functions for local and nonlocal conditions to then summarize them into dynamic web dashboards using the latest technologies of visualization of data and results including Power BI.

- **New Orleans Pedestrian Traffic and Safety Study | LADOTD, Orleans Parish, Louisiana -** Safety traffic analyst. The purpose of this project is to improve pedestrian and bicyclist safety in New Orleans. Responsibilities include traffic data collection, warrant analysis, traffic and safety analysis for existing and future conditions with a focus on pedestrians and bicyclists. Safety analyses were performed utilizing the Highway Safety Manual 2010 guidelines and Crash Modification Factors (CMFs) from other sources. Analyses include developing two build alternatives that address safety and operational issues at each intersection for all road users and developing a stage "0" checklist. The study is in accordance with DOTD's Traffic Signal Manual v2.05. The types of improvements include: traffic signal improvements, intersection striping improvements, signing improvements, lighting improvements, sidewalk/crosswalk improvements, curb extensions, traffic calming, ADA compliance including curb ramps, and parking modifications.
- **LA 157 from US-80 to South of LA 614 Study | LADOTD, Bossier City, Louisiana** - Traffic and safety analyst responsible for benefit-cost analysis including both, operations, and safety. A traffic study to evaluate existing, no-build and proposed build alternatives for LA 157 (Booker Rd. to south of LA 614) for intermittent (five year) and 20-year plan using VISSIM and Synchro.
- **Traffic Engineering Retainer – US-71 Corridor Traffic & Safety Study - Phase 1 | LADOTD, Rapides Parish, Louisiana** - Safety analyst assisted in the prediction of future safety performance along the corridor. Responsible for development of conceptual design of intersection and corridor build alternatives. Specific duties included determining applicability of various intersection and corridor mitigation, ensuring design features accommodate roadway attributes, and identifying extent of ROW impacts.

- **I-49 Interchange Safety Improvement Studies | LADOTD, Lafayette Parish, Louisiana** - Safety analyst responsible for the collection and evaluation of historical crash data, screening and selection of available safety improvement strategies that typically include alternative intersection configuration, roundabouts, corridor geometry and lane configuration, and driver awareness improvements. Safety analysis using HSM, IHSDM. Conceptual design of corridor/intersection safety improvements.
- **Pete's Highway Interchange EA/IMR | LADOTD, Denham Springs, Louisiana -** Traffic and safety analyst responsible for methodology development and overview of traffic analyses for a high-priority project. Work involves completing an EA and providing traffic engineering services related to improving congestion and operations along Range Avenue at the I-12 interchange. Design alternatives included two split diamond interchange options with roundabout, Page 28 of 57 Firm Name. Arcadis U.S., Inc. partial cloverleafs, and collector distributor road components at both Range Avenue and the next existing, eastern overpass at Pete's Highway (LA 16); and a diverging diamond interchange alternative at Range Avenue.
- **Baton Rouge Pedestrian Bicycle Safety Action Plan | LADOTD, Baton Rouge, Louisiana -** Safety analyst responsible for supporting the development and delivery of a Pedestrian and Bicycle Safety Action Plan for the City of Baton Rouge. Responsibilities include completing a review of crash data, identification of priority locations, and creation of targeted countermeasures based on roadway type. He was responsible for reviewing the crash data in both (Geographic Information Systems) GIS and PowerBI to determine areas to focus on the locations of 10 locations in the most need for pedestrian/bicycle safety improvement. The second phase of the project will allow for the development of detailed studies at the top 10 identified locations where safety countermeasures such as low-cost pedestrian and bicycle facility improvements.
- **District 8 Systemic Safety Project, Pedestrians | Ohio Department of Transportation and Development, Columbus, Ohio -** Safety analyst responsible for the review of data, including crash, roadway inventory, and demographics. The project required the development of a PowerBI dashboard and use of GIS analytics to review the crash data to determine metrics that were over-represented to locate areas where crashes are occurring, and areas where crashes may not be occurring, but have similar environmental characteristics (i.e., speed limit, lane width, driver or pedestrian age, presence of zero vehicle households, etc.), as where crashes are happening. This will allow the project team to not only develop engineering treatments, but also target areas for enhanced education and enforcement.
- **US-61 Access Management and Corridor Improvements | LADOTD, East Baton Rouge Parish, Louisiana. -** Responsibilities include traffic data collection, warrant analysis, traffic and safety analysis for existing and future conditions considering pedestrian and bicyclists also. Safety analyses were performed utilizing the Highway Safety Manual 2010 guidelines and Crash Modification Factors (CMFs) from other sources.
- **Bluebonnet Boulevard (Perkins Road to Picardy Avenue) Preliminary Engineering and Final Design | City of Baton Rouge – East Baton Rouge Parish, Louisiana -** Responsibilities include traffic data collection, warrant analysis, traffic and safety analysis for existing and future conditions. Safety analyses were performed utilizing the Highway Safety Manual 2010 guidelines and Crash Modification Factors (CMFs) from other sources.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Skyler Waaso, PE, PTOE

Project Assignment:

Traffic Engineering Studies and Traffic Visualization and Simulation

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 4
Total – 10

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, University of Louisiana at Lafayette, 2009

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#0039070), 2014
PTOE - #4600

Other experience and qualifications relevant to the proposed Project:

Mr. Waaso is a Senior Traffic Engineer with 10 years of experience in traffic modeling and studies. He is experienced with a range of traffic modeling software including Highway Capacity Software, Vissim (microsimulation), Synchro, Vistro, and Sidra. Mr. Waaso has experience managing and delivering a wide range of traffic projects for LADOTD, and other DOTs across the country, pertaining to intersection and corridor studies, transportation management plans, access management studies, signal warrant studies, signing timing plans, Stage 0 feasibility studies, NEPA studies, and safety studies.

- I-10 New Orleans Master Plan (Stage 0) | **LADOTD, Orleans Parish, Louisiana –** Senior Traffic Engineer. Responsible for traffic modeling and alternative analysis for I-10 and US-90B corridors in downtown New Orleans. Work includes calibrating existing Vissim models to FHWA/DOTD standards and analyzing various short-term, mid-term, and long-term alternatives to help reduce congestion and improve operations along I-10 and US-90B segments in downtown New Orleans.
- US 90 Traffic Signal Timing Upgrades | **LADOTD, Lafayette Parish, Louisiana -** Senior Traffic Engineer. Project tasks involved traffic data collection and analysis, traffic signal inventory, peak period determination and observations, warrant analysis, travel time runs, traffic signal timing analysis using Synchro 10 software, and development of updated TSI forms following latest LADOTD standards
- I-10 CMAR – Traffic Engineering Services | **LADOTD, East Baton Rouge Parish, Louisiana -** Senior Traffic Engineer. Assisting with traffic engineering tasks including development of permanent signing plans, signal design and timing plans, Interchange Modification Reports, and Transportation Management Plans for the widening of Interstate-10 from LA 415 to Essen Lane and improvements to interchanges along this segment. One critical component of the project is maintaining traffic during the construction of new bridge structures. Multiple scenarios are being evaluated using a calibrated mesoscopic model using Dynameq to determine the impacts during construction and mitigations that will be necessary to minimize delay.
- US 71 Corridor - Phase III Traffic and Safety Corridor Study | **LADOTD, Rapides Parish, Louisiana -** Traffic Engineer. Responsible for conducting traffic study tasks including traffic data collection, signal warrant analysis, traffic analysis, crash analysis, alternative and countermeasure development, predictive safety analysis, and conceptual drawings.

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

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Jose L. Rodriguez, PE

Project Assignment:

Traffic Engineering Studies

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 3
Total – 27

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, University of New Orleans, 1992

Active registration: Year first registered/discipline:

Professional Engineer (Civil) – LA (#30492), 2003

Other experience and qualifications relevant to the proposed Project:

Mr. Rodriguez has more than 25 years of experience with roles of progressive responsibility as a civil engineer performing roadway design, bridge design, project management, hydraulic analysis, utility coordination, construction supervision, estimating, and project implementation for various clients in the states of Louisiana, Texas, Georgia, and North Carolina. Worked in close relationship with the Louisiana Department of Transportation, City of New Orleans Department of Public Works, New Orleans Sewer and Water Board, Plaquemines Parish, Jefferson Parish, St. Bernard Parish, U.S. Army Corps of Engineers, New Orleans Regional Planning Commission, Marathon Petroleum Co., Yuhuang Chemicals, and others. Extensive experience in Inroads, Autodesk Civil 3d, Leap Bridge for Concrete Bridge Design, and Excel Spread Sheets. Served on the American Concrete Institute (ACI) Louisiana Board, becoming president of the Louisiana Chapter in 2010. Served as a judge in ACI's annual best concrete project competitions and remains active in this organization.

- John James Audubon Bridge Approach (Design-Build [DB]) | **LADOTD, New Roads, Louisiana** - Roadway engineer responsible for the geometric horizontal and vertical alignment for five approach bridges to the John James Audubon Cable Stay Bridge. The longest cable-stayed bridge in the Western Hemisphere consisting of 1,583' main span. Jose was also in charge of the quality control for all bridge approaches and the design of all precast concrete girders for the project.
- Traffic Turn Lanes on Highway LA 3127 | **Yuhuang Chemical Inc., St. James, Louisiana** - Roadway engineer responsible for Quality Control (QC) for the design of two turn lanes into the Yuhuang Chemical Methanol plant in St. James Louisiana. During construction, Jose provided the owner, with construction design services for the duration of the construction phase.
- New Orleans Submerged Roadway Program Management | **LADOTD and New Orleans Regional Planning Commission, New Orleans, Louisiana -** Roadway engineer and quality control reviewer for this multi-million-dollar program management team for the DOTD and the Federal Highway Administration (FHWA). Jose helped develop design guidelines and processes for the standardization of engineering work for the repair of damaged roadways by Hurricane Katrina in the City of New Orleans and other parishes. He was responsible for conducting quality control reviews on roadway plans prepared by other engineering firms for compliance with DOTD and FHWA design standards.

- **Williams Boulevard Pedestrian Improvements | LADOTD, Kenner, Louisiana** - Roadway engineer responsible for the design of approximately 3,000 ft. of new sidewalk, minor drainage, and utility relocation for the City of Kenner, LA to improve access to mass transportation and enhance pedestrian safety.
- **I-10 (Veterans to Clearview) | LADOTD, Metairie, Louisiana -** Roadway engineer responsible for roadway plan preparation for widening 1.2 miles of I-10 from three lanes to five lanes in each direction. The project also included bridge work to accommodate the new roadway widening. Jose was also responsible for the alignment and design of concrete sound walls along the corridor.
- **Causeway Boulevard Earhart Expressway Interchange | LADOTD, Jefferson, Louisiana -** Roadway engineer responsible for the geometric design and roadway plan preparation for the Earhart Boulevard Causeway Interchange. The Earhart Boulevard Causeway Interchange purpose was to assist in traffic congestion relief for the east-west flow in traffic for the New Orleans Metro Area. It consisted of the design of roadway and bridge ramps for the construction of an elevated signal-controlled interchange. The estimated construction cost for this project was approximately fifty-nine million dollars. Responsible for the development of all horizontal and vertical alignments for this project as well as roadway plan preparation, developing all roadway cross sections, drainage design, utility conflict resolution and cost estimating for the project. Bentley InRoads was used for the development of the roadway plans for this project.
- **I-12 to Bush Corridor Study Phase III (EIS) | LADOTD, St. Tammany Parish, Louisiana -** Roadway engineer responsible for evaluating environmental issues and developing design alternatives in accordance with the National Environmental Policy Act (NEPA) for transportation improvements.
- **Causeway Boulevard Interchange Improvements Phase I and II | LADOTD, Metairie, Louisiana -** Roadway engineer for the project, which consisted of widening Causeway Boulevard elevated structure at Veterans Boulevard and the construction of new at grade and elevated ramps to provide better accesses, improve safety and ease congestion at this heavily travel interchange. Responsible for roadway plan preparation for this project.
- **Airline Highway (US-61) at Williams Boulevard (LA 49) Intersection Improvements | City of Kenner, Kenner, Louisiana -** Roadway engineer responsible for roadway plans preparation to improve the Williams Boulevard and Airline Drive intersection. The project consisted of widening for turn lanes and installing medians and crosswalks.
- **City of Gretna Bicycle Access and Pedestrian Improvements | City of Gretna, Gretna, Louisiana –** Roadway engineer responsible for design and plan preparation for the construction of a bicycle and pedestrian infrastructure loop through the City of Gretna. Plans were developed to meet the City of Gretna and LADOTD standards.

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Max Aguirre, PhD, PE, PTOE, RSP1

Project Assignment:

Traffic Control Devices Design and Safety Analysis

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 4
Total – 5

Education: Degree(s)/Year/Specialization:

PhD, Engineering Science, Louisiana State University, 2018
MS, Construction Management, Louisiana State University, 2015
BS, Civil Engineering, Louisiana State University, 2013

Active registration: Year first registered/discipline:

Professional Engineer – LA (#0047579), 2023
Professional Engineer – NC (#052016), 2021
Professional Traffic Operations and Engineer – USA (#5291), 2022
Road Safety Professional 1 – USA (#636), 2021

Other experience and qualifications relevant to the proposed Project:

Dr. Aguirre is a Professional Engineer in the states of North Carolina and Louisiana, a Professional Traffic Operations Engineer, and a Road Safety Professional. Over the course of his academic career, Dr. Aguirre has served as a Graduate Research Assistant and participated in multiple field-related organizations. Dr. Aguirre has experience working on projects for the Louisiana Department of Transportation and Development (LADOTD) pertaining to traffic and safety studies, feasibility studies, pedestrian and bicycle improvements, permanent signing design, signal design, and NEPA studies. He is also familiar with the Highway Capacity Manual, Highway Safety Manual, MUTCD, and AASHTO "Green Book". Dr. Aguirre is also knowledgeable in the application of several software programs including IHSDM, SYNCHRO, GuidSIGN, HCS and MicroStation software. Dr. Aguirre has completed LADOTD Traffic Engineering Process and Report Training. Among his many skills, he is fluent in Spanish.

- **US-90 Traffic Signal Timing Upgrades | LADOTD, Lafayette Parish, Louisiana -** Traffic engineer responsible for traffic data collection and analysis; signal inventory; peak period determination and observations; warrant analysis; travel time runs; traffic signal analysis using Synchro 10 software; and development of updated TSI forms following latest LADOTD standards.
- **East Baton Rouge Signal Detection Upgrades | LADOTD, East Baton Rouge Parish, Louisiana -** Traffic engineer responsible for the field signal inventory and the creation of updated signal plans and quantities. The project includes 39 intersections identified in East Baton Rouge Parish to be upgraded from video detection to magnetometer detection.
- **US-61 Access Management and Corridor Improvements | LADOTD, East Baton Rouge Parish, Louisiana -** Traffic engineer. Project tasks involve data collection and analysis; traffic analysis modelling using HCS software for existing and alternative conditions; safety analysis for existing and alternative conditions; cost estimates; and benefit-cost analysis. The corridor consists in 13 intersections and 36 median openings identified in East Baton Rouge Parish.

- **I-20 Mesoscopic TMP and Travel Assessment | LADOTD, Bossier City, Louisiana -** Traffic engineer responsible for assisting in the development of the safety analysis along the study project limits to develop crash summaries, calculate crash, injury, and fatality rates, and determine overrepresentation of crashes. The project is anticipated to disrupt traffic in this critical portion of I-20. The project scope includes analysis of alternative routes, safety analysis, operational analysis, assistance with public outreach, development of a Level 4 TMP, and development of work zone mitigation strategies.
- **Rio Puerto Nuevo Project (Contract 2D/2E) | USACE, San Juan, Puerto Rico -** Traffic engineer responsible for the development of a traffic control plan for the improvements in the bottom and wall of the Rio Puerto channel.
- **Interchange Feasibility – I-49 (Ricohoc to Berwick) Supplemental Environmental Impact Assessment | LADOTD, St. Mary Parish, Louisiana -** Traffic engineer responsible for planning and evaluation of different interchange alternatives and their geometric design, socio-economic impacts, mobility impacts, and environmental impacts.
- **Bluebonnet Boulevard (Perkins Road to Picardy Avenue) Preliminary Engineering and Final Design | City of Baton Rouge – East Baton Rouge Parish, Louisiana -** Traffic engineer responsible for assisting in data collection and analysis; traffic analysis modelling for existing and build conditions; volume development; safety analysis for existing and alternative conditions. Project purpose was to conduct the traffic impacts of the widening of Bluebonnet Boulevard from Picardy to Perkins Rd.
- **Metropolitan Transportation Plan Update | South Central Planning & Development Commission, Houma, Louisiana -** Traffic engineer responsible for assisting in updating socio-demographic data of residents of Houma, Louisiana. Project consisted of technical work for the development of regional demographic datasets including population, employment, and school enrollment for existing and future years.
- **Metropolitan Transportation Plan Update | Ouachita Council of Governments, Monroe MPO, Monroe, Louisiana -** Traffic engineer responsible for developing socio-demographic data of residents of Monroe, Louisiana. Technical work consisted of development of regional demographic datasets including population, employment, and school enrollment for existing and future years.
- **I-10 Widening, Construction Management and Risk (Segment 1) | Huval and Associates, East Baton Rouge Parish, Louisiana -** Traffic engineer responsible for developing existing and proposed signing plans; proposed traffic signal design; and existing safety analysis for I-10 CMAR Segment 1. Project purpose is to identify system deficiencies contributing to congestion patterns throughout the I-10 corridor from west of Mississippi River to the I-10/I-12 split and develop solutions.
- **Terrace Avenue (Highland Road to Perkins Road) | City of Baton Rouge, East Baton Rouge, Louisiana** - Traffic engineer responsible for conducting existing safety analysis for Terrace Ave. Project purpose was to provide access management; signalization and turning movement improvements; enhance pedestrian and bicycle mobility; and transit accommodations along Terrace Ave.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Meredith Guidry, EI, RSP1

Project Assignment:

Traffic Control Devices Design and Traffic Engineering Studies

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 3
Total – 3

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, Louisiana State University, 2020

Active registration: Year first registered/discipline:

Engineer Intern (Civil) – LA (#34822), 2021
Road Safety Professional 1 – LA, 2022

Other experience and qualifications relevant to the proposed Project:

Ms. Guidry has three years of experience in traffic engineering, deploying sustainable solutions, and roadway safety analyses. Since joining Arcadis, Ms. Guidry has gained experience in traffic engineering and design, safety, and transportation management through assisting in a variety of projects including crash safety analyses, volume analyses, Intersection Modification Reports, pedestrian and bicycle studies, signing and marking design, and intersection and traffic signal design and modeling. Additionally, Ms. Guidry has gained experience developing fleet electrification plans, evaluating total costs of ownership, and assessing needs and solutions for transit agencies and private companies transitioning to electric fleets. Her experience includes knowledge on electric vehicle (EV) grants and incentives, charging infrastructure for EVs, fire hazards posed by EV use and charging, and greenhouse gas emissions produced by vehicles. Her software skills include Synchro, SIDRA, HCS, GuideSIGN, PTVissim, and MicroStation. Meredith is ATSSA TCT and TCS certified.

- **I-10 Widening, Construction Management and Risk (Segment 1) | LADOTD, Baton Rouge, Louisiana** - Responsible for building Synchro models and optimizing signal timings at intersections affected by construction phase traffic. Assisted developing ITS design and plans for each project phase. Assisted conducting safety analyses and crash summaries for existing, no-build, and build conditions. Assisted reporting on capacity analyses for intersections, freeway, arterials, and interstate ramps to determine and predict delays, queue lengths, travel times, and volume to capacity ratios at each. Assisted developing existing and proposed sign plans and Engineering Reasoning and Decision Documents (ERDDs) within the project limits using regulations laid out in the Manual on Uniform Traffic Control Devices (MUTCD).
- **LA 30 (East Baton Rouge Parish Line to I-10) Improvements| LADOTD, Baton Rouge, Louisiana** - Responsible for developing traffic volume maps for existing, no-build, and build conditions. Responsible for conducting a peak period analysis and determining appropriate growth rates based on existing traffic data. Assisted reporting on network improvements following LaDOTD's Traffic Engineering Process and Report (TEPR) requirements and expectations. Responsible for recording queue lengths and unmet demand at intersections during field visit.

- **Mickens Road (Hooper Road to Joor Road) Improvements | City of Baton Rouge, Baton Rouge, Louisiana** - Responsible for developing traffic volume maps for existing, no-build, and build conditions. Responsible for conducting a peak period analysis and determining appropriate growth rates based on existing traffic data. Responsible for building HCS models at both signalized and stop-controlled intersections. Assisted reporting on intersection capacity analyses to determine and predict delays, queue lengths, travel times, and volume to capacity ratios at each intersection within the project limits, following LaDOTD's Traffic Engineering Process and Report (TEPR) requirements and expectations. Responsible for recording queue lengths and unmet at intersections during field visit.
- **Multiple MOVEBR Projects | City of Baton Rouge, Baton Rouge, Louisiana** - For several projects under the MOVEBR program, including Bluebonnet Boulevard, Lee Drive, and Terrace Avenue, was responsible for collecting traffic counts and cross-checking queue length map data with Synchro results. Responsible for collecting crash data and presenting that information in Collision Diagrams. Responsible for marking locations with high potential for improvement based on crash data. Responsible for recording queue lengths at intersections during field visit. Responsible for conduction Intersection warrant analyses, for creating an inventory of crash data and correcting data from Crash1 based on crash reports.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Joshua Cook

Project Assignment:

Safety Analysis

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis - 3
Total – 5

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, Louisiana State University, 2021

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Throughout his collegiate and early career, Mr. Cook has obtained a wide range of experience within the transportation engineering field including, but not limited to, roadway design, traffic engineering, roadway safety analysis, and construction management and inspection. Collaborating with cross-functional teams through internships and early career job experience allows utilization of his expertise across a wide range of disciplines within the transportation engineering field in managing and completing a variety of different projects among diverse teams.

- **Bluebonnet Boulevard (Perkins Road to Picardy Avenue) Preliminary Engineering and Final Design | LADOTD, East Baton Rouge, Louisiana** - Traffic engineering design support responsible for analyzing traffic collisions along Bluebonnet Boulevard (Perkins Rd to Picardy Ave) to create accurate crash collision diagrams.
- **SR-59-Loxley-Robertsdale Signal Timing Improvements | ALDOT, Loxley-Robertsdale, Alabama** - Traffic engineering design support responsible for traffic signal timing calculations for SR-59 through Loxley and Robertsdale and developing a base model of the corridor implementing optimal signal timing and cycle lengths.
- **US-90 to I-49 Build Volume Distribution | LADOTD, Morgan City, Louisiana** - Traffic engineering design support responsible for developing carrying out a build volume development methodology transforming US-90 to I-49 along a section near Morgan City including redistribution of U-Turns, assigning volumes to proposed interchange locations, and estimating and redistributing Internal-to-internal trips throughout the corridor.
- **Development of an Optimal Ramp Metering Control Strategy for I-12 | LADOTD, Baton Rouge, Louisiana** - Traffic engineering design support responsible for carrying out a build volume development methodology transforming US-90 to I-49 along a section near Morgan City including redistribution of U-Turns, assigning volumes to proposed interchange locations, and estimating and redistributing Internal-to-internal trips throughout the corridor.
- **I-12 Road Widening | LADOTD, Covington, Louisiana -** Student research assistant responsible for analyzing traffic patterns on _-12 W of US-190 and determined that widening the highway would alleviate traffic congestion and prevent future accidents.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Jacob Beckham, EI

Project Assignment:

Traffic Engineering Studies and Traffic Simulation and Visualization

Name of Firm with which associated:

ARCADIS

Years' experience with this Firm:

With Arcadis – 2
Total – 2

Education: Degree(s)/Year/Specialization:

MS, Biological Engineering, Louisiana State University, 2016
BS, Biological Engineering, Louisiana State University, 2013

Active registration: Year first registered/discipline:

Engineering Intern – (#031416) LA, 2013

Other experience and qualifications relevant to the proposed Project:

Mr. Beckham has gained a variety of experience in the field of transportation engineering including traffic engineering, signal timing and design, signing layout design, project concept layouts, and roadway safety analysis and design.

- I-10 CMAR | **LADOTD, East Baton Rouge Parish, LA -** Traffic Analyst. Responsible for multiple traffic engineering tasks including review of permanent signing plans, performing historical crash and safety analysis, modeling of traffic signal timings, and traffic analysis for all intersections and affected highways.
- LA 30 Environmental Assessment |**LADOTD, East Baton Rouge and Ascension Parishes, LA -** Traffic Analyst. Responsible for providing traffic data collection, and historical crash and safety data analysis. Data collection effort included manual demand counts, geometric field observations, and travel time for the affected corridor. Collected crash data for the most recent three years from LADOTD crash database and reviewed individual crash reports to determine type and location of each crash.
- NORPC City of Mandeville Pedestrian and Bicycle Plan | **City of Mandeville, St. Tammany Parish, LA -** Traffic Engineer. Responsible for providing existing infrastructure data collection, development of proposed pedestrian and bikeways plan, and assisting in client meetings. Data collection effort included manual inspection and documentation of existing pedestrian paths and bikeways.
- PID #116406 – Safety Studies 2023 |**ODOT, Lucas County, Toledo, OH, Sylvania, OH, Fayette, OH-** Traffic Engineer. Responsible for creating CAD safety improvement conceptual layouts for proposed improvements along Sylvania Ave. Required utilizing roadway, intersection, and roundabout design guidelines and creating preliminary sign layouts.
- Reconnecting Communities Planning Grant |**LADOTD, New Orleans, LA-** Traffic Engineer. Responsible for revising and editing grant application.
- Louisiana International Terminal | **The Port of New Orleans, Violet, LA**- Traffic Engineer. Responsible in part for creating the Transportation portion of the Existing Environment section for the Environmental Assessment. Task included documenting all major and minor roadways expected to experience impacts due to project execution.

Section
4

Traffic Signal Design & Timing

Arcadis has several local experts that are familiar with traffic signal design, timing, and wiring for many jurisdictions. Our Project Manager Kester Hollier has experience providing traffic signal design for several Jefferson Parish intersections including Veterans at Causeway and Lake Avenue at Metairie Hammond Highway, as well as designs for City of Kenner, City of Baton Rouge, and Louisiana Department of Transportation and Development. Arcadis can provide IMSA certified traffic signal technician support.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 1

Project Name, Location and Owner's contact information:	**US-90 Business Signing Design and Layout | Orleans and Jefferson Parishes, LA** Duc Ngo – Louisiana Department of Transportation and Development (LADOTD) 225.379.1372	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	$25,000,000	Engineering: $1,500,000
Completion Date (Actual or estimated):	Ongoing	

Nature of Firm's Responsibility:

Arcadis was tasked to develop **permanent signing plans** to replace all existing signs and supports along US-90 Business and I-10 through downtown New Orleans and surrounding areas, including surface street approaches to freeway access points. Existing signs and supports are well beyond intended design life and require upgrades to conform to **the latest state and federal policy requirements.**

Design Development

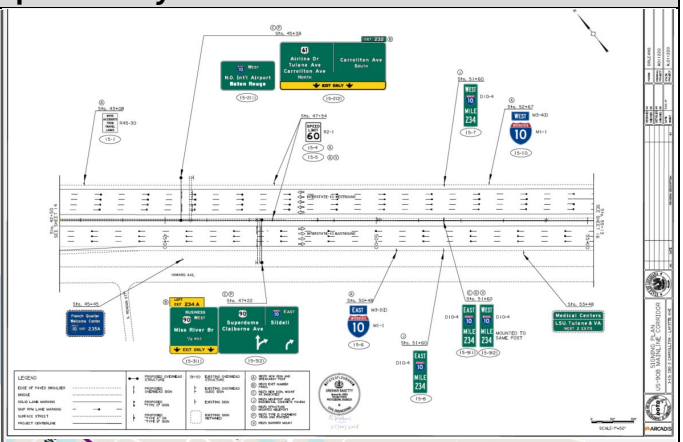
Arcadis developed a proposed signing layout in accordance with the latest state and federal policy guidance. Signs were strategically to provide motorists **adequate distance to navigate safely** along the roadway while minimizing the number of required overhead structures. Once the proposed sign layout was established, structural design of sign supports was conducted. The structural design task presented significant challenges due to the complexity of the roadway network and large percentage of sign structures located on bridges. Experienced structural engineers in Louisiana and throughout the region were involved to complete the design and rigorous quality assurance/quality control protocols were employed to guarantee that all components of the design were passing under high wind scenarios associated with the area.

Project Implementation Plan

Due to the scale of the project, Arcadis was **tasked with developing a phased implementation plan**. The overall project limits were divided into four logical segments based on construction cost constraints, with a target maximum construction cost of $5 million per segment. Separate Plan sets were prepared for each segment. This allowed for project segments to be let over time based on available e funds.

Construction Support

Arcadis has also been tasked with providing engineering support during construction of project segments, which involves **review of contractor submittals such as fabricator shop drawings for sign supports and requests for information, minor design changes to address varying field conditions, and on-site inspection of construction issues on an as-needed basis**. Three of the four project segments are under construction, with the 4th project segment of the project is current under construction.



Scope of work: Sign Inventory (GIS Database), Site visits, Signing layout plans, Shop drawings, Structural design, Transportation Management Plan, Construction Support

Staff Involved: Akhil Chauhan, Kester Hollier, Anthony Moore, Ari Deitch

Key Challenges/Accomplishments:
Sign location constraints due to tight urban area and structural limitations.

Innovation & Best Practice:
Structural design to allow sign locations on existing bridge structures.

Accomplishments:
Three project segments are out for construction with minimal issues and the fourth to be let for construction soon.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 2

Project Name, Location and Owner's contact information:	**New Orleans Pedestrian Traffic and Safety Study | Orleans Parish, LA** Adriane McRae - Louisiana Department of Transportation and Development (LADOTD) 225.379.1950	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	N/A	Engineering: $278,000
Completion Date (Actual or estimated):	September 2018	

Nature of Firm's Responsibility:

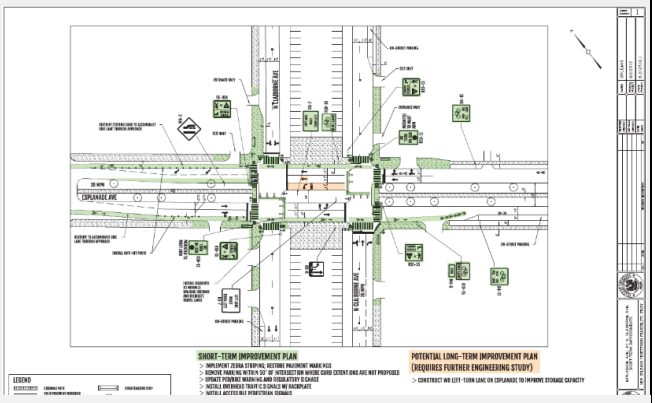
LADOTD in partnership with the New Orleans Regional Planning Commission (NORPC) tasked Arcadis with a **pedestrian safety feasibility study** of 20 intersections located in Orleans Parish. NORPC identified the candidate intersections through a detailed Pedestrian Safety Action Plan investigation. The results of the investigation led to a ranking of 20 intersections located throughout Orleans Parish with high occurrence of **pedestrian safety issues**.

Stage"0" Safety Study

Arcadis was tasked with the preparation of a Stage "0" Intersection Improvement Safety Study for the purpose of evaluating the effectiveness of various pedestrian safety enhancements for the intersections identified in the PSAP. The Arcadis team conducted the study in accordance with Department of Transportation and Development's (DOTD's) Stage 0: Manual of Standard Practice, and DOTD's Traffic Signal Manual. 15 of the 20 intersections identified are currently signalized; therefore, our team conducted **a full signal evaluation of the intersections** to determine if **pedestrian accommodations** are adequate.

Countermeasure Development

The study investigated **safety deficiencies** at each intersection. Improvements were recommended, and their effectiveness evaluated. The types of improvements required varied by intersection and included **pedestrian and bicycle facility improvements, traffic signal improvements, intersection striping improvements, signing improvements, lighting improvements, sidewalk/crosswalk improvements, curb extensions, traffic calming, Americans with Disabilities Act compliance including curb ramps, and parking modifications.**



Design of short-term and long-term implementable solutions for high-priority project intersection

Scope of work:

- Data collection
- Analysis of existing traffic conditions
- Historic crash data evaluation
- Analysis of alternatives
- Conceptual design layout development
- Cost estimates and Stage "0" checklists development

Staff Involved:

- Akhil Chauhan
- Thomas Montz
- Ari Deitch
- Jose M. Rodriguez

Key Challenges/Accomplishments:
Identified systemic safety deficiencies based on historical crash data and field review. Engaged and addressed the individual needs of a diverse multidisciplinary group of project stakeholders.

Innovation & Best Practice:
Quantified safety and operational performance of countermeasures to develop improvement plans with the greatest benefit to cost ratio.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 3

Project Name, Location and Owner's contact information:	**Burbank Drive (LA 42) – Highland Road Connector Traffic Signal Analysis and Design | East Baton Rouge, LA** Thomas A. Stephens, PE - East Baton Rouge Parish 225.389.5310	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	N/A	Engineering: $135,000
Completion Date (Actual or estimated):	April 2015	

Nature of Firm's Responsibility:

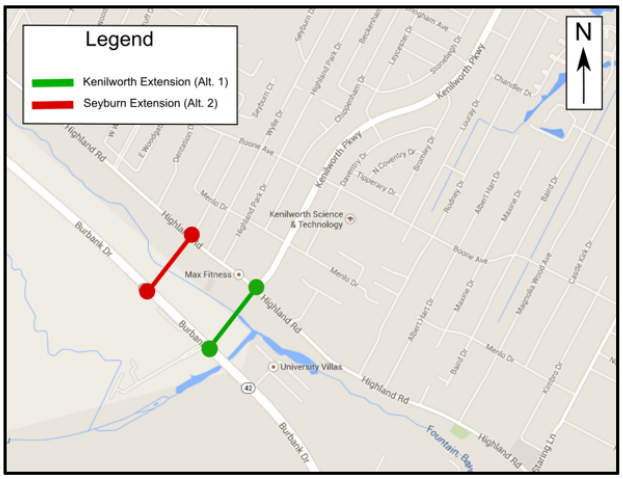


Figure – Highland Burbank Connector Build Alternatives 1 & 2

As part of the Green Light Plan, Arcadis developed design alternatives for two potential north-south connectors between Highland Road and Burbank Drive. Forecasted changes in travel patterns for future year scenarios by calibrating CRPC's Travel Demand Model and reassigning trips through the network.

The Highland-Burbank Connector is a new proposed roadway connecting Highland Road to Burbank Drive (LA 42). The proposed typical section is a three-lane curb and gutter roadway with sidewalks on both sides. This project provided a vital link connecting the Highland Road corridor directly to Burbank Drive and would be located approximately one and a half miles east of Lee Drive, midway between Lee Drive and Staring Lane.

As a subconsultant, **Arcadis performed traffic and signal timing analyses** for the design study of this project. The traffic task included the development of **design alternatives at new and existing intersections** within the study area. Design alternatives utilized innovative intersection types such as **restricted crossing U-turn, median U-turn, and access management strategies** to improve safety and operations.

The development and comparison of design alternatives considered two potential north-south connections between Highland Road and Burbank Drive including an extension of Kenilworth Parkway and an extension of Seyburn Drive.

Scope of work:
- Traffic Study
- Build Alternative Development
- Signal Timing Analysis
- Signal Design Plans

Staff Involved:
- Akhil Chauhan
- Ari Deitch
- Thomas Montz

Key Challenges:
Changes in travel patterns made analysis more challenging.

Accomplishments:
Multiple safe and equitable alternatives provided.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 4

Project Name, Location and Owner's contact information:	**Canal Boulevard Bus/Streetcar Terminal Improvements | Orleans Parish, LA** Stefan Marks - New Orleans Regional Transportation Authority (NORTA) 504.827.8307	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	NA	Engineering: $427,000
Completion Date (Actual or estimated):	May 2015	

Nature of Firm's Responsibility:

NORTA's goals for this project was to improve **safety for transit riders** by consolidating bus-to-streetcar passenger transfers in a safe location. Located near the I-10 at the Metairie Road interchange, the project included **signalizing the intersection of City Park Avenue and Canal Boulevard** to accommodate streetcar movement. This provided a queuing area for buses, increased lighting for safety, streetscape for appearance, passenger information, and passenger convenience. Arcadis completed the traffic and safety analysis, which included:

- Reviewing existing traffic studies and data to establish additional data needs
- Analyzing three-year crash data to identify safety and operational deficiencies
- **Performing data collection and field observation** to estimate K-factor, directional distribution, and truck percentage (data includes vehicle classification counts, tube counts, and turning movement counts)
- **Determining the traffic growth rate** based on historical Average Daily Traffic data and the Metropolitan Planning Organization travel demand model (TransCAD) volumes
- **Developing existing and future-year vehicle and pedestrian traffic volumes**
- Including impact of proposed future developments, incorporated bus and streetcar route, schedule, boarding and alighting information in **VISSIM model**
- Performing **intersection and segment capacity and LOS analyses** for existing, future no-build and build conditions—AM and PM peak hours—utilizing HCS, Synchro/SimTraffic, and VISSIM
- Illustrating existing and design-year traffic conditions via 3D VISSIM simulations

The safety analysis revealed that, during the three-year data collection period, the "turning/angle" crashes were the most frequent type of collision on City Park Avenue between Canal Street and Canal Boulevard, predominantly "left angle" type of incidents. The proposed build alternatives would alleviate the identified safety and operational issues. However, modeling various modes of travel including street cars, passenger vehicles, pedestrians along with bikes, all of which are controlled through a signal with seven signal head clusters at four intersections and just one control presented unique challenges.

Dense multi-modal operations, including intense pedestrian activity, at a congested intersection

Scope of work:

- Traffic data collection and field surveys
- Historical crash analysis
- Traffic analysis
- Conceptual design of multimodal facilities

Staff Involved:

- Akhil Chauhan
- Thomas Montz

Key Challenges/Accomplishments:
Modeling various modes of travel through the intersections.

Innovation & Best Practice:
Vissim model used to illustrate traffic conditions and different modes of travel.

Accomplishments:
Developed safe alternative to alleviate crash issues and provide safety for pedestrians and streetcar users.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 5

Project Name, Location and Owner's contact information:	**LA 3235 Safety and Access Management Study | Lafourche Parish, LA** Adriane McRae – Louisiana Dept of Transportation and Development (LADOTD) 225.379.1950	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	N/A	Engineering: $315,000
Completion Date (Actual or estimated):	March 2015	

Nature of Firm's Responsibility:

> It is my great pleasure to provide this reference letter for an outstanding performance by Arcadis' staff on this project. From scope development, to project planning, to budget and schedule control, to technical quality and delivery, its execution was flawless. Arcadis went above and beyond to successfully deliver this project and significantly exceeded our expectations, especially through communication and outreach. The success of this project has been showcased in many professional conferences and meetings. I would very strongly recommend Arcadis' safety services, and we look forward to working with them again.
>
> *April Renard, PE, PTOE / Project Manager, LADOTD*

The Arcadis team performed a formal corridor/intersection and Stage 0 Feasibility Study evaluation to **enhance mobility and safety** on the LA 3235 corridor.

Stage 0 Feasibility Study

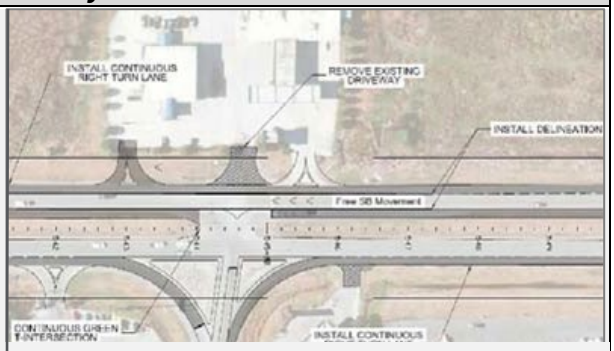
Arcadis conducted a Stage 0 Feasibility Study to evaluate the viability of **safety improvement alternatives and countermeasures**. The study involved traffic data collection and analysis, historical crash analysis, predictive safety methods, alternative development, cost estimates, public and stakeholder meetings, and Stage 0 Checklists. Arcadis employed **advanced Highway Safety Manual methodologies** to evaluate the effectiveness of proposed alternatives in addressing crashes.

Design Alternative Development

Alternatives focused on the use of **access management and restrictive intersections** to reduce conflict points and speed differentials that are contributing to crashes. Developed design features in accordance with **LADOTD guidelines** such as Engineering Directives and Standards Manual VI.3.1.6, "Installation of New Traffic Signals," IV.2.1.4, "Median Openings on Divided Multi-Lane Roadways," and DOTD's "Access Connections Policy." Developed design drawings to **evaluate feasibility of alternatives and identify potential ROW and environmental impacts**.

Construction Cost Estimates

Generated construct cost estimates for alternatives using LADOTD historical bid information and cost estimating tools. These estimates identified both construction and engineering costs as required in Stage 0 checklists.



Proposed Access Management and Intersection Improvements to Reduce Conflict Points on LA 3235

Scope of work:
- Stage 0 Feasibility Study
- Design Alternative Development
- Construction Cost Estimates

Staff Involved:
- Akhil Chauhan
- Ari Deitch
- Thomas Montz

Key Challenges / Accomplishments:
High speed corridor, heavy truck traffic, clustered commercial and residential land-use, full access median openings and high crash severity.

Innovation & Best Practice:
Access management, alternative intersection design, predictive safety analysis.

Accomplishments:
Feasible concepts that reduce critical crash types and crash severity along the corridor.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

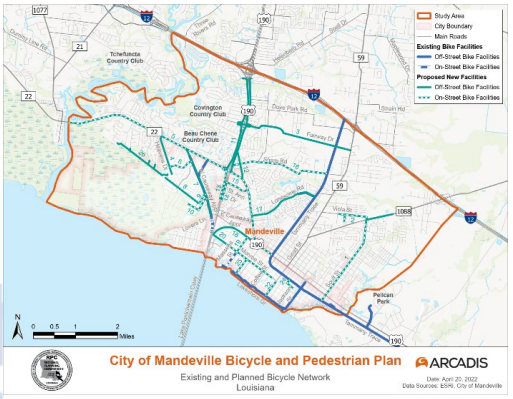
PROJECT NO. 6

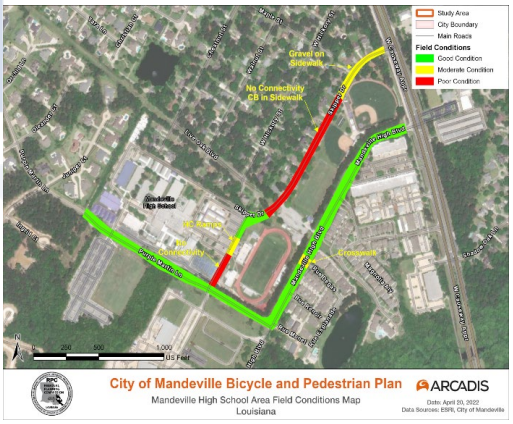
Project Name, Location and Owner's contact information:	**City of Mandeville Pedestrian and Bicycle Plan | Mandeville, LA** Nelson Hollings – New Orleans Regional Planning Commission 504.483.8523	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	$72,000	$58,000
Completion Date (Actual or estimated):	March 2023	

Nature of Firm's Responsibility:

Arcadis was the Prime Consultant to develop an updated Pedestrian and Bicycle Plan for the City of Mandeville. The plan provided existing field inventories for the study area of existing infrastructure to identify existing deficiencies in the system, through these inventories and other data collection efforts, a vision statement was developed to guide the plan. Goals and Strategies were developed to help develop the plan and guide the selection of the guidance to develop a program of projects. Methodology was developed to determine proposed projects and prioritization of projects both in the short-term and long-term life of the plan; a Complete Streets policy was also developed to guide design standards and best practices of new or improved infrastructure. Performance measures and targets were also proposed so that the success of the plan may be measured overtime. Arcadis scope provided the following services:

- Collect data and document existing conditions
- Public / stakeholder engagement
- Develop active transportation network
- Document policy and program recommendations
- Project prioritization, rankings, and cost estimates





The Plan was developed under the guidance of a Project Management Committee (PMC) that included members from a wide cross-section of local public elected officials, private citizens, government agencies and other organizations to ensure adequate outreach within the community and study area. The PMC had a total of four meetings to steer plan development.

An in-person public meeting was held in January 2023 and a virtual public meeting was held a week later on the City's social media pages. Arcadis developed the public meeting materials as well as the presentation and voice over for the virtual public meeting.

Key Challenges/Accomplishments:
Short Term and Long-Term Project identifications due to funding constraints.

Innovation & Best Practice:
Extensive existing inventory maps

Accomplishments:
Updated Pedestrian and Bicycle Plan and New Complete Streets Policy for the City of Mandeville

Scope of work:

- Data Collection
- Existing Infrastructure Inventory
- Proposed Short-Term and Long-Term Projects
- Cost Estimate
- Complete Streets Policy

Staff Involved:

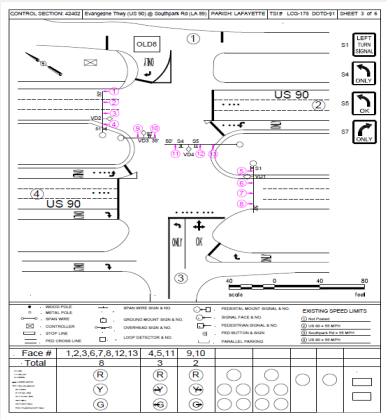
- Akhil Chauhan
- Kester Hollier
- Jacob Beckham
- Jose M. Rodriguez
- Meredith Guidry

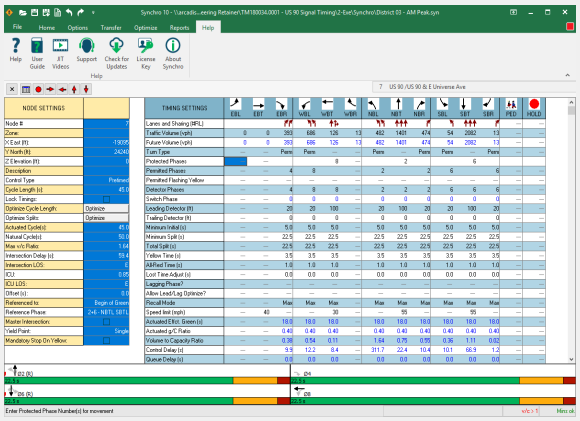
L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

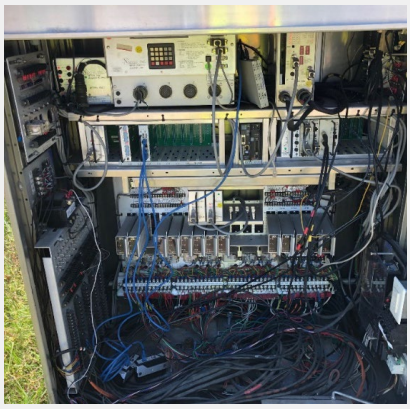
PROJECT NO. 7

Project Name, Location and Owner's contact information:	**US-90 Traffic Signal Timing Upgrade | Lafayette Parish, LA** Andre Fillastre - Louisiana Dept of Transportation and Development (LADOTD) 225.292.4646	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	$149,000	Engineering: $149,000
Completion Date (Actual or estimated):	December 2019	

Nature of Firm's Responsibility:







Arcadis performed **traffic signal analysis and signal timing services** for this task order under a Traffic Signal Engineering Retainer contract held with LADOTD. It included updating signal timing and signal inventory forms for nine intersections along US-90 in Lafayette, Louisiana.

The scope of work follows the **Traffic Engineering Process and Report (TEPR) standard data collection procedures** and includes seven-day, 24-hour counts, 48-hour intersection approach counts, Turning Movement Counts with demand, travel time runs, and peak period observations. Arcadis performed analysis of these traffic data conforming to TEPR standards.

The scope of work also includes performing an inventory of existing traffic signal equipment using a standardized checklist. These items were checked against existing **traffic signal inventory (TSI) forms** and used as a basis to update the inventory forms. Intersection sketches were developed to be included in the updated TSI forms following the TSI format provided by LADOTD. Traffic signal timing analysis was performed using Synchro 10 software. The software allowed for optimization of cycle lengths and splits based on demand at each intersection. The software also allowed for creation of "time-space diagrams" which visually represent progression along the corridor.

Scope of work:

- Data Collection
- Peak Period Observations
- Traffic Signal Inventory
- Traffic Signal Timing Analysis
- Signal Optimization and Timing

Staff Involved:

- Anthony Moore
- Ari Deitch
- Thomas Montz
- Max Aguirre

Key Challenges/Accomplishments:
The main challenge was evaluating the length of the queue at several intersection due to horizontal curves on the corridor.

Innovation & Best Practice:
Lead/lag left turn phasing was implemented during peak periods that significantly reduced delays. They had not been used before.

Accomplishments:
Congestion was reduced and delays were improved.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 8

Project Name, Location and Owner's contact information:	**US-61 Access Management and Corridor Improvements | East Baton Rouge Parish, LA** Ryan Hoyt - Louisiana Dept of Transportation and Development (LADOTD) 225.379.1370	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	N/A	$245,000
Completion Date (Actual or estimated):	February 2020	

Nature of Firm's Responsibility:

Arcadis developed and evaluated a**ccess management and corridor improvement alternatives** on US-61 (Airline Highway) from Florida Boulevard to the US-190 Bridge. A description of main project components is provided below:

Identify Needs

The operational performance of the existing network was assessed by conducting a **Highway Capacity Manual (HCM) analysis** of median openings and major intersections. historical crash data was thoroughly reviewed to identify safety trends and deficiencies, including those related to **pedestrian and bicycle modes.**

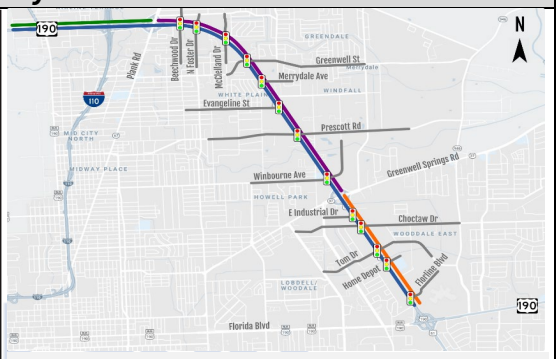
Develop Corridor Improvement Plans

Applied the following access management and corridor improvement strategies to develop improvement plans:

- Formalizing median openings to discourage prohibited movements;
- Relocating, consolidating, and restricting access at median openings;
- Adding or extending turn lanes at median openings and intersections;
- Adding bulb outs to accommodate heavy vehicle U-turns;
- Removing signals that do not meet minimum warrants.
- Optimizing signal timing plans to improve traffic flow.
- Mitigate impacts to and improve pedestrian/bicycle facilities in accordance with Louisiana Department of Transportation and Development Complete Streets Policy.

Quantify Project Benefits and Cost

Operational and safety benefits of alternatives were quantified through **HCM and predictive safety analysis** and monetized by applying appropriate regional factors. Generated construction cost estimates and combined with monetized benefits to produce a **benefit-cost ratio** for each alternative and prioritize the implementation of project segments with the greatest need.



Conducted a traffic study to evaluate the safety, access-management, and capacity issues for 13 signalized intersections and 36 median openings along Airline Highway Corridor. Identified capacity issues, safety issues related to motorists, pedestrians and bikes and proposed improvements to address the problems. Conducted benefit/cost analysis to prioritize the proposed improvements.

Scope of work:
Data Collection, Peak Period Observations, Traffic Signal Inventory, Traffic Signal Timing Analysis, Signal Optimization and Timing

Staff Involved:

- Akhil Chauhan
- Anthony Moore
- Ari Deitch
- Thomas Montz
- Jose M. Rodriguez
- Max Aguirre

Key Challenges/Accomplishments:
High density of full access connections contributing to crashes. Limited accommodation for pedestrians and bicycles.

Innovation & Best Practice:
Utilized a data-driven approach to develop countermeasures that address identified deficiencies. Reconfigured median openings to maximize safety benefits.

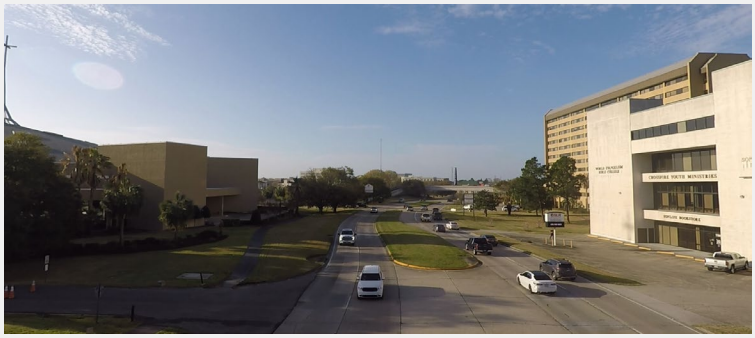
Accomplishments:
Completed the project under accelerated 6-month schedule. Incorporated complete streets into improvement plans to address the need for pedestrian and bicycle accommodations.

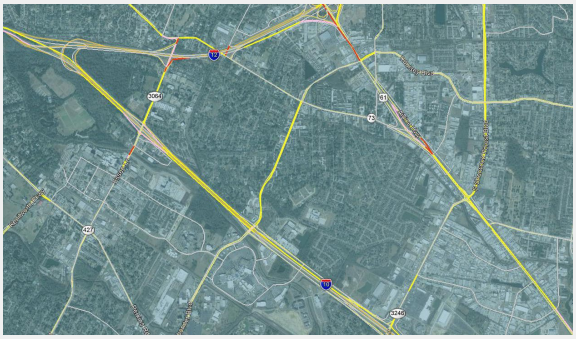
L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 9

Project Name, Location and Owner's contact information:	**Bluebonnet Boulevard (Perkins Road to Picardy Avenue) Preliminary Engineering and Final Design | East Baton Rouge Parish, LA** Travis Barr - CSRS Project Manager 225.923.7910	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	N/A	$312,658
Completion Date (Actual or estimated):	Ongoing	

Nature of Firm's Responsibility:





Bluebonnet Boulevard in Baton Rouge, Louisiana has two lanes in each direction with pedestrian facilities that are interspersed throughout the corridor also there is commercial development abutting the corridor. The proposed project's main design feature is to include **additional lane capacity** in each direction and provide for **connected pedestrian facilities** throughout the corridor.

The traffic analysis along the corridor was broken into two phases. In Phase I, Arcadis was tasked with traffic and safety analysis along the corridor for the existing, no-build and future conditions. The traffic study included data collection that **required peak period determination, turning movement counts with demand, peak hour determination, and driveway counts.** Turning movement counts (TMC) with demand took place at 15 intersections and peak hour driveway counts took place at four locations. Arcadis performed field observations at TMC intersection and noted field conditions including **queue lengths, congestion, lane utilization, and operational issues.** Arcadis also performed a spot speed study and worked with the Capital Regional Planning Commission to determine an applicable growth rate for the area using TransCAD. As part of the existing and no-build analysis, **an existing safety analysis** was conducted as well as a traffic operations analysis of the corridor in Synchro on the existing conditions for the year 2023 and for the no-build conditions for the year 2043. Arcadis performed **a build analysis on the preferred alternative** which included a traffic operations analysis and safety analysis to aid in the determination of recommended turn bay lengths and preliminary traffic signal timings.

As part of Phase II, Arcadis will provide **traffic signal plans and Traffic Signal Inventories (TSI).** These plans will provide the traffic signal layout and design including recommendations concerning the use of existing traffic signal equipment and hardware as well as the TSIs will include the recommended traffic signal timing and phasing for each intersection.

Scope of work:

- Project Management
- Data Collection
- Safety Analysis
- Existing and No-Build Analysis
- Build Analysis
- Traffic Signal Plans
- Traffic Signal Inventories

Staff Involved:

- Akhil Chauhan
- Ari Dietch
- Kester Hollier
- Thomas Montz
- Jose M. Rodriguez
- Meredith Guidry
- Joshua Cook
- Max Aguirre
- Jacob Beckham

Key Challenges/Accomplishments:
Data collection windows during COVID-19 became challenging.

Innovation & Best Practice:
Synchro models used to determine validity of alternatives and provide recommendations on several design elements.

Accomplishments:
Completed the traffic study and analysis, currently performing the traffic signal design.

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 10

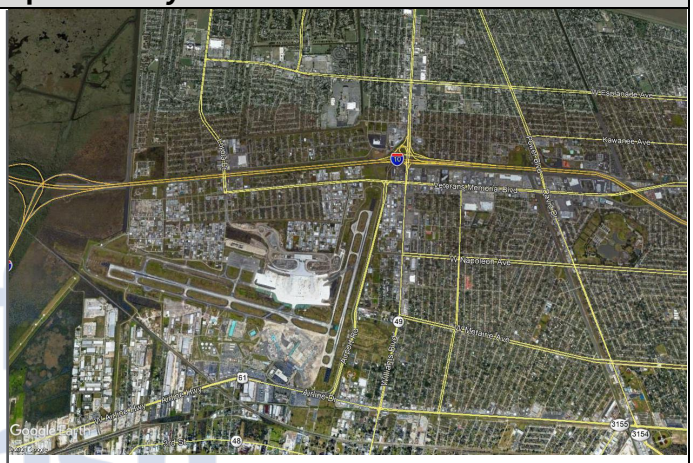
Project Name, Location and Owner's contact information:	**Traffic Study Review- I-10/Loyola Interchange Improvement | Kenner, LA** Li Yang – Project Manager, Louisiana Department of Transportation and Development (LADOTD) 225.379.1456	
Estimated Cost:	**Entire Project**	**Work for which Firm was Responsible**
	N/A	Engineering: $189,897
Completion Date (Actual or estimated):	October 2017	

Nature of Firm's Responsibility:

Arcadis was tasked with the traffic study review for the reconfiguration of the Louis Armstrong New Orleans International Airport. The Loyola Drive/Aberdeen Street corridor was identified for improvement in order to serve as the primary access point from I-10 to the north terminal of the airport. Due to the proposed changes in access, a formal Interchange Modification Report (IMR) was required to be submitted to the Federal Highway Administration (FHWA) for review and approval. An in-depth traffic study was needed as a first step to preparing the IMR. Arcadis provided review of all items related to the traffic study needed for the I-10/Loyola Interchange IMR.

Arcadis assisted the LADOTD Traffic Engineering Management (TEM) Section in the review of all key milestones and deliverables related to the traffic study task as identified in the I-10/Loyola Interchange IMR scope of work. These tasks included traffic model and study review and providing comments and recommendations for both the model and study. Microsimulation modeling was identified as the approach needed for evaluating the design alternatives, operational performance and traffic operations related to the proposed improvements. The study area limits were from the I-10/I-310 interchange to the west, the I-10/ Williams Boulevard interchange to the east, Furman Drive to the north, and Airline Drive to the south.

Arcadis reviewed all key deliverables submitted to the TEM Section related to the project. The traffic study related to the IMR was broken into two phases. Phase I was intended to study minor improvements of Loyola Drive (referred to as "Segments A & B") with no major modifications necessary for the interchange. Phase II was intended to study major modifications to the interchange and followed a Tier 1, 2 and 3 analyses as described in the Institute of Transportation Engineer's Freeway and Interchange Geometric Design Handbook.



Scope of work:

- Project Management
- Data Collection
- Vissim and Synchro Model Review
- Traffic Study Review

Staff Involved:

- Akhil Chauhan
- Thomas Montz

Key Challenges:
Vissim model calibration can be difficult and a cumbersome task as this calibration procedure can be an iterative process. Arcadis was able to provide quick recommendations on this calibration and the model and study as a whole to aid in FHWA review process and approval.

Innovation & Best Practices:
TSI Review, Vissim calibration, Synchro Review, Traffic Study Review.

Accomplishments:
FHWA approval of Interchange Modification Report.

Section
5

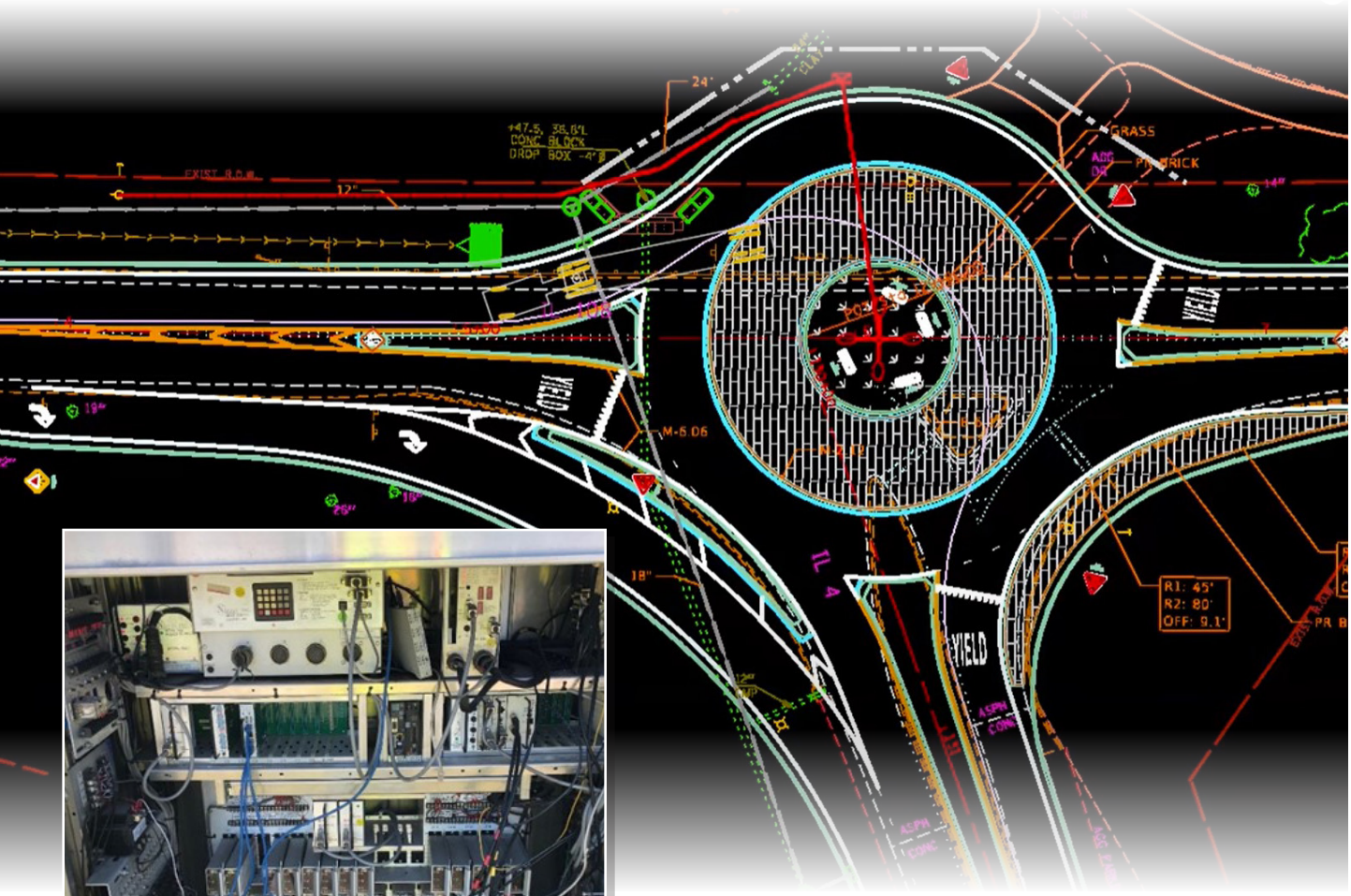
Creative Sign Designs

Arcadis has local experts that have completed many sign designs and layouts - both standard and unique - including the ongoing US-90 Signing Design and Layout Project.

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.		
Parties		**Status/Result of Case:**
Plaintiff	**Defendant**	
1. None		
2.		
3.		
4.		

Section
6



Diverse, Scalable Solutions

Arcadis has the capability to provide diverse and scalable solutions based on cost benefit analysis that can provide a variety of countermeasures.

TEC Professional Services Questionnaire

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

Why Arcadis.

From the East Bank to the West Bank, the infrastructure demands within Jefferson Parish are ever-changing and require a variety of services to meet the needs of its travelers. Jefferson Parish is the most populous parish within the state of Louisiana and thus traffic engineering solutions are imperative to keep users and commerce moving. Arcadis has built a team who is ready to serve as an extension of your staff to provide scalable solutions to traffic problems – both occurring in the present and planning for the future. We will bring our extensive experience and knowledge to every project.

1.0 PROFESSIONAL TRAINING & EXPERIENCE

Team Member	Professional Registration	Education Level	Year of Experience	Traffic Signal Design	Signal Timing Optimization	Traffic Studies	Signal Software Database	Signal Warrant Analysis	Traffic Impact Studies	Safety Analysis	Investigation of Site Conditions	Plans and Specs	Estimate of Probable Cost	Final Design Report
Akhil Chauhan	PE, PTOE, PTP, PMP	MS	20	X	X	X		X	X	X	X	X	X	X
Kester Hollier	PE, PTOE	BS	17	X	X	X		X	X	X	X	X	X	X
Anthony Moore	PE	BS	25	X	X	X	X	X	X	X	X	X	X	X
Ari Deitch	PE, PTOE, PTP, RSP	BS	9	X	X	X		X	X	X	X	X	X	X
Thomas Montz	PE, PTOE, PTP	MS	13	X	X	X	X	X	X	X	X	X	X	X
Jose M. Rodriguez	RSP	MS	7			X			X	X	X		X	
Skyler Waaso	PE, PTOE	BS	10			X			X	X	X			
Jose L. Rodriguez	PE	BS	25			X			X		X	X	X	X
Max Aguirre	PhD, PE, RSP1	PhD	3	X		X				X	X	X	X	X
Meredith Guidry	EI	BS	1	X		X				X	X	X		
Joshua Cook		BS	3			X				X		X		
Jacob Beckham	EI	MS	2			X		X		X	X	X	X	

Our region-based team is local and focused, with an understanding of Parish, State and Federal requirements, and eager to meet the required schedule needs. Our experts have training in many traffic related classes including: LADOTD Traffic Engineering Process and Report, Highway Safety Manual training, Roundabout and Intersection design, National Highway Institute Traffic Signal Timing and Design training, and a variety of traffic analysis software training including Synchro, SimTraffic, VISSIM, TransCAD, Vistro and Sidra.

2.0 CAPACITY

Arcadis has the resources to not only locally but nationally as needed to meet your expectations for project excellence. Our Principal, **Akhil Chauhan, PE, PTOE, PTP, PMP** and other local management staff bring decades of experience in the delivery of traffic engineering project to provide the design, implementation, and construction services you need to get project completed. Our traffic engineering staff – **Tony Moore, Ari Deitch, Thomas Montz, Ravi Gudishala,** and **Jose M. Rodriguez** – bring years of experience in traffic modeling, roadway safety analysis, traffic signal design, traffic signage design, and design field implementation to provide quality results.

While Arcadis provides a well-rounded local team that is ready to provide immediate support on numerous traffic engineering projects; should a fast-paced schedule project with minimum budget arise, Arcadis can tap into its deep national resources for these projects or even deep complex project needs. Arcadis is ready for the challenge to aid in these fast-paced projects and have completed several similar projects like the **East Baton Rouge Signal Detection Upgrades, US 90 Signal Timing Upgrades, and US 61 Access Management and Corridor Improvements.**

Arcadis is your local transportation engineering firm with a national base of expertise. Our national experts work seamlessly with our local professionals to collaboratively support critical projects. We have completed projects in over a dozen states for a variety of clients, including multiple DOTs, regional planning commissions, municipalities, and parishes. This national experience allows our team to incorporate best practices and lessons learned within the framework of Jefferson Parish's guidelines and requirements.

From studies to construction, Arcadis has the resources and personnel available to deliver any project successfully on compressed timeline.

3.0 LOCATION OF PRINCIPAL OFFICE

This contract will be managed and administered by our Metairie office, located at the foot of the Causeway Bridge in Jefferson Parish. The technical work will be performed at our Metairie and Baton Rouge offices. Additional support may be provided by other offices throughout the U.S., as needed.

4.0 PAST PERFORMANCE ON PUBLIC CONTRACTS

Project and Location	Project Management	Warrant Analysis	Traffic Modeling	Data Collection	Safety Analysis	Intersection/Corridor Analysis	Signal Design	Traffic Signal Timing Input and Trouble Shooting	Traffic Signal Inventory	Signing Plans	Construction Support
US-90 Business Signing & Design Layout | LADOTD, Orleans and Jefferson Parishes, LA	X			X						X	X
New Orleans Pedestrian Traffic & Safety Study | LADOTD, Orleans Parish, LA	X	X		X	X	X			X	X	
Burbank Drive (LA 42) – Highland Road Connector Traffic Signal Design & Analysis | East Baton Rouge Parish, East Baton Rouge, LA	X	X		X	X	X	X		X		
Canal Boulevard Bus/Streetcar Terminal Improvements | NORTA, Orleans Parish, LA	X	X	X	X	X	X			X		
LA 3235 Safety and Access Management Study | LADOTD, Lafourche Parish, LA	X	X		X	X	X			X		
City of Mandeville Pedestrian & Bicycle Plan | City of Mandeville, Mandeville, LA	X	X	X	X	X					X	
US-90 Signal Timing Upgrade | LADOTD, Lafayette Parish, LA	X			X		X	X	X	X		
US-61 Access Management & Corridor Improvements | LADOTD, East Baton Rouge Parish, LA	X	X		X	X	X			X		
Bluebonnet Boulevard (Perkins Road to Picardy Avenue) Preliminary Engineering & Final Design | MoveBR, East Baton Rouge Parish, LA	X	X		X	X	X	X		X	X	X
Traffic Study Review – I-10/Loyola Interchange Improvement | LADOTD, Kenner, LA	X		X	X	X	X					

TEC Professional Services Questionnaire

Arcadis has successfully delivered fast-paced services to a variety of clients. Arcadis consistently has the best evaluation scores in the state of Louisiana and has shown it can provide quick and quality results. Here is an example of a recent evaluation from earlier this year for traffic related LADOTD contract, where Arcadis was the highest scoring consultant:

Highest scoring consultant: Arcadis

> It is my great pleasure to provide this reference letter for an outstanding performance by Arcadis' staff on this project. From scope development, to project planning, to budget and schedule control, to technical quality and delivery, its execution was flawless. Arcadis went above and beyond to successfully deliver this project and significantly exceeded our expectations, especially through communication and outreach. The seccuss of this project has been showcased in many professional conferences and meetings. I would very strongly recommend Arcadis' safety services, and we look forward to working with them again.
>
> ***~ April Renard,*** *PE, PTOE / Project Manager, LADOTD*

> "Arcadis has been very responsive and proactive. They communicated extremely well and were very timely with their submittals. They went above and beyond by coordinating with the Project Engineer regarding constructability and sequencing. Deliverables were on point."
>
> ***~ Jennifer Branton,*** *LADOTD District 62 Assistant District Administrator*

Strategic Partners – Arcadis & Alliance Transportation Group Projects

Project	Client	Location	Year Completed
H.013848.1 ATMS iNET Enhancements – System Verification Services	LADOTD	Statewide, LA	July 2021
TxDOT SMART Study	TxDOT Houston District	Houston, TX	October 2022
FM 1960 Access Management Study	TxDOT Houston District	Houston, TX	January 2021
TxDOT TSMO Program Plan / ITS Master Plan	TxDOT	San Antonio, Corpus Christi, Laredo, Pharr, San Angelo	October 2023

5.0 PROJECTS IN PROGRESS OR COMPLETED FOR JEFF PARISH

The table below shows a list of projects completed or worked on by current Arcadis employees:

Project	Date
Elmwood Parkway Drainage Improvements	Ongoing
Coastal Jefferson Preliminary Long-Term Economic Study	Ongoing
Jefferson Parish Coastal Engineering	2019
Yenni Building Drainage Feasibility Study Improvement	2018
Bayou Metairie Road Management Demonstration Project	2018
Jefferson Parish FEMA Consultation	2016
Elmwood Sewage Lift Station D2	2016

6.0 Past Performance by person or firm on Parish contracts

Kester Hollier, our Project Manager, has worked on several projects with Jefferson Parish. Kester has worked closely with both the Parish's Traffic and Streets department and staff to work on the successful delivery and completion of projects. He has worked for over three and a half years with the Jefferson Parish Streets Department as a Program Manager for the Jefferson Parish Submerged Roads Program. While in this role, Kester performed field inspections, construction invoice and change order review, provided weekly field reports, participated in preconstruction and final acceptance walkthroughs, and participated in meetings with construction contractors, the Parish, and FEMA. Kester also worked with the Jefferson Parish Traffic Engineering Division on several studies and traffic signal designs including the **Causeway Widening Traffic Study** and the **Causeway and Veterans Intersection** as part of the I-10 and Causeway Interchange project. Kester knows Parish staff and your standards for design. He will be a Project Manager that provides solutions to Jefferson Parish's traffic projects.

TEC Professional Services Questionnaire

Arcadis has provided services to Jefferson Parish in the past including the Bayou Metairie Road Management Demonstration Project and in the present with the Elmwood Parkway Drainage Improvement project. While not traffic projects, these projects provided first of its kind project design and implementation for the Parish and delivered successfully.

The Arcadis team is local, experienced, and eager to work with Jefferson Parish on solving the traffic engineering issues of both the present and the future for our community. While our team is local, Arcadis has the capacity to bring in national experts and resources should it be needed to meet complex project needs or required accelerated schedules or deadlines. Arcadis has the diverse experience in traffic engineering projects to identify different solutions and alternatives to project needs to provide right size and scalable solutions to meet tight budget constraints. Arcadis' capacity and capability match this right size solution needs. We thank you for your consideration and for the opportunity to provide our services, we look forward to working with Parish leaders and staff to address the ever-changing traffic needs of our community.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: _____ **Print Name:** Akhil Chauhan PE, PTOE, PTP, PMP

Title: Vice President **Date:** January 25, 2024

Section
7

Strategic Partnership

Arcadis selects our teaming partners based upon the value they bring to a project. Alliance is a local firm that also has regional expertise and delivered projects for Jefferson Parish.

Based upon our range of experience and our selected teaming partners, Jefferson Parish will receive the highest quality and most cost effective traffic engineering services possible.

Technical Evaluation Committee (TEC) Questionnaire Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert "N/A" or "None" if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Traffic Engineering Services, Resolution No. 143314

B. Firm Name & Address:

Alliance Transportation Group, LLC
3421 N. Causeway Blvd.
Suite 500
Metairie, LA 70001

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

J. Michael Heath, P.E.
President
mheath@emailatg.com
512.821.2081
LA Professional Engineer: No. 38699, 2014

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Brandon Perilloux, P.E., PTOE, RSP1
504.914.5218
bperilloux@emailatg.com
LA Professional Engineer: 39968, 2015
Professional Transportation Operations Engineer, No. 4432, 2018
Road Safety Professional, No. 187, 2018

E. Please provide the number of employees whose primary function corresponds with each category:

14 Administrative	___ Estimators	___ Specification Writers
__ Architects (Licensed)	___ Geologists	___ Structural Engineers
25 Civil Engineers	___ Geotechnical Engineers	___ Graduate Engineers
___ Construction Inspectors	___ Interior Designers	10 Project Managers
___ Ecologists	___ Landscape Architects	___ Clerical
___ Electrical Engineers	___ Land Surveyor	9 Planners
16 Engineer Intern	___ Mechanical Engineers	___ Sanitary Engineers
___ Professional Land Surveyors	___ Environmental Engineers	

74 **TOTAL**

F. Is this submittal by a JOINT-VENTURE? Please check: YES ◯ NO ◉

If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1.
N/A

2.
N/A

H. Has this JOINT-VENTURE previously worked together? Please check:
YES ◯ **NO** ◉

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. N/A	N/A	N/A
2. N/A	N/A	N/A
3. N/A	N/A	N/A

J. Please specify the total number of support personnel that may assist in the completion of this Project:

5

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Brandon Perilloux, P.E., PTOE, RSP1
Traffic Analysis Team Leader

Project Assignment:

Based in our Metairie office, Brandon is ATG's Traffic Analysis Team Leader and will be the Project Manager and firm representative. Brandon brings his extensive Project Management experience along with his expertise on a wide range of traffic engineering studies including corridor studies, alternative intersection analysis and design projects, regional mobility studies, and safety studies.

Name of Firm with which associated:

Alliance Transportation Group, LLC

Years' experience with this Firm:

1.5

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, University of New Orleans, 2010

Active registration: Year first registered/discipline:

LA Professional Engineer: 39968, 2015
Professional Transportation Operations Engineer, No. 4432, 2018
Road Safety Professional, No. 187, 2018

Other experience and qualifications relevant to the proposed Project:

Brandon has more than 15 years of experience in traffic engineering and transportation planning. He is a licensed Professional Engineer in Louisiana, a Professional Traffic Operations Engineer, and a Road Safety Professional. Brandon has served as Project Manager and Lead Engineer on transportation related projects including traffic impact studies, feasibility/Stage 0 studies, and environmental assessments. His proficiency extends to safety studies, transportation/planning studies, and traffic signal studies.

Brandon is fully versed in traffic engineering software including VISSIM, Synchro, VISTRO, Highway Capacity Software (HCS), and SIDRA.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
J. Michael (Mike) Heath, P.E. President
Project Assignment:
Mike will serve as the Principal for this contract. Mike's strong grasp of engineering and planning practices and methods, coupled with his proven ability to develop and coordinate complex traffic engineering studies and transportation plans, results in solutions that improve safety, mobility, and prosperity.
Name of Firm with which associated:
Alliance Transportation Group, LLC
Years' experience with this Firm:
26
Education: Degree(s)/Year/Specialization:
MBA, Business Administration, Texas A&M University, 1990 BS, Civil Engineering, Texas A&M University, 1986
Active registration: Year first registered/discipline:
LA Professional Engineer: No. 38699, 2014
Other experience and qualifications relevant to the proposed Project:
Mike is a transportation planning and analysis professional with 36 years of experience. His expertise includes transportation modeling and engineering with special emphasis on transportation studies and the development of congestion solutions for city, state, and federal governmental agencies. He has extensive experience developing models and improvement programs for corridor, city, and regional planning efforts, and both recommending and implementing solutions for system improvements, including transportation and thoroughfare plans.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Alyssa Bienes, P.E., PTOE Transportation Engineer
Project Assignment:
Alyssa, based in our Metairie office, will serve as a Transportation Engineer for this project. She regularly completes traffic data collection, intersection analyses, and alternatives analyses.
Name of Firm with which associated:
Alliance Transportation Group, LLC
Years' experience with this Firm:
<1
Education: Degree(s)/Year/Specialization:
BS, Civil Engineering, Louisiana State University, 2017
Active registration: Year first registered/discipline:
LA Professional Engineer, No. 45767, 2021 Professional Traffic Operations Engineer No. 5497, 2023
Other experience and qualifications relevant to the proposed Project:
Alyssa has more than six years of experience in traffic engineering and transportation planning. She has served as project engineer on many project types, including signal warrant analysis, data traffic impact analysis, roundabout analysis, crash data analysis and safety studies, modeling and traffic signal design. Alyssa has prepared figures, performed QA/QC, conducted field observations and inspections, and has assisted in writing reports for safety studies and an Interchange Modification Report (IMR). Alyssa is proficient in AutoCAD, Adobe Illustrator, Synchro 8, and Highway Capacity Software, and has experience with VISSIM and MicroStation.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Trey Gamble, P.E., PTOE Senior Transportation Engineer
Project Assignment:
Trey will serve as Quality Manager for this project. Trey is an authority in land use, urban form, development density, and transportation interaction, regularly leading workshops and training on these subjects to both policymakers and staff members.
Name of Firm with which associated:
Alliance Transportation Group, LLC
Years' experience with this Firm:
25
Education: Degree(s)/Year/Specialization:
MS, Civil Engineering, Texas A&M University, 1997 BS, Civil Engineering, Texas A&M University, 1991
Active registration: Year first registered/discipline:
LA Professional Engineer: No. 38295, 2013 Professional Traffic Operations Engineer, No. 4101, 2016
Other experience and qualifications relevant to the proposed Project:
Trey is a senior engineering professional with 33 years of experience in traffic engineering and transportation planning. Trey leads ATG's traffic impact analysis team and uses travel demand models (TDMs), simulation models, and dynamic traffic assignment models to evaluate the impacts of large-scale site plans and subarea development patterns on adjacent transportation facilities, intersections, and the surrounding transportation system, including pedestrian access and mobility. Trey is an acknowledged authority in land use and transportation interaction, providing workshops and training to policymakers and staff on the benefits and impacts of decisions on urban form, development density, and mix of land uses.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Ed Elam, III, AICP, PTP, PTSCTP, TSSP-Rail
Vice President, Director of Planning

Project Assignment:

Ed is a respected transportation planner with a demonstrated ability to build consensus among diverse groups, motivate project teams, and identify practical solutions to complex problems. Ed is a Metairie resident who works out of ATG's Metairie office.

Name of Firm with which associated:

Alliance Transportation Group, LLC

Years' experience with this Firm:

4

Education: Degree(s)/Year/Specialization:

Master of Urban and Regional Planning (MURP), University of New Orleans, 1990
BA, Political Science/Public Administration, USC-Spartanburg, 1988

Active registration: Year first registered/discipline:

American Institute of Certified Planners #10672, 1994
Professional Transportation Planner #446, 2013
Transit Safety and Security Program-Rail, TSSP-Rail

Other experience and qualifications relevant to the proposed Project:

Ed is a multimodal transportation planner with over 33 years' experience working on behalf of MPOs, state departments of transportation, transit authorities and private clients across the Gulf and Southern US (Texas, Arkansas, Louisiana, Mississippi, Alabama, Tennessee). A former MPO director and MPO staff member with extensive grants management and development experience, Ed remains on the forefront of US Department of Transportation policy and funding opportunities.

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Westbank Transportation Road and Rail Sub Area Analysis Jefferson Parish, LA	RPC engaged a team led by ATG to conduct a review of rail and road systems within the Avondale and Nine-Mile Point communities of Jefferson Parish in connection with improvements to rail connections to former Avondale Shipyard Site. This study is part of a multi-dimensional effort to redevelop this former shipyard site along the Mississippi River into a hub of multimodal commerce. The project team will review the proposed plans for the area's development, as outlined by current plans produced by Jefferson Parish, along with existing capital investments programmed by the Parish and the RPC. The proposed plan will identify recommendations for project implementation based upon review and development of planning scenarios for growth. The recommendations will also meet the established project purpose and need. Recommendations will be evaluated for potential environmental impacts and affects using the LADOTD Stage 0 Feasibility Study and MPO checklists.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2/2021-09/2021, 7 months	$105K	$63.5K

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
College Drive Flyover Ramp I-10/I-12 West East Baton Rouge, LA LADOTD P.O. Box 94245 Baton Rouge, LA 70804	The College Drive project was performed as a design-build by Boh Bros Construction Co. for the I-10 and I-12 interchange and College Drive corridor in Baton Rouge, LA. The project included ramp reconfiguration and corridor-level improvements to improve safety and levels of congestion in the project area. ATG was tasked with reviewing project deliverables and providing analysis comments in coordination with LADOTD and FHWA. ATG reviewed the IAJR submitted to the state as well as the TMP, MOT and TCP for the project. ATG ensured that the design-builder follows the processes as established by the EDSM VI.1.1.8 TMP which includes a TMP checklist that must be developed by the design-builder. ATG made recommendations on the construction phasing in order to ensure work zone safety while still maintaining mobility. In addition, safety and microsimulation analysis (Vissim models), were reviewed to ensure that they met the goals of LADOTD.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
09/2020-04/2023, 31 months	$171K	$171K

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility**	
Plank Road Relocation Traffic Study Baton Rouge, LA Baton Rouge Metropolitan Airport 9430 Jackie Cochran Dr Baton Rouge, LA 70807	ATG performed the traffic study of the Plank Road relocation in support of the Baton Rouge Metropolitan Airport expansion. The project extended along LA 408 from Merle Gustafson Drive to Mickens Rd and included performing data collection to understand existing conditions, preliminary analysis to evaluate a universe of alternatives, and final analysis to select the preferred alternative for the intersections of LA 408 at Plank Road and LA 408 at New Plank Road. ATG provided cost savings to LADOTD by utilizing and validating previously collected data from a previous Plank Road Relocation Study. Existing and forecasted volumes were used to perform the preliminary analysis using CAP-X to identify different alternatives for Plank Road (existing) and the relocated Plank Road.	
Completion Date (Actual or estimated)	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
02/2020 -1/2021, 11 months	$98K	$98K

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
City-Wide Traffic Signal and Mobility Analysis Sulphur, LA City of Sulphur Stacy Dowden P.O. Box 1309 Sulfur, LA 706664	ATG evaluated traffic operations at 36 signalized and unsignalized intersections, along various corridors within the City of Sulphur in Louisiana. The traffic analysis included site distance analysis; peak period data collection and analysis; travel time and delay; crash analysis using the Highway Safety Manual; highway capacity manual analysis; operational analysis; and warrant analyses. The report included recommendations for system improvements; recommendations for modifications to corridor progression; signal timing; signal interconnects and signal equipment upgrades; CIP ranking; and construction cost estimates for improvements within the City.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
09/2015 -12/2020, 63 months	$142K	$142K

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Traffic Engineering, Signal Design, and Traffic Scenario Services Lake Charles, LA Axiall Corporation Johnny Stephenson, P.E. 13000 PPG Drive Lake Charles, LA 70615	ATG provided traffic engineering services to Axiall Corporation related to the expansion of the current chemicals facility located in Calcasieu Parish, LA, between the cities of Sulphur and Westlake. Axiall expected construction on the site to begin in 2016 with peak construction occurring in 2017, when the number of construction employees to the site would reach approximately 3,500. ATG performed a traffic impact study to evaluate the effect of site-related trips on the roadway network within the prescribed study area which included 13 intersections in close proximity to the proposed site. Traffic during 3 construction phases and the post-construction Operation and Maintenance conditions were evaluated. Roadway improvements to mitigate the traffic impacts were identified which included both geometric and signalization modifications.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
10/2013 - 10/2020, 84 Months	$392K	$392K

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Lighthouse Road @ LA 82 Intersection Analysis Lake Charles, LA Cheniere Energy Jared Chaumont, P.E. 5827 US 90 Lake Charles, LA 70602	ATG provided professional traffic engineering services for the intersection of Lighthouse Road at LA 82. The client and DOTD's primary concern was safety since multiple crashes have occurred at the intersection of Lighthouse Road at LA 82. Lighthouse Road serves as an entry into the Cheneire Energy's Sabine Pass LNG terminal. The study included an evaluation of the 24-hour turning movements on an typical weekday, estimation of the queue lengths, and determination if intersection improvements are recommended. For recommended improvements, ATG created a diagrammatic of the improvements on aerial photography, and prepared an opinion of probable cost. The traffic data collected along with construction traffic for Train 6 and the 3rd berth along with O&M activities after the construction is completed were incorporated into Synchro, Version 10, to complete an operational analysis.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
05/2019-04/2020, 11 months	$40K	$40K

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Sugar Land Speed Zone Studies Sugar Land, TX City of Sugar Land Jason Vaughn	ATG conducted speed zone studies on 28 roadways in the City of Sugar Land, TX. The speed zone studies were conducted to recommend appropriate regulatory speed limits on each roadway and to create an enforcement mechanism for the City's police department. The speed zone studies required the collection of 85th percentile speed data via a subconsultant, a review of historical crash data, and an evaluation of geometric and traffic control elements on each corridor. ATG documented the speed zone recommendations for each corridor in a technical memorandum. The procedures used were in compliance with the Texas Transportation Code, Texas Administrative Code, and TxDOT's Procedures for Establishing Speed Zones as applicable for municipal governments.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
1/2021-9/2021, 9 months	$239K	$239K

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Pearland Parkway Roundabout Design Pearland, TX City of Pearland Robert Upton, P.E. 3519 Liberty Drive Pearland, TX 77581	ATG performed final engineering and design for the conversion of the existing traffic circle, located at the intersection of Pearland Parkway and McHard Road, into a roundabout. The existing traffic circle formed the intersection for two major thoroughfares, McHard Road and Pearland Parkway, within the City of Pearland. It had a diameter of 425 feet and was constructed of 9-inch reinforced concrete pavement. Each approach had two lanes but slightly different entering and exiting configurations. The vehicles within the traffic circle yielded to vehicles entering the traffic circle from Pearland Parkway and the vehicles entering from eastbound McHard Road yielded to vehicles within the traffic circle. This construction caused traffic safety related issues and was being redesigned to aid in traffic calming.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
07/2019-06/2022, 23 months	$389K	$389K

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Victoria Thoroughfare Plan Victoria, TX City of Victoria Maggie Bergeron, M.S. 702 N. Main Street Victoria, TX 77901	ATG worked with City of Victoria staff to provide the City with the transportation planning tools and resources to support the development of a state-of-the-practice Thoroughfare Plan. The resulting Thoroughfare Plan was used to guide development and implementation of a balanced, multimodal transportation infrastructure that would best serve the needs of the community as the city continues to develop and grow. The project included evaluation and analysis of existing transportation conditions; travel demand modeling to identify future transportation issues and analyze solutions; roadway and intersection simulation to optimize system performance and work with a steering committee, local area stakeholders, and the public to shape a vision for the future multimodal transportation system.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
09/2020-06/2021, 9 months	$100K	$100K

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Innovative Intersections On Call San Antonio, TX TxDOT Clayton Ripps 4615 N.W. Loop 410 San Antonio, TX 78229	The San Antonio District requested that ATG complete a study of Bexar County to determine hot spots or bottleneck locations of recurring congestion. ATG proposed and implemented a study of available data including HERE, INRIX, TxDOT ITS Systems, crash records and Google congestion maps, to determine congested areas of the roadway system as well as a safety analysis of at-grade rail crossings. In GIS, ATG incorporated the data analysis with a map of current TxDOT projects that would alleviate the congestion. In addition, ATG completed stakeholder meetings to confirm the information with local resources. Specific services included environmental studies, schematic design, and traffic analysis, with an emphasis on innovative approaches to intersection design and bottleneck resolutions.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
3/2016-08/2020, 53 months	$2M	$853K

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	**Defendant:**	
1. N/A	N/A	N/A
2. N/A	N/A	N/A
3. N/A	N/A	N/A
4. N/A	N/A	N/A

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

Alliance Transportation Group, LLC (ATG) is a specialized engineering and planning firm. ATG is headquartered in Austin, TX, with branch offices in Metairie, LA, Dallas, TX, and Houston, TX. We have a long and successful history of delivering task order assignments under on-call professional traffic engineering services contracts for State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and regional transit agencies. In the past five years, we have provided on-call planning services within three states (Louisiana, Texas, and Arkansas) to the LADOTD, Capital Regional Planning Commission, and the Imperial Calcasieu Regional Planning Commission. Outside of Louisiana, ATG has worked for many MPOs, regional transit agencies, and county/municipal governments servicing their on-call professional services agreements. Over our 26-year history, ATG has completed more than 2,000 traffic engineering projects. Our work profile is largely within the public sector, although we maintain a strong presence serving private clients. ATG's record of success with collaboration and development of effective projects has developed a strong base of clients who consider us their preferred consultant to analyze and recommend solutions.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: _____ **Print Name:** J. Michael Heath, P.E.

Title: President **Date:** 1-16-24

Arcadis U.S., Inc.

3850 N Causeway Blvd.,
Suite 990
Metairie, LA 70002

www.arcadis.com

Arcadis

Arcadis North America

@ARCADIS_US