

STATEMENT OF QUALIFICATIONS

Submitted to:



South Carolina Department of Transportation

Interstate 26 Widening (MM 85/101)

Design-Build Project

Project ID P029208

Richland, Lexington, and Newberry Counties



in
association
with



May 3, 2018

NAVIGATION PAGE

This document includes several links for ease of reference. A **blue border** is placed on items with links to various items in the **appendix.**

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3.2 INTRODUCTION

3.2.1 Contracting Entity:

The *Archer-United, JV* combines two of the Carolinas’ most respected and experienced design-build contractors; Archer Western Construction, LLC (AWC) and United Infrastructure Group, Inc. (UNITED). Infrastructure Consulting & Engineering, PLLC (ICE), a trusted and innovative professional design services firm will lead the JV’s design team. The Team referred to as the “**ARCHER-UNITED** Team” will provide all services necessary to complete the I-26 Widening (MM 85-101) Design-Build Project in Richland, Lexington, and Newberry Counties (referred to as “Project” hereinafter). These three firms, who are successfully delivering the I-77 Widening project, are uniquely qualified to provide a safe, high-quality and cost-effective solution for this project. The contracting entity with SCDOT will be *Archer-United, JV*. Stephen Paul Carter, Jr. is authorized to sign all contracts on behalf of the JV (see JV Teaming Agreement in **Appendix D** for proof of this authority).

3.2.2 Proposer’s Point of Contact for Procurement:

<p>David Pupkiewicz, DBIA 2410 Paces Ferry Rd, Ste 600 Atlanta, GA 30339 (404) 926-0757 dpupkiewicz@walshgroup.com</p>	<p>Jim Ewart 1021 Briargate Circle Columbia, SC 29201 (803) 960-9163 jim.ewart@uig.net</p>	<p>Elham Farzam, PE 1021 Briargate Circle Columbia, SC 29201 (P) (803) 600-5591 elham.farzam@ice-eng.com</p>
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3.2.3 Full Legal Name of Lead Contractor and Lead Designer:

- The full legal name of the Lead Contractor: **Archer-United, JV**
- The full legal name of the Lead Designer: **Infrastructure Consulting & Engineering, PLLC**

3.2.4 Commitment Statement:

The Key Personnel identified in the organizational chart are committed to meeting SCDOT’s quality and schedule expectations and each person is available for the duration of the project.

COMMITMENT SIGNATURES

<hr style="width: 80%; margin: 0 auto;"/> <p>Stephen P. Carter, Jr (AWC)</p>	<hr style="width: 80%; margin: 0 auto;"/> <p>James E. Triplett (UNITED)</p>	<hr style="width: 80%; margin: 0 auto;"/> <p>Elham Farzam (ICE)</p>
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3.3 TEAM STRUCTURE AND PROJECT APPROACH

3.3.1 Organizational Chart and Team Structure:

Lead Organization & Construction Team <i>Role</i>	Lead Design Consultant <i>Role/Tasks</i>	Other Design Team Members <i>Role Task</i>
 Primary Contractor & Managing JV Member (Contracting Entity)	 Project Design Management Structures / Roadway / Hydro Geotechnical leads & QC Inspection	Arcadis <i>Traffic Analysis / TMP Lead</i>
 Primary Contractor & JV Member (Contracting Entity)	Design Support	Terracon Consultants, Inc. <i>Geotechnical / Foundations & QC Testing (AASHTO Lab)</i>
 CR Jackson & Satterfield Construction (Asphalt Paving)	 RK&K <i>Roadway & Hydrology Support</i>	Construction Support Services <i>Pre-design Surveys</i> GEL Geophysics, LLC <i>SUE</i> GEL Engineering, LLC <i>HAZMAT Studies</i> PAN, Inc. <i>ROW Consultant</i> Public Strategy, LLC <i>Public/Media/Community Relations</i>

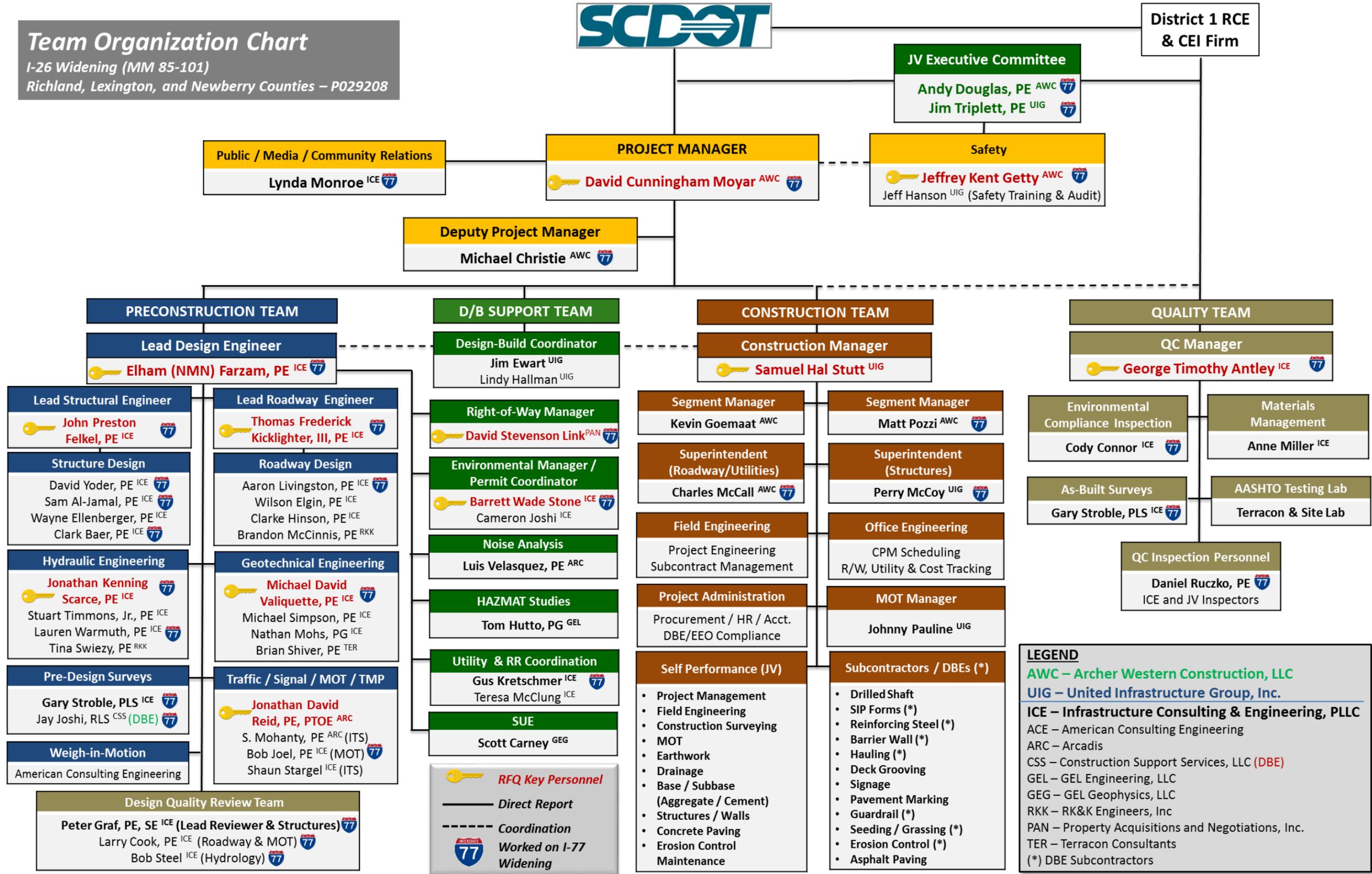
This 16-mile widening of I-26 contains a diverse mixture of construction activities including grading, storm drainage, base course, concrete paving, asphalt paving, sound barrier walls, interchange reconstruction including bridge construction and retaining walls. The **ARCHER-UNITED TEAM** is structured to leverage the specialized capabilities of each firm, allowing the team to self-perform major work items in the most efficient manner possible. AWC and UNITED combined, constitute over 1,000 regionally located construction professionals/craft workers and over \$300 Million worth of construction assets, many of which are available for immediate mobilization. **CR Jackson** and its subsidiary **Satterfield Construction** will be our dedicated asphalt subcontractor. Jackson/Satterfield’s reputation for safety, quality, cost effectiveness and productivity have been repeatedly proven to the SCDOT. On this I-26 project, Jackson/Satterfield’s significant resources along with plant locations in Columbia and Newberry, make them the best paver to ensure timely delivery of high quality asphalt mixes. The design/permitting team will be led by ICE with support from RK&K and Arcadis. The depth and breadth of our locally positioned manpower and equipment resources, provides SCDOT with the confidence that this Team will deliver the project on time and within budget. Archer-United-ICE will bring their “A Team” from the successful I-77 D/B Project to once again demonstrate timely performance excellence with efficiency, speed, environmental stewardship in a safe manner while delivering a high-quality workmanship for SCDOT.

a) *Organizational Chart* / The Organizational Chart of the **ARCHER-UNITED** Team is included on Page 4. It illustrates the functional structure and “chain of command” including levels of management, reporting relationships, major functions to be performed, and team member roles and responsibilities in managing, designing, and constructing the Project. The resumes of Key Individuals are included in **APPENDIX A**. Each Key Individual shown exceeds the minimum requirements specified in the RFQ.

b) *Significant Functional Relationships* / Day-to-day operations are led by our Project Manager, **David Moyar, Jr. (AWC)**, who will report to the SCDOT and the JV Executive Committee (Andy Douglas, PE and Jim Triplett, PE). Dave will be accountable for meeting all Project goals. Assisting him is a Management Team of direct reports for significant functions of the Project namely Pre-Construction, Design-Build Support, Construction, and Quality Control. **Michael Christie (AWC)** will serve in the role of Deputy Project Manager and will assist Dave in all phases of the Project. **Elham Farzam, PE (ICE)** will be the Lead Design Engineer who will not only manage all of the design related activities, but also will lead all other pre-construction activities including, but not limited to utility coordination, permitting and right-of-way acquisition. **Sam Stutt (UNITED)** will be the Construction Manager and **Jim Ewart (UNITED)** will be the Design-Build Coordinator. The Pre-Construction Team has been structured to capitalize on the strengths of seasoned ICE engineers and planners as well as specialized subconsultants in the field of highway design (**RK&K** and **ARCADIS**), traffic engineering, ITS, IMR analysis (**Arcadis**), weigh-in-motion design (**American Consulting Engineering**), geotechnical / foundation (**Terracon**), SUE and HAZMAT (**GEL**) and Surveys (**CSS**). In addition to pre-construction management services, ICE will provide roadway design, drainage and structures design, surveying, geotechnical, permitting, utility coordination and public relations. ICE’s extensive design-build experience managing and integrating multiple design firms, while simultaneously advancing multiple design segments, will achieve successful design delivery. The Quality Control Team will be led by **Tim Antley (ICE)** who has more than 25 years of experience. Terracon has AASHTO-SCDOT accredited laboratory facilities in Columbia and given the large volume of PCC pavement, we will establish a dedicated project laboratory for soil, rock and concrete testing nearby project site. **The Quality Control Team will report directly to SCDOT RCE and the JV Executive Committee.**

Click on Key Individual names to link to corresponding resumes.

Team Organization Chart
 I-26 Widening (MM 85-101)
 Richland, Lexington, and Newberry Counties – P029208



c) Team Members' Prior Working Relationship | Through many years and several successful projects working together, the staff of Archer-United JV and ICE have well-established relationships. These relationships have resulted in the successful delivery of higher quality projects delivered safely through faster project schedules, and reduced cost solutions. These established working processes will be applied to the I-26 project during every phase of delivery. The key individuals proposed for this project are currently working together and with SCDOT to deliver the I-77 Widening Design Build Project. **TABLE 3.3.1.i** below includes projects that the Lead Contractor, **ARCHER-UNITED JV**, and Lead Design Firm, **ICE**, have successfully delivered together as a team. The table also includes Key Personnel with prior working relationships.

Table 3.3.1.i – Firms/Key Individuals Prior Working Relationship

Project Type (DB: Design-Build or DBB: Bid-Build) Project Owner & Name Project Duration	REF (*)	Firms			Key Individuals													
		AWC	UIG	ICE	PM - Moyer	DE - Farzam	RE - Kicklighter	SE-Felkel	TE-Reid	GE-Valiquette	HE-Scarce	EP-Stone	RW-Link	CM-Stutt	QC-Antley	SM-Getty		
DB: SCDOT I-85 Access Improvements 2004-2006	1		✓	✓		✓	✓								✓	✓		
DB: SCDOT I-520 Palmetto Parkway Phase II 2005-2009	2		✓	✓		✓									✓	✓		
DB: SCDOT District 4 Bridge Replacements 2009-2010	3		✓	✓		✓									✓			
DB: SCDOT SC 150 Emergency Bridge 2011	4		✓	✓											✓			
DB: MODOT Safe & Sound Bridge (554 Bridges) 2008-2012	5		✓	✓		✓	✓											
DB: CHS CTY Palmetto Commerce Parkway 2010-2012	6		✓	✓		✓	✓								✓	✓		
DB: NCDOT I-540 Western Wake Freeway 2008-2013	7	✓		✓	✓	✓				✓								✓
DB: CHS CTY Johnnie Dodds Blvd. 2010-2013	8		✓	✓							✓				✓			
DB: SCDOT Package C Bridge Replacements 2012-2014	9		✓	✓		✓	✓	✓							✓			✓
DB: GDOT Skidaway Bridge over AIWW 2010 - 2014	10		✓	✓														
DB: SCDOT Package D Bridge Replacements 2012- 2014	11		✓	✓		✓	✓	✓							✓			✓
DB: SCDOT Package E Bridge Replacements 2015-2018	12		✓	✓		✓	✓	✓			✓		✓		✓			✓
DB: SCDOT US 176 Bridge over Cannons Creek 2015-2016	13		✓	✓		✓	✓	✓			✓				✓			✓
DB: SCDOT Emergency Bridge Package 4 2016	14		✓	✓		✓	✓	✓			✓				✓			✓
DB: BFT CTY Perryclear Bridge Replacement 2016	15		✓	✓		✓		✓										
DB: PennDOT Rapid Bridge Replacement Program 2014 -2016	16	✓		✓		✓	✓	✓			✓							
DB: SCDOT I-77 Widening & Rehabilitation 2015-2018	17	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
DB: NCDOT Monroe Expressway 2014 - 2018	18		✓	✓		✓											✓	
DB: SCDOT Port Access Road – Pursuit 2014-2015	19		✓	✓		✓	✓				✓				✓			
DB: SCDOT I-85 Phase III (Cherokee) – Pursuit 2017-2018	20	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
DB: SCDOT US 21 Bridge over Harbor River 2018-2021	21		✓	✓		✓	✓	✓		✓	✓	✓	✓					
DBB: SCPA HLT – Wall Remediation 2015-2017	22		✓	✓		✓	✓	✓										
DBB: CITY N. CHS - Future Dr. / N. Side Dr. 2014-2016	23		✓	✓		✓	✓	✓										
DBB: BERK CTY Nexton Parkway / I-26 Widening 2015-2018	24		✓	✓		✓												✓
DBB: SCDOT I-85 Widening (MM 69-77) 2017-2019	25	✓		✓	✓	✓	✓	✓							✓			✓

✓ Indicates ICE personnel experience while with a previous firm.
 (*) References are provided in Appendix H.

d) Integrated Design-Build Team / Our team organization for design and construction is tailored to place the most qualified people in key positions while fostering a partnering atmosphere with SCDOT, FHWA, and the local community. Practical lines of communication begin with our Project Manager, then run between Lead Design Engineers and the Construction Manager in conjunction with the Design- Build Coordinator (DBC). The value-added DBC conducts over-the-shoulder reviews, facilitates Lead Design Engineer/Construction Manager interaction, and provides keen insight through constructability analysis. The DBC will ensure the JV's means, methods, and production schedules are considered within each design discipline, striving to promote collaboration and partnering. A JV Executive Committee comprised of principal representatives from AWC and UNITED is provided to assure SCDOT that our project team meets its objectives of delivering a high-quality project safely and within our budget and schedule commitments.

INTEGRATED DESIGN-BUILD TEAM STRATEGIES

- ✓ Value Added Design-Build Coordinator position facilitating cross discipline communication
- ✓ Discipline Task Teams with Archer-United JV, SCDOT and Designer participation
- ✓ Technology integration including video conferencing, web-based Project Management System, and use of Box.com[®] OneNote[®] and BlueBeam[®] Plan Review Process.
- ✓ Conduct construction pre-task planning and activity work plan development that involves design, construction, safety, and quality control staff.
- ✓ CPM updated weekly and with weekly report to stakeholders showing progress, issues and recovery plans as necessary.

3.3.2 Critical Risks, Project Approach, and Capacity/Resources

a) Critical Risks for this Project / Project research, public meeting attendance, and inherent knowledge of the project corridor has shaped our approach to successful project completion. Improvements would take place from 1.6 miles west of the SC 202 (Exit 85) interchange to the



SCDOT Public Hearing Map of the Project

US 176 (Exit 101) interchange. The improvements would widen the mainline of I-26 from Exit 85 to Exit 101. I-26 would be widened for a total of 6 lanes, three in each direction from Exit 85 to Exit 97 and 8 lanes, four in each direction from Exit 97 to Exit 101. Interchange improvements would be provided at Exits 85, 91, and 97.

In considering the project purpose with our on-site knowledge, we have identified the five (5) most critical risks as reflected in **Table 3.3.2.i** (below) which provides a more comprehensive listing of our team’s identified risks, mitigation strategies, and anticipated SCDOT/third party involvement.

TABLE 3.3.2.i – Critical Project Risks

Critical Risk Issues / Problems	Potential Impact	Archer-United JV Team’s Risk Mitigation Strategies	Role of SCDOT & Other Agencies	Risks		
				Cost	Schedule	Quality
1. MATERIAL & LABOR SHORTAGES						
Material & Labor shortages	Volume of projected DOT work will put additional strain on skilled local resources. Inadequate staffing of resources on this project will lead to schedule delays, quality issues, and safety incidents.	AWC, UNITED, and ICE have transition ample and qualified resources from the I-77 DB and other SC projects to this project to ensure its completion in a timely, cost effective, safe and high-quality manner. Carefully evaluate all proposed subcontractors similar to SCDOT’s CPE scoring system.	As needed, the JV will seek input from SCDOT on subcontractor capability and past performance to maximize the success of the project. The JV may solicit input from SCDOT on current material availability trends so that construction will not be delayed by material shortages.	■	■	■
2. TRAFFIC MANAGEMENT						
Traffic Management Plan (including MOT Plans)	Being a main commuter route between the Irmo/Chapin and downtown, availability of 2 lanes of EB & WB traffic during peak time is critical. Impacts may include congestion, longer commutes, longer emergency response time and public worker safety.	Use of dedicated MOT Manager, robust temporary pavement design, detailed interchange construction sequencing plan, staged bridge construction, proactive community outreach, use of concrete barrier to separate construction from traveling public, use of off-duty law enforcement during lane closures and work during off-peak hours to minimize impacts to commuters.	SCDOT: Work closely with the DB Team in the review of the Draft and Final TMP and evaluate any proposed construction staging with an “open mind”. Others: Emergency Responders, SCHP, Parkridge Medical, media and all affected businesses/residents will be properly notified of any closures/detours via print, social media, news and advanced warning & portable DMS signs.	■	■	■
3. SCHEDULE DELAYS (INCLEMENT WEATHER, PERMITTING, R/W, AND UTILITIES)						
a) Storm and other Natural Disaster Impacts	Loss of construction time and loss/damage of work in place.	Perform disaster planning and proper preparation for high winds and stormy conditions.	Disaster Preparedness coordination with SCDOT and local municipalities.	■	■	
b) Permitting & Mitigation Plan	3,884.5 LF of stream impact, and 0.43ac of wetland impact requiring <i>Individual Permit</i> and <i>Permittee Responsible Mitigation Plan (PRM)</i> .	Engage Wildland Engineering, Coggins Asset Management/ Weyerhaeuser and other competing proposals and secure the best pre-bid mitigation solution.	Assist the JV with agency coordination to ensure timely review of all submittals, including the PRM plan.	■	■	
c) ROW Acquisition & Relocations	Construction sequencing, potential construction delays (2 business relocations, 75 acres of R/W and 8 HAZMAT sites)	Use experienced acquisition/appraisal staff, follow FHWA & SCDOT policies, and bring on additional resources, if needed. Reevaluate impacts to HAZMAT sites and initiate phase 2 ESA investigations, as needed.	Prompt condemnation action if negotiated settlements are not reached	■	■	
d) Untimely Utilities Relocation	Lack of resources or timely relocations of affected utilities can delay the schedule.	Use seasoned Utility Coordination Team to focus on utility management and design and schedule around existing utilities where feasible.	Processing of the utility agreement and/or no-cost letters	■	■	

4. PROJECT DESIGN CRITERIA / APPROVAL

a) Weak shoulder, excessive rock and poor soils	Shoulder failure during early phase of MOT, road or embankment failure; excessive settlement; and long-term maintenance.	Perform FWD on outside / inside shoulders, perform comprehensive geotechnical investigations and consult with retired SCDOT RCEs as well as D1 and D2 construction staff.	Share with the JV Team and ICE the historical records and provide access to SCDOT retirees who oversaw the construction of previous projects.	■	■	■
b) Prompt approval & release of RFC plans	Critical path activity impacts will delay the overall schedule	Submit complete design packages and ensure a robust internal QA/QC before submitting to SCDOT.	Pre-submittal meetings / over-the-shoulder meetings & timely reviews.	■	■	

5. QUALITY CONTROL

Inadequate or inexperienced staffing for Construction or QC Inspection and Testing	Defective work product, re-do of completed work; QC inspection and testing not picking up sub-standard work. Can affect long-term maintenance for SCDOT.	Implement proven QC plan with hold points and checklists, provide properly staffed QC organization with empowerment to stop work and build upon QC Plan from I-77 and improve with lessons learned.	SCDOT QA/CEI Team to ensure adequate/competent staffing during construction and proper QC inspection and testing frequency at all times. Provide feedback/lessons learned from our performance on I-77 and insight into past projects on the corridor.	■	■	■
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b) Project Approach for Design and Construction / Our approach is to bring the core team from I-77 for both design and construction and supplement them with additional experienced resources. The **ARCHER-UNITED** Team thoroughly understands all tasks required to complete the Project based on previous successful experience delivering numerous design-build interstate widening projects. In addition to project management and coordinating with stakeholders, the key tasks can generally be divided into three categories as shown below:

Preconstruction	Construction	Quality Control & Assurance
<ul style="list-style-type: none"> • Design Management • NEPA Re-Evaluation (if needed) • Erosion and Sediment Control Plans • Roadway Design, Preliminary & Final Plans • Hydraulic / Hydrologic Analysis & Design • Structures Design, Preliminary & Final Plans • Right-of-Way Acquisition & Services • Environmental Permitting & Mitigation • Public Relations / Community Outreach • Utility Coordination • Geotechnical Exploration & Design • TMP (Traffic Control/MOT/PR) • QC/QA prior to Design Submittals • Design Submittals Procedures & Schedule • Coordination with the Construction Team 	<ul style="list-style-type: none"> • Construction Management • Construction Signs • Clearing & Erosion Control • NPDES Compliance & Inspections • Traffic Control & Maintenance • Utility Relocations / Adjustments • Subgrade & Base Preparation • Structures & Demolition • Sound Barrier • Asphalt Paving • Concrete Paving • Guardrail, Cable Barrier & Concrete Barrier Wall • Marking and Signing • Earthwork & Drainage 	<ul style="list-style-type: none"> • Development, Approval & Implementation of QC Plan • Erosion & Sediment Control Monitoring • Permit and NEPA Compliance • Materials Sampling & Testing • QC Inspection & Construction Oversight • Materials Certification/Document Control • Foundation Testing • As Built Plan Preparation/Reviews • Quality Acceptance and independent assurance testing (by SCDOT)

Table 3.3.2.ii (on the following page) summarizes the major challenges our Team has already identified through the review of available project information, a thorough site review, and our local knowledge of the Project corridor that could likely arise during both the pre-construction and construction phases of the Project. Based on our current knowledge of the scope of work, we offer the following observations and potential approach for mitigation of each challenge:

TABLE 3.3.2.ii – Major Project Challenges and Approach to Resolution

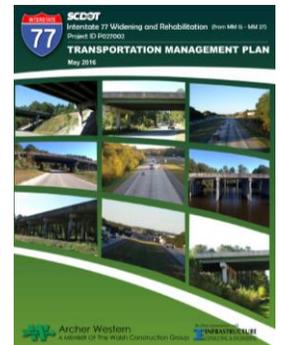
Challenges	Observations and Approach
NEPA Re-evaluation	<p>1) In the event of an ATC or value engineering concept developed during the RFP phase is approved, the need for NEPA Re-evaluation will be assessed and communicated to SCDOT. Also, sufficient review/approval time for SCDOT, FHWA and other regulatory/resource agencies will be included in the Project CPM Schedule in the Technical Proposal.</p> <p>2) The proposed noise abatement measures in the form of a barrier for Westcott Ridge and Arbor Springs are based upon preliminary design for a barrier cost of \$35.00 per square foot that will reduce the noise level by at least 5 dB(A) for residences. During final design, these conditions could substantially change (including approved ATC). The current noise model will be updated with the final design to document the anticipated noise impacts and abatement measures. This will be developed in close coordination with SCDOT/FHWA and presented to the public.</p>
Permitting / Aquatic Impact Minimization	<p>Minimizing Wetland (0.43 acre) and Stream Impacts (3884.5 LF) as follows:</p> <ul style="list-style-type: none"> • Design culverts/bridges to maintain existing flow/ exchange and hydrology for wetlands and other aquatic areas and allow unimpeded movement of aquatic organisms; • Design culverts/bridges to maintain existing surface water drainage patterns and to prevent erosion; • Optimize horizontal alignment to avoid/minimize impacts, including use of retaining walls • Optimize vertical alignment to lower profile and reduce footprint of the embankment widening • Review and coordinate various PRM mitigation alternatives to identify the most desirable solution
Coordination of Weigh Station	The coordination of the static weight station to a weigh-in-motion system will require extensive coordination with South Carolina Department of Public Safety and Federal Motor Carrier Safety Administration. The Team will vigorously pursue this coordination during the final design of the project.
R/W Acquisition & Relocation	An approximate 23-acre area along Old Hilton Road, north of I-26 was observed to be protected with a Richland County Conservation Easement. Final design of the project must consider Conservation Easement restricts development to those activities associated with maintaining the land for forestry and farming. No portion of the property shall be paved or otherwise covered with concrete, asphalt, or any other impervious paving material, without the permission of grantee.
Traffic Control	<ol style="list-style-type: none"> 1) Maintaining two lanes of EB/WB traffic without splitting one direction of lanes at any time, to replace pavement. 2) Maintaining two lanes of EB/WB traffic while correcting deficient vertical curves. 3) Maintaining access to ramps and crossover roads at interchanges within the limitations of the environmental documents. 4) Construction Median Access using SCDOT’s new MOT standards with appropriate intervals. 5) Maintaining two lanes of traffic in current configuration and the planning, the timing and the layout of the switch to the ultimate diverging diamond interchanges. 6) Nighttime construction activities may impact adjacent residential areas and thus a specific work plan will be necessary regarding work during these time periods and will be submitted for approval by the SCDOT Resident Construction Engineer prior to its undertaking.
Minimizing impacts “Broken Back” curves	The preliminary review of the Public Hearing displays notes the current SCDOT proposed design may have a “broken back” curve at the following locations: 1) SC 202, 2) S-36-167 (Parr Road), 3) S-40-405 (Old Hilton Road), and, 4) S-40-80 (Shady Grove Road). The D/B Team will work closely with SCDOT to ensure the removal of these undesirable conditions should the RFP criteria specify as such.
Design for a No-Rise Condition	The concept design contemplates crossing of seven (7) FEMA regulated rivers / streams. Due to lengthy approval process from FEMA, the design during the pre-award and post-award will strive for a “No Rise” condition.
Coordination of Adjacent Projects	The D/B Team has identified the need for close coordination with several adjoining projects that may have impact on the delivery of this Project including: a) Carolina Crossroads, b) S-48 Columbia Avenue widening (Lexington County), c) US 176 Broad River Road Widening (Richland County), and d) I-26 Reconstruction from MM 75-85.
Utility Relocation	Fiber optic lines, aerial electrical transmission systems and other “wet” utility lines, as well as gas lines could require adjustments and relocation. An experienced utility relocation Team, led by Gus Kretschmer of ICE, will properly coordinate and resolve these conflicts prior to start of construction.
Lead-Based Paint on Bridges	Lead-based paint surveys must be taken on 6 of the 10 bridges within the project area. The results should be submitted to SCDOT RCE for review prior to demolition or reconstruction. Excluded from additional surveys are S-167 (Parr Road), S-39 (Holy Trinity Church Road), SC 202, and S-48 (Columbia Ave) which have already tested positive for the presence of lead-based paint.

b.1) Environmental Coordination, Permitting and Mitigation Approach

The **ARCHER-UNITED** Team will provide a comprehensive review of all environmental commitments and requirements which will be implemented throughout final design and construction. The applicable issues will be properly addressed during the final design stages through active participation of the Environmental Manager/Permit Coordinator, Barrett Stone. This process will most importantly ensure that final design complies with NEPA and incorporates adequate avoidance and minimization strategies to ensure timely issuance of the permits. It is also anticipated that a Permittee-Responsible Mitigation Plan (PRM) will be required. We will engage the mitigation industry during the pursuit phase to identify the most desirable solution which will minimize risk of time delays during the permitting process. An Environmental Compliance Plan will be prepared prior to construction to ensure compliance with all NEPA commitments and permit conditions. Effective and early coordination with the required permitting agencies will afford the **ARCHER-UNITED** Team the ability to advance construction operations as early as possible to ensure timely completion.

b.2) Approach to Development of Transportation Management Plan and Maintenance of Traffic

1. Transportation Management Plan (TMP) | This Project is a “Category 3” corridor of interstate and interchange reconstruction with high traffic volumes, multiple phased construction that are anticipated to have major traffic impacts beyond the project limits. Therefore, the TMP requires three (3) items to be addressed including: *a) Temporary Traffic Control Plan*, *b) Transportation Operations Plan* and *c) Public Communication*



Plan. Traffic operations will need to be assessed along the corridor to determine the impact on traffic flow to identify additional measures that may be required. Although long-term lane closures are not likely, the lane shifts and construction activities adjacent to the roadway have a negative impact on traffic capacity, which will exacerbate congestion during peak times. To mitigate these impacts, the TMP will include strategies to inform the public about the construction and provide guidance on alternate routes. An advance signing plan will also be established to alert long-distance travelers of alternative routes through the NW Columbia, Irmo and Newberry. The TMP will be treated as a “living document” throughout the design and construction process and

will be updated to add information as it is developed and to provide a resource for construction managers.

2. Maintenance of Traffic | There are also a variety of dynamic work zone management strategies that may be effective including detection of back of queues and reporting of travel times and speeds using “smart barrel” or portable traffic monitoring station technologies, particularly on the northern sections of I-26 where CCTV and DMS systems are not currently in place.

3. Public Communication Plan | The **ARCHER-UNITED** Team will work closely with its internal public relations staff to assist SCDOT in maintaining a positive public image by developing a plan for addressing critical events that will affect the community and to provide direction for public involvement activities and public information dissemination for the Design-Build Team. It will contain objectives and techniques that will be used to ensure good relationships with the public officials and community. With over 19 years in public involvement coordination, our Team’s Public Information Coordinator, **Lynda Monroe (ICE)**, will act as a point-of-contact for newsworthy information relating to the project. An aggressive campaign to harvest public concerns and maintain public awareness will be of utmost importance, especially as it relates to routine informative updates, community involvement, access to businesses, and early notification of traffic pattern changes, lane closures, nighttime construction activities (if any), and emergency service vehicle routes.

b.3) Construction Approach

This project will be divided into multiple manageable segments with competent JV supervisors responsible for each, so that these segments can be worked simultaneously to speed completion. The **ARCHER-UNITED** Team along with our major subcontractors, undeniably possess the resources to accomplish this simultaneous work. Further, multiple and early mobilizations will be utilized to construct areas of project where there is no conflict with longer duration activities. For example, widening will be performed between overhead bridge sites, rather than delayed until these bridges are complete. Recycling will be a major initiative of the **ARCHER-UNITED** Team and will include grinding clearing debris for boiler fuel, salvaging all possible materials from building demolitions, returning milled asphalt to plant sites for use in recycling on this and future projects, and crushing bridge demolition along with other concrete materials.

b.4) Self-Performance of Lead Organization /

ARCHER-UNITED Team is an integrated JV functioning as a single entity without division of work between the members. This structure is tailored to take advantage of each partner’s core strengths and resources

TABLE 3.3.2.iii JV SELF-PERFORMED ACTIVITIES	
<ul style="list-style-type: none"> • Project Management • Field Engineering • Project Cost / Schedule • Bridge Demolition • Bridges • Retaining Walls 	<ul style="list-style-type: none"> • Barrier/Sound Walls • Traffic Control / MOT • Earthwork/Grading • Storm Drainage • Road Base • Concrete Paving

to create a single cohesive organization. The **ARCHER-UNITED** Team will oversee all construction as well as self-performing most of the major construction items that fall on the project’s critical path, accounting for approximately 65% of the project cost. The preliminary list of work that the JV will self-perform is shown in Table **3.3.2.iii**. CR Jackson/Satterfield will perform asphalt paving. Other subcontractors, including DBEs, will be utilized to perform tasks such as erosion control device installation, guardrail installation, signing, pavement marking, electrical, signalization, and ITS.

c) Project Approach for Quality & Quality Assurance & Understanding of the Quality Assurance Program / A

project-specific Design Quality Assurance Plan (DQAP) and Construction Quality Assurance Plan (CQAP) will be developed, taking lessons-learned from I-77, that provide controls guiding both design and construction activities. The combined documents will form our Quality Assurance Plan (QAP). The QAP will be tailored to project-specific conditions and requirements and will contain QC and QA protocols and procedures to verify that the project adheres to SCDOT policies, procedures, standards, and contractual specifications. The QAP will provide a structure that helps eliminate errors, produces high quality plans, and promotes communication among team members. The QAP is not a replacement for SCDOT policies and procedures, but a supplement that provides additional project-specific guidelines in greater detail.

During construction, the CQAP will serve as a quality control guide ensuring all required standards are met, policies are followed, and submittals are provided on time. Certified inspection personnel will provide the expertise and technical oversight to apply the CQAP to all construction activities. **Quality Control Manager (QCM), Tim Antley**, will confirm that sampling and testing is performed in accordance with the schedules presented in the SCDOT Construction Manual, that our AASHTO Certified Lab is utilized for testing samples, that asphalt and concrete mix

designs are submitted to SCDOT for approval at least 30 days prior to use, and that materials incorporated into this project are produced from SCDOT approved sources and have proper certifications. Even though SCDOT is responsible for all QA inspection and testing and independent assurance (IA) to confirm all data, we will facilitate sampling of materials and provide testing schedules and lists of QC personnel to SCDOT. SCDOT will perform verification sampling and testing as part of the QA process. If QC results are not validated by SCDOT’s verification results, the QC Plan will include a defined process to resolve the issue, including an investigation into the cause of the non-validation and/or increasing the rate of verification testing. The CQAP will facilitate close coordination with SCDOT and their designated CEI staff performing the Quality Acceptance and Independent Assurance functions. Additionally, all on-site QC Inspectors will have appropriate certifications for each specific test that is required, as specified by SCDOT. It is anticipated that certified inspectors will be required in the areas shown in the box

INSPECTOR CERTIFICATIONS

- Nuclear Gauge Safety Certification
- Earthwork and Nuclear Gauge Technician Program
- Foundations Certification
- Asphalt HMA Technician Certifications
- Portland Cement Concrete Certification
- Coarse Aggregate Technician Certifications
- Field Welder Certification

to the right. In development of the CQAP, and prior to construction, a detailed list will be developed indicating the required tests for each item of work or material. These tests will be used as the principal basis for determining acceptability of the completed work and will conform to Figure 106B, Quality Control Sampling and Testing, of the 2004 SCDOT Construction Manual. Where practical, initial tests will be performed prior to incorporation of materials into the project, after which the minimum frequency requirements in Figure 106B will be followed. The **ARCHER-UNITED** Team will be providing additional testing as needed to meet or exceed contract requirements. The CQAP will also provide a list of materials to be incorporated into the project from sources residing on the SCDOT Qualified Products List (QPL). Per the QPL policy, manufacturer’s certified test reports and material certifications for materials on this list will be provided to SCDOT prior to installation on the project.

Additionally, the CQAP will have certified inspectors collecting material samples when they arrive on site or work is taking place. QC personnel will collect all delivery tickets and bills of lading and submit them through the QC Manager to the Resident Construction Engineer (RCE) and the SCDOT Quality Acceptance and Independent Assurance representatives. The review of the material tickets will occur prior to the material being put in place.

Any material arriving at the site without proper ticketing or backup will be rejected and not allowed to be incorporated into the final construction product. For major material items being constructed offsite, the QCM will assign QC inspectors to travel to the location of the material production site and perform QC tests and inspections at the producer's facility. Upon completion of all tests, the QCM will verify the results are transmitted to the RCE, Quality Acceptance, and Independent Assurance Manager. In the event of a failing sample Test Report, the QCM will work with all parties to resolve any issues in a timely manner.

d) Key Individuals and Team Members Prior Working Relationship | As demonstrated in **Table 3.3.1.i** (Page 5), the Key Individuals of the **ARCHER-UNITED** Team have worked together for numerous years on many projects in the Southeast. Sam Stutt's working relationship with Elham Farzam and Freddy Kicklighter dates back to 2004 (I-85 DB Project for GSP and BMW Interchanges) and ICE key personnel (including Elham and Freddy) have assisted Sam on the construction of the Monroe Expressway in NC. ICE worked closely with Michael Christie and Dave Moyar of AWC on the I-77 Widening Project and has 20+ years of association with UNITED on numerous design-build projects throughout SC including the US 21 Bridge over Harbor River in Beaufort County. RK&K is the Lead Design Engineer for the NCDOT Monroe Expressway Project with UNITED, they assisted AWC during the pursuit of the I-85 Phase I/ II and was a major design subconsultant to ICE on the Port Access Road where ICE led the design for joint venture that included UNITED. Lastly, ICE and RK&K are currently working on two active pursuits in NC (I-485 in Charlotte and I-440 in Raleigh).

e) Ability to Coordinate all Portions of the Project | Face-to-face interaction is the single most effective method to successful communication and efficient design development.

e.1. Pre-construction Phase | Pre-construction activities will be managed and coordinated from ICE's office in Columbia, SC. Lead Design Engineer, design discipline leaders, and design task team members, as well as key JV team members will coordinate the design during regular weekly meetings (face-to-face and video conferencing) during the pre-construction phase of the project to coordinate the progress of the design, utility coordination, permitting and R/W acquisition phases. All project documents will be housed on a Project-specific **OneNote**® and **Box.com**® with access granted to team members. Monthly, a project progress meeting with SCDOT Design-Build

Group and SCDOT Resident Engineer is planned and has proven to be very useful on past SCDOT Design-Build projects. JV's key management staff (Project Manager, Construction Manager, DB Coordinator) and QC Manager will regularly attend the internal and SCDOT Design Progress Meetings. The **BlueBeam**® collaboration software will also be used by the Design Quality Review Team to perform independent reviews prior to submittals to the Construction Team and SCDOT.

e.2. Construction Phase | During the construction phase our Project Manager and his management team will be located onsite full-time, allowing the Joint Venture controls and oversight systems to be properly implemented and maintained. The team's design management staff will be onsite for all key critical construction phases. All contract administration activities, as well as weekly meetings with SCDOT and third-party stakeholders, will be managed from this job-site office.

3.4 EXPERIENCE OF KEY INDIVIDUALS

The Key Individuals resumes are provided in **APPENDIX A**.

3.5 PAST PERFORMANCE OF THE TEAM

3.5.1 Experience of the Proposer's Team: Five completed *Work History and Quality Form* for the Contractor and five forms for the Designer are included in **APPENDIX B**.

3.5.2 Quality of Past Performance: *Work History and Quality Form* for applicable projects that have "yes" answers to the questions in Section 3.5.2, bullet 2 of the RFQ are included in **APPENDIX C**. Neither AWC nor UNITED have been suspended, debarred, disqualified from bidding, or declared ineligible for work by any entity within the last five years, nor are any such actions pending against them.

3.6 LEGAL AND FINANCIAL

3.6.1-3.6.3 Financial Capacity / Resources / Bonding Capacity/ and Organizational Agreements | A notarized affidavit from each member of the *Archer-United JV* declaring financial capacity, a bond letter on behalf of *Archer-United JV*, and organizational agreements are in **APPENDIX D**.

3.8 ORGANIZATIONAL CONFLICTS OF INTEREST

APPENDIX E – Contains the requested information for Conflict of Interest.



Appendix A Key Individual Resumes

(Click each name to link to corresponding resume)

1. Project Manager – David Cunningham Moyar
2. Lead Design Engineer – Elham (NMN) Farzam, PE
3. Roadway Engineer – Thomas Frederick Kicklighter, III, PE
4. Structural Engineer – John Preston Felkel, PE
5. Traffic Engineer – Jonathan David Reid, PE, PTOE
6. Geotechnical Engineer – Michael David Valiquette, PE
7. Hydraulic Engineer – Jonathan Kenning Scarce, PE
8. Environmental Manager/Permit Coordinator – Barrett Wade Stone
9. Right-of-Way Manager – David Stevenson Link
10. Construction Manager – Samuel Hal Stutt
11. QC Manager – George Timothy Antley
12. Safety Manager – Jeffrey Kent Getty

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
David Cunningham Moyer, Jr. - Regional Operations Manager

b. Role of Key Individual for this Project:
Project Manager

c. Name of Firm with which you are now associated:
Archer Western Construction, LLC



d. Years of Experience: With this Firm **14** Years With Other Firms **13** Years

Employment History:

Archer Western Construction, LLC | Regional Operations Manager | David is responsible for the planning and execution of construction projects, focusing on safety, ethics, quality, cost, monitoring construction activities, and meeting customer expectations. He is responsible for delivery of the projects in accordance with the contract requirements.
 2004 – Present.

Martin K. Eby Construction | Field Engineer – Project Manager| Over David’s 13-year career he served in roles of Field Engineer, Project Engineer, Area Superintendent, Project Manager and Senior Project Manager. Throughout this career path he was responsible for the all activities associated with the planning and execution of construction projects, focusing on safety, ethics, quality, cost, monitoring construction activities, and meeting customer expectations
 1991 – 2004.

e. Education:
 University of Florida / Gainesville, FL / Bachelor of Science / 1991 / Building Construction

f. Active Registrations:
 N/A

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. SCDOT I-85 Reconstruction (MM 69 – 77) – Spartanburg County, SC

Key Personnel Role: Operations Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2017-2019,
 Assigned 2017-Present
Owner Contact Information: SCDOT, Joe Laws (RCE) |
lawsjd@scdot.org | (864) 587-4720
Design/Construction Value: \$68 Million

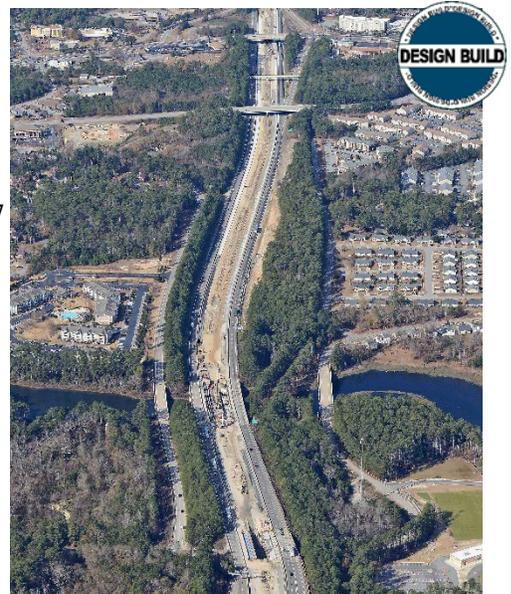
Project Description: David is serving as the Operations Manager responsible for delivery of this project which consists of the reconstruction of the existing three lanes of I-85 from MM 69.1 to MM 77.2 with Cement Modified Recycled Base (12" Uniform), Hot Mix Asphalt Surface Course Type C, and Portland Cement Concrete Paving 13" Uniform.



2. SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC

Key Personnel Role: Operations Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2015-2018
 Assigned 2016-Present
Owner Contact Information: SCDOT, John Burns
burnsjm@scdot.org | (803) 254-1007
Design/Construction Value: \$90 Million

Project Description: David is serving as the Operations Manager responsible for the delivery of this Design-Build project which consists of widening NB and SB I-77 in Richland County with one additional lane in each direction beginning between SC12 (Percival Rd) and I-20 and terminating near the S-52 (Killian Rd.) interchange, a distance of approximately 6.5 miles. There are 10 total bridges along the 6.5 miles of widening that will also be rehabilitated and widened. Lastly, the project includes interstate rehabilitation along SB I-77 from Percival Rd. to S-59 (Blythewood Rd.) for 12 miles, and interstate rehabilitation along NB I-77 from Percival Rd. to Killian Rd (6.5 miles).



3. NC-540 Western Wake Expressway – Raleigh, NC

Key Personnel Role: Project Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2008-2013,
Assigned 2010-2013
Owner Contact Information: NCDOT, Ron Hancock, PE
rhancock@ncdot.com
(919) 707-2400

Design/Construction Value: \$468 Million

Project Description: David served as the Project Manager on this Joint Venture project which involved the design, permitting, and construction of 12 miles of new toll road. The project included 5 million cubic yards of earthwork, construction of 34 bridges, three major interchanges, extensive reconstruction of 15 existing intersecting roadways, construction of a replacement railroad bridge for CSX, construction of new roadway and trail bridges in floodplains, approximately 100 noteworthy utility relocations, drainage, SWM facilities, and MSE/sound walls.



4. Automated People Mover – Hartsfield-Jackson Atlanta International Airport, GA

Key Personnel Role: Project Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2005-2009
Assigned 2005-2009
Owner Contact Information: City of Atlanta, David Pino
david.pino@atl.com | 404-382-1286

Design/Construction Value: \$169 Million

Project Description: Operating on an elevated guideway, the system travels 1.5 miles from the airport to the new CONRAC facility, with an intermediate stop at the Georgia International Convention Center. Running on two parallel tracks, the APM travels over Interstate 85, to the CONRAC station. The total round trip time is 10 minutes. David served as the Project Manager for this Design-Build contract which also included an elevated maintenance and storage facility.

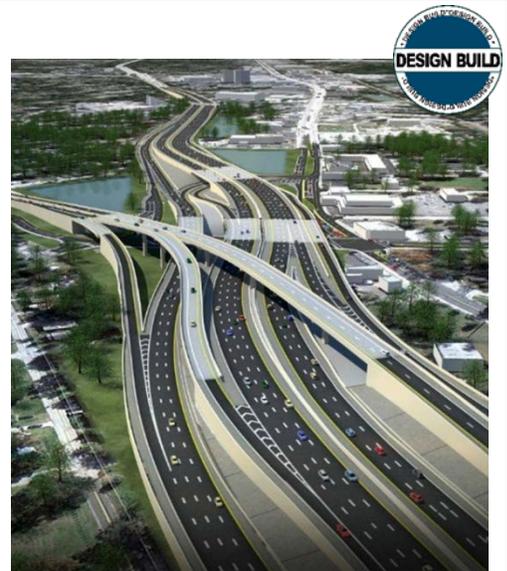


5. I-95 Overland Bridge Replacement – Duval County, FL

Key Personnel Role: Project Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2012-2015
Assigned 2013-2015
Owner Contact Information: FDOT, Carrie Stanbridge
carrie.stanbridge@dot.state.fl.us
(386) 697-2979

Design/Construction Value: \$176 Million

Project Description: David served as the Senior Project Manager on this project which consisted of the design and construction of the replacement of the I-95 Overland Bridge (Bridge No. 720153). Additional improvements within the project limits included the reconstruction of I-95, reconstruction of the southbound collector/distributor (CD) road, construction of a new north bound CD road, construction to convert a partial interchange to a full interchange providing all traffic movements between I-95, Atlantic Blvd., and Philips Hwy., and realignment of Atlantic Blvd. in the vicinity of I-95.



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

David is currently serving in the role of Regional Operations Manager and will be available when this project begins.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.		
a.	Name & Title: Elham Farzam, PE - Sr. Project Manager (Major Projects)	
b.	Role of Key Individual for this Project: Lead Design Engineer	
c.	Name of Firm with which you are now associated: Infrastructure Consulting & Engineering, PLLC	
d. Years of Experience: With this Firm <u>5</u> Years With Other Firms <u>31</u> Years Employment History:		
1. Infrastructure Consulting & Engineering, PLLC Sr. Project Manager (Major Projects) Elham is responsible for the pursuit of major D/B projects in SC by taking an active role during the pursuit, and if successful, continue through the final design and construction phases of the Projects (Jan 2013 – Present)		
2. United Infrastructure Group VP - Business and Project Development Elham worked closely with internal engineering staff, outside engineering firms, estimating group and construction contractor partners, pursuing, executing and managing Design-Build and P3 projects throughout the Mid-Atlantic and Southeast US. (Jan 2011 – Dec 2012)		
3. The LPA Group Incorporated Senior Vice President Elham began as a Project Engineer designing structures, highways, and aviation projects and rose through the ranks into project management, business line manager, and ultimately as the Senior Vice President responsible for marketing, management, and pursuit of nearly \$5 Billion of capital projects ranging in size from \$2 Million to over \$500 Million. (June 1984 – Dec 2010)		
e.	Education: NC State University / Raleigh, NC / Master of Science / May 1984 / Civil Engineering - Structures NC State University / Raleigh, NC / Bachelor of Science / Dec 1981 / Civil Engineering	
f.	Active Registrations: 1985 / South Carolina / Professional Engineer / 10535	
g.	Document the extent and depth of your experience and qualifications relevant to the Project.	
1. I-77 Widening & Rehabilitation (MM 15-27) - Richland County, SC		
Key Personnel Role: Design Manager and Sr. Pavement Engineer		
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC		
Project/Assignment Duration: Project June 2015 – July 2018 Assigned June 2015 – March 2017		
Owner Contact Information: SCDOT, Tyke Redfearn, PE RedfearnWT@scdot.org (803) 737-1430		
Design/Construction Value: Design \$5 Million Construction \$88.4 Million		
Project Description: This project consists of widening NB and SB I-77 with an additional lane in each direction. The SB lanes from MM 22-27 were rehabilitated along with an overpass bridge over US 21. All the mainline bridges (5 sites) are being widened including several over highways and two over streams. A comprehensive Traffic Control Plan / MOT was developed by both the design and construction team during the procurement phase and was further refined during final design phases. A comprehensive FWD program was used to assess the strength of the outside shoulder for use in the early phases of the MOT Plans. Elham served as the Design Manager and Senior Pavement Engineer for this project. He also oversaw the pursuit (June through Dec 2015) and managed all phases of preconstruction from the award to RFC Plans and permitting (Jan 2016-Mar 2017).		
2. I-85 Widening – Phase III, Cherokee County NC		
Key Personnel Role: Lead Design Engineer and Sr. Pavement Engineer (Pursuit Phase)		
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC		
Project/Assignment Duration: Pursuit / Assignment: June 2017 – February 2018		
Owner Contact Information: SCDOT, Brad Reynolds, PE ReynoldsBS@scdot.org (803) 737-3081		
Design/Construction Value: D/B Contract \$181.7 Million (low bid)		
Project Description: The project included the widening of proximately 8-mile long section of the I- 85 In Cherokee County to reconstruct pavement, increase capacity, and upgrade four (4) interchanges at Exit 100, 102, 104 and 106 and a NSRR overpass bridge replacement. Elham was the Team’s Lead Designer and led the development of the <u>alternate design</u> for the four (4) interchanges as well as alternate pavement design for the mainline and shoulders (PCC vs. HMA) including performing 40-year life cycle cost analysis. He led the development of the Technical Proposal including nine (9) approved ATCs, roadway/profile roll plans, MOT phasing and sequencing plans and worked closely with the Utility, R/W and Permitting Leads in developing the approach, cost and delivery schedule proposal for the utility, R/W and permitting aspect of this challenging projects.		

3. Wando Welch terminal Traffic Flow Improvement (Phase 1 & 2) – Mount Pleasant, SC

Key Personnel Role: Lead Design Engineer / Sr. Pavement Engineer
Experience with Firm: **Infrastructure Consulting & Engineering, PLLC**
Project / Assignment: Design July 2017 – March 2018 | Construction (Apr – Dec 2018)
Owner Contact Information: SCSPA - Jim Van Ness, PE (843) 856-7047 | jvanness@scspa.com
Design/Construction Value: Design \$1.7 Million / Construction \$22 Million

Project Description: The South Carolina Ports Authority (SCPA) is currently constructing this two-phase project. The project consists of providing traffic flow improvement throughout the terminal and improve traffic safety. The project included several work elements including Work Element 1 - New inbound POV lanes and gate, for entering the Restricted Area, Work Element 2 - New outbound POV lanes and gate, for exiting the Restricted Area, Work Element 3 - New Roundabout (Eliminate Left-hand Turns) and Work Element 4 - Build New Chassis Yard (approximately 31 acres). ICE was selected in late October 2017, received its design contract on November 9, 2017. ICE prepared the Construction Plans in less than 2 months and the project was advertised for bid on January 15, 2018.



4. I-77 Express Lanes – Mecklenburg & Iredell Counties, NC

Key Personnel Role: Design Manager
Experience with Current Firm: **Infrastructure Consulting & Engineering, PLLC**
Project/Assignment Duration: Project 2012 - 2018, Assigned 2012 - 2014
Owner Contact Information: NCDOT, Jim Triplett, PE | jet@uig.net | (803) 513-1900
Design/Construction Value: \$558 Million



Project Description: The I-77 Express Lanes Project is the first PPP for NCDOT which will add 26 miles of variably priced managed lanes (HOT Lanes) along I-77 and I-277 in Charlotte, NC north through Mecklenburg and Iredell Counties. The project will provide two 17.1-mile HOT lanes in both directions from I-277 (Brookshire Freeway) near Charlotte Center City to Catawba Ave. in Cornelius and one HOT lane per direction for an additional 8.8 miles from to NC 150 in Mooresville. In addition to leading the pursuit team, Elham developed pavement designs for 30-year flexible and rigid pavement design alternates for the General Purpose Lanes and a 30-year and 60-year flexible and rigid pavement alternate design for the HOT Lanes.



5. I-85 Widening - Rowan County, NC

Key Personnel Role: Lead Design Engineer
Experience with Current Firm: **The LPA Group Incorporated**
Project/Assignment Duration: Project 2005-2008, Assigned 2005-2007
Owner Contact Information: Blythe Const., Brian Webb (bwebb@blytheconstruction.com) | (704) 201-0376
Design/Construction Value: \$88 Million



Project Description: This project consisted of widening a 4-mile section to an 8-lane section (median and outside shoulder) and the reconstruction of 4 interchanges. Despite major FEMA, utility, and R/W acquisition complications, the Project was completed 9 months ahead of the original NCDOT schedule. This project received numerous innovation and quality awards from regional and national trade organizations including Southeastern Construction and Carolinas AGC. Elham was the lead design engineer and led the design, utility, R/W and permitting team in the development of the Technical and Cost Proposal. After the award of the contract, Elham continued his role and led the final design from 2005 through 2006 and assured timely release of RFC Plans for roadway, MOT and bridge plans.



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
As the Lead Design Engineer, Elham will be dedicated solely to the design of the Project and shall have no other assigned project responsibilities, and shall not be utilized on any other projects.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Thomas Frederick (Freddy) Kicklighter III, PE – VP / SC Surface Transportation Manager



b. Role of Key Individual for this Project:
Roadway Engineer

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: With this Firm 6 Years With Other Firms 21 Years

Employment History:

Infrastructure Consulting & Engineering, PLLC | Vice President / SC Surface Transportation Manager | Freddy currently oversees all design of surface transportation in South Carolina which includes Roadway Design, Hydrology Design, Structural Design, and Utilities Coordination. 2012 - Present

The LPA Group Inc. A Unit of Michael Baker Corporation | SC Surface Transportation Manager / Assistant Vice President | Freddy was responsible for the roadway design unit which included managing a staff of 13 transportation professionals. His project specific responsibilities included overall Project Management, the preparation of roadway design plans, drainage design plans, traffic analysis reports, and/or specifications. 1998-2012

Espey, Huston & Associates Inc. | Manager of the transportation Matrix | Freddy managed a staff of up to five individuals, which included an engineer, EITs, and technicians. 1995–1998

The LPA Group | Project Engineer | Freddy was responsible for the design of various projects including sidewalks, multilane roads, and interchanges. 1991-1995

Clemson University Civil Engineering | Graduate Assistant | Freddy was responsible for research assistance on various transportation related issues and instructor for the undergraduate Transportation Class Lab, Surveying Class Lab, and Static Class Lab. 1991 – 1991

SCDOT | Summer Intern/Engineering Assistant | Freddy’s responsibilities included inspecting and testing both asphaltic and concrete materials. He performed density test and drilled samples for asphalt, slump test, moisture air content test, load test, prepared test cylinders for concrete, and final inspection work on expressway construction. May 1989 – August 1989 / May 1988 – August 1988

North Charleston Sewer District | Construction Inspector | Freddy was responsible for overseeing construction of new sewer lines. Inspection responsibilities included proper placing of aggregate, placing of the proper pipe on correct grade, placement and inside work of acceptable manholes, and proper overnight safety for construction site. May 1987 – August 1987/August 1986 – December 1986/December 1985 – May 1986

e. Education:

Clemson University / Clemson, SC / Master of Science / 1991 / Civil Engineering

Clemson University / Clemson, SC / Bachelor of Science / 1989 / Civil Engineering

f. Active Registrations:

1995 / South Carolina / Professional Engineer / 16571

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Widening & Rehabilitation (MM 15-27) - Richland County, SC

Key Personnel Role: Project Manager and Lead Roadway Engineer

Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC

Project/Assignment Duration: Project June 2015 – July 2018, Assigned 2015 – 2016

Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430

Design/Construction Value: \$91 Million

Project Description: Freddy was the Project Manager and Lead Roadway Engineer on this Design-Build 12-mile interstate widening project. This project consists of widening northbound and southbound I-77 with an additional lane in each direction. All of the mainline bridges will be widened including several over highways and two over streams. The scope of work includes surveys, geotechnical exploration and design, hydrologic/hydraulic analysis and design, roadway and bridge design, sound barrier design, community relations, utility coordination, permitting services to include permit acquisition, railroad coordination, maintenance of traffic, construction, quality control inspection and testing services, and environmental monitoring and compliance.



2. I-85 Widening Project (MM 80 to 96) - Spartanburg and Cherokee Counties, SC

Key Personnel Role: Project Manager
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2014-2016, Assigned 2014-2016
Owner Contact Information: SCDOT, Brad Reynolds, PE | ReynoldsBS@scdot.org | (803) 737-3081
Design/Construction Value: \$254 Million

Project Description: Freddy was the Project Manager and Lead Roadway Engineer for this 16-mile interstate widening project with four interchange reconfigurations. The project scope included providing engineering services necessary for the preparation of preliminary road and bridge plans, environmental studies, and traffic studies including interchange modification reports for the widening of I-85 in Spartanburg and Cherokee Counties from approximately S-42-57 (Gossett Rd. - Exit 80) to approximately SC 18 (Shelby Highway – Exit 96). He also oversaw the work provided by the primary sub-consultants.



3. I-26/S-378 (John N. Hardee Expressway, Phase II) Interchange - Columbia, SC

Key Personnel Role: Project Manager
Experience with Current Firm: The LPA Group Inc. A Unit of Michael Baker Corporation
Project/Assignment Duration: 2007-2008
Owner Contact Information: SCDOT, Brian Keys, PE | keysbw@scdot.org | (803) 737-3511
Design/Construction Value: \$65 Million

Project Description: Freddy served as Project Manager for this project that consisted of widening I-26 and designing a new trumpet-type interchange that included continuous auxiliary lanes between SC 302 and US 321, and connected I-26 to SC 302. He was responsible for the preparation of the environmental assessment, right-of-way plans, and final roadway and bridge plans in accordance to SCDOT standards.



4. I-26/US17 Interchange for Replacement of the Cooper River Bridge – Charleston, SC

Key Personnel Role: Roadway Design Manager
Experience with Current Firm: The LPA Group Inc. A Unit of Michael Baker Corporation
Project/Assignment Duration: 2000-2005
Owner Contact Information: SCDOT, Tim Henderson | hendersontr@scdot.org | (843) 740-1665
Design/Construction Value: \$640 Million

Project Description: Freddy served as the Roadway Design Manager for this project where the existing lanes on I-26 were reconfigured and minimally widened as part of the interchange construction. He developed final construction plans including, traffic control plans, overhead and ground mounted signing plans, pavement marking plans, and traffic signal plans.



5. Carolina Bays Parkway Phase II (SC Route 31) - Horry County, SC

Key Personnel Role: Roadway Design Manager
Experience with Current Firm: The LPA Group Inc. A Unit of Michael Baker Corporation
Project/Assignment Duration: 2002-2004
Owner Contact Information: SCDOT, Kyle Berry, PE | berryWK@dot.state.sc.us | (843) 661-4710
Design/Construction Value: \$59 Million

Project Description: Freddy served as Roadway Design Manager responsible for roadway design, preparation of right-of-way plans, and final construction plans for approximately five miles of a new 6-lane interstate with a partial clover leaf interchange for collector distributor roads at SC Route 544. The project limits were from South of US Route 501 to South of SC Route 544.



- h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
As Lead Roadway Engineer, Freddy will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
John Preston Felkel, PE – SC Structures Manager



b. Role of Key Individual for this Project:
Structural Engineer

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: With this Firm 6 Years With Other Firms 7 Years

Employment History:

Infrastructure Consulting & Engineering, PLLC | SC Structures Manager | Preston is responsible for detailed design including calculation and preparation of construction documents for all facets of bridge and structural elements. His responsibilities include preliminary and final layout, analysis and design of concrete and steel bridges, retaining walls, culverts, and other transportation related structures primarily involving reinforced concrete and structural steel construction materials. Other duties include design calculations and checks (with emphasis on seismic design), plan preparation, detailing, checking, and shop drawing review. 2012-Present

South Carolina Electric and Gas (SCE&G) | Construction Engineer | Preston was responsible for the oversight of the construction of two new nuclear power plants in Jenkinsville, SC. He gained valuable hands-on experience with numerous aspects of construction including oversight of concrete/rebar placement, formwork/falsework construction, steel erection, welding, rock blasting, earthwork, heavy equipment operation, material testing, etc. 2011-2012

Wilbur Smith Associates | Structural Design Engineer | Preston was responsible for numerous aspects of bridge design including concrete decks, prestressed beams, steel girders, box girders, concrete piers, columns, spread footings, drilled shafts, abutments, retaining walls, seismic design, etc. He also conducted bridge inspections and preliminary assessments of site conditions as well as complex load analyses such as barge impact studies, crane load analyses, and multi-axle cross-country “heavy haul” load rating analyses. 2005-2011

e. Education:

University of South Carolina / Columbia, SC / Master of Science / 2005 / Structural Engineering

University of South Carolina / Columbia, SC / Bachelor of Science / 2003 / Civil Engineering

f. Active Registrations:

2008 / South Carolina / Professional Engineer / 26987

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Widening & Rehabilitation (MM 15-27) - Richland County, SC

Key Personnel Role: Lead Structural Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project June 2015 – July 2018, Assigned June 2015 – 2017
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430
Design/Construction Value: \$91 Million



Project Description: Preston served as the Lead Structural Engineer for this 12-mile rehabilitation project which includes 7 miles of interstate widening. This project consists of widening northbound and southbound I-77 with an additional lane in each direction. All of the mainline bridges will be widened including several over highways and two over streams. From a structural standpoint, the project consists of the widening and rehabilitation of 10 Interstate bridges and the rehabilitation of one additional Interstate bridge. Preston’s responsibilities included the preparation of bridge rehabilitation and widening plans, coordination of all structural and geotechnical deliverables, coordination across all disciplines of the design team to ensure project consistency, communication with the Contractor and SCDOT, providing and coordinating construction support services, and ensuring overall quality control for the project. Additionally, Preston’s duties included providing weekly reports/updates to the project team regarding the status of deliverables, managing two subconsultants, ensuring project schedule and budget constraints were satisfied, and promptly addressing any questions or concerns from the Contractor and/or SCDOT that arose throughout the duration of the project.



2. I-85 Widening Project (MM 80 to 96) - Spartanburg and Cherokee Counties, SC

Key Personnel Role: Lead Structural Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2014-2016, Assigned 2014-2016
Owner Contact Information: SCDOT, Brad Reynolds, PE | ReynoldsBS@scdot.org | (803) 737-3081
Design/Construction Value: \$254 Million

Project Description: The study area included approximately 16 miles of interstate widening and extended one mile past SC 18 (Exit 96) to include the Gaffney Ferry Road entrance slip ramp on the northern terminus. The project also included adding a travel lane in each direction, improving various interchanges and exit ramps, and replacement of overpass bridges. Preston served as the Lead Structural Engineer responsible for development of conceptual bridge plans for this project. His responsibilities included direct oversight and detailed quality control checks for the design and plan production of two bridge sites, exits 95 and 96, and the development of construction quantities and cost estimates for those sites. Additionally, Preston coordinated with two subconsultants to develop conceptual bridge plans for additional bridge replacement sites and the production of an evaluation report for another site while ensuring overall project consistency for the design team.



3. US 21 Bridge over Harbor River – Beaufort County, SC

Key Personnel Role: Structural Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2017-2021, Assigned 2017-Present
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430
Design/Construction Value: \$54.7 Million

Project Description: Preston is serving as a Structural Engineer for this recently awarded Design-Build project. He was an integral member of the design team for the development of the Alternative Technical Concepts and the conceptual bridge plans during the technical proposal phase of the procurement process. Four ATCs were approved by SCDOT including the use of PSC Pile Footings with columns at interior bents, utilizing a bridge deck overhang extension of 10" beyond the edge of the top flange to eliminate traditional overhang falsework, revising the cross slopes on the bridge deck to 2.5% to eliminate the need for a closed drainage system, and using reinforced soil slopes (RSS) to construct the bridge embankments. Preston also prepared the conceptual bridge plans with all associated details and coordinated directly with the Contractor and other members of the D/B Team throughout the duration of the pursuit. The overall scope for the D/B Team includes the design and construction of a new high-level fixed-span bridge to replace the structurally deficient and functionally obsolete existing bridge.



4. Package E Federal Aid Bridge Replacements - Multiple Counties, SC

Key Personnel Role: Structural Design Manager
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2015-2018, Assigned 2015-2017
Owner Contact Information: SCDOT, Shane Parris, PE | ParrisSL@scdot.org | (803) 737-1938
Design/Construction Value: \$56 Million

Project Description: This Design-Build project consisted of providing turn-key design services for the replacement of 12 bridges. ICE's design team recommended grouping the bridges into batches of four and submitting final plans as each group was complete. The team also developed an accelerated design schedule to have designs for each group of bridges submitted to SCDOT in one year. The first group of bridges was submitted less than 30 days from the Notice to Proceed which was awarded February 27, 2015. Preston served as the Structural Design Manager and his responsibilities included overseeing all production and design efforts within the design team, overall quality control, and coordinating across all disciplines.



- h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
As the Lead Structural Engineer, Preston will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.	
a. Name & Title: Jonathan David Reid, PE, PTOE – Transportation Business Practice and Technical Lead	
b. Role of Key Individual for this Project: Traffic Engineer	
c. Name of Firm with which you are now associated: ARCADIS US, Inc.	
d. Years of Experience: With this Firm <u>2.5</u> Years With Other Firms <u>21</u> Years Employment History: Arcadis US, Inc. Transportation Business Practice and Technical Lead Jonathan is responsible for leading traffic engineering projects and pursuits for the Mid-Atlantic region. He has managed and led traffic operations, safety and design projects, and has developed innovative solutions for local, state and federal projects (2015-Present) Parsons Brinckerhoff Southeast Traffic Manager Jonathan was responsible for leading the traffic engineering group for the Southeast Region, including managing of staff and traffic engineering projects (2007-2015) Parsons Brinckerhoff Traffic Engineer Jonathan was manager and/or lead engineer on traffic engineering projects in Georgia and North Carolina, including the conduct of major IMR/IJR studies, managed lane / tolling project traffic forecasts and corridor traffic engineering and safety studies (1997-2007).	
e. Education: North Carolina State University / Raleigh, NC / Master of Science / 1999 / Civil Engineering Lawrence Technological University / Southfield, MI / Bachelor of Science / 1994 / Civil Engineering	
f. Active Registrations: 2005 / Professional Traffic Operations Engineer / 1588 2003 / Professional Engineer (NC) #027930; (GA) #32806 In Progress / South Carolina / Professional Engineer	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. GDOT I-75 Northwest Corridor Draft Environmental Impact Study – Atlanta, GA Key Personnel Role: Traffic Engineering Manager Experience with Current Firm: Parsons Brinckerhoff Project/Assignment Duration: Project 2004-2014, Assigned 2004-2014 Owner Contact Information: GDOT, Darryl VanMeter dvanmeter@dot.ga.gov (404) 631-1703 Design/Construction Value: \$860 Million Project Description: Jonathan served as the Traffic Engineering Manager for this project to add a reversible express lane system on I-75 and I-575 corridors. Jonathan worked closely with Department staff and coordinated with FHWA in the development of a singular document that analyzed the entire study corridor, which included 29 miles on two interstates, three system-to-system interchanges, 11 service interchanges, and four new managed lane interchanges. The project also included analysis of the entire study area as one system using microsimulation (VISSIM). The resultant IMR/IJR document was the largest and most complex of its kind ever submitted to FHWA by the State. The FHWA Georgia Division office completed its review and comments and submitted the study to its headquarters in Washington. The FHWA returned a letter to the Department that it accepted the study met all requirements without any additional comments or responses required, and now serves as a unique “go by” for similar projects at his previous firm.	
2. Cumberland CID Akers Mill Road Managed Lane Interchange Concept – Atlanta, GA Key Personnel Role: Project Manager Experience with Current Firm: Parsons Brinckerhoff Project/Assignment Duration: Project 2015-2016, Assigned 2015-2016 Owner Contact Information: Cumberland CID, Brantley Day bday@woodstockga.gov (770) 592-6050 Design/Construction Value: \$24 Million	



Project Description: Jonathan served as the Project Manager for the I-20/I-285 interchange/corridor study in Atlanta. Study area was a 15-mile corridor on I-285 and I-20 including I-20/I-285 system-to-system interchange and nine service interchanges. The study evaluated short and long-term improvement options including evaluation of collector-distributor roads, ramp terminal improvements, mainline and ramp capacity (widening) improvements, and single and multi-lane managed lane systems (concurrent, reversible, and moveable barrier alternatives). Alternatives studied for the system-to-system interchange included safety evaluations, ramp capacity improvements, replacement of loops with flyovers, elimination of left exits and entrances, and accommodations for future managed lane connection alternatives. Traffic forecasts, traffic analyses, microsimulation (VISSIM), and environmental screenings were done in a pre-NEPA study for this corridor, and cost estimates were prepared for each improvement scenario and presented as a roadmap for needed interstate and interchange improvements.



3. FDOT Tampa Bay Express Downtown Interchange – Tampa, FL

Key Personnel Role: Concept Design Engineer
Experience with Current Firm: Arcadis US, Inc.
Project/Assignment Duration: Project 2016-Present, Assigned 2016-Present
Owner Contact Information: FDOT, MaryLou Godfrey | MaryLou.Godfrey@dot.state.fl.us | (813) 975-6621
Design/Construction Value: \$2 Billion



Project Description: Jonathan is serving as the Concept Design Engineer for the development of multiple design concepts for this \$2 Billion interchange project to replace I-275 / I-4 interstate through downtown Tampa, FL. The new facility will provide a separate managed lane system with access to the downtown grid and a rebuilding of the existing general-purpose lanes from I-4 through the Hillsborough River Bridge crossing. The design concept lowered the baseline concept by one level at the I-275/I-4 interchange while reducing right-of-way and property impacts, for a potential cost savings of over \$200 Million.

4. FDOT I-95 System Operations Interchange Report - Jacksonville, FL

Key Personnel Role: Lead Traffic Engineer
Experience with Current Firm: Parsons Brinckerhoff
Project/Assignment Duration: Project 2001-2002, Assigned 2001-2002
Owner Contact Information: FDOT, James M. Knight | James.Knight@dot.state.fl.us | (904) 360-5646
Design/Construction Value: \$400,000



Project Description: Jonathan served as the Lead Traffic Engineer in the development of a Master Plan to recommend short-term improvement alternatives for a 50-mile segment of the I-95 corridor through Jacksonville, FL. Recommendations included geometric improvements at ramp terminal intersections, ITS deployments, lengthening/widening ramps and upgrading signing/markings at merge/diverge points. The Master Plan also recommended long-term improvements including interchange reconstruction, type changes, and collector-distributor lanes to serve 2030 design year traffic. The project included planning and design operations analysis, evaluations and recommendations using Synchro and CORSIM.

5. ALDOT I-20/I-59 Interstate Lowering Concept Feasibility Study - Birmingham AL

Key Personnel Role: Project Manager/Lead Engineer
Experience with Current Firm: Parsons Brinckerhoff
Project/Assignment Duration: Project 2009-2011, Assigned 2009-2011
Owner Contact Information: Operation New Birmingham, Michael Calvert | MichaelAlanCalvert@yahoo.com | (205) 903-8046
Design/Construction Value: N/A



Project Description: Jonathan served as the Project Manager/Lead Engineer for this feasibility study to lower a 1.5-mile segment of elevated interstate through downtown Birmingham. He developed a conceptual plan that would be feasible, constructible, and improve traffic operations and safety in the corridor. He also developed project purpose and need, prepared concept plans and Photosimulation renderings, and reviewed civil engineering evaluations of grades, utility relocations, and cost estimates. He prepared the technical report and graphics and animations for presentation to the City and ALDOT to discuss project feasibility and funding.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

As the Lead Traffic Engineer, Jonathan will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Michael David Valiquette, PE – Geotechnical Manager

b. Role of Key Individual for this Project:
Geotechnical Engineer

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: With this Firm 2 Years With Other Firms 14 Years

Employment History:

Infrastructure Consulting & Engineering, PLLC | Geotechnical Manager | Michael is responsible for the firm’s geotechnical services including roadway foundation recommendations, bridge foundation recommendations for large coastal bridges, micropile foundations, pile supported embankments, ground improvement through the use of surcharges and lightweight fill materials, railway bridges and embankments, railroad temporary shoring systems, and slope failure mitigation. 2016-Present

NCDOT Geotechnical Engineering Unit | Geotechnical Operations Engineer and Geotechnical Design Engineer | Michael was responsible for design and construction support of complex geotechnical features on both traditional and Design-Build transportation projects in NC. Michael was the Geotechnical Engineer of Record for complex bridge and roadway projects that fell outside the normal NCDOT design process due to complex project features or compressed schedule. Michael’s ground improvement design efforts included staged construction embankment with large surcharges, use of lightweight fill materials including cellular concrete and expanded lightweight aggregate, and pile supported embankments and MSE walls. His bridge foundation design recommendations for complex bridges included 36” steel pipe piles and jetted and driven concrete piles for large coastal bridges, micropiles for vibration mitigation, railway bridge foundations, and spread footing bearing on MSE wall reinforced volume. He functioned as the owner’s geotechnical engineer for review of Design-Build projects that include new location highways, large coastal bridges with jetted and driven piles up to 54” in size, post grouted drilled piers, a column supported embankment, airport taxiway bridge supported on micropiles, and very tall railroad abutment walls. Michael was also responsible for providing geotechnical construction engineering support for many transportation projects. 2003-2016

e. Education:

North Carolina State University / Raleigh, NC / Master of Science / 2008 / Civil Engineering - Geotechnical
 The Citadel / Charleston, SC / Bachelor of Science / 2002 / Civil and Environmental Engineering

f. Active Registrations:

2017 / South Carolina / Professional Engineer / 34056

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Widening & Rehabilitation (MM 15-27) - Richland County, SC

Key Personnel Role: Geotechnical Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project June 2015 – July 2018, Assigned 2016 – June 2017
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430
Design/Construction Value: \$91 Million



Project Description: Michael was the Geotechnical Engineer responsible for the coordination of site subsurface investigations and interpretation of laboratory triaxial testing for the temporary soldier pile and sheet pile retaining wall. He also developed earth pressure models and performed global stability analysis of the temporary retaining walls. This project consists of widening northbound and southbound I-77 with an additional lane in each direction for approximately 12 miles. All of the mainline bridges will be widened including several over highways and two over streams. In addition, I-77 travels below two existing railroad bridges and the widening through this area must be designed and constructed to minimize impacts to those bridge piers and foundations.





2. US 21 Bridge over Harbor River – Beaufort County, SC

Key Personnel Role: Geotechnical Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2017-2021, Assigned 2017-Present
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430
Design/Construction Value: \$54.7 Million

Project Description: Michael is serving as a Geotechnical Engineer for this recently awarded Design-Build project. Four ATCs were approved by SCDOT including the use of PSC Pile Footings with columns at interior bents, utilizing a bridge deck overhang extension of 10” beyond the edge of the top flange to eliminate traditional overhang falsework, revising the cross slopes on the bridge deck to 2.5% to eliminate the need for a closed drainage system, and using reinforced soil slopes (RSS) to construct the bridge embankments. The overall scope for the D/B Team includes the design and construction of a new high-level fixed-span bridge to replace the structurally deficient and functionally obsolete existing bridge. Michael is responsible for exploration of subsurface and geologic conditions and for geotechnical design including design of bridge foundations, retaining walls, and ground improvements beneath embankments including seismic design.



3. Finley Road Bridge Replacement Project - Fairfield County, SC

Key Personnel Role: Geotechnical Engineer of Record
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2016 - Feb 2018, Assigned 2016 – Apr 2017
Owner Contact Information: Fairfield County, Jake Gaston | jgaston@fairfieldsc.com | (803) 635-5209
Design/Construction Value: \$250,000

Project Description: Michael was the Geotechnical Engineer of Record responsible for preparing bridge foundation recommendations for the replacement structure. He also oversaw the performance of ICE’s Geologist responsible for planning and completing the field investigation and preparing the subsurface inventory side of the combined foundation report. This project consisted of the design of a replacement structure for the Finley Road bridge over a Tributary to Big Cedar Creek. The existing bridge was closed due to severe flood damage. The new bridge is an approximately 40’ long, single span, prestressed concrete (hollow-cored slab) superstructure supported by concrete abutments with steel (HP) pile foundations. Due to the presence of shallow rock, the piles were drilled into rock. The project was funded by FEMA, thus requiring an accelerated design and construction schedule.



4. NCDOT, NC-12 Bridges over New Inlet, B-2500AB, B-2500A, and Emergency Bridge – Dare County, NC

Key Personnel Role: Geotechnical Engineer of Record
Experience with Current Firm: NCDOT
Project/Assignment Duration: Project 2011-2018, Assigned 2011 – 2016
Owner Contact Information: NCDOT, Chris Kreider, PE | ckreider@ncdot.gov | (919) 662-4710
Design/Construction Value: \$ 100 Million

Project Description: Michael was the Geotechnical Engineer of Record responsible for bridge foundation recommendations for two concrete bridge designs at New Inlet and provided informal foundation recommendations for the emergency steel bridge. Michael was responsible for providing support of production pile driving for all three bridges. Foundations of the emergency bridge consisted of 24” steel pipe piles. Foundations for the permanent B-2500A bridge, canceled shortly after construction began, consisted of 30” and alternate 36” square concrete piles jetted and driven into dense sands. Foundations for the interim B-2500AB bridge consisted of 16” square concrete piles jetted and driven into dense sands. Michael was also the Geotechnical Engineer of Record for roadway recommendations and concrete sheet pile retaining walls. Michael also provided professional services during project construction.



- h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
As the Geotechnical Engineer, Michael will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Jonathan Kenning Scarce, PE - Hydraulic Engineer

b. Role of Key Individual for this Project:
Hydraulic Engineer

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: With this Firm 3 Years With Other Firms 27 Years

General Experience / Field of Practice:

Jonathan has worked in the field of hydrologic / hydraulic design since 1988. He is experienced in storm drainage designs, erosion and sediment control, stormwater management, and water quality BMP designs for MS4 compliance. He also has extensive experience with the modeling of streams, culverts, and bridges using WSPRO, HEC-2, and HEC-RAS. Throughout his career, Jonathan has performed numerous FEMA flood insurance studies involving no-rise studies, CLOMRs, LOMRs, and floodway modifications. He has worked on watershed studies using HydroCAD and HEC-HMS, for drainage basins ranging from as small a few acres to basins as large as 20 sq. miles. His drainage design experience includes private, municipal, and state government urban and rural transportation facilities, as well as, large scale municipal watershed improvement projects.

Employment History:

Infrastructure Consulting & Engineering, PLLC | Vice President / Director of Water Resources | Jonathan currently oversees the company-wide growth and development of the Water Resources Program. Duties include developing and maintaining client relationships, quality assurance and control, helping develop and grow groups in multiple offices, mentoring of junior engineers, project management, and engineering. 2015-Present

Mulkey Engineers & Consultants | Water Resources Program Manager | Jonathan managed the Water Resources Program for all Mulkey's offices with responsibilities including project management/design, overall program development and growth, financial management, marketing, and client relationships. 2005-2015

Mulkey Engineers & Consultants | Water Resources Group Manager | Jonathan created and managed the Water Resources Group, consisting of a staff of 13 drainage designers and environmental scientists. His responsibilities included project management/design, overall financial management, training of junior level engineers, marketing, and client relationships. 2000-2005

Richard Scarce & Associates | Vice President / Project Manager / Project Engineer | Jonathan was responsible for hydrologic and hydraulic design of roadway projects statewide in NC and SC. He performed flood studies, floodway modifications, designed culverts, designed bridges, and performed stream restoration. 1995-2000

Richard Scarce & Associates | Engineering Intern | Under direct supervision of a P.E., Jonathan was responsible for assisting in hydraulic surveys and hydraulic design. He performed design of drainage structures and storm drainage design and served as survey crew chief and instrument man. 1990-1995, 1989-1989, & 1987-1987

e. Education:

Virginia Polytechnic Institute & State University / Blacksburg, Virginia / Bachelor of Science / 1990 / Civil Engineering

f. Active Registrations:

2001 / South Carolina / Professional Engineer / 21067

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Widening & Rehabilitation (MM 15-27) - Richland County, SC

Key Personnel Role: Hydraulic Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2015-Present, Assigned 2015-2017
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430
Design/Construction Value: \$88 Million



Project Description: Jonathan served as the Hydraulic Engineer for this Design-Build Project which includes the widening of several miles of the Northbound and Southbound lanes of I-77 near Columbia. This project consists of widening northbound and southbound I-77 with an additional lane in each direction. All of the mainline bridges will be widened including several over highways and two over streams. In addition, I-77 travels below two existing railroad bridges and the widening through this area must be designed and constructed to minimize impacts to those bridge piers and foundations. He oversaw the pursuit (June through Dec 2015) and oversaw the development of the drainage plans (Jan 2016 to Mar 2017).



2. I-85 Widening (MM 80-96) – Spartanburg & Cherokee Counties, SC

Key Personnel Role: Hydraulic Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering
Project/Assignment Duration: Project/Assigned 09/2014-08/2016
Owner Contact Information: SCDOT, Brad Reynolds, PE | reynoldsbr@scdot.org | (803) 737-3081
Design/Construction Value: \$5 Million (Design)

Project Description: Jonathan served as a Hydraulic Engineer and assisted in a detailed drainage study and report of the existing drainage systems for this interstate widening project. This project consisted of 16-miles of interstate widening with four interchange reconfigurations. The scope consisted of providing preliminary plans which consisted of widening I-85 from near S-57 (Exit 80) on the southern terminus to just north of SC 18 (Exit 96). The study area extended approximately one mile past SC 18 to include the Gaffney Ferry Road entrance slip ramp on the northern terminus. The project also included adding a travel lane in each direction, improving various interchanges and exit ramps, and replacement of overpass bridges.



3. Package E Federal Aid Bridge Replacements - Multiple Counties, SC

Key Personnel Role: Hydraulic Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 02/2015 -10/2018, Assigned 03/2015-09/2016
Owner Contact Information: SCDOT, Shane Parris, PE | Parrissl@scdot.org | (864) 489-5760
Design/Construction Value: \$56 Million

Project Description: This Design-Build project consisted of providing roadway and bridge designs necessary to construct the replacement of 12 deficient bridges. Jonathan served as a Hydraulic Engineer and developed hydrologic and hydraulic designs for the bridges and followed all guidelines for roadway approach surface drainage and sediment and erosion control. HEC-RAS was used to perform a preliminary analysis of the hydrologic / hydraulic characteristics of the existing and proposed bridges. He developed a design study report, which included the hydrologic and hydraulic design, scour analyses for the bridge, FEMA Flood Studies, roadway surface drainage design, NPDES studies, TMDL information, Stormwater Management Study, and sediment and erosion control recommendations and designs.



4. SC 38/US 501 Storm Drainage & Erosion Control Design - Dillon/Marion, SC

Key Personnel Role: Project Engineer
Experience with Current Firm: Mulkey Engineers & Consultants
Project/Assignment Duration: Project 2001-2004, Assigned 2001-2002
Owner Contact Information: SCDOT, Mike Barbee, PE | BarbeeMW@dot.state.sc.us | (803) 737-2248
Design/Construction Value: \$30 Million

Project Description: Jonathan served as Project Engineer for the storm drainage and erosion control design of this five-mile project. The project included new location highway, existing curb and gutter, and interchange transportation facilities. GEOPAK Drainage was used on the curb and gutter section while HY8 and HYDRAIN procedures were used on the ditch sections. Jonathan also provided HEC-RAS flood studies for four culvert crossings. Two of these crossings were in FEMA Zone A where the proposed 100-year water surface elevations were held to within one foot of the existing 100-year water surface elevation.



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

As Hydraulic Engineer, Jonathan will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Barrett Wade Stone - Environmental Planner/Biologist

b. Role of Key Individual for this Project:
Environmental Manager/ Permit Coordinator

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: With this Firm 1 Years With Other Firms 19 Years

Employment History:

Infrastructure Consulting & Engineering, PLLC | SC Environmental Services Manager / Sr. Planner | Barrett serves as the Environmental Service Manager for ICE. 2016 - Present

ICA Engineering (formerly known as Florence & Hutcheson) | SC Environmental Services Manager | Barrett was responsible for NEPA documentation, environmental permitting, and environmental compliance for numerous transportation and other infrastructure projects throughout South Carolina. 2004-2016

SCDHEC | Aquatic Biologist | Barrett was responsible for stream biological surveys, water quality investigations, and fish tissue collection. He also developed and implemented water quality studies, investigation of non-point source pollution, biological monitoring (fish and macro-invertebrate), and preparation of technical reports. 1998-2004

e. Education:

University of South Carolina / Columbia, SC / Master of Science / 2000 / Environmental Health
Clemson University / Clemson, SC / Bachelor of Science / 1995 / Wildlife Biology

f. Active Registrations:

N/A

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. US 21 Bridge over Harbor River – Beaufort County, SC

Key Personnel Role: Environmental Manager

Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC

Project/Assignment Duration: Project 2017-2021, Assigned 2017-Present

Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430

Design/Construction Value: \$54.7 Million

Project Description: The project consists of the replacement of the existing swing span bridge over the Harbor River with a fixed span structure. The project is currently being delivered through the procurement of a Design-Build contract. Barrett is serving as Environmental Manager for the D/B team responsible for the acquisition of various environmental permits, including Section 404/10 permits from the USACE, Critical Area and Coastal Zone Consistency determination from SCDHEC-OCRM, and a USCG bridge permit. These efforts also require extensive coordination with resources agencies, specifically regarding the essential fish habitat, shellfish impacts, and threatened and endangered species.



2. I-85 / I-385 Interchange Improvements - Greenville County, SC

Key Personnel Role: Lead NEPA and Permit Coordinator

Experience with Current Firm: ICA Engineering

Project/Assignment Duration: Project Jan. 2016 - Present, Assigned 2016-2016

Owner Contact Information: SCDOT, Tommy Elrod, PE | ElrodJT@scdot.org | (864) 241-1010

Design/Construction Value: \$270 Million

Project Description: Barrett's responsibilities included preparation of an Environmental Assessment, preparation, submittal and request for a jurisdictional determination, and preparation of the associated natural resources assessments. His responsibilities also included oversight of numerous technical sub-consultants and management of the public involvement efforts. The Project consists of improvements to the System-to-System Interchange, widening of I-385 through the interchange area and rehabilitation to portions of I-85 just north and south of the interchange area. The purpose of this project is to improve the safety, operation, capacity, and condition of the interchange of I-85 and I-385 and the adjacent segments of interstate roadway.



3. Package E Federal Aid Bridge Replacements - Multiple Counties, SC

Key Personnel Role: Environmental Coordinator
Experience with Current Firm: ICA Engineering
Project/Assignment Duration: Project 2015-2017, Assigned 2014-2016
Owner Contact Information: SCDOT, Sean Connolly | ConnollyMS@scdot.org | (803) 737-1938
Design/Construction Value: \$56 Million



Project Description: Barrett served as an Environmental Coordinator for the team and his responsibilities included team coordination, NEPA compliance, permit strategy, preparation of permit application packages, and permit negotiation. Each project offered unique permitting challenges including threatened and endangered species concerns, Duke Energy Conveyance Permitting, construction access, and unique project planning and permit strategies due to lack of available mitigation options.



4. SC 41 Bridge Replacement over the Wando River – Charleston/Berkeley County, SC

Key Personnel Role: Environmental Coordinator
Experience with Current Firm: ICA Engineering
Project/Assignment Duration: Project 2014-Present, Assigned 2014-2016
Owner Contact Information: SCDOT, Sean Connolly | ConnollyMS@scdot.org | (803) 737-1938
Design/Construction Value: \$45 Million



Project Description: Barrett was the Environmental Coordinator and was responsible for the acquisition of a NEPA Re-evaluation, Section 404 permit, 401 Water Quality Certification, a Critical Area permit, preparation of a Re-evaluation of the Environmental Assessment, and environmental compliance during construction. The project consists of replacing the existing swing span bridge with a fixed-span type structure with 55' of vertical clearance.



5. Bluffton Parkway, Phase 5-A - Beaufort County, SC

Key Personnel Role: Lead NEPA & Permit Coordinator
Experience with Current Firm: ICA Engineering
Project/Assignment Duration: Project 2008-2016, Assigned 2008-2016
Owner Contact Information: Beaufort County, Colin Kinton, PE | colink@bcgov.net | 843-255-2940
Design/Construction Value: \$46 Million

Project Description: The Bluffton Parkway Phase 5-A, consisted of approximately three miles of new roadway alignment that also included a new interchange with US 278. The new parkway consists of two 12' travel lanes in each direction, a 24' landscaped median and two eight foot multi-use pathways. The intersection is a curving, bifurcated bridge constructed through an environmentally sensitive tidal marsh with flyover segment tying in separately to the eastbound and westbound lanes of US 278. Barrett was the lead NEPA and permit coordinator and his responsibilities included the preparation of an Environmental Assessment, acquisition of Section 404 individual permit, 401 Water Quality Certification, and a Critical Area Permit. His responsibilities also included oversight of numerous technical sub-consultants, management of public involvement efforts, and he coordinated extensively with various agencies and stakeholders.



- h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
As Environmental Manager / Permit Coordinator, Barrett will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:

David Stevenson Link - President

b. Role of Key Individual for this Project:

Right of Way Manager

c. Name of Firm with which you are now associated:

Property Acquisitions & Negotiations, Inc.



d. Years of Experience: With this Firm 27 Years With Other Firms 1 Years

Employment History:

PAN, Inc | President | David has been the President of PAN, Inc. for twenty-three years and has twenty-eight years of experience as a right of way consultant on state and federal highway projects. He has worked as a Project Manager, Acquisition Agent, and Relocation Agent under contract to the South Carolina Department of Transportation, Federal Aviation Administration, North Carolina Department of Transportation, and various city and county agencies. David has served as a Project Manager on forty major right of way projects in the past twenty-two years. 1993-Present

e. Education:

Lander University / Greenwood, SC / Bachelor of Science / 1990 / Business Administration

f. Active Registrations:

1993 / South Carolina / Licensed Real Estate Agent / 17704

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. Interstate 95/U.S. Route 301 Interchange and S.C. Route 6 Connector – Orangeburg, SC

Key Personnel Role: Right of Way Manager
Experience with Current Firm: PAN, Inc.
Project/Assignment Duration: 2013–2014
Owner Contact Information: SCDOT, Claude Ipock | ipockcr@scdot.org | (803) 737-4202
Design/Construction Value: \$31 M | \$610,795.00 (Right of Way fee)



Project Description: David was responsible for managing all right of way activities to include, negotiations, title work, appraisals, and relocation assistance. This was an interchange improvement project to construct a new interchange at US Route 301 and Interstate 95 in Orangeburg, South Carolina. The project also included the construction of a new connector road from Interstate 95 interchange to S.C. Route 6. Right of Way Acquisitions were required from forty-two tracts and the relocation of two single family residences, two outdoor advertising signs, and two personal property moves.



2. I-85/I-385 Interchange – Greenville, SC

Key Personnel Role: Right of Way Manager
Experience with Current Firm: PAN, Inc.
Project/Assignment Duration: 2014–2016
Owner Contact Information: SCDOT, Andrew Huff | huffap@scdot.org | (864) 241-1012
Design/Construction Value: \$231 Million



Project Description: David was responsible for managing all right of way activities to include, negotiation, title work, appraisals, and relocation assistance for this Design-Build project for the improvements to the I-85/I-385 Interchange in Greenville, South Carolina. The project consisted of acquiring right of way from high value commercial properties for the construction of new bridges, interstate highway, and side roads.



3. SC 41 Bridge Replacement over the Wando River – Charleston/Berkeley County, SC



Key Personnel Role: Right of Way Coordinator
Experience with Current Firm: PAN, Inc.
Project/Assignment Duration: Project: 2014-Present, Assigned 2014-2015
Owner Contact Information: SCDOT, Mark A. Westbury | westburyma@scdot.org | (843) 636-9681
Design/Construction Value: \$45 Million

Project Description: This Design-Build project consisted of eight tracts from which right of way was acquired and the relocation of a c-store, boat storage, and two outdoor advertising signs. David was responsible for coordination of all right of way activities to include, negotiations, title work, appraisals, and relocation assistance. PAN completed this project under budget and on schedule.



4. Bowman Road 1 and 2 – Mount Pleasant, SC

Key Personnel Role: Right of Way Manager
Experience with Current Firm: PAN, Inc.
Project/Assignment Duration: 2010–2011
Owner Contact Information: Town of Mt Pleasant, Brad Morrison
BMorrison@tompsc.com |
(843) 856-3080
Design/Construction Value: \$213,000.00 (Right of Way fee)

Project Description: David managed the acquisitions of right of way from 82 tracts and relocation of three displaces for the Town of Mount Pleasant. This project consisted of widening the existing two-lane road to three/four lane sections.



5. US 17 Hungryneck Boulevard – Mount Pleasant, SC

Key Personnel Role: Right of Way Manager
Experience with Current Firm: PAN, Inc.
Project/Assignment Duration: 2010–2011
Owner Contact Information: Town of Mt Pleasant, Brad Morrison
BMorrison@tompsc.com
(843) 856-3080
Design/Construction Value: \$4 Million (Right of Way fee)

Project Description: David managed all right of way activities for construction of US Route 17 / Hungryneck Boulevard interchange for the Town of Mount Pleasant. This Project consisted of the acquisition of right of way from 38 parcels and four complicated business relocations. Relocations consisted of a bank, CVS Pharmacy, Mobile Offices, and a Furniture Store.



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
As Right of Way Manager, David will not be required to be on-site full time for the duration of construction so this section is not applicable.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:

Samuel Hal Stutt - Division Manager



b. Role of Key Individual for this Project:

Construction Manager

c. Name of Firm with which you are now associated:

United Infrastructure Group, Inc. (UIG)



d. Years of Experience: With this Firm 11 Years

With Other Firms 24 Years

Employment History:

United Contractors (United Infrastructure Group) | Senior Project Manager | Sam serves as a project liaison with Design-Build engineers and provides all management, construction activities, and budgets. 2007 - Present

Morgan Corp | Senior Project Manager | Sam served as a Project/Construction Manager managing the day-to-day operations of heavy, civil transportation projects. 2000-2007

US Construction, Inc. | Project/Construction Manager | Sam served as a Project/Construction Manager managing the day-to-day operations of heavy, civil transportation projects. 1983-2000

e. Education:

The Citadel / Charleston, SC / Bachelor of Science / 1982 / Civil Engineering

f. Active Registrations:

N/A

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. Monroe Expressway / Connector - Union County, NC

Key Personnel Role:

Project Manager

Experience with Current Firm:

United Infrastructure Group, Inc. (Managing Partner of MBC, JV)

Project/Assignment Duration:

Project 2015-2018, Assigned 2015 - Present

Owner Contact Information:

NC DOT, Richard Baucom | rwbaucom@ncdot.gov | (704) 841-4323

Design/Construction Value:

\$475 Million



Project Description: As the Project Manager, Sam is overseeing the day-to-day activities including planning/scheduling, management of construction staff and subcontractors, cost estimates, materials delivery, and enforcing safety standards. This complex project consists of a 20-mile bypass connecting to US 74 between Matthews and Marshville, NC with 37 bridges, 21 culverts, and intersecting multiple roads. It consists of approximately 5M CY of excavation, 1M CY of embankment, 133,000 LF of storm drainage, 99,000 LF of water and sewer utilities, 37 bridges, 31 box culverts, an open road tolling system, and an aesthetics package for the structures.



2. Bobby Jones Expressway - Augusta, GA

Key Personnel Role:

Senior Project Manager

Experience with Current Firm:

United Infrastructure Group

Project/Assignment Duration:

Completed in 2009 (over 9 months ahead of schedule)

Owner Contact Information:

GDOT, Jimmy Smith, PE | jismith@dot.ga.gov | (478) 552-4601

Design/Construction Value:

\$192 Million

Project Description: Sam's responsibilities included all management, construction activities, and budgets for this complex urban interchange improvement and interstate widening project, which involved 5 significant bridges, 7 miles of roadway widening/construction, and reconstruction of the I-20/I-520 interchange including 3,655 LF/234,000 SF of bridge, 200,000 SF of retaining/sound walls at 21 locations, 300,000 SY of concrete pavement, and 300,000 tons of asphalt pavement. Value engineering and innovative scope management saved GDOT over \$4 Million and the project was completed well ahead of schedule and under budget with no claims, disputes, or violations despite having very limited work space and being located near several environmentally sensitive wetlands and streams leading into Augusta National Golf Course.



3. I-85 Access Improvements - Greenville County, SC

Key Personnel Role: Senior Project Manager
Experience with Current Firm: Morgan Corp
Project/Assignment Duration: 2005 -2006 (21 months)
Owner Contact Information: SCDOT, Leland Colvin, PE | colvinld@scdot.org | (803) 737-1308
Design/Construction Value: \$36 Million

Project Description: Sam served as Project Manager on this highly accelerated interchange improvement project that involved constructing new entrance interchanges with I-85 to the Greenville-Spartanburg Airport and the BMW Plant with funding by the Department of Commerce. It involved 6 bridges totaling 61,000 SF, 700,000 SY of asphalt pavement, and 850,000 CY of excavation. The approach to this project was to aggressively address utility relocations, significantly reduce environmental impacts, and mitigate concerns from GSP Airport and BMW. Despite scope growth of 13% via owner directive extensions, the project was completed without claims within the original 21-month schedule.



4. J. Verne Smith Parkway (SC 80) - Spartanburg County, SC

Key Personnel Role: Senior Project Manager
Experience with Current Firm: Morgan Corp
Project/Assignment Duration: 2000-2002
Owner Contact Information: SCDOT, David Hebert | hebertdl@scdot.org | (864) 241-1010
Design/Construction Value: \$28 Million

Project Description: Sam served as Senior Project Manager. His responsibilities included all management, construction activities, and budgets. J. Verne Smith Parkway (SC 80) is a 4-lane expressway, which begins at SC 14, on the backside of the Greenville-Spartanburg International Airport. The first .8 miles include a turning medium before splitting into a divided highway.



The parkway includes several at-grade intersections and one grade separated intersection. The highway ends at Wade Hampton Boulevard (US 29).

- h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
Sam is currently serving as the Project Manager on the Monroe Expressway. His assignment is scheduled to be complete in September 2018.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
George Timothy Antley – Vice President / CE&I Manager

b. Role of Key Individual for this Project:
Quality Control Manager

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: With this Firm 8 Years With Other Firms 17 Years

Employment History:

Infrastructure Consulting & Engineering, PLLC | Vice President / CE&I Manager | Tim’s responsibilities include managing CE&I personnel for public and private projects, developing and reviewing cost estimates, approving contractors’ pay requests, preparing project control documentation, generating the approved contract change requests, conducting field audits and final inspections, and preparing final documents for close out. 2010-Present

Dennis Corporation | CE&I Manager | Tim was responsible for managing the CE&I personnel for public and private projects, managing multiple county road improvement projects, developing and reviewing cost estimates, approving contractors’ pay requests, preparing project control documentation, generating the approved contract change requests, conducting field audits and final inspections, and preparing final documents for close out. 2005-2010

SCDOT | Resident Construction Engineer | Tim was responsible for managing Richland Construction A Office. This office was responsible for road and bridge construction projects in Richland, Lexington, and Kershaw Counties. His responsibilities included managing inspection staff, conducting field reviews, reviewing right-of-way for projects, construction staking, conducting estimates and change orders in SiteManager, conducting field audits and final inspections, and preparing final documents for close out. 1996-2005

e. Education:

University of South Carolina / Columbia, SC / Bachelor of Science / 1993 / Civil Engineering

f. Active Registrations:

N/A

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Widening & Rehabilitation (MM 15-27) - Richland County, SC

Key Personnel Role: QC Manager
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project June 2015 – July 2018, Assigned 2016-Present
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | (803) 737-1430
Design/Construction Value: \$91 Million



Project Description: Tim is currently serving as the QC Manager for this Design-Build project that consist of the widening of approximately 12-miles of interstate. This project consists of widening northbound and southbound I-77 with an additional lane in each direction. All of the mainline bridges will be widened including several over highways and two over streams. Tim’s responsibilities include ensuring that all workmanship and materials are in compliance with the contract requirements and coordinating with the SCDOT RCE for all Quality Assurance and Independent Assurance Testing.



2. SCDOT CEI On Call – I-26 Widening – District 1, SC

Key Personnel Role: Project Manager
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project Aug 2013 - Nov 2016, Assigned Aug 2013 - Nov 2016
Owner Contact Information: SCDOT, Allen Thompson, PE | ThompsonJA@scdot.org | (803) 737-6660
Design/Construction Value: \$75 Million

Project Description: ICE provided CE&I and ITS services for this project that consisted of 21 miles of interstate widening and rehabilitation. 10 miles of the interstate were widened from 4 lanes to 6 lanes and rehabilitated for 11 miles. The project also includes the replacement of mainline bridges over CSX RR. Tim served as a Project Manager responsible for managing CEI personnel, conducting project meetings, contractors’ submittals, performing wage verification with certified payrolls, reviewing and approving DWR’s in SiteManager, reviewing traffic control and erosion control reports, updating certification logs and samples in ProjectWise, change order requests, conducting EEO Interviews, generating monthly estimates, conducting final inspections, and completing project closeout documentation.



3. SC 602/Platt Springs Road Widening Project - Lexington, SC

Key Personnel Role: Construction Manager
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project May 2010 – January 2015, Assigned 2010-2015
Owner Contact Information: SCDOT, Ashleigh Sandel | sandelag@scdot.org | (803) 737-6660
Design/Construction Value: \$21 Million

Project Description: This project consisted of widening the existing 2-lane roadway section with open ditches to a 5-lane roadway with curb and gutter, sidewalk, bike lanes, and a closed drainage system. The work also included improvements to numerous side roads that intersect with Platt Springs Road. A significant realignment was made at a 5-way signalized intersection to improve the efficiency and safety. Portions of the project were located in environmentally sensitive areas, and ICE was responsible for ensuring that the contractor's work complied with the environmental permits and current regulations. The project also included the replacement of an existing three-barrel box culvert as well as extending and/or replacing several other pipe culverts that are in live streams. Tim served as the Construction Manager, and his responsibilities included contract management, management of the CEI staff, conducting design review meetings, coordination between the contractor, SiteManager documentation, generating change orders and pay estimates, DBE and OJT tracking, and resolving issues and conflicts during construction.



4. SCDOT 13 Intersections Districts 1 and 7 – Various Locations, SC

Key Personnel Role: CEI Resident Construction Engineer (RCE)
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project May 2011 – July 2013, Assigned 2011-2013
Owner Contact Information: SCDOT, Bryan Jones, PE | JonesBL@scdot.org | (803) 737-6660
Design/Construction Value: \$17 Million



Project Description: Tim served as CEI RCE for this project which included the Design-Build of 13 intersections consisting of four Roundabouts, seven realignments with signalizations, and two realignments with stop condition. All intersections included widening to accommodate left turn lanes, drainage, ADA ramps, pavement markings and signage. All roundabouts included curb-and-gutter with closed drainage, ADA ramps, lighting, pavement markings and signs. Tim's responsibilities included contract management, management of the CEI staff, conducting design review meetings, coordination between contractor and SCDOT District Staff, utility coordination and agreements, all SiteManager documentation, generating change orders and pay estimates, DBE and OJT tracking, and resolving issues and conflicts during construction.



5. Interstate Rehabilitation on I-20 - Columbia, SC

Key Personnel Role: Resident Construction Engineer (RCE)
Experience with Current Firm: SCDOT
Project/Assignment Duration: Project October 2003 – September 2005, Assigned 2003-2005
Owner Contact Information: SCDOT, Allen Thompson, PE | ThompsonJA@scdot.org | (803) 737-6660
Design/Construction Value: \$6.5 Million

Project Description: Tim served as the SCDOT Resident Construction Engineer for the rehabilitation of 7 miles of I-20, and extending 2 deceleration ramps at Exit 70 and Exit 71. The project consisted of cross slope corrections, placing Open Graded Friction Course (OGFC), and updating the existing guardrail. Tim's responsibilities included conducting the preconstruction conference, supervision of employees performing field inspections, quality control and materials testing, change orders, maintenance of project records and processing progress payments. Project records, change orders, and monthly estimates were conducted in SiteManager.



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
Tim is currently serving as the QC Manager on the I-77 Widening & Rehabilitation (MM 15-27) Project. His assignment is scheduled to be complete in July 2018.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Jeffrey Kent Getty - Regional Safety Manager

b. Role of Key Individual for this Project:
Safety Manager

c. Name of Firm with which you are now associated:
Archer Western Construction, LLC



d. Years of Experience: With this Firm **19** Years With Other Firms **15** Years

Employment History:

Archer Western Construction, LLC | Regional Safety Manager | Jeff conducts regular safety meetings with all project personnel, performs safety inspections, and enforces compliance to industry standards. He conducts safety training, accident investigations, monitors all subcontractors' insurance compliance and general liability, and is responsible for Workers' Compensation relations. 1999 - Present

e. Education:

Board of Certified Safety Professionals CHST Certification | OTI Certified Instructor for OSHA 10-hour and 30-hour Classes | NC M.E.S.H. Certification | First Aid/CPR/A.E.D. Instructor | National Safety Council Traffic Control Instructor | Competent Person for Cranes | JLG Man Lift-Telehandler (Train the Trainer) | NUCCA Instructor for Excavation, Trenching, and Soil Mechanics | Competent Person for Fall Protection | Rigging Certification Class | MUTCD/Traffic Control Training

f. Active Registrations:
N/A

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. SCDOT I-85 Reconstruction (MM 69 – 77) – Spartanburg County, SC

Key Personnel Role: Safety Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2017-2019
 Assigned 2017-Present
Owner Contact Information: SCDOT, Joe Laws (RCE) | lawsjd@scdot.org | (864) 587-4720
Design/Construction Value: \$68 Million

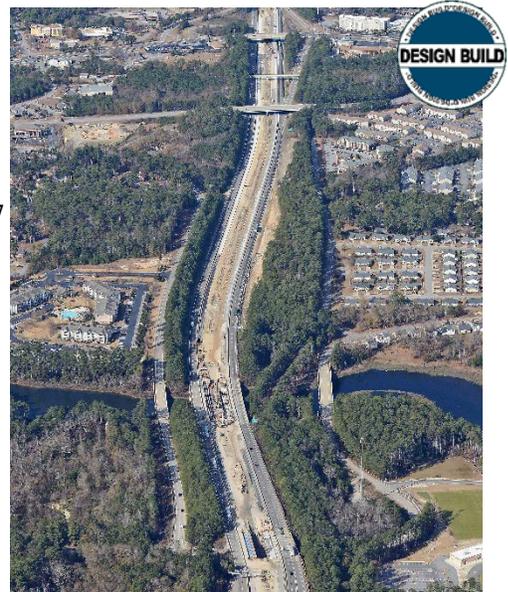
Project Description: Jeff is serving as the Safety Manager for this project which consists of the reconstruction of the existing three lanes on I-85 from MM 69.1 to MM 77.2 with Cement Modified Recycled Base (12" Uniform), Hot Mix Asphalt Surface Course Type C, and Portland Cement Concrete Paving 13" Uniform.



2. SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC

Key Personnel Role: Safety Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2015-2018
 Assigned 2016-Present
Owner Contact Information: SCDOT, John Burns | burnsjm@scdot.org | (803) 254-1007
Design/Construction Value: \$90 Million

Project Description: Jeff is serving as the Safety Manager for this Design-Build project which consists of widening NB and SB I-77 in Richland County with one additional lane in each direction beginning between SC12 (Percival Rd) and I-20 and terminating near the S-52 (Killian Rd.) interchange, a distance of approximately 6.5 miles. There are 10 total bridges along the 6.5 miles of widening that will also be rehabilitated and widened. Lastly, the project includes interstate rehabilitation along SB I-77 from Percival Rd. to S-59 (Blythewood Rd.) for 12 miles, and interstate rehabilitation along NB I-77 from Percival Rd. to Killian Rd (6.5 miles).



3. NCDOT US-158 Bascule Bridge over Pasquotank River – Elizabeth City, NC

Key Personnel Role: Safety Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2011-2016, Assigned 2011-2016
Owner Contact Information: NCDOT, Randy Midgett
rmidgett@ncdot.com | (252) 331-4860

Design/Construction Value: \$59 Million

Project Description: Jeff served as the Regional Safety Manager for this project which consisted of replacing an existing bascule bridge with a new structure, rehabilitation of an adjacent bascule bridge, installation of a new pump station, cofferdam construction, and temporary work trestle. Roadwork consisted of concrete micropiles, roadway excavation, foamed cellular concrete base, concrete pavement, storm drain, and extensive water and sanitary sewer facilities and temporary connections.



3. NC-540 Western Wake Expressway – Raleigh, NC

Key Personnel Role: Safety Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2008-2013, Assigned 2010-2013
Owner Contact Information: NCDOT, Ron Hancock, PE
rhancock@ncdot.com
(919) 707-2400

Design/Construction Value: \$468 Million

Project Description: Jeff served as the Regional Safety Manager on this project which involved the design, permitting, and construction of 12 miles of new toll road. The project included 5 million cubic yards of earthwork, construction of 34 bridges, three major interchanges, extensive reconstruction of 15 existing intersecting roadways, construction of a replacement railroad bridge for CSX, construction of new roadway and trail bridges in floodplains, approximately 100 noteworthy utility relocations, drainage, SWM facilities, and MSE/sound walls.



5. Jones Branch Connector over I-495 – Fairfax County, VA

Key Personnel Role: Safety Manager
Experience with Current Firm: Archer Western Construction, LLC
Project/Assignment Duration: Project 2016-2019, Assigned 2017-present
Owner Contact Information: VDOT, Tom Guena (VDOT Representative) |
tguena@mckimcreed.com | (910) 343-1050

Design/Construction Value: \$40 Million

Project Description: Jeff is serving as the Regional Safety Manager for this project which consists of a new four-lane road and bridge that will be constructed from the I-495 Express Lanes/Jones Branch Drive interchange to Scotts Crossing Road. Improvements will also be made along the access road from Jones Branch Drive to the I-495 Express Lanes and Scotts Crossing Road.



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Jeff is currently serving in the role of Regional Safety Manager and will be available when this project begins.



Appendix B

Work History and Quality Forms

[\(Click each project to link to corresponding document\)](#)

Contractor:

1. I-85 (SR 403 and 34) Widening and Interchange Improvements (AWC)
2. I-95 DB Overland Bridge (AWC)
3. I-95 Widening (including interchanges at I-4 and US 92) (AWC)
4. NC-540 Western Wake Expressway (AWC)
5. Bobby Jones Expressway I-20 and I-520 Interchange (UIG)

Designer:

1. I-77 Widening & Rehabilitation (MM15-27) (ICE)
2. I-85 Widening Project (MM80-96) (ICE)
3. US 17 Johnnie Dodds Boulevard (ICE)
4. SR 400 Widening (ICE)
5. I-40 Widening and Signing (RK&K)



WORK HISTORY AND QUALITY FORM - CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify AWC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by AWC (in thousands)
Name: I-85 (SR 403 and 34) Widening and Interchange Improvements Location: Newnan, GA	Name: R.K. Shah and Associates	Name of Owner: GDOT Project Manager: Mr. Jeremy Daniel Phone: 706.646.6108 Email: jdaniel@DOT.gov	Construction: June 2010 Design: March 2005	\$213,227	\$138,450

g. Narrative describing the work performed by AWC. If submitting work completed by an affiliated or subsidiary company of AWC, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Archer Western was the Prime Contractor on this 14.3 mile long widening project This project's scope of work includes **14.3 miles of widening for additional lanes** of I-85 in Coweta and Meriwether counties. The project involved widening I-85 one lane in each direction as well as placing asphalt and continuously reinforced concrete pavement over the existing concrete pavement. The projects included a total of 1,436,640 square yards of 10- to 12-inch thick concrete paving. The **bridgework included the removal and replacement of two overpasses;** construction of a new bridge over SR 34; jacking and substructure modifications to three bridges; and partial removal, bridge jacking, widening, and superstructure reconstruction of 12 mainline bridges. The **project also included 42,610 lf of concrete barrier wall** and 61,931 lf of storm drain.

- RELEVANCE:**
- ✓ Interstate Widening
 - ✓ Interstate MOT
 - ✓ Interchange Bridge work
 - ✓ Asphalt/concrete Paving
 - ✓ Utility Coordination & Relocation
 - ✓ Significant Barrier wall
 - ✓ Major Drainage system work



Key Individuals: None

h. Self-Assessment. The information provided in this section should be a self-assessment of AWC's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

At the time, this was GDOT's largest contract which AWC delivered on time, on budget and with **zero claims**.

The project was divided into three (approximate five mile) segments, each with its own supervisory staff providing greater oversight and the ability to plan for, recognize, and react to potential issues. The work was phased within each segment with staggered starts for the various disciplines allow for resources to be balanced across the entire project.

AWC self-performed all of the items of work that were on the critical path (concrete paving, bridge jacking and widening, storm drainage, concrete barrier wall). This provided greater schedule and quality control contributing to the project's on time delivery.

i. Quality Initiatives. Discuss AWC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The project was constructed under a two phase MOT plan with traffic being placed in its final configuration after phase 2. By reducing the number of phases, the impacts to traffic were also reduced.

The work zone was separated from traffic by a temporary concrete barrier which provided a safer environment for both the traveling public and the workers. It also allowed for counterflow construction traffic improving productivity and therefore reducing cost and construction time.

The productivity of our concrete paving operations was greatly enhanced through a strategy of relocating the batch plant based on a centralized location to the paving operations. The relocation occurred during the months in which paving was shutdown (winter). By relocating the batch plant haul distances were reduced, the number of trucks required was reduced and pour production was increased, thereby reducing cost and time to the overall project.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, AWC shall provide a detailed explanation below.

Not Applicable



WORK HISTORY AND QUALITY FORM - CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify AWC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by AWC (in thousands)
Name: I-95 DB Overland Bridge Location: Jacksonville, FL	Name: RS&H	Name of Owner: FDOT Project Manager: Mr. Kenneth Hill Phone: 904.360.5563 Email: Kenneth.hill@dot.state.fl.us	Construction: February 2018 Design: October 2015	\$176,489	\$114,718

g. Narrative describing the work performed by AWC. If submitting work completed by an affiliated or subsidiary company of AWC, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Archer Western was the Design Builder and Prime Contractor on this 2.5 mile long widening and reconstruction project. This project consists of the design and construction for the replacement of the I-95 Overland Bridge in Jacksonville, Florida. Improvements within the project limits include the reconstruction of I-95, reconstruction of the southbound Collector/Distributor (CD) Road, construction of a new northbound CD Road, construction to convert a partial interchange to a full interchange providing all traffic movements between I-95, Atlantic Boulevard and Philips Highway, and the realignment of Atlantic Blvd. in the vicinity of I-95. The improvements also include the construction of 12 new bridges (including third level flyovers) and 3 bridge widenings. The roadway reconstruction is concrete pavement, and includes substantial MSE walls and complex multi-phase maintenance of traffic plan.

- RELEVANCE:**
- ✓ Design-Build
 - ✓ Interstate Widening
 - ✓ Multi-phase MOT
 - ✓ Interchange Bridge work
 - ✓ Asphalt/concrete Paving
 - ✓ Utility Coordination & Relocation
 - ✓ Significant Barrier wall
 - ✓ Major Drainage system work
 - ✓ High traffic in urban setting



Key Individual: None

h. Self-Assessment. The information provided in this section should be a self-assessment of AWC's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

This is FDOT District 2's most visible design-build project which AWC delivered on time, on budget and with **zero claims**.

The project was segmented by disciplines (Structure, Roadway, Civil), each with its own supervisory staff providing greater oversight and the ability to plan for, recognize, and react to potential issues.

AWC self-performed all of the items of work that were on the critical path (concrete paving, bridge reconstruction/widening, storm drainage, concrete barrier wall). This provided greater schedule and quality control contributing to the project's on time delivery.

i. Quality Initiatives. Discuss AWC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Through the ATC process the MOT sequence was improved to reduce the number of traffic shifts, a redesigned interchange reduced the overall project schedule, and a focus on minimizing impacts to the mainline I-95 traffic was instituted.

The work zone was separated from traffic by a temporary concrete barrier which provided a safer environment for both the traveling public and the workers.

During pre-award development of the project, the design-build team developed numerous innovations through the Alternative Technical Concept (ATC) process that resulted in significant schedule and cost savings. Innovations included:

- ✓ A ramp alignment switch that eliminated an 800-foot-long bridge, reduced thousands of vehicular weave movements, and improved ramp geometry and stopping sight distance.
- ✓ Restacking of the US 90/US 1 interchanges, which simplified and reduced construction phasing and MOT operations, eliminated a 500-day utility relocation outage, and significantly reduced MSE wall height.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, AWC shall provide a detailed explanation below.

Not Applicable



WORK HISTORY AND QUALITY FORM - CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify AWC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by AWC (in thousands)
Name: I-95 Widening (including interchanges at I-4 and US 92) Location: Daytona Beach, FL	Name: GAI	Name of Owner: FDOT Project Manager: Mr. Ron Meade Phone: (386) 740-3401 Email: Ron.Meade@dot.state.fl.us	Construction: October 2018 Design: December 2015	\$230,028	\$156,419

g. Narrative describing the work performed by AWC. If submitting work completed by an affiliated or subsidiary company of AWC, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Archer Western was the Design Builder and Prime Contractor on this 14 mile long widening and reconstruction project. This project consists of widening the existing 4-lane I-95 to a 6-lane interstate highway, from north of FL SR-44 to north of US 92 and tie to the on-going project to the south. Work includes reconstruction of the systems interchange with I-4 and US 92, safety improvement on the SB exit ramp to FL SR-44, pavement widening/reconstruction, drainage system improvements, over 20 bridge replacements, retaining walls, highway lighting, ITS system modifications, median barriers, signing, pavement markings, signalization and milling and resurfacing.

Key Individuals: None

- RELEVANCE:**
- ✓ Design-Build
 - ✓ Interstate Widening
 - ✓ Multi-phase MOT
 - ✓ Interchange Bridge work
 - ✓ Asphalt/concrete Paving
 - ✓ Utility Coordination & Relocation
 - ✓ Significant Barrier wall
 - ✓ Major drainage system work



h. Self-Assessment. The information provided in this section should be a self-assessment of AWC's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

Archer Western is delivering this project on time, on budget and with **zero claims**.

The project was divided into three (approximate four mile) segments, each with its own supervisory staff providing greater oversight and the ability to plan for, recognize, and react to potential issues. The work was phased within each segment with staggered starts for the various disciplines allow for resources to be balanced across the entire project.

AWC self-performed all of the items of work that were on the critical path (concrete paving, bridge replacement/widening, storm drainage, concrete barrier wall). This provided greater schedule and quality control contributing to the project's on time delivery.

i. Quality Initiatives. Discuss AWC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The project was constructed under a two phase MOT plan with traffic being placed in its final configuration after phase 2. By reducing the number of phases, the impacts to traffic were also reduced.

The work zone was separated from traffic by a temporary concrete barrier which provided a safer environment for both the traveling public and the workers.

A formal partnering process was instituted at the beginning of the project and it proved extremely successful. Quarterly project meetings were followed up with executive meetings to enhance communication and verify the project was progressing satisfactorily from everyone's perspective.

One of the project's new bridges spans an environmentally sensitive wetland (Spruce Creek). Knowing the permit for access and construction could impact the schedule, the design for this structure was accelerated allowing the permit to be submitted while the other structures were still in design. The project sequence was also structured to remove the construction of this bridge from the critical path.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, AWC shall provide a detailed explanation below.

Not Applicable



WORK HISTORY AND QUALITY FORM - CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify AWC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by AWC (in thousands)
Name: NC-540 Western Wake Expressway Location: Raleigh, NC	Name: Michael Baker (Formerly LPA Group)	Name of Owner: NCDOT Project Manager: Mr. Ron Hancock, PE Phone: 919.707.2400 Email: rhancock@ncdot.com	Construction: July 2013 Design: August 2010	\$468,830	\$337,557

g. Narrative describing the work performed by AWC. If submitting work completed by an affiliated or subsidiary company of AWC, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Archer Western was the majority partner (60%) in the Raleigh Durham Roadbuilders Joint Venture as the Design-Build and Prime Contractor of this new toll road. The NC-540 Western Wake Expressway is a new 12.6 mile, six lane, median-divided toll road in Raleigh, NC. The project scope included design, permitting, and construction through 72 environmentally sensitive wetland areas. The roadway scope included the six-lane mainline, 14 crossroads, ramps, loops, auxiliary lanes, collector-distributors, and service roads. The services scope **included ROW acquisition services**, environmental permitting through multiple agencies, and utility relocations with multiple companies. The project featured **34 new bridges**, which included **three major interchanges**.

- RELEVANCE:**
- ✓ Design-Build
 - ✓ Same Project Manager (Dave Moyar)
 - ✓ New Interchanges
 - ✓ Asphalt/concrete Paving
 - ✓ Utility Coordination & Relocation
 - ✓ Extensive R/W Acquisition and Relocations



Key Individuals also assigned to I-26 Widening: Dave Moyar, Project Manager, 2010-2013 | Jeff Getty, Safety Manager, 2010-2013 | Elham Farzam, PE, Principal In Charge, 2009-2013 | Michael Valiquette, PE, NCDOT Geotechnical Engineer, 2009-2013.

h. Self-Assessment. The information provided in this section should be a self-assessment of AWC's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

The original plan called to open to traffic the entire 14.3 miles upon completion. AWC revised the work plan and delivered and opened the northern half of the project 12 months early. The remainder of the project was opened to traffic on the original completion date. The project was delivered on budget with **zero claims**. Additionally, the project earned the following awards from various industry associations:

- 2014 Carolinas AGC Pinnacle Award
- 2013 ACEC Excellence Award
- 2014 ACPA Excellence in Concrete Paving, Gold Award
- 2012 Southeastern Association of State Highway and Transportation Officials Award for the "On Time" category
- 2012 Carolinas AGC Pinnacle Award for Best Highway Project
- NCDOL GOLD award for safety



AWC's NC-540 Western Wake Project was awarded the "Safety Leadership Award," which is presented to the project that best represents a team philosophy of— "No one gets hurt."

The Project Environmental Management Team partnered with NCDNER and the NCDOT Roadside Environmental Unit, to review the project environmental controls for wetland identification and planned erosion control measures, and implemented new policies and procedures that have subsequently been installed as statewide standards and the model for large design-build project construction.

i. Quality Initiatives. Discuss AWC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Due to the extensive nature of the ROW acquisition on this project, AWC put in place a dedicated ROW task team focused on identifying, prioritizing, and clearing the necessary parcels to maintain the project schedule. Members of the NCDOT ROW office attended weekly meetings to review the priority list and report on the acquisition status. This process allowed for an early start of construction followed by a logical approach to acquiring the need parcels without overwhelming the NCDOT's system.

A formal partnering process was instituted at the beginning of the project and it proved extremely successful. Quarterly project meetings were followed up with executive meetings to enhance communication and verify the project was progressing satisfactorily from everyone's perspective. Dedicated Utility Coordinators during both the design and construction phases provided utility companies with a single point of contact and easier access to project information regarding schedules, sequencing, and required relocations necessary to maintain construction progress. A Utility Task Team was the forum used to convey project information and coordinate the work for the over 300 separate utility relocations. This effort was instrumental in keeping utility relocations off of the critical path.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, AWC shall provide a detailed explanation below.

Not Applicable

WORK HISTORY AND QUALITY FORM - CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify UNITED's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by UNITED (in thousands)
Name: Bobby Jones Expwy I-20 & I-520 Interchange Location: Augusta, GA	Name: GDOT	Name of Owner: GDOT Project Manager: Mr. Jimmy Smith, PE Phone: 478.552.4601 Email: jismith@dot.ga.gov	Construction: October 2009 Design: April 2006	\$192,000	\$135,800

g. Narrative describing the work performed by UNITED. If submitting work completed by an affiliated or subsidiary company of UNITED, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Project Description: This complex urban interchange improvement and interstate widening project involved 5 significant bridges, 7 miles of roadway widening/construction, and reconstruction of I-20/I-520 interchange including 3,655 LF/234,000 SF of bridge, 200,000 SF of retaining/sound walls at 21 locations, 300,000 SY of concrete pavement, and 300,000 Tons of asphalt pavement. Value engineering and innovative scope management saved GDOT over \$4 million and project was completed 9 months ahead of schedule and under budget with no claims, disputes, or violations despite very limited work space and located near several environmentally sensitive wetlands and streams leading into Augusta National Golf Course.

- RELEVANCE:**
- ✓ Interstate Widening
 - ✓ Interstate MOT
 - ✓ New Interchange
 - ✓ Asphalt / Concrete Paving
 - ✓ Utility Coordination
 - ✓ Environmental Analysis



Key Individuals: Sam Stutt, Senior Project Manager, 2005-2009

h. Self-Assessment. The information provided in this section should be a self-assessment of UNITED's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

UNITED was a 50% Joint Venture Partner with Scott Bridge Company of Opelika, AL on this project. UNITED's was the managing partner and provided Project Management of the entire Project. In addition to the Project Manager and his administrative Staff, eight individual UNITED specialists were assigned to schedule, manage and ensure quality for Grading and Drainage, Erosion Control, Traffic Control, Paving(Asphalt and Concrete), and Specialty Subcontractors. UNITED's Management Team's use of CPM scheduling, mandatory Subcontractor Preconstruction Conferences, and weekly safety/scheduling/quality meetings with GDOT resulted in completing the Project nine months early. Further monthly High points of superior management include:

- **JV earned a \$5.2 million early completion bonus.**
- **Outstanding worker safety results.**
- **All third Party Claims resolved without litigation and NO cost incurred by GDOT.**
- **The GDOT and the Scott/United Joint Venture completed the project with no unresolved issues or claims.**

i. Quality Initiatives. Discuss UNITED's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

This was a Bid-Build Project so cost controls were primarily controlling contractor's cost. UNITED did however, manage quantities such as asphalt thickness to ensure cost overruns to GDOT did not occur. Again since this was Bid Build, there was a MOT and Phasing Plan provided by GDOT. UNITED's project management team used Value Engineering and innovation to change many of the planned phases. These Phase changes improved productivity, improved safety to the travelling public, and reduced the time that traffic was in a "detour" type pattern. This innovative approach to phasing and MOT is directly responsible for completing the Project ahead of schedule and minimizing third party claims. In addition to the weekly meetings mentioned above section, a safety, quality and scheduling preconstruction conference, with GDOT participation, was conducted for each subcontractor before their work commenced. As relates to quality issues arose during construction, they were assigned a priority code with deadlines. UNITED's individual sub managers were held accountable for timely correction. On the Safety Front, each newly arrived worker received site specific safety training before they were allowed to work. Another successful initiative was the use of a Safety Leadership Team concept. These monthly meeting, with GDOT participation resulted in superior worker safety results and provided additional eyes and ears to address traffic control

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, UNITED shall provide a detailed explanation below.

Not Applicable

WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: I-77 Widening & Rehab. (MM 15-27) Location: Richland County, SC	Name: Archer Western Construction, LLC	Name of Owner: SCDOT Project Manager: Mr. Tyke Redfearn, PE Phone: 803.737.1430 Email: redfearnwt@scdot.org	Construction: July 2018 Design: March 2017	\$90,000	\$5,412 (Design) + \$910 (QC Inspection)

g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: ICE is the Lead Design Firm for this 12-mile interstate widening and pavement rehabilitation design-build project. This project consists of widening northbound and southbound I-77 with an additional lane in each direction from MM 15 to MM 22 (7 miles) including the widening of the mainline bridges (5 dual bridges) including two stream / lake crossings. In addition, I-77 travels below two existing railroad bridges and the widening through this area must be designed and constructed to minimize impacts to those bridge piers and foundations.

Roadway Design: ICE was responsible for preparing roadway geometric design for the project using the design standards and criteria based on design speed, functional classification, design traffic volumes, right-of-way, and aesthetics. Construction Phasing/MOT is one of the most critical aspects of the project because of the high volume of traffic on I-77. A comprehensive Traffic Control Plan / MOT was developed by the Roadway Design Team. This Plan was developed in concert with the Construction personnel during both the procurement and final design phases.

Structural Design: ICE's Structural Design Team was responsible for evaluating the existing bridges and embankments to determine any required enhancements to the existing structures that may be required to meet SCDOT's scope requirements. There are five pairs of mainline bridges to be widened. Additionally, ICE designed the two (2) Median Access Ramp (MAR) at Edgewater and Windsor Lake Blvd. used for delivery of material in the median.

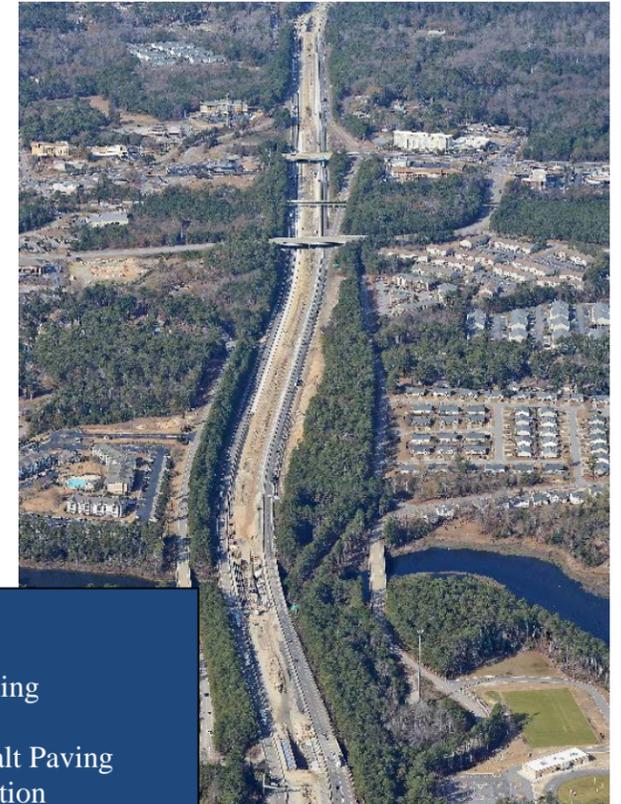
Hydro Design: The hydraulic design includes analyzing four detailed FEMA flood study stream crossings, as well as seven miles of Geopak Drainage design associated with the highway drainage. HDS#5 and XPSWMM are being used to analyze cross pipes. Erosion Control is being designed, as well as water quality BMPs due to 303D watersheds on a portion of the project.

Utilities & Railroad Coordination: Extensive utility coordination was necessary with utility owners of commercial, industrial, and residential land uses. The Design Team identified all utility conflict points and designed the Project to avoid conflicts with utilities where possible, and minimize impacts where conflicts cannot be avoided.

Quality Control: QC inspectors travel to the location of the material production site and perform QC tests and inspections at the producer's facility. Upon completion of all tests, the Quality Control Manager verifies the results are transmitted to the RCE, Quality Acceptance, and Independent Assurance Manager.

Office Location where the Work was Performed: Columbia, SC (ICE's Corporate Headquarters)

Key Individuals: Dave Moyar, Operations Manager, 2016 – Present | Jeff Getty, Safety Manager, 2016 – Present | Elham Farzam, PE, Design Manager and Sr. Pavement Engineer, 2015-2017 | Freddy Kicklighter, PE, Lead Roadway Engineer, 2015-2017 | Preston Felkel, PE, Lead Structural Engineer, 2015-2017 | Michael Valiquette, PE, Geotechnical Engineer, 2016-2017 | Jonathan Scarce, PE, Hydraulic Engineer, 2015-2017 | Tim Antley, Quality Control Manager, 2016- Present.



- RELEVANCE:**
- ✓ Design-Build
 - ✓ Interstate Widening
 - ✓ Interstate MOT
 - ✓ Extensive Asphalt Paving
 - ✓ Utility Coordination
 - ✓ Permitting
 - ✓ Environmental Compliance

h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC's performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

The design of the Project was completed 3 months ahead of the schedule by end of December 2016 and with the USACE permit and SCDHEC NOI permit in hand, enabled AWC to start construction 3 months earlier than planned. The design of non-critical path bridges followed and all completed by March 2017. There are no existing or pending claims, disputes or litigation/arbitration on this Project.

i. Quality Initiatives. Discuss ICE, PLLC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Quality Initiatives included: a) **Schedule Control** measures put in place on the outset and monitored on a minimum of weekly basis by the D-B Coordinator / Pre-Construction Manager (Andy Gillis). He acted as the schedule Czar and ensured every one met their pre-agreed upon deliverable dates, b) **QC/QA of Design** – All submittals went through a comprehensive QC review by the production squads and disciplines, followed by the QA Quality Review Team by ICE (Peter Graf (structures), Larry Cook (Roadway), Jonathan Scarce (Hydro) and Michael Valiquette (Geotech), and, c) **Constructability Reviews** - AWC's management (Christie and Pozzi) provided over the shoulder constructability reviews of all submittals prior to submittals to SCDOT.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable

WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: I-85 Widening Project (MM 80 to 96) Location: Spartanburg and Cherokee Counties, SC	Name: Blythe/Zachry, Joint Venture	Name of Owner: SCDOT Project Manager: Mr. Brad Reynolds, PE Phone: 803.737.3081 Email: ReynoldsBS@scdot.org	Construction: October 2021 Design: December 2017	\$435,000	\$4.8 Million (DB Prep, NEPA & DB Plan Reviews)

g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: As the lead design firm, ICE was responsible for managing the engineering services necessary for development of the Environmental Assessment and Design-Build preparation for widening approximately 18 miles of interstate. The Columbia, SC office performed all of the services on this Project. Along the approximately 18-mile project area, interchanges at Exit 83 – Battleground Road (SC 110), Exit 87 – Green River Road (S-39), Exit 95 – Pleasant School Road (S-82), and Exit 96 – Shelby Highway (SC 18) will be modified to bring them into compliance with state and federal design requirements. The project also included adding a travel lane in each direction, improving various interchanges and exit ramps, and replacement of overpass bridges. This project was separated into three sections. ICE was responsible for the bridge/structure design, hydrology design, and roadway design in Segment 3.



Project Management | ICE was responsible for the project organization, management, scoping, and coordination with SCDOT, FHWA, and municipalities. ICE also coordinated public meetings and development of displays. ICE provided budget, schedule, and expenditure reports to SCDOT. ICE also managed subconsultants who performed the tasks required to deliver the preliminary road and bridge plans, environmental documents, and traffic studies.

Bridge/Structure Design | ICE identified and analyzed bridge replacement alternatives and developed the conceptual bridge plans. The bridge construction staging was also included. ICE provided conceptual level and detailed cost estimates for each bridge and performed bridge inspections in order to direct the Contractor to repair the bridge as needed in the Design-Build RFP.

Hydrology Design | The hydrology design for this project involved the analysis and preliminary sizing of all cross line structures with the use of HY8 and XPSWMM. Downstream structures were analyzed as well due to pre/post concerns from the interstate widening. Several major streams were analyzed to evaluate the degree of FEMA involvement.

Roadway Design | This task required providing the preliminary roadway plans including interchange design, providing cost estimates, identifying preliminary right-of-way requirements and environmental impacts, developing roadway design criteria, and completing any necessary design exception documentation.

Utility Coordination | A preliminary utility report was developed to include major utility and utility easements within the project limits, recommendations to the extent of prior rights, assessment of utility impacts and costs associated with impacts and feasibility of early utility relocations.

Office Location where the Work was Performed: Columbia, SC (ICE's Corporate Headquarters)

Key Individuals: Freddy Kicklighter, PE, Project Manager, 2014-2016 | Preston Felkel, PE, Lead Structural Engineer, 2014-2016 | Jonathan Scarce, PE, Hydraulic Engineer, 2014-2016.

RELEVANCE:

- ✓ Design-Build
- ✓ Interstate Widening
- ✓ Interstate MOT
- ✓ Interchange Modernization
- ✓ Asphalt Paving
- ✓ Utility Coordination
- ✓ Environmental Analysis

h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC's performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

ICE managed the work of nine subconsultants on this assignment, including three major subconsultants including Mead & Hunt, STV and Three Oaks. ICE Leadership committed to SCDOT the completion of the NEPA Document and DB RFP package in time for SCDOT's procurement in February 2016. The original professional services agreement included NEPA Document, Preliminary Design, and support during the Design-Build procurement phase for approximately \$6 Million. After 16 months of planning, environmental analysis, and completion of the Preliminary Plans, the contract budget was decreased by \$1 Million, which was the direct result of effective management and attention to details by ICE Management Team. All deliverables were submitted on time per the established schedule. There are no existing or pending claims, disputes, or litigation/arbitration on this Project.

i. Quality Initiatives. Discuss ICE, PLLC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Quality Initiatives included: a) *Schedule and Cost Control* measures put in place on the outset and monitored on a minimum of bi-weekly snap shot as well as weekly status meeting to make sure everyone stayed on the project schedule and specifically no critical path activity was impacted by delays or indecision, b) *QA/QC of Design* - the EA was signed on October 19, 2015 (less than 12 months) allowing SCDOT to begin the DB procurement of the project. This was made possible only by implementation of a robust QA/QC program for the deliverables on the project including but limited to NEPA document, alternative analysis, impact analysis, "preferred option" Preliminary Design plan preparations, Stormwater Management Report, and Conceptual Bridge Plans, c) Working closely with SCDOT and resource agencies to meet this aggressive schedule for an 18-mile widening project with four interchanges. There are no claims and no litigation because of ICE services to date.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC’s responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: US 17/Johnnie Dodds Boulevard Improvements Location: Mount Pleasant, SC	Name: Banks / United, JV	Name of Owner: Charleston County Project Manager: Steve Thigpen, PE Phone: 843.202.6146 Email: sthigpen@charlestoncounty.org	Construction: March 2013 Design: March 2011	\$63,500	\$6,187 (Design & QC fees)

g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: The Johnnie Dodd’s Boulevard Improvements Project was constructed along U.S. Route 17, known locally as Johnnie Dodd’s Boulevard in Mount Pleasant, South Carolina. ICE was the Lead Design Firm for this project, and the design work was performed in the North Charleston, SC office. The project consisted of approximately 3.5 miles of mainline improvements and upgrades to associated frontage roads and side streets. The project began north of the Arthur J. Ravenel, Jr. Bridge and extended south of I-526. The existing Johnnie Dodd’s Boulevard was widened from two lanes to three lanes in each direction including curb and gutter. The frontage roads were widened to provide one lane in each direction with 4-foot wide, marked bike lanes including curb and gutter and sidewalk. A grade separated interchange carrying Johnnie Dodd’s Boulevard over Bowman Road with three lanes in the southbound direction and two lanes in the northbound direction was also constructed together with widening of Bowman Road to six lanes under Johnnie Dodd’s Boulevard with transitions to the proposed lane configurations and improvements to frontage road intersections with side roads. The project has also extended street light and landscaping along the median and frontage road system to strengthen the aesthetic quality of the Project.



Awards:

- ✓ *ACEC 2012 Engineering Excellence Award.*
- ✓ *National ACEC Engineering Excellence Award*

Office Location where the Work was Performed:

Charleston, SC (ICE’s North Charleston Branch office)

Key Individuals: None

RELEVANCE:

- ✓ Design-Build
- ✓ Major Widening (54,000 ADT)
- ✓ New Interchange
- ✓ Complex MOT Scheme
- ✓ Extensive Asphalt Paving
- ✓ Utility Coordination
- ✓ Extensive R/W Acquisition and Relocations
- ✓ Permitting & Environmental Compliance



h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC’s performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

The project was completed prior to the scheduled completion date and within budget. This was accomplished by a team that has successfully managed a number of design-build projects. The team was able to overcome several difficult obstacles, including utility coordination and relocations, traffic control challenges, and environmental concerns. By closely monitoring all areas, we were able to minimize potential delays and avoid costly overruns, as well as avoiding any legal actions. There were businesses and residential properties for the entire 3.5 miles of Hwy 17 as well as the frontage roads on each side. The majority of the road work was performed at night with close communication with Charleston County, City of Mount Pleasant and the SCDOT. A major traffic shift was performed to allow room to construct the Bowman Road Bridge.

i. Quality Initiatives. Discuss ICE, PLLC’s quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Quality Initiatives included: a) **Schedule Control** measures put in place on the outset and monitored on a minimum of weekly basis by the D-B Coordinator / Pre-Construction Manager (Andy Gillis). He acted as the schedule Czar and ensured every one meet their pre-agreed upon deliverable dates, b) **QC/QA of Design** – All submittals went through a comprehensive QC review by the production squads and disciplines, followed by the QA Quality Review Team by ICE and, c) **Constructability Reviews** - JV management (Randy Snow, Jim Ewart and Billy Hardwik) provided over the shoulder constructability reviews of all submittals prior to submittals to County and SCDOT.

j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: SR 400 Widening Location: Forsyth County, GA	Name: CW Matthews Contracting Co, Inc.	Name of Owner: GDOT Project Manager: Mr. Andrew Hoeing, PE Phone: 404.631.1757 Email: ahoenig@dot.ga.gov	Construction: October 2018 Design: March 2016	\$47,470	\$1,966

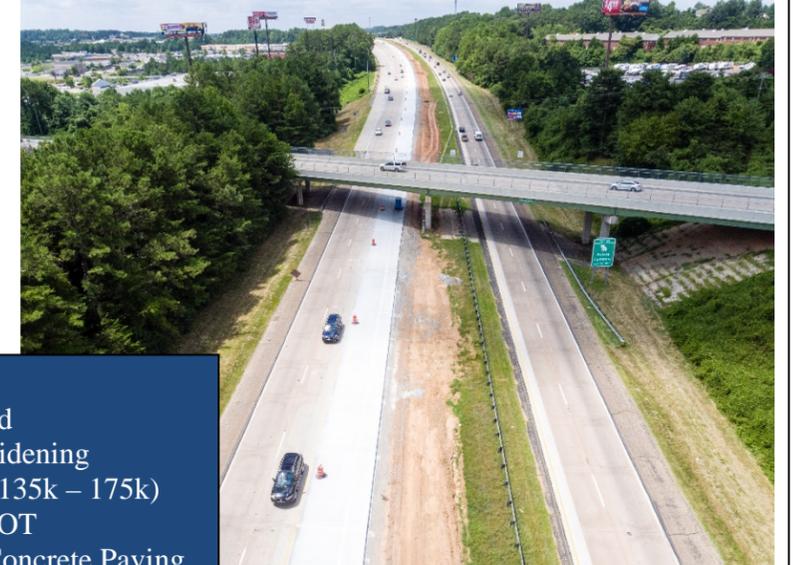
g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: This project consists of widening of approximately 13 mile section of the SR 400 from a 4-Lane facility to a 6-Lane facility with ADT ranging from 135,000 to 175,000. The Project limit is from McFarland Pkwy. to SR 369. The typical section consists of both concrete and asphalt travel lanes, full-width shoulders, and a depressed median. As part of the project, the SR 400 bridges over Big Creek and Sawnee Creek (Lake Lanier) require widening. The bridge over Big Creek required the preparation of a hydraulic study as well as FEMA coordination.

The design-build team used a phased approach to designing and constructing the project so that design efforts could be focused on critical path items first in order to keep the project moving. One example of this technique is that construction began on segment 1 grading and paving while bridge plans for segment 1 were still being finalized. In order to keep the design of the project moving forward early in the design, the survey for the project was obtained and provided back to the design team in 2 mile increments. The team also coordinated regularly with GDOT on environmental impacts as the documents were being prepared. The design-build team had regular and open communications with the Department on different design challenges, including workshops for MS4 compliance, revisions to erosion control BMP standards and other construction standards, and Army Corp of Engineer permit documentation. This approach ensured the latest design was incorporated into the environmental documents, and that no re-evaluations would be required for portions of the project previously cleared. The design-build team also used a phased NOI approach for the preparation of the ESPCP for this project. Phasing the NOI on the project not only provided flexibility in the design packages of the project, but also allowed for the incorporation of additional scope throughout the life of the project without the need for major revisions to the submitted NOI.

Office Location where the Work was Performed: Norcross, GA (ICE's Norcross, GA branch location)

Key Individuals: None



- RELEVANCE:**
- ✓ Design-Build
 - ✓ Interstate Widening
 - ✓ High ADT (135k – 175k)
 - ✓ Interstate MOT
 - ✓ Asphalt & Concrete Paving
 - ✓ Utility Coordination
 - ✓ Environmental Compliance

h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC's performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

The contract required the design-build team to begin construction by November 1, 2015, only 5 months after NTP. As a result of ICE's effective management, our Team was able to complete a full survey database, and perform BFIs on the first segment of the project, approximately 3.5 miles in length, as well as complete final plans for this segment to allow the contractor to begin work by the November 1st deadline. All deliverables were submitted on time per the established schedule. There are no existing or pending claims, disputes or litigation/arbitration on this Project.



i. Quality Initiatives. Discuss ICE, PLLC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The design process was accelerated to allow for construction to begin on this critical project within 5 months of award. The project was let on April 24, 2015, Notice To Proceed for design (NTP 1) was provided on June 1, 2015, and the first set of 'Released For Construction' plans were completed by October 19th, 2015, less than 5 months after NTP. The GEPA document was approved July 29, 2015, one week ahead of schedule per the DB contract. Developing these plans included collection of survey data, obtaining no-conflict letters from utilities, clearing the environmental document, and preparing full Erosion Control Plans for processing the NOI. All deliverables underwent a thorough internal Quality Control Review prior to submittal to GDOT. This Robust QC program ensured the deliverables could be approved with minimum comment resolution periods. The design requirements were optimized for this project in order to maximize the dollars spent on additional paving. For its innovative approach accelerating the preconstruction phase of the project, the Design-Build Team of CWM and ICE recently received the

ACEC 2016 GPTQ Preconstruction Grand Prize Award.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable



WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify RK&K's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by RK&K (in thousands)
Name: I-40 Widening and Signing Design-Build Location: Wake County, NC	Name: S.T. Wooten Corporation	Name of Owner: NCDOT Project Manager: Ms. Teresa Bruton, PE Phone: (919) 707-6610 Email: tbruton@ncdot.gov	Construction: June 2011 Design: June 2011	\$49,000	\$49,000

g. Narrative describing the work performed by RK&K. Include the office location(s) where the design work was performed and whether RK&K was the lead designer or a sub-consultant.

Project Description: As Lead Designer of this design-build project, RK&K was responsible for designing and improving 6.4-miles of one of the most heavily congested facilities in the Raleigh area. In the efforts to reduce congestion and improve traffic flow, this project required innovation, complex traffic control, and an aggressive design and construction schedule. Highway/Roadway Design: I-40, known as the Triangle's "Main Street", is also a critical freeway. Traffic volumes exceeded 150,000 per day, which is far above the capacity of a freeway in this area, and leading to an evening rush hour that can last for three hours eastbound. RK&K's design efforts consisted of widening I-40 from west of Wade Avenue to east of Jones Franklin Road from a four-lane divided roadway to a six-lane divided facility. This rolling urban freeway with a 70-mph design speed included the following roadway improvements:

- The Design of one 12-foot wide lane in each direction of I-40 expanding the interstate from four to six lanes.
- A 12-foot wide paved shoulder was added in each direction. These shoulders were built to the same depth as the roadway, which will allow for easier expansion of the highway in the future. Median guiderail and guardrail was installed throughout the project and guardrail was replaced on the outside shoulders.
- At the eastbound I-40/Wade Avenue split, the roadway was expanded to provide three lanes for I-40 from the current two lanes and the right acceleration lane from Harrison Avenue will continue to Wade Avenue.



Pavement Markings and Signing: As a heavily traveled urban facility, special attention was focused on signing and pavement markings. I-40 shield pavement markings were placed within the I-40 through lanes prior to Harrison Avenue and at two locations prior to the Wade Avenue split. Signing also included the design and Installation of dynamic message signs on I-40 westbound between Lake Wheeler Road and Gorman Street and there were sign adjustments to ease motorist confusion.

Intelligent Traffic Systems: RK&K was responsible for the design of ITS communications cable routing plans, CCTV cameras, and ITS. This project ties directly into the Traffic Regional Transportation Management Center (TRTMC).

Innovations: One of the many innovations included installing two conveyer belt systems to transport stone and asphalt to the median area. The use of the conveyors eliminated 237 lanes closures and nearly 12,000 truckload trips that otherwise would have been utilizing the I-40 travel lanes.

Hydraulic Design: RK&K provided hydraulic design and erosion control services including the design of two stormwater Best Management Practices (BMPs) within the I-40\US-1 (Crossroads) interchange. The two extended dry detention ponds with under drain systems were added to the project as part of NCDOT's efforts to provide stormwater retrofits throughout the state to ensure compliance with their NPDES permit.

Bridge Design: Structural Engineering: Structures were designed for the bridge widening at Wade Avenue and US 1 / 64, as well as two sound barrier walls. The bridges carrying I-40 over Wade Avenue and U.S. 1/64 were also widened to carry the traffic capacity of eight lanes.

Utilities: RK&K was responsible for the identification of conflicting utilities, coordination of Level "A" SUE data and management of utility coordination efforts. Utility design included the design and permitting of water services for the construction office and asphalt plant facilities.

Office Location where the Work was Performed: Raleigh, North Carolina

Key Individuals: Keith Skinner, PE, Assistant Design Project Manager; Brandon McInnis, PE, Roadway Design Manager; David Peterson, PE, Structure Design Manager; Tina Swiezy, Hydraulics & Erosion Control Manager

h. Self-Assessment. The information provided in this section should be a self-assessment of RK&K's performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

Exceptional performance began with RK&K's impressive technical score of 93% during the selection process. RK&K's innovative design techniques and seamless coordination efforts circumvented complex traffic issues and accelerated the project schedule. As a result, the project was successfully completed nearly a full year ahead of schedule. As quoted by Mr. Rodger Rochelle, PE – NCDOT Director, Transportation Program Management Unit (presently NCTA Chief Engineer, Innovative Delivery) – "I comment RK&K and the entire Design-Build Team for completing this project quickly, safely, and cost-effectively. The Team did an outstanding job of orchestrating simultaneous design and construction efforts, while ensuring the safety of the traveling public.

i. Quality Initiatives. Discuss RK&K's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

A key aspect to maintaining schedules and budgets is to prepare effective designs, which avoids delays and the additional costs created by redesign. RK&K prepared a Design Quality Management Plan (DQMP) specifically for the project. A major element was that all design submittals (including subconsultants) would go through an Interdisciplinary Review process. This process minimized the likelihood of conflicts between the different design disciplines, thus avoiding time-consuming resubmittals of the plans and costly constructability issues in the field. Additionally, internal audits were performed to ensure that the plan was being followed. To monitor our progress against the design schedule, RK&K prepared a CPM schedule utilizing Microsoft Project and updated it regularly to include actual submittal dates versus projected.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, RK&K shall provide a detailed explanation below.

Not Applicable



APPENDIX E

Disclosure of Potential Conflict of Interest Certification

DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST CERTIFICATION

PROPOSER hereby indicates that it has, to the best of its knowledge and belief has:

Determined that no potential organizational conflict of interest exists.

Determined a potential organizational conflict of interest as follows:

Attach additional sheets as necessary.

1. Describe nature of the potential conflict(s):

2. Describe measures proposed to mitigate the potential conflict(s):



Signature

4/20/18
Date

Stephen P. Carter, Jr
Print Name

Archer Western Construction, LLC
Company

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure certification with Department of Transportation contract personnel.

Name

Phone

Company

DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST CERTIFICATION

PROPOSER hereby indicates that it has, to the best of its knowledge and belief has:

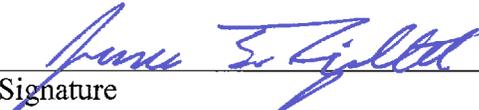
Determined that no potential organizational conflict of interest exists.

Determined a potential organizational conflict of interest as follows:

Attach additional sheets as necessary.

1. Describe nature of the potential conflict(s):

2. Describe measures proposed to mitigate the potential conflict(s):



Signature

4/25/2018

Date

James E. Triplett (President / CEO)

Print Name

United Infrastructure Group, Inc.

Company

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure certification with Department of Transportation contract personnel.

Name

Phone

Company



APPENDIX G

Addendum Receipt Form(s)



South Carolina
Department of Transportation

NOTICE OF RECEIPT- RFQ Addendum #1

I-26 Widening MM 85-101

Design-Build – Project ID P029208

Richland, Lexington, and Newberry Counties

RFQ Addendum 1

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFQ documents.

PROPOSERS are required to sign this document and enclose it with their Statement of Qualifications. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.



PROPOSER's Signature

April 27, 2018

Date

Stephen P. Carter, Jr.

Printed Name

For: Archer-United JV

Design-Build Team Name





APPENDIX H

Reference Forms

1. Contractor / Designer Reference Forms for Key Individuals and Team Members who have worked together.
2. Key Individual Reference Forms for Key Individual Resumes.
3. Contractor / Designer Reference Form for Work History and Quality Forms.

Project REF	Email	First Name	Last Name	Company Name	Project Name	Team
1	colvinld@scdot.org	Leland	Colvin	SCDOT	DB: SCDOT I-85 Access Improvements	United
2	IpockCR@scdot.org	Claude	Ipock	SCDOT	DB: SCDOT I-520 Palmetto Parkway Phase II	United/ICE
3	ristergd@scdot.org	David	Rister	SCDOT	DB: SCDOT District 4 Bridge Replacements	United/ICE
4	IpockCR@scdot.org	Claude	Ipock	SCDOT	DB: SCDOT SC 150 Emergency Bridge	United/ICE
5	Kenyon.warbritton@modot.gov	Ken	Warbritton	MODOT	DB: MODOT Safe & Sound Bridge (554 Bridges)	United/ICE
6	jdarmstrong@charlestoncounty.org	Jim	Armstrong	Charleston County	DB: CHS CTY Palmetto Commerce Parkway	United/ICE
7	rhancock@ncdot.com	Ron	Hancock	NCDOT	DB: NCDOT I-540 Western Wake Freeway	Archer Western
8	sthigpen@charlestoncounty.org	Steve	Thigpen	Charleston County	DB: CHS CTY Johnnie Dodds Blvd.	United/ICE
9	IpockCR@scdot.org	Claude	Ipock	SCDOT	DB: SCDOT Package C Bridge Replacements	United/ICE
10	ahoenig@dot.ga.gov	Andrew	Hoeing	GDOT	DB: GDOT Skidaway Bridge over AIWW	United
11	IpockCR@scdot.org	Claude	Ipock	SCDOT	DB: SCDOT Package D Bridge Replacements	United/ICE
12	ParrisSL@scdot.org	Shane	Parris	SCDOT	DB: SCDOT Package E Bridge Replacements	United/ICE
13	ReynoldsBS@scdot.org	Brad	Reynolds	SCDOT	DB: SCDOT US 176 Bridge over Cannons Creek	United/ICE
14	RedfearnWT@scdot.org	Tyke	Redfearn	SCDOT	DB: SCDOT Emergency Bridge Package 4	United/ICE
15	mcfee@bcgov.net	Rob	McFee	Beaufort County	DB: BFT CTY Perryclear Bridge Replacement	United/ICE
16	bboisvert@walshgroup.com	Ben	Boisvert	Walsh Group	DB: PennDOT Rapid Bridge Replacement Program	ICE
17	RedfearnWT@scdot.org	Tyke	Redfearn	SCDOT	DB: SCDOT I-77 Widening & Rehabilitation	Archer Western/ICE
18	rwbaucom@ncdot.gov	Richard	Baucom	NCDOT	DB: NCDOT Monroe Expressway	United
19	MattoxJH@scdot.org	Jae	Mattox	SCDOT	DB: SCDOT Port Access Road – Pursuit	United/ICE
20	ReynoldsBS@scdot.org	Brad	Reynolds	SCDOT	DB: SCDOT I-85 Phase III (Cherokee) – Pursuit	Archer Western/United/ICE
21	RedfearnWT@scdot.org	Tyke	Redfearn	SCDOT	DB: SCDOT US 21 Bridge over Harbor River	United/ICE
22	jvanness@scspa.com	James	Van Ness	SCPA	DBB: SCPA HLT – Wall Remediation	United/ICE
23	jhutto@northcharleston.org	Jim	Hutto	City of North Charleston	DBB: CITY N. CHS - Future Dr. / N. Side Dr.	UIG/ICE
24	thomas.lewis@berkeleycountysc.gov	Thomas	Lewis	Berkeley County	DBB: BERK CTY Nexton Parkway / I-26 Widening	UIG/ICE
25	ParrisSL@scdot.org	Shane	Parris	SCDOT	DBB: SCDOT I-85 Widening (MM 69-77)	Archer Western/ICE



KEY INDIVIDUAL REFERENCE FORM FROM RESUMES

Email	First Name	Last Name	Key Individual Name	Project Name	Role of Key Individual	Team
lawsjd@scdot.org	Joe	Laws	David Moyar	SCDOT I-85 Reconstruction (MM 69 – 77) – Spartanburg County, SC	Operations Manager	Archer Western Construction, LLC
burnsjm@scdot.org	John	Burns		SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC	Operations Manager	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC
rhancock@ncdot.com	Ron	Hancock		NC-540 Western Wake Expressway – Raleigh, NC	Operations Manager	Raleigh Durham Roadbuilders Joint Venture
david.pino@atl.com	David	Pino		Automated People Mover – Hartsfield-Jackson Atlanta International Airport, GA	Project Manager	Archer Western Construction, LLC / Heath & Lineback/Parsons Brinckerhoff
carrie.stanbridge@dot.state.fl.us	Carrie	Stanbridge		I-95 Overland Bridge Replacement – Duval County, FL	Senior Project Manager	Archer Western Construction, LLC / RS&H, Inc.
RedfearnWT@scdot.org	Tyke	Redfearn	Elham Farzam, PE	SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC	Design Manager and Sr. Pavement Engineer	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC
rdrochelle@ncdot.gov	Rodger	Rochelle		I-85 Widening - Rowan County, NC I-85 Widening - Mecklenburg County, NC I-77 Express Lanes - Charlotte, NC	Lead Design Engineer Lead Design Engineer Design Manager	The LPA Group Inc. The LPA Group Inc. Dragados-United
rtritt@dot.ca.gov	Raymond	Tritt		I-15/I-215 Devore Interchange - San Bernardino, CA	Procurement Advisor / VE Consultant	The LPA Group Inc.
RedfearnWT@scdot.org	Tyke	Redfearn	Freddy Kicklighter, PE	SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC	Project Manager and Lead Roadway Engineer	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC
ReynoldsBS@scdot.org	Brad	Reynolds		I-85 Widening Project (MM 80 to 96) - Spartanburg and Cherokee Counties, SC	Project Manager	Infrastructure Consulting & Engineering, PLLC
keysbw@scdot.org	Brian	Keys		I-26/S-378 (John N. Hardee Expressway, Phase II) Interchange - Columbia, SC	Project Manager	The LPA Group Inc.
hendersontr@scdot.org	Tim	Henderson		I-26/US17 Interchange for Replacement of the Cooper River Bridge – Charleston, SC	Roadway Design Manager	The LPA Group Inc.
berryWK@dot.state.sc.us	Kyle	Berry		Carolina Bays Parkway Phase II (SC Route 31) - Horry County, SC	Roadway Design Manager	The LPA Group Inc.
RedfearnWT@scdot.org	Tyke	Redfearn	Preston Felkel, PE	SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC US 21 Bridge over Harbor River – Beaufort County, SC	Lead Structural Engineer Structural Engineer	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC United Infrastructure Group, Inc. / Infrastructure Consulting & Engineering, PLLC
ReynoldsBS@scdot.org	Brad	Reynolds		I-85 Widening Project (MM 80 to 96) - Spartanburg and Cherokee Counties, SC	Lead Structural Engineer	Infrastructure Consulting & Engineering, PLLC
ParrisSL@scdot.org	Shane	Parris		Package E Federal Aid Bridge Replacements - Multiple Counties, SC	Structural Design Manager	United Infrastructure Group, Inc. / Infrastructure Consulting & Engineering, PLLC
dvanmeter@dot.ga.gov	Darryl	VanMeter	Jonathan Reid	GDOT I-75 Northwest Corridor Draft Environmental Impact Study – Atlanta, GA	Traffic Engineering Manager	Parsons Brinckerhoff
bday@woodstockga.gov	Brantley	Day		Cumberland CID Akers Mill Road Managed Lane Interchange Concept – Atlanta, GA	Project Manager	Parsons Brinckerhoff
MaryLou.Godfrey@dot.state.fl.us	MaryLou	Godfrey		FDOT Tampa Bay Express Downtown Interchange – Tampa, FL	Concept Design Engineer	Arcadis US, Inc.
James.Knight@dot.state.fl.us	James	Knight		FDOT I-95 System Operations Interchange Report - Jacksonville, FL	Lead Traffic Engineer	Parsons Brinckerhoff
MichaelAlanCalvert@yahoo.com	Michael	Calvert		ALDOT I-20/I-59 Interstate Lowering Concept Feasibility Study - Birmingham AL	Project Manager/Lead Engineer	Parsons Brinckerhoff



Email	First Name	Last Name	Key Individual Name	Project Name	Role of Key Individual	Team
RedfearnWT@scdot.org	Tyke	Redfearn	Michael Valiquette, PE	SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC US 21 Bridge over Harbor River – Beaufort County, SC	Geotechnical Engineer Geotechnical Engineer	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC United Infrastructure Group, Inc. / Infrastructure Consulting & Engineering, PLLC
jgaston@fairfieldsc.com	Jake	Gaston		Finley Road Bridge Replacement Project - Fairfield County, SC	Geotechnical Engineer of Record	Infrastructure Consulting & Engineering, PLLC
ckreider@ncdot.gov	Chris	Kreider		NCDOT, NC-12 Bridges over New Inlet, B-2500AB, B-2500A, and Emergency Bridge – Dare County, NC	Geotechnical Engineer of Record	NCDOT
RedfearnWT@scdot.org	Tyke	Redfearn	Jonathan Scarce, PE	SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC	Hydraulic Engineer	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC
ReynoldsBS@scdot.org	Brad	Reynolds		I-85 Widening Project (MM 80 to 96) - Spartanburg and Cherokee Counties, SC	Hydraulic Engineer	Infrastructure Consulting & Engineering, PLLC
ParrisSL@scdot.org	Shane	Parris		Package E Federal Aid Bridge Replacements - Multiple Counties, SC	Hydraulic Engineer	United Infrastructure Group, Inc. / Infrastructure Consulting & Engineering, PLLC
BarbeeMW@dot.state.sc.us	Mike	Barbee		SC 38/US 501 Storm Drainage & Erosion Control Design - Dillon/Marion, SC	Project Engineer	Mulkey Engineers & Consultants
RedfearnWT@scdot.org	Tyke	Redfearn	Barrett Stone	US 21 Bridge over Harbor River – Beaufort County, SC	Environmental Manager	United Infrastructure Group, Inc. / Infrastructure Consulting & Engineering, PLLC
ElrodJT@scdot.org	Tommy	Elrod		I-85 / I-385 Interchange Improvements - Greenville County, SC	Lead NEPA and Permit Coordinator	Flatiron-Zachry Joint Venture
ConnollyMS@scdot.org	Sean	Connolly		Package E Federal Aid Bridge Replacements - Multiple Counties, SC SC 41 Bridge Replacement over the Wando River – Charleston/Berkeley County, SC	Environmental Coordinator Environmental Coordinator	United Infrastructure Group, Inc. / Infrastructure Consulting & Engineering, PLLC PCL Civil Constructors, Inc. / ICA Engineering
colink@bcgov.net	Colin	Kinton		Bluffton Parkway, Phase 5-A - Beaufort County, SC	Lead NEPA & Permit Coordinator	ICA Engineering
ipockcr@scdot.org	Claude	Ipock		Interstate 95/U.S. Route 301 Interchange and S.C. Route 6 Connector – Orangeburg, SC	Right of Way Manager	McCarthy Improvement Company
huffap@scdot.org	Andrew	Huff	David Link	I-85 / I-385 Interchange Improvements - Greenville County, SC	Right of Way Manager	Flatiron-Zachry Joint Venture
BMorrison@tompsc.com	Brad	Morrison		Bowman Road 1 and 2 – Mount Pleasant, SC US 17 Hungryneck Boulevard – Mount Pleasant, SC	Right of Way Manager Right of Way Manager	PAN, Inc. PAN, Inc.
westburyma@scdot.org	Mark	Westbury		SC 41 Bridge Replacement over the Wando River – Charleston/Berkeley County, SC	Right of Way Coordinator	PCL Civil Constructors, Inc. / ICA Engineering
rwbaucom@ncdot.gov	Richard	Baucom	Sam Stutt	Monroe Expressway / Connector - Union County, NC	Project Manager	Monroe Bypass Constructors, LLC Joint Venture
jismith@dot.ga.gov	Jimmy	Smith		Bobby Jones Expressway - Augusta, GA	Senior Project Manager	United Infrastructure Group, Inc.
colvinld@scdot.org	Leland	Colvin		I-85 Access Improvements - Greenville County, SC	Senior Project Manager	Morgan Corp.
hebertdl@scdot.org	David	Hebert		J. Verne Smith Parkway (SC 80) - Spartanburg County, SC	Senior Project Manager	Morgan Corp.



Email	First Name	Last Name	Key Individual Name	Project Name	Role of Key Individual	Team
RedfearnWT@scdot.org	Tyke	Redfearn	Tim Antley	SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC	QC Manager	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC
ThompsonJA@scdot.org	Allen	Thompson		SCDOT CEI On Call – I-26 Widening – District 1, SC Interstate Rehabilitation on I-20 - Columbia, SC	Project Manager Resident Construction Engineer (RCE)	Infrastructure Consulting & Engineering, PLLC CE&I Team SCDOT
sandelag@scdot.org	Ashleigh	Sandel		SC 602/Platt Springs Road Widening Project - Lexington, SC	Construction Manager	Infrastructure Consulting & Engineering, PLLC CE&I Team
JonesBL@scdot.org	Bryan	Jones		SCDOT 13 Intersections Districts 1 and 7 – Various Locations, SC	CEI Resident Construction Engineer (RCE)	Infrastructure Consulting & Engineering, PLLC/OLH, Inc. CE&I Team
lawsjd@scdot.org	Joe	Laws	Jeff Getty	SCDOT I-85 Reconstruction (MM 69 – 77) – Spartanburg County, SC	Regional Safety Manager	Archer Western Construction, LLC
burnsjm@scdot.org	John	Burns		SCDOT I-77 Widening/Rehab (MM 15-27) – Richland County, SC	Regional Safety Manager	Archer Western Construction, LLC / Infrastructure Consulting & Engineering, PLLC
rmidgett@ncdot.com	Randy	Midgett		NCDOT US-158 Bascule Bridge over Pasquotank River – Elizabeth City, NC	Regional Safety Manager	Archer Western Construction, LLC
rhancock@ncdot.com	Ron	Hancock		NC-540 Western Wake Expressway – Raleigh, NC	Regional Safety Manager	Raleigh Durham Roadbuilders Joint Venture
tguena@mckimcreed.com	Tom	Guena		Jones Branch Connector over I-495 – Fairfax County, VA	Regional Safety Manager	Archer Western Construction, LLC



Contractor / Designer References from Work History and Quality Forms

Project REF	Email	First Name	Last Name	Company Name	Project Name	Team
1	jdaniel@DOT.gov	Jeremy	Daniel	GDOT	I-85 (SR 403 and 34) Widening and Interchange Improvements	Archer Western
2	kenneth.hill@dot.state.fl.us	Kenneth	Hill	FDOT	I-95 DB Overland Bridge	Archer Western
3	ron.meade@dot.state.fl.us	Ron	Meade	FDOT	I-95 Widening (including interchanges at I-4 and US 92)	Archer Western
4	rhancock@ncdot.com	Ron	Hancock	NCDOT	NCDOT I-540 Western Wake Freeway	Archer Western
5	jsmith@dot.ga.gov	Jimmy	Smith	GDOT	Bobby Jones Expwy I-20 & I-520 Interchange	United
6	RedfearnWT@scdot.org	Tyke	Redfearn	SCDOT	SCDOT I-77 Widening & Rehabilitation	Archer Western/ICE
7	ReynoldsBS@scdot.org	Brad	Reynolds	SCDOT	I-85 Widening Project (MM 80 to 96)	ICE
8	sthigpen@charlestoncounty.org	Steve	Thigpen	Charleston County	Charleston County Johnnie Dodds Boulevard Widening	United/ICE
9	ahoenig@dot.ga.gov	Andrew	Hoeing	GDOT	SR 400 Widening	ICE
10	tbruton@ncdot.gov	Teresa	Bruton	NCDOT	I-40 Widening and Signing Design-Build	RK&K

