

DESIGN-BUILD PROJECT

US 301 Over Four Hole Swamp

Project ID 0040308
Orangeburg County, SC



Submitted by:



In Association with:



April 11, 2022


Navigation Page

This document includes several links for ease of reference

Blue Bold, Underlined Text

is placed on items with links to various items in the appendix.

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STATEMENT OF QUALIFICATIONS

INTRODUCTION (RFQ 3.2)

Contracting Entity (RFQ 3.2.1): United Infrastructure Group, Inc., a local third-generation South Carolina Corporation, will be the Contracting Entity for the US 301 over Four Hole Swamp (the “Project”). The Project will be managed from United’s Great Falls Operations Center.

Proposer Points of Contact (RFQ 3.2.2):

 <p>Mike Grey, PE 5562 Pendergrass Blvd Great Falls, SC 29055 704-201-8935 (M) mike.grey@uig.net</p>	 <p>Josh Apsitis 101 Midlands Court West Columbia, SC 29169 704-996-3721 (M) josh.apsitis@ice-eng.com</p>
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Full Legal Firm Names (RFQ 3.2.3): The full legal name of the Lead Contractor: **United Infrastructure Group, Inc.** The full legal name of the Lead Designer: **Infrastructure Consulting & Engineering, PLLC**

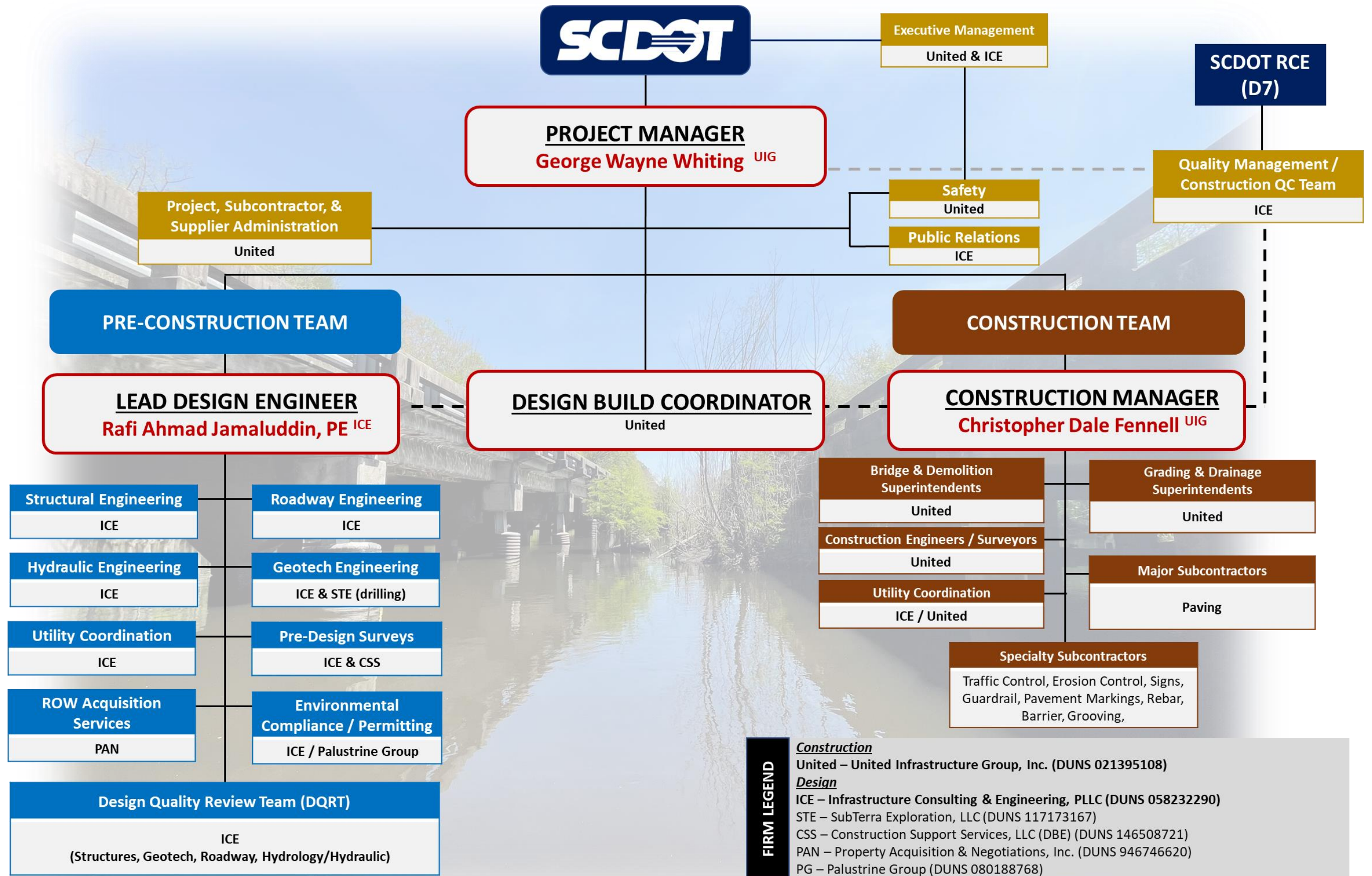
D-U-N-S Number for all Firms (RFQ 3.2.4):

Primary Contractor	United Infrastructure Group, Inc.	021395108
Primary Designer	Infrastructure Consulting & Engineering, PLLC	058232290
Pre-Design Surveys	Construction Support Services, LLC (DBE)	146508721
Geotech Investigations	SubTerra Exploration, LLC.....	117173167
R/W Acquisition	Property Acquisitions & Negotiations, Inc.....	946746620
Mitigation Coordination	Palustrine Group.....	080188768

Commitment Statement (RFQ 3.2.5): All Key Personnel required by the RFQ are shown in the Organizational Chart (Project Manager – Wayne Whiting, Lead Design Engineer - Rafi Jamaluddin, PE, and Construction Manager – Chris Fennell) are fully committed to meeting SCDOT’s expectations and are fully available for the duration of the Project.

TEAM STRUCTURE AND PROJECT EXECUTION(RFQ 3.3)

Organizational Chart, Team Structure, and Team Integration (RFQ 3.3.1): The Organizational Chart illustrates the Project chain of command and functional relationships of the Key Individuals, all major participants, and critical design and construction disciplines and support roles, as well as how **Team United** will function as an integrated team. Project Manager Wayne Whiting will provide direction to the Construction Manager on a daily basis, as well as closely monitor Project progress via the CPM schedule, look-ahead schedules, tasks logs, and weekly coordination meetings. Wayne will also manage project administration, vendor administration, safety program, and public relations, and will report to and coordinate with SCDOT, as well as report to United’s Owner Jim Triplett and SCDOT. The Key Individuals with United and ICE are already fully integrated and have strong working relationships, having delivered numerous design-build projects for SCDOT.



Significant Functional Relationships:

Project Manager Wayne Whiting will fulfill all RFQ PM duties, including integrally leading the entire design-build team from beginning to end for continuity of knowledge. Wayne will be the primary person in charge of and responsible for Project delivery with full authority to make final decisions on behalf of United. He will be fully involved in the Preconstruction Phase, along with United's assigned Design-Build Coordinator (DBC) who will coordinate between United, ICE and SCDOT daily for the duration of the Project design. Wayne and the DBC will coordinate preconstruction efforts with **Lead Design Engineer Rafi Jamaluddin** who will fulfill all RFQ LDE duties, including actively managing all design discipline leaders and overall design delivery. Thereafter, Wayne will oversee construction of the project via weekly on-site meetings with **Construction Manager Chris Fennell**. Chris will be on-site full-time and will fulfill all RFQ CM duties including active daily management of construction superintendents and foremen, as well as coordination of suppliers and subcontractors.

Previous Working Relationships:

United and ICE, and all Key Personnel, have established working relationships and extensive design-build experience on similar projects as demonstrated in the following table:

Table 1 List of Prior Working Relationships Project Owner & Name Duration Dates	REF (*)	UNITED & ICE worked together on the same Team	Key Individuals		
			PM Wayne	LDE Rafi	CM Chris
SCDOT District 4 Bridge Replacements 2009-2010	1	✓			
SCDOT SC 150 Emergency Bridge 2011	2	✓			✓
SCDOT Package C Bridge Replacements 2012-2014	3	✓			
SCDOT Package D Bridge Replacements 2012-2014	4	✓	✓	✓	✓
Beaufort Co. Perryclear Bridge Replacement 2014-2015	5	✓		✓	
SCDOT Package E Bridge Replacements 2015-2018	6	✓	✓	✓	✓
SCDOT US 176 Bridge over Cannons Creek 2015-2016	7	✓		✓	
SCDOT Emergency Bridge Package 4 2016	8	✓		✓	
SCDOT US 21 Bridge over Harbor River 2018-2021	9	✓		✓	
SCDOT Emergency Bridge Package 2018-1 2019	10	✓	✓	✓	✓
NCDOT Monroe Bypass/Connector	11	✓			
SCDOT Emergency Bridge Package 2018-2B 2019	12	✓	✓	✓	
SCDOT I-26 Widening (MM 85-101) 2019-2022	13	✓	✓	✓	
SCDOT US 15 over Indian Field Swamp Bridge 2020	14	✓		✓	
Mauldin Bridgeway Station Ped Bridge 2020-In Progress	15	✓		✓	
SCDOT Carolina Crossroads Phase 1 2020-In Progress	16	✓		✓	
SCDOT Carolina Crossroads Phase 2 2021-In Progress	17	✓		✓	
(*) References are provided in Appendix H .					

Critical Risks (RFQ 3.3.2):

RISK 1	Challenge	Team United's Risk Mitigation Strategies ICE Environmental Team and Palustrine will be responsible for mitigation	Role of SCDOT & Other Agencies
WETLAND & STREAM MITIGATION	Availability of Compensatory Mitigation	A. Obtain approval to use mitigation bank credits outside of service area: <ul style="list-style-type: none"> Utilize Palustrine Group (teaming partner) to facilitate use of the Beidler Forest mitigation bank. Palustrine manages the bank and is currently revising banking instrument to allow the use of credits within the Four Holes Watershed, but beyond ecoregion. Monitor other potential banks, including Brosnan Forest (including the recently approved Coldwater Branch) for availability of credits 	USACE & IRT to allow use of banks outside of service area
		B. Develop a PRMP if agencies do not allow credit purchases: <ul style="list-style-type: none"> ICE and Palustrine have developed PRMPs for previous SCDOT DB projects. Several potential PRMP sites have been identified as possible solutions. Under this scenario, developing a Conceptual Mitigation Plan (SMP) and a Final Mitigation Plan (FMP) will be incorporated into the approved Scope of Work for the Contractor. 	USACE & IRT approval of PRMP
RISK 2	Challenge	Team United's Risk Mitigation Strategies ICE Geotechnical experts will be responsible for mitigation	Role of SCDOT & Other Agencies
GEOTECHNICAL SUBSURFACE CONDITIONS	Concrete displacement piles cannot be driven deep enough into Santee Limestone to satisfy lateral stability.	<ul style="list-style-type: none"> Utilize Drilled Pile Foundations to drill and drive concrete piles with long steel H-Pile points to needed embedment. Backfill around the pile with concrete up to the design scour elevation and remove the temporary casing. 	SCDOT to review and provide guidance in development of foundation design
	Loose sand-like and soft clay-like soils below Santee Limestone. Uncertainty of this deposit has foundation design implications.	<ul style="list-style-type: none"> Core through the Santee Limestone to attempt Shelby tube samples and CPT soundings through the deposit to better determine the engineering properties of this deposit and its effect on the design of the bridge foundations. 	
RISK 3	Challenge	Team United's Risk Mitigation Strategies UIG is responsible for mitigation	Role of SCDOT & Other Agencies
MARKET CONDITIONS	Available skilled labor and required equipment	<ul style="list-style-type: none"> Utilize United's available labor and equipment resources needed to deliver the major scope items of the project. Mobilize CM Chris Fennell and crews from nearby projects in Berkeley and Florence Counties early next year as Construction NTP approaches. Utilize local equipment/staging yard and forming/fabrication shop at former Carolina Bridge shop/yard in Orangeburg. 	No Action required by SCDOT or other Agencies
	Supply Chain Issues and Cost Escalation	<ul style="list-style-type: none"> Identify items subject to supply chain issues and expedite procurement. Complete procurement of all materials and finalize subcontracts as soon as possible after notice of award. 	
RISK 4	Challenge	Team United's Risk Mitigation Strategies UIG and ICE MOT Experts are responsible for mitigation	Role of SCDOT & Other Agencies
MAINTENANCE OF TRAFFIC	Existing structures and driveways limit location and length of crossover East of project location	<ul style="list-style-type: none"> Maximize the shifting taper length and utilize additional traffic control devices to increase safety to the traveling public. Optimize the lane closure and crossover locations for maximum visibility and driver awareness. 	SCDOT to participate and provide guidance in development of traffic control plans.
	Minimizing Duration of two-lane patterns	<ul style="list-style-type: none"> Work additional shifts/days to accelerate construction Perform bridge construction from two headings. Strategically add key personnel and equipment resources to expedite critical-path activities. 	
	Maintaining the Safety of the Traveling Public	<ul style="list-style-type: none"> Propose to SCDOT to reduce speed limit to 35 mph (NB & SB) and increase fines for speeding through construction zone. Utilize Changeable Message Signs to provide advanced warning of traffic pattern changes. Assist SCDOT to provide advanced public notice of traffic changes. 	SCDOT will be asked to assist in acquiring speed reduction if warranted.

Project Resources, Strategies, and Execution (RFQ 3.3.3):

Teams Capacity and Available Resources

United has 50 fully equipped crews (38 structure, 7 roadway, and 5 demolition) of which 10 structure, 2 roadway, and 2 demolition crews are currently available when construction of this project begins early next year. In addition to the Lead Design Engineer, ICE has assigned two additional Professional Licensed Structural Engineers and three Professional Licensed Roadway Engineers along with numerous CADD technicians, environmental specialists, surveyors, and utility coordinators dedicated to providing services for these bridge sites. United is committing a minimum of five crews and

Key Role / Position	Firm	Capacity	Committed
Project Manager	United	12	1
Lead Design Engineer	ICE	6	1
Construction Manager	United	8	1
Critical Role / Position	Firm	Capacity	Committed
Project Engineer	United	16	1
Superintendents	United	12	2
Structure Crews	United	38	3
Grading/Drainage Crews	United	7	1
Demolition Crews	United	5	1
Lead Structural Engineer	ICE	12	2
Lead Roadway Engineer	ICE	16	2
Lead Hydraulic Engineer	ICE	8	2
Lead Geotech Engineer	ICE	6	2
Env./Mitigation Coord.	ICE/PG	6	2
Drilling	STE	4	1
Utility Coordination	ICE	7	2
Pre-Design Surveys	ICE/CSS	21	2
CADD Designers	ICE	29	8

ICE is committing a minimum of eight engineers to deliver this Project as illustrated in our team capacity and resource availability table. Also, United already owns all equipment necessary to fully support the construction workforce assigned to this Project from their 300-piece equipment fleet.

Strategy for Implementation of Resources:

The following table identifies the tasks that the lead contractor and lead designer will self-perform. It also includes the tasks that will be performed by the team's major subconsultants.

Lead Contractor Role / Self-Perform Tasks	Lead Engineer Role / Self-Perform Tasks	Other Design Team Members Role Task
<ul style="list-style-type: none"> Management & Coordination Demolition Bridges Grading & Drainage Erosion Control Maintenance Traffic Control Maintenance 	<ul style="list-style-type: none"> Lead Design Engineer Geotechnical Hydro/Hydraulic Structures & Roadway Utility Coordination Quality Control Environmental Permitting Environmental Compliance 	SubTerra Exploration, LLC Roadway & Foundation Drilling Construction Support Services Pre-Design Surveys Property Acquisition & Negotiations, Inc. Right of Way Acquisition Palustrine Group Mitigation Coordination

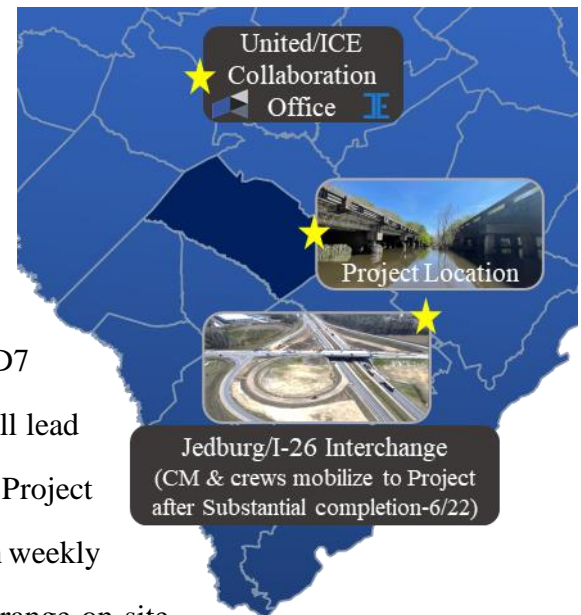
Innovative Approaches or Unique Outreach or Marketing Concepts used to Encourage DBE Participation:

United will engage the SCDOT's Division of Minority & Small Business Affairs to help develop unique concepts to encourage DBE participation and then implement these strategies, including hosting meetings for potential DBE subcontractors that provide an opportunity to discuss project details with the design-build team managers, engineers, and estimators. United will conduct one-on-one meetings with interested firms to discuss the project scopes and determine opportunities that best fit each firm. Furthermore, United will provide mentoring and financing to the firms selected to assist in the delivery of the Project.

Geographical Location Benefits:

During Preconstruction, Project Manager, Wayne Whiting will coordinate weekly with ICE in their West Columbia office, less than six miles from SCDOT Headquarters, where they will unify and integrate the team to ensure effective communication, as well as immediately resolve issues. Likewise, they will collaborate integrally with the SCDOT D7 Construction Office (only 45 miles from ICE's Corporate Office) and will lead routine coordination meetings. During Construction, in addition to the Project Manager, Construction Manager, Chris Fennell, will actively participate in weekly coordination meetings at SCDOT's construction offices. He will also arrange on-site meetings with the appropriate people to quickly review and resolve any issues that arise. Chris is currently working on the Jedburg / I-26 Interchange and will be available along with his crews and the equipment, for the US 301 Project upon substantial completion in June 2022.

Many of United's superintendents, foremen, and workers who will be involved with this Project have worked on similar projects in District 7 and are very familiar with SCDOT's staff, work requirements, and project environs. In fact, United and ICE recently delivered the S-50 (Four Holes Road) over I-26 design-build project as an emergency bridge replacement in Orangeburg County. Additionally, United has further strengthened their presence in the Orangeburg area through the acquisition of Carolina Bridge Company. Carolina Bridge has long been a well-respected member of the civil and transportation contracting community, a legacy that will continue through United. Their extensive experience, local equipment/staging yard and form/fabrication shop, bridge construction resources, and experienced personnel will be leveraged to bring significant value to SCDOT on this Project.



EXPERIENCE OF KEY INDIVIDUALS (RFQ 3.4)

Resumes demonstrating relevant experience of our Key Individuals, are included in [APPENDIX A](#).



Project Manager, Wayne Whiting (United)

will be the primary person in charge of and responsible for Project delivery with full

authority to make final decisions and responsibility of managing the contract with SCDOT. He will be the primary point of contact and will attend/lead all regularly scheduled meetings. Wayne has 25 years of progressive experience and expertise in the management of highway transportation

projects. He will fulfill all Project Manager duties specified in the RFQ and will manage this Project with a hands-on approach reporting Project delivery metrics to SCDOT and United's CEO.

Featured SCDOT Project Experience

- Emergency Bridge Package 2018-2B
 - 4 bridge replacements
 - Over waterways
- I-26 Widening (MM 85-101)
 - 10 Bridge Replacements
 - 7 flyovers
 - 3 Interchanges
- US 401 Bridge Replacements
 - 3 Flat Slab Bridge Replacements
 - Over waterways
- Act 98 Package District 5 Bridge Replacements
 - 5 Bridge Replacements
 - Over waterways



Lead Design Engineer, Rafi Jamaluddin,

PE (ICE) will oversee and be responsible for all aspects of the Project design. He has far

more experience and expertise than the required minimum of 7 years in managing the design of highway transportation projects. Rafi has more than **50 years of very relevant experience** designing numerous types of bridges and structures, as well as seismic design, development and

maintenance of design schedules and budgets, coordination of design disciplines, and construction management. Not only does his experience include recent SCDOT bridge replacement packages with United, but he was the Lead Design Engineer on United's DB Team for the award-winning US 21 Replacement Bridge over Harbor River in Beaufort County. Rafi is dedicated to the design of this Project, will attend the routine Project meetings in person, and will be fully available when needed by SCDOT.

Featured DB Project Experience

- US 176 Emergency Bridge Replacement
 - Opened 18 days early
- Emergency Bridge Package 2018-1
 - 3 Bridges at 2 sites
- Emergency Bridge Package 2018-2B
 - 4 Bridge Replacements
- Bridge Replacements Package E
 - 13 bridges at 12 sites
- PennDOT Rapid Bridge Replacements
 - ICE was assigned 69 Bridges
 - Accelerated Schedule





Construction Manager, Chris Fennell

(United) will be responsible for all aspects of the Project construction. He has been with

United for 21 years and has progressive

experience and expertise in heavy civil, bridge, and highway construction. He also meets the minimum of 5 years in managing the construction of highway transportation projects. As a Construction Manager, Chris will “plan the work and work the plan” in close coordination with the

Project Manager to deliver the sites safely, on time, and in

accordance with the specifications. He will be dedicated solely to the construction of this Project, will have no other project responsibilities, will not be utilized on any other projects, and will manage construction superintendents on-site for construction activities.

Featured DB Project Experience

- Volvo/I-26 Interchange
 - Design Build
 - Three new bridges
 - Significant MOT
- SC 165 over Caw Caw
 - Three Bridges over swamp
 - 30' flat slab spans
- Alligator Road Bridges
 - Over Alligator Branch (100' Flat Slab)
 - Over I-95
 - Significant MOT
- I-77 Catawba River Bridge
 - Emergency Replacement
 - Accelerated Schedule



PAST PERFORMANCE OF TEAM (RFQ 3.5)

United has successfully completed over 20 design-build projects for SCDOT, **more than any other construction organization**, and many of those were very similar to this Project. ICE's SCDOT design-build project experience includes 17 projects, several of which are multi-bridge replacement packages also similar to this. Furthermore, United and ICE have worked together on 19 successful design-build projects. **The last two completed United/ICE projects are the only DB projects in SC that have been completed ahead of the original schedule in recent years.**

Experience of Proposer's Team (RFQ 3.5.1): [APPENDIX B](#) includes the Work History / Quality Forms.

Featured DB Project Experience

1. US 15 over Indian Field Swamp
(Lead Design - ICE)
 2. US 176 over Cannons Creek
(Lead Design - ICE)
 3. I-77 over Catawba River Emergency Deck Replacement
-
1. Emergency Bridge Package 4
(Lead Contractor - United)
 2. Emergency Bridge Package 2018-1
(Lead Contractor - United)
 3. Emergency Bridge Package 2018-2B
(Lead Contractor - United)



Quality of Past Performance (RFQ 3.5.2): [APPENDIX C](#) includes the Forms for projects with a “Yes” response to any of the questions in the following table not included in Appendix B. United and/or ICE have never been suspended, debarred, disqualified from bidding or declared ineligible to work by any entity, and no such actions are pending.

Table 3 - Quality Questions	UIG	ICE
• Has the Lead Contractor or any member of the joint venture been declared delinquent or placed in default on any Project?	No	N/A
• Has the Lead Contractor or any member of the joint venture submitted a claim on a project that was litigated? If litigated, explain the results.	No	N/A
• Have any projects been delayed more than 30 days such that liquidated damages were assessed?	Yes*	No
• Has the Lead Contractor been cited by OSHA for violations deemed serious, willful, or repeated?	Yes*	N/A
• Have any projects under contract with the Lead Contractor or any member of the joint venture been subject to remediation actions, stop work orders, or project delays in excess of 30 days as a result of Section 404/Section 401 permit violations?	No	N/A
• Has an owner, a Lead Contractor, or any member of a joint venture pursued compensation from the Lead Designer due to errors and omissions?	No	N/A
• Has the Lead Designer filed legal proceedings against the Lead Contractor, or vice versa, on a design-build contract?	No	No

* See [APPENDIX C](#) for explanations of “yes” answers above.

APPENDIX **A**

Key Individual Resume Forms



KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

- a. Name & Title:
George Wayne Whiting, Project Manager
- b. Role of Key Individual for this Project:
Project Manager
- c. Name of Firm with which you are now associated:
United Infrastructure Group, Inc.



- d. Years of Experience: With this Firm 23 Years With Other Firms 2 Years

Employment History:

United Infrastructure Group, Inc. (2007-Present): Mr. Whiting has 25 years of hands-on experience constructing bridge replacements over creeks, rivers, roads, and interstates, as well as major interchanges and emergency projects. He has been serving as a Project Manager on major bridge replacement projects for SCDOT for numerous years. Mr. Whiting has had no lost time incidents, no significant quality issues, and no claims in the past five years. He has directly managed up to six sites simultaneously without any issues. Mr. Whiting managed the below projects, including management of contract deliverables, safety, scheduling, MOT, BMPs, suppliers/subcontractors, client correspondence, and design-build coordination to ensure successful project completions without any disputes or claims.

e. Education:

York Technical College / Rock Hill, SC / Associates in Applied Science / December 1989 / Civil Engineering
University of North Carolina at Charlotte / Charlotte, NC / Bachelor of Science / May 1996 / Civil Engineering

- f. Active Registrations and Certifications:
NA

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

1. Emergency Bridge Package 2018-2B – Chesterfield, SC

Key Personnel Role: Project Manager
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project 2019-2019 / Assigned 2019-2019
Owner Contact Information: SCDOT, Brad Reynolds, PE, reynoldsbs@scdot.org (803) 737-1440
Design/Construction Value: \$6.7 Million



Project Description: This project included the accelerated removal and replacement of four bridges and approach roadways on secondary roads over waterways. The scope included demolition of the existing bridges and construction of new bridges totaling 14,706 SF (436 LF) and consisting of reinforced concrete end bents on steel piles and interior bents on drilled shafts, and cored slab span arrangements of 25'-70'-25', 20'-60'-20', 20'-70'-20', 45'-61', along with 0.5 miles of roadway. Mr. Whiting managed all aspects of the construction and all work was completed safely with no quality issues, within budget, on time within the 216 days allowed, and with no disputes or claims.

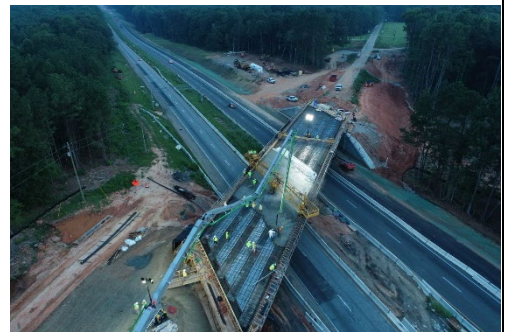


2. I-26 Widening MM 85-101 – Newberry, Richland, Lexington Counties, SC

Key Personnel Role: Structural Project Manager
Experience with Current Firm: United Infrastructure Group, Inc (Archer United, JV)
Project/Assignment Duration: Project 2019-2024 / Assigned 2019-2022
Owner Contact Information: SCDOT, David Rogers, rogersdl@scdot.org, (803) 737-6030
Design/Construction Value: \$421 Million



Project Description: This major interstate improvement project includes 16 miles of I-26 reconstruction and widening, three interchanges, 10 bridges including reconstruction of secondary roads or Y-line as well as 74,000 SF of MSE walls, 152,000 SF of noise walls, 1,300,000 CY of unclassified excavation, 475,000 CY of borrow excavation, 349,000 tons of asphalt, and 1,291,000 SY of concrete paving. The project is currently on schedule and on budget without any major issues or disputes/claims. Mr. Whiting oversees three Superintendents, six Forman and the MSE wall crew for all structures of the 10 bridge replacements, seven flyovers and three interchanges.



3. US 378 Section 3 & 4 Widening & Bridge Replacement - Florence, SC

Key Personnel Role: Project Manager
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project 2014-2017 / Assigned 2014-2017
Owner Contact Information: SCDOT, Kyle Berry, berrywk@scdot.org, (843) 661-4710
Design/Construction Value: \$4 Million

Project Description: This project involved the replacement of the 360' Big Swamp Bridge and demolition of the existing bridge, along with construction of 6.2 miles of roadway. This was a traditional bid build project, but UIG Valued Engineered the project and changed the originally-planned pile foundations to drilled shafts, which resulted in substantial savings for SCDOT. Mr. Whiting was responsible for managing the grading, drainage, utility coordination, erosion and sediment control, and maintenance of traffic as well as overseeing all aspects of the bridge construction. All work was completed safely with no significant quality issues, under budget, on time, and with no disputes or claims.



4. Act 98 Package District 5 A Bridge Replacements - Multiple Counties, SC

Key Personnel Role: Project Manager
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project 2015-2016 / Assigned 2015-2016
Owner Contact Information: SCDOT, Kenneth Hayes, hayeskl@scdot.org, (843) 661-4710
Design/Construction Value: \$3 Million

Project Description: This project consisted of replacing five bridges over waterways totaling 288' of bridge work. Mr. Whiting was responsible for managing the grading, drainage, utility coordination, erosion and sediment control, and maintenance of traffic as well as overseeing all aspects of the construction of each bridge. All work was completed safely with no significant quality issues, on budget, and on time with some exceptions, and with no disputes or claims.



5. US 401 over Jefferies Creek, Lake Swamp, High Hill Creek - Darlington County

Key Personnel Role: Project Manager
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project 2018-2020 / Assigned 2018-2020
Owner Contact Information: SCDOT, Kenneth Hayes, hayeskl@scdot.org, (843) 661-4710
Design/Construction Value: \$5.8 Million






Project Description: This project included the replacement of three existing flat slab bridges with lengths of 120', 120', and 150'; and the corresponding approach roadway construction. Mr. Whiting managed all aspects of these bridge replacement sites which consisted of steel piles, concrete piles, reinforced concrete substructures, and cored slab and concrete beam superstructures. All work was completed safely, on time, within budget, with no quality issues, and with no disputes or claims.



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.

Mr. Whiting is currently the Structural Project Manager for I-26 Widening in Columbia. Wayne will be assigned to the Four Hole Swamp project full-time upon NTP at which time Wayne's deputy, Joe Jones, will assume Wayne's duties on I-26.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.	
<p>a. Name & Title: Rafi Ahmad Jamaluddin, PE, Senior Structural Engineer</p>	
<p>b. Role of Key Individual for this Project: Lead Design Engineer</p>	
<p>c. Name of Firm with which you are now associated: Infrastructure Consulting & Engineering, PLLC</p>	
<p>d. Years of Experience: With this Firm 10 Years With Other Firms 42 Years</p> <p>Employment History: Infrastructure Consulting & Engineering, PLLC: Structural Engineer – Rafi’s responsibilities include creating drawings and specifications, performing calculations, reviewing the work of other engineers, writing reports and evaluations, and observing construction sites. 2011 - Present Wilbur Smith Associates: Structural Engineer – Rafi’s responsibilities included creating drawings and specifications, performing calculations, design reviews, reports and evaluations, and construction observation. 1998-2011 R.J. Ltd., Karachi, Pakistan: Managing Partner – Rafi’s responsibilities included supervising the design of a large number of industrial structures, bridges, hospitals, schools, public buildings and residential facilities. 1979–1998 R R Associates, Karachi, Pakistan: Managing Partner – Rafi was involved in management of the structural design and construction supervision of a large number of projects. 1972–1979 Conforce Limited, Lahore, Pakistan: Site Engineer – Rafi was responsible for construction supervision. 1971-1972 WS Atkins and Partners, Epsom, England: Design Engineer – Rafi’s responsibilities included creating drawings and specifications, performing calculations, and design reviews. 1969–1970 University of Engineering and Technology, Lahore, Pakistan: Lecturer – Rafi conducted classes in steel structures design. He also worked part-time with a local architectural firm as a Structural Engineer. 1967 – 1968</p>	
<p>e. Education: University of Surrey / Guilford, United Kingdom / Master of Science / 2003 / Bridge Engineering University of Engineering & Technology / Lahore, Pakistan / Bachelor of Science / 1967 / Civil Engineering</p>	
<p>f. Active Registrations: 2000 / SC / Professional Civil Engineer / 20505 2013 / GA / Professional Civil Engineer / 037858 2013 / PA / Professional Civil Engineer / 081007</p>	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <p>1. US 176 Emergency Bridge Replacement – Newberry County, SC</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 70%;"> <p>Key Personnel Role: Lead Design Engineer</p> <p>Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC</p> <p>Project/Assignment Duration: Project 10/2015-03/2016, Assigned 10/2015-03/2016</p> <p>Owner Contact Information: SCDOT, Brad Reynolds, PE, reynoldsbs@scdot.org, (803)737-1440</p> <p>Design/Construction Value: \$4.2 Million</p> <p>Project Description: The US 176 Bridge over Cannons Creek was damaged beyond repair due to significant scour resulting from severe flooding in October 2015. The Design-Build project included a 210' replacement structure consisting of prestressed concrete beams, drilled shafts, and pile supported end bents. Mr. Jamaluddin served as the Lead Design Engineer responsible for the preliminary and final bridge layout/design, seismic evaluation, plans production, and construction support. The project was completed and open to traffic in 159 days, 18 days ahead of schedule.</p> </div> <div style="width: 25%; text-align: center;">   </div> </div>	
<p>2. Emergency Bridge Package 2018-1 – Orangeburg and Dillon Counties, SC</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 70%;"> <p>Key Personnel Role: Lead Design Engineer</p> <p>Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC</p> <p>Project/Assignment Duration: Project 07/2018-10/2019, Assigned 07/2018-10/2019</p> <p>Owner Contact Information: SCDOT, Jae Mattox, PE, mattoxjh@scdot.org (803) 737-1805</p> <p>Design/Construction Value: \$8.745 Million</p> <p>Project Description: This Design-Build project involved the replacement of three bridges including S-50 (Four Holes Road) over Interstate 26 in Orangeburg County and S-45 (Lester Road) over Little Pee Dee River and Swamp in Dillon County. All three bridges required formal seismic analysis and design in accordance with the SCDOT Seismic Design Specifications, and the S-50 site required a pushover analysis. Rafi served as the Lead Design Engineer responsible for leading the bridge/structure design services for the preliminary and final plans for the three bridges.</p> </div> <div style="width: 25%; text-align: center;">  </div> </div>	

3. Emergency Bridge Package 2018-2B - Chesterfield County, SC

Key Personnel Role: Lead Bridge Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project: 03/2019-12/2019, Assigned 03/2019-07/2019
Owner Contact Information: SCDOT, Brad Reynolds, PE, reynoldsbs@scdot.org, (803) 737-1440
Design/Construction Value: \$6.75 Million



Project Description: This project involved the replacement of four bridges that were damaged as a result of flooding and erosion from heavy rains caused by Hurricane Florence in September 2018. The damaged bridges consisted of 15' precast spans on timber piles. Rafi served as one of the Lead Bridge Engineers and provided bridge/structure design services for the preliminary plans for all four bridges.



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

Key Personnel Role: Lead Design Engineer
Experience with Current Firm: Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project 2015-2017, Assigned 2015-2016
Owner Contact Information: SCDOT, Shane Parris, parrisSL@scdot.org, (864) 489-5760
Design/Construction Value: \$56 Million



Project Description: Rafi served as one of the Lead Design Engineers for this design-build project that consisted the replacement of 12 deficient bridges. The scope of work included preliminary design, structure, roadway, and hydrology designs, surveys, utility coordination, contractor quality control and verifying existing right-of-ways early to avoid delays during construction. The 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.



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

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



Project Description: This Design-Build project consisted of replacing the existing swing-span bridge over a tidal waterway / navigable channel which serves as the only means for vehicular transportation from the mainland to Harbor and Fripp islands. The new high-level 3,353 foot long fixed-span Harbor River bridge provides uninterrupted access for shrimping and sailing vessels along the river below as well as provide improved safety for motorists crossing the bridge itself. As Project Manager, he had the responsibility of coordinating among both the in-house disciplines of Structures, Roadways, Environmental, Utilities, and Hydraulics as well as specialty Subconsultants in Geotechnical Engineering and Hydrology. Since this was a Design-Build project, there was a tight time schedule for getting all plans prepared and approved. Design had to be optimal to enable the partnering contractor to stay within budget. Both these targets were met, and the project was designed and constructed successfully. As Lead Bridge Engineer, Rafi was actively involved in the design of the structure especially the superstructure. He also analyzed the bridge for Vessel Collision using FB Multiplier software and designed the fender system in 40 feet of water to guide shipping. During the construction phase, Rafi helped the contractor with the issues that arose in a timely manner to keep the project progressing smoothly.



- 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 Design Engineer, Rafi 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:

Christopher Dale Fennell, Construction Manager / Superintendent

b. Role of Key Individual for this Project:

Construction Manager

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

United Infrastructure Group, Inc.



d. Years of Experience: With this Firm 21 Years With Other Firms 0 Years

Employment History:

United Infrastructure Group, Inc.: Mr. Fennell has been in the construction industry for 21 years. He has been serving as a Construction Manager/Superintendent on project involving bridges over creeks, rivers, roads, and interstates, as well as major interchanges for six (6) years. He coordinates all construction activities, supervises field personnel, and maintains the construction schedule and budget, while implementing best safety practices. He has effectively managed up to six (6) construction crews on multiple sites simultaneously without any issues. Mr. Fennell managed the construction of the below projects, including the management of safety, scheduling, construction engineering/surveying, MOT, equipment and critical lift plans, suppliers and subcontractors, client correspondence, and design-build coordination to ensure successful project completions on time and within budget without any disputes or claims.

e. Education:

NA

f. Active Registrations:

NA

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

1. Volvo/I-26 Interchange, Berkeley County, SC

Key Personnel Role: Construction Manager / Superintendent

Experience with Current Firm: United Infrastructure Group, Inc.

Project/Assignment Duration: Project 2017-2019, Assigned 2017-2019

Owner Contact Information: SCDOT, Kevin Turner, tuernermk@scdot.org, (843) 708-3579

Design/Construction Value: \$44 Million



Project Description: As a subcontractor to Banks, United constructed the bridges for the new interchange. Mr. Fennell oversaw the bridge construction operations. He enforced safety standards, and coordinated labor scheduling, equipment planning and material suppliers. The new Volvo Interchange along I-26 in provides access from I-26 to the new Volvo Boulevard which leads to the Camp Hall Commerce Park as well as the Volvo Manufacturing Facility. The project included three new bridges on horizontally curved alignments using 72" MBT prestressed concrete girders supported by multi-column bents on steel-pile-supported footings, as well as integral end bents with MSE wall supported embankments. Extensive communication with the lead contractor and paving contractor to was required to coordinate all sequencing/scheduling, especially as it related to MOT, and safety on the interstate work. Significant coordination and traffic control was required for the erection of all girders, at night, to minimize disruption to traffic on the I-26 corridor. The project was awarded the DBIA Design Build National Award of Merit.



2. SC 165 over Caw Caw, Charleston County, SC

Key Personnel Role: Construction Manager / Superintendent

Experience with Current Firm: United Infrastructure Group, Inc.

Project/Assignment Duration: Project 2018-2020, Assigned 2018-2020

Owner Contact Information: SCDOT, Keith Green, greenfk@scdot.org, (843) 746-7903

Design/Construction Value: \$11.4 Million

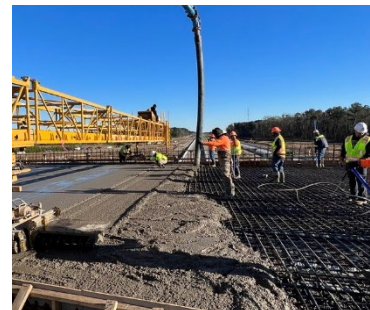
Project Description: Mr. Fennell was responsible for day-to-day bridge construction operations and overseeing subcontractors on this project while implementing best safety and quality practices to ensure no delays. As a subcontractor to Banks Construction, UIG constructed the structures portion of the project (\$2.5 Million) which included three new structures over Caw Caw Swamp. The structures consisted of driven concrete pile foundations and 30' flat slab spans. Two of the bridges were two-stage.



3. I-26 Widening and Jedburg Interchange, Berkeley County, SC

Key Personnel Role: Construction Manager / Superintendent
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project 2019-2022, Assigned 2019-2022
Owner Contact Information: SCDOT, Keith Green, greenfk@scdot.org, (843) 746-7903
Design/Construction Value: \$52 Million

Project Description: Mr. Fennell is responsible for day-to-day bridge construction operations and overseeing subcontractors while implementing best safety and quality practices to ensure no delays. The project consists of four miles of interstate widening, construction of new ramps, and construction of a new bridge for the interchange. The bridge, with MSE wall abutments, is a 235' long structure over I-26. The structure consists of drilled shaft piers with columns, driven pile foundations, reinforced concrete substructure, and concrete beam superstructure. As a subcontractor to Banks, UIG is constructing the bridge and 5900 SF of MSE Walls.



4. I-77 Catawba River Bridge Emergency Replacement– York County, SC



Key Personnel Role: Construction Manager / Superintendent
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project May 2021- 416 hours/ Assigned May 2021- 360 Hours
Owner Contact Information: SCDOT, Jared Bragg, PE, BraggJK@scdot.org, (803) 324-3545
Design/Construction Value: \$13 Million

Project Description This emergency deck replacement project to remove and replace 50,000SF of the existing concrete deck in the southbound lanes was required to be complete in just 17 days. UIG assembled a dedicated team of 300 crew members, with over 50 pieces of equipment. The work included hydro and conventional demolition of the concrete deck followed immediately by the installation of 50,000 SF of SIP forms, 400,000 lbs. of rebar and accessories, 1,450 cubic yards of concrete, expansion joints, and barrier rails.

The project was completed in 360 hours. Mr. Fennell oversaw construction and directed foremen and crews to the tasks that needed to be completed to maintain the project schedule. He was also responsible for ensuring equipment, tools, and supplies were available on site prior to the immediate need of any item.



5. S-107 Alligator Road Widening, Florence, SC

Key Personnel Role: Construction Manager / Superintendent
Experience with Current Firm: United Infrastructure Group, Inc.
Project/Assignment Duration: Project 2021-In Progress / Assigned 2021-2022
Owner Contact Information: SCDOT, Sarah Gaffney, PE, GaffneySH@scdot.org, (843) 514-9847
Design/Construction Value: \$55 Million

Project Description: The project consisted of two bridge replacements. The first bridge over alligator branch replaces an existing 80' structure with a new 100' long flat slab structure. The substructure consists of 14x73 steel piles and 20" square prestressed concrete piles. The second structure is the I-95 overpass bridge, which includes 150'-deep drilled shafts and a 54" modified bulb-tee beam superstructure. Both bridges are being built in staged construction to maintain traffic during construction. Mr. Fennell is responsible for day-to-day bridge construction operations and overseeing subcontractors while implementing best safety and quality practices to ensure no delays.



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.





Mr. Fennell is currently working on the projects in Berkeley and Florence Counties. His assignments on these projects end in 2022 and he will be fully available to begin work when construction begins early next year on US 301 over Four Hole Swamp.

APPENDIX **B**



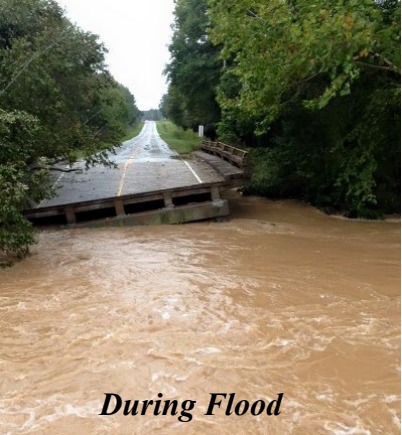


Work History and Quality Form – Contractor/Designer




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: US 15 Bridge Replacement over Indian Field Swamp Location: Dorchester County, SC	Name: Infrastructure Consulting & Engineering, PLLC 	Name of Owner: SCDOT Project Manager: Keith Green Phone: 843 746 3538 Email: Greenfk@scdot.org	Construction: July 2020 Design: July 2020	\$3,970	\$3,970
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.					
<div><div><p>Project Description: UIG was the Lead Contractor for this emergency DB bridge replacement project on US 15 Bridge over Indian Field Swamp which was damaged during the previous year’s flooding and caused the bridge to be posted with a load restriction rating. The scope of work primarily included project design and permitting, removal of existing bridge, construction of new bridge, and the associated roadway work to tie the new approaches to the existing roadways. In addition to managing all aspects of this design-build project, UIG self-performed all structure work and subcontracted most of the roadway work to trusted local grading and paving subcontractors. The new three span 120’ long flat slab bridge with two 20’ approach slabs is supported by reinforced concrete end bents with six 20” concrete piles and reinforced concrete interior bents with seven 20” concrete piles and HP 10X57 pile points. To accelerate construction, the existing pavement was retained and built up with asphalt and the shoulder graded during the first six days of a 75 day road closure. This allowed for paved access to all of the weather sensitive work and use of exist bridge for access before bridge demolition. The project was designed and constructed on budget in approximately 5 months and opened to traffic on June 24 ,2020 16 days ahead of schedule.</p><p>Awards: ACEC-SC Engineering Excellence, ACEC National Award of Merit, DBIA National Award of Merit & Best in Small Projects, and DBIA Southeast Regional Best Transportation Facility.</p><p>Key Individual: NA</p></div><div></div><div><p>RELEVANCE:</p><ul style="list-style-type: none">✓ Design-Build✓ Emergency Bridge Replacement✓ Utility Coordination✓ Work in Wetland Environmental✓ Accelerated Design and Construction</div></div>					
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 or Major Subconsultants 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.					
<p>The most successful aspects of this project were directly attributable to maintaining control of all site activities, assimilating highly experienced and committed resources, having excess resources available when needed, routine and effective communication and collaboration, and early identification and abatement of issues, and keeping the SCDOT constantly informed and involved with all aspects of the project via daily discussions, weekly work schedules, and immediate notification of any issues encountered during construction, all of which led to completion ahead of schedule and finishing all work on budget without any claims, dispute proceedings, litigation or arbitration.</p>					
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.					
<p>UIG issued NTP to its Lead Engineer prior to award and NTP from SCDOT, then pre-proposal design schedule was strictly followed. To facilitate quicker reviews/approvals, all design submittals went through an thorough QC and constructability reviews, which resulted in no RFI’s or plan revisions during construction. Likewise, all construction submittals were submitted/approved prior to construction to avoid any delays during construction. Since this site was very fast-tracked and resource intensive, early collaboration with critical vendors was performed, very detailed budgets and schedules were developed and routinely disseminated, and site conditions and work scopes were carefully monitored to quickly address any necessary changes to maintain progress.</p>					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, provide a detailed explanation below.					
<p>“Yes” answers do not apply to this project.</p>					

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: US 176 Emergency Bridge Replacement Location: Newberry County, SC	Name: Infrastructure Consulting & Engineering, PLLC 	Name of Owner: SCDOT Project Manager: Brad Reynolds, PE Phone: 803.737.3081 Email: ReynoldsBS@scdot.org	Construction: March 2016 Design: March 2016	\$4,300	\$4,300
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.					
<p>Project Description: US 176 Bridge over Cannons Creek was damaged beyond repair due to the October 2015 Flood. Due to the flooding, a portion of the bridge collapsed into the creek when the middle interior bents were completely undermined which halted traffic in both directions and initiated an eight mile local detour.</p> <p>UNITED was the Lead Contractor on the Design-Build team selected to remove the existing bridge and construct the new bridge along with the associated roadway and drainage work necessary to tie the new approaches to the existing roadways. The new 210’ long, 3-span bridge consists of prestressed concrete beams, drilled shaft substructures at the interior bents, and pile supported end bents. For the interior bent foundations, the Team selected two 4’ diameter drilled shafts with 3’ 6” rock sockets. To accelerate construction, the construction casing was extended to the bottom of the bent cap. This eliminated the need to pour the columns separately and provided a more durable foundation element. The integral end bents had five HP 14x73 steel piles, one under each prestressed concrete beam. The south side approach slab was the SCDOT standard 20’ length. However, because of a layer of poor soil on the north end, the approach slab on this side was increased to 40’ in length. Sheet piles, in short lengths, were also needed on this side for slope stability.</p> <p>Improved Safety The new bridge has 8’ wide shoulders whereas the existing bridge had only 3’ wide shoulders. The wider shoulders give cars and trucks more room to maneuver when passing by each other on the bridge. The design speed of the roadway approaches was improved from 40 mph to 55 mph. The increase in design speed translates to over a 60% increase in the stopping sight distance (from 305’ to 495’).</p> <p>Environmental Benefits A much longer central span and longer overall bridge length, coupled with fewer interior bents, has resulted in unimpeded water flow thereby bringing the channel closer to its original condition. Skewing of the bents has further reduced obstructions to flow and decreased scour.</p> <p>Reduction of Maintenance and Costs Based on the large amount of scour in front of the north abutment, it was apparent that the short spans of the existing bridge were contributing to the buildup of debris. This decreased the width of unobstructed waterway under the bridge causing contraction scour in the channel. The buildup of debris also deflected the water flow, changed the angle of attack and increased local scour. As the new bridge has only three spans which completely bridge the channel, the potential for debris to build up is greatly reduced thus saving on maintenance and future repair costs.</p> <p>This project was designed and constructed on budget and in approximately five months. The bridge was completed and open to traffic on March 11, 2016, 18 days ahead of schedule.</p> <p>Awards: ACEC 2017 Engineering Excellence Award</p> <p>Key Individuals: Rafi Jamaluddin, PE, Lead Design Manager - 10/2015 – 04/2016</p>					
<div><div>RELEVANCE:</div><div><div>✓ Design-Build</div><div>✓ Emergency Bridge Replacement</div><div>✓ Utility Coordination</div><div>✓ Accelerated Design and Construction</div></div></div>			<div></div> <div><div>During Flood</div><div>During Flood</div></div>		
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.					
Effective communication along with long established working relationships with our subconsultants (F&ME and CSS) and UIG resulted in a project that was finished under budget and without claims, dispute proceedings, litigation and arbitration.					
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.					
The design schedule was developed during the proposal phase and strictly followed during the first three months of the project. All submittals went through a thorough QC process along with over the shoulder reviews by UIG staff. This attention to detail resulted in no RFI’s or plan revisions during construction.					
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.					
“Yes” answers do not apply to this project.					






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 Client & their Project Manager who can verify Contractor’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 Contractor (in thousands)
Name: I-77 SB over Catawba River Bridge Location: York County, SC	Name: Infrastructure Consulting & Engineering, PLLC 	Name of Owner: SCDOT Project Manager: Jared Bragg, PE Phone: 803 324 3545 Email: BraggJK@scdot.org	Construction: May 2021 Design: May 2021	\$12,760	\$12,760
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.					
<p>Project Description: UIG was the Lead Contractor for this emergency DB bridge replacement project on I-77 SB Bridge over Catawba River. The I-77 bridges throughout York and Chester counties have experienced a significant increase in traffic and loading since their construction in the 1970’s resulting in deteriorating concrete decks and require constant maintenance and emergency contracts by SCDOT to keep up with the repairs. The I-77 bridges over the Catawba River are the longest bridges affected at 1,075’ each which carry 105,000 vehicles per day in 9 lanes leading to a challenging maintenance routine that SCDOT found was no longer sustainable. In 2018, SCDOT advertised a project to replace the bridge decks on both the I-77 northbound and southbound bridges over the Catawba River. United Infrastructure Group started the 416 hour project deadline of the I-77/Catawba River Emergency Deck Replacement Project to remove and replace 50,000 square feet of the existing concrete deck in the southbound lanes in just 17 days. The dedicated team assembled had 300 crew members and over 50 pieces of equipment. The work included hydro and conventional demolishing of 50,000 square feet of concrete deck followed immediately with installation of 50,000 square feet of metal forms, 400,000 pounds of rebar/accessories, and 1,450 cubic yards of concrete, plus expansion joints, and barrier rails. The project was completed in 360 hours.</p> <p>Key Individual: Chris Fennel, Construction Manager/Superintendent – 05/2021 for 17 days</p>					
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 or Major Subconsultants 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.					
<p>The most successful aspects of this project were directly attributable to maintaining control of all site activities, assimilating highly experienced and committed resources, having excess resources available when needed, routine and effective communication and collaboration, and early identification and abatement of issues, and keeping the SCDOT constantly informed and involved with all aspects of the project via daily discussions, weekly work schedules, and immediate notification of any issues encountered during construction, all of which led to completion ahead of schedule and finishing all work on budget without any claims, dispute proceedings, litigation or arbitration. The team of UIG, UD, and more than 30 subcontractors and suppliers demolished and recycled 5.5M pounds of concrete and rebar and replaced 50,000 square feet of bridge deck consisting of 400,000 pounds of rebar and 1,450 cubic yards of concrete as if it had been done hundreds of times before, and they performed with only one non-serious safety incident and no quality issues. As with any project, there were hurdles along the way, but no one viewed a single one as a showstopper and quick solutions were constantly implemented to keep the project on track. While planning and executing the original scope, the team was also able to accommodate extra work requested by SCDOT including emergency bridge deck patching at 6 additional bridges on I-77, repair of washouts under the bridge, and other enhancements to the structure. Ultimately, the traffic was switched back to the SB lanes stopping the clock on May 21, 2021, 60 hours or 2.5 days ahead of schedule resulting in UIG earning the maximum bonus provided by SCDOT of \$180,000, all of which was distributed to the employees on the project who made it a success.</p>					
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.					
<p>UIG began working hand in hand with SCDOT, both locally and at headquarters, in December 2020 to develop what would become a list of 60-plus RFIs mainly consisting of “what-if” questions to ensure there were no unforeseen and unanswered topics if an issue was encountered during construction. Weekly meetings were held for months with the key project management staff and subcontractors and suppliers where a detailed task list with assignments, deadlines, and progress was developed and updated to keep everyone on track.</p> <p>Various iterations of a schedule were created both prior to the bid and during the planning stages as a proof of concept that the project could be completed in the allotted time, all of which ultimately led to a comprehensive hour by hour CPM schedule with sequencing and logic that could be updated once per shift during construction to get an accurate gauge of project status. So many crews at one project in such a small area presented many logistical challenges which were overcome by the team’s detailed planning. Parking, material and tool storage, meals, breaks, restrooms, sleeping arrangements, and many other factors were planned and executed meticulously to keep the work progressing without distraction. A hotel near the project site was rented for the duration of the project where all employees, including subcontractors, lived for 2 weeks. The hospitality team provided 3 hot catered meals per day for each crew, laundry service, Chaplains to boost spirits, snacks, wellness checks, bus service to the project, and anything else the employees needed, resulting in a camaraderie rarely experienced on projects and a team mentality to do whatever it took to achieve the goal.</p>					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, provide a detailed explanation below.					
None					



- RELEVANCE:
- ✓ Bridge over Waterway
 - ✓ Emergency Bridge Replacement
 - ✓ Accelerated Design and Construction


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: Emergency Bridge Replacement Package 4 Location: Kershaw, Richland, and Williamsburg Counties, SC	Name: United Infrastructure Group, Inc. 	Name of Owner: SCDOT Project Manager: William “Tyke” Redfearn III, PE Phone: 803.737.1430 Email: RedfearnWT@scdot.org	Construction: September 2017 Design: November 2016	\$11,700	\$945
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.					
<p>Project Description: ICE served as the Primary Design Firm for this project that consisted of all work necessary, at four separate locations, to remove the remainder of the existing bridges and to construct new bridges, including the associated roadway and drainage work necessary to tie the new approaches to the existing roadways.</p> <p>As the result of flooding, the existing structures were damaged beyond repair. The four locations are described below</p> <ul style="list-style-type: none">Pine Grove Road over Twenty-Five Mile Creek in Kershaw County (Top Right) - New bridge consists of: 260’ long, 3 Spans, Prestressed Concrete Beams, Steel Piles at End Bents, and Interior Bents Supported by Drilled Shaft. Work also included repairs to the roadway embankments damaged during flooding.Congress Road over Jumping Run Creek in Richland County(Top Left) - New bridge consists of 110’ long, 2 Spans, Prestressed Concrete Hollow Core Slabs, Steel Piles at End Bents, and Interior Bent Supported by Prestressed Concrete Piles.Rockbridge Road over Spring Lake (Bottom Left) in Richland County - New bridge consists of: 120’ long, 3 Spans, Prestressed Concrete Hollow Core Slabs, Steel Piles at End Bents, and Interior Bents on Prestressed concrete piles.Battery Park Road over Black Mingo Creek in Williamsburg County (Bottom right) - New bridge consists of: 164’ long, 3 Spans, Prestressed Concrete Hollow Core Slabs, Steel Piles at End Bents, and Interior Bents Supported by Prestressed Concrete Piles. Work also included repairs to the roadway embankments damaged during flooding. <p>ICE was responsible for bridge design, utility coordination and all associated roadway and drainage work necessary to tie the new approaches to the existing roadways and repairing roadway embankments damaged during flooding. A variety of bridge replacement options were used. The superstructures of the four bridges consist of cored slabs, flat slabs, and beams. All four bridge sites were in FEMA special flood hazard zones therefore no rise/no impact studies were produced for three of the sites.</p> <p>The fourth site required the production of a FEMA letter of map revision (LOMR). The LOMR was approved with no comments by FEMA.</p> <p>Design Location: ICE Corporate Office: formerly 1021 Briargate Circle, Columbia, SC 29210</p> <p>Key Individual: Rafi Jamaluddin, PE, Structural Engineer (ICE) – 12/2015-07/2016</p>			   		
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.					
Design work for all four sites was completed in 89 days (started on 12/16/2015 and finished on 3/14/2016). Effective communication along with long established working relationships with our subconsultants (F&ME and CSS) and UIG resulted in a project that was finished under budget and without claims, dispute proceedings, litigation and arbitration.					
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 schedule was developed during the proposal phase and strictly followed during the first three months of the project. All submittals went through a thorough QC process along with over the shoulder reviews by UIG staff. This attention to detail resulted in only a few RFI’s and plan revisions during construction.					
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: Emergency Bridge Package 2018-1 Location: Orangeburg and Dillon Counties, SC	Name: United Infrastructure Group, Inc. 	Name of Owner: SCDOT Project Manager: Jae Mattox, PE Phone: 803.737.1805 Email: mattoxjh@scdot.org	Construction: Design: October 2019	\$8,745	\$1,100 (Design) + \$145 (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.					
<p>Project Description: ICE served as the Primary Design Consultant responsible for successfully delivering all engineering services required for this Design-Build (DB) project which involved the replacement of three bridges including S-50 (Four Holes Road) over Interstate 26 in Orangeburg County and S-45 (Lester Road) over Little Pee Dee River and Swamp in Dillon County. The original 266’ S-50 Bridge (which was severely damaged by vehicular impact and subsequently demolished in March 2018) was replaced with a two-span, 45” deep Florida I-Beam bridge with a cast-in-place concrete interior bent supported by pile footings and MSE walls in front of pile-supported integral end bents. The design also allowed for two lanes of future widening in each direction of I-26 to the inside providing a 72’ clear opening for both directions of traffic. The bridge replacements on S-45 consisted of prestressed hollow-cored slab superstructures with prestressed pile-supported interior bents at both sites. All three bridges required formal seismic analysis and design in accordance with the SCDOT Seismic Design Specifications, and the S-50 site required a pushover analysis.</p> <p>S-50 (Four Holes Rd.) over I-26, Orangeburg County The original bridge consisted of 5 spans for a total length of 266’ and the new bridge consists of two 90’ spans, Type III prestressed girders, and MSE walls placed in front of steel pile-supported end bents that provided the most rapidly constructible and economical solution. The proposed structure was constructed on the existing alignment and required a minor vertical profile adjustment to satisfy the required minimum of 17’-0” above I-26. The interior bent will consists of two columns with steel pile-supported footings. Locating the proposed interior bent in the center of the median allowed conflicts to be avoided with any foundation elements of the original bridge. Our Team proposed a jointless bridge with integral end bents to minimize future maintenance concerns. The proposed bridge geometry allowed for future widening of I-26 to the inside (up to two additional lanes in each direction), providing a 72’ clear opening for both eastbound and westbound traffic.</p> <p>S-45 (Lester Rd.) over Little Pee Dee Swamp & Little Pee Dee River, Dillon County The S-45 project involved a multiple crossing of two bridges, one main bridge over the Little Pee Dee River and one swamp relief bridge. The main river bridge and the swamp bridge were substantially damaged by scour from flooding associated with Hurricane Matthew in October 2016, making replacement necessary for the bridges. The road was closed to traffic until the bridges were replaced. A one-dimensional multiple-opening HEC-RAS model was developed for the crossing, setting optimal span arrangements and elevations for the two replacement bridges. Scour studies were conducted for the two proposed new bridges, using a combination of HEC-18 and USGS Scour Envelope Curve methods. Because the bridge crossings are in a swampy environment with poorly defined stream channels, much judgment had to be exercised in developing predicted scour depths and profiles.</p> <p>Design Location: ICE Corporate Office: formerly 1021 Briargate Circle, Columbia, SC 29210</p> <p>Key Individual: Wayne Whiting, Construction Manager (United) 2018-2019 Chris Fennel, Superintendent (United) 2018-2019 Rafi Jamaluddin, PE, Structural Engineer (ICE) – 04/2018-08/2019</p>			  <div>RELEVANCE:<ul style="list-style-type: none">✓ Design Build✓ Minimization of design and construction impacts to wetlands✓ USACE permit required✓ Bridge work near overhead power lines requiring lines to be shielded & de-energized✓ Contract included right of way acquisitions</div>		
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.					
Our Team used the Concept Plans provided by SCDOT as a starting point and made adjustments to optimize the design and reduce environmental impacts wherever possible. Since the existing roadways were closed to traffic, construction proceeded on-alignment without the need for traffic control.					
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 ICE/UIG Team was awarded the project in July 2018 with a low-bid cost of \$8,745,000. Given the urgency to re-open the roads to traffic, SCDOT required all three bridges to be constructed within 323 calendar days from the Notice to Proceed which was issued on September 3, 2018. The design was completed on an accelerated schedule with released for construction plans being issued for the S-50 site 95 days after the notice to proceed. The plans for the S-45 bridges were released for construction 123 days after the notice to proceed. All submittals were made on time and the SCDOT was pleased with the efficiency of the plan submittal and review process. ICE completed their scope of work on budget and met UIG’s schedule for delivery of all construction documents.					
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.					
N/A					

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: Emergency Bridge Package 2018-2B Location: Chesterfield County, SC	Name: United Infrastructure Group, Inc. 	Name of Owner: SCDOT Project Manager: Brad Reynolds, PE Phone: 803.737.1440 Email: reynoldsbs@scdot.org	Construction: December 2019 (est) Design: July 2019	\$6,750	\$1,033 (Design) + \$105 (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.					
<p>Project Description: ICE is the Primary Design Consultant responsible for successfully delivering all engineering services required for this Design-Build (DB) project which involves the replacement of four bridges including S-243 (Buchanan Bridge Road) Bridge over Adams Creek, S-138 (Bo Melton Loop) Bridge over Little Black Creek, S-757 (Davis Rivers Road) Bridge over Jimmies Creek, and S-34 (Wamble Hill Road) Bridge over Deep Creek in Chesterfield County. All four bridges were damaged as a result of flooding and erosion from heavy rains caused by Hurricane Florence in September 2018. The existing bridges consist of 15' precast spans on timber piles. Design is complete for all four bridges, and they are currently under construction.</p> <p>S-243 (Buchanan Bridge Road) Bridge over Adams Creek The new bridge will consist of a 120' three-span bridge (25'-70'-25') with reinforced concrete end bents founded on HP piles and an interior bent founded on two 3'-6" diameter drilled shafts supporting 3'-0" X 2'-0" prestressed concrete hollow-core slabs with an asphalt riding surface. (pictured top right)</p> <p>S-138 (Bo Melton Loop) Bridge over Little Black Creek The new bridge will consist of a 100' three-span bridge (20'-60'-20') with reinforced concrete end bents founded on HP piles and an interior bent founded on two 3'-6" diameter drilled shafts supporting 3'-0" X 2'-0" prestressed concrete hollow-core slabs with an asphalt riding surface. (pictured bottom left)</p> <p>S-757 (Davis Rivers Road) Bridge over Jimmies Creek The new bridge will consist of a 110' three-span bridge (20'-70'-20') with reinforced concrete end bents founded on HP piles and an interior bent founded on two 3'-6" diameter drilled shafts supporting 3'-0" X 2'-0" prestressed concrete hollow-core slabs with an asphalt riding surface. (pictured bottom right)</p> <p>S-34 (Wamble Hill Road) Bridge over Deep Creek The new bridge will consist of an 106' two-span bridge (45'-61') with reinforced concrete end bents founded on HP piles and an interior bent founded on two 3'-6" diameter drilled shafts supporting 3'-0" X 2'-0" prestressed concrete hollow-core slabs with an asphalt riding surface. (pictured top left)</p> <p>Design Location: ICE Corporate Office: formerly 1021 Briargate Circle, Columbia, SC 29210</p> <p>Key Individual: Wayne Whiting, Project Manager (United) – 2/2019-12/2019 Rafi Jamaluddin, PE, Structural Engineer (ICE) - 2/2019 – 07/2019</p>					
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.					
<p>Roadway, bridge, geotechnical and hydraulic design were performed by ICE. Performing all of the design functions in house was one of the keys to having a successful communication plan. The design team also developed a very detailed schedule pre-bid so that as soon as our team was announced the winning proposer we were able to go to work immediately on scheduling critical tasks such the geotechnical investigation for each site. Insight Group LLC did all of the drilling and soils testing. This was the first Design-Build project that required the contractor to perform bridge load capacity ratings. ICE used AASHTOWare’s Bridge Rating (BrR) computer program to perform this task on each structure.</p>					
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.					
<p>Since the project had to be substantially complete within 200 days from Notice to Proceed, all preconstruction tasks had to be completed on an accelerated schedule. The submittal process was shortened by eliminating the preliminary plans submittal. Our team advanced the hydraulic design pre-bid so that we could submit HEC-RAS models for each site soon after NTP. This enabled the DOT to review our conceptual plans with the hydraulic models and provide the approvals needed to move to final design at each site. The geotechnical investigation, all design, and reviews were completed in just 63 days from the notice to proceed. ICE delivered the RFC bridge and roadway plans for each site ahead of schedule and exceeded the contractors expectations.</p>					
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.					



RELEVANCE:

- ✓ Design Build
- ✓ Minimization impacts to wetlands
- ✓ Accelerated Schedule –5 months

APPENDIX **C**

Work History and Quality Form – Contractor/Designer



Appendix C
WORK HISTORY AND QUALITY FORM – CONTRACTOR
United Infrastructure Group, Inc.

Liquidated Damages:

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 UIG’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 UIG (in thousands)
Name: Emergency Bridge Package 4 Location: Kershaw, Richland and Williamsburg Counties, SC	Name: Infrastructure Consulting & Engineering, PLLC	Name of Owner: SCDOT Project Manager: Tyke Redfearn, PE Phone: 803-737-1430 Email: 13TU redfearnwt@scdot.org U13T	11/2017	\$11,700	\$11,700
g. Narrative describing the work performed by UIG. If submitting work completed by an affiliated or subsidiary company of UIG, identify the full legal name of the affiliate or subsidiary and their role on the Project.					
<p>This project includes the removal and replacement of 4 bridges and approach roadways on secondary roads over waterways in that were damaged by significant flooding. UIG managed and self-performed all the work except as noted herein. The work included 654 LF of bridge, 25909 SF of deck, 11 spans, bridge demolitions, and 1 mile of roadway with grading/drainage work necessary to tie new approaches to existing roadways. The work at each site included the following:</p> <ul style="list-style-type: none">- S-28-36 (Pine Grove Road) over Twenty-Five Mile Creek in Kershaw County – 260’-4” Type III Girder Bridge on end bents w/steel piles and interior bents w/drilled shafts plus extended roadway approaches damaged in the flood,- S-40-69 (Congress Road) over Jumping Run Creek in Richland County – 114’ Cored Slab Bridge on end bents w/steel piles and interior bents w/concrete piles plus the roadway approaches,- S-40-827 (Rockbridge Road) over Spring Lake in Richland County – 120’ Flat Slab Bridge on end bents w/steel piles and interior bents w/concrete piles plus the roadway approaches, and- S-45-51 (Battery Park Road) over Black Mingo Creek in Williamsburg County – 164’ Cored Slab Bridge on end bents w/steel piles and interior bents w/concrete piles plus extended roadway approaches damaged in the flood. <p>The S-28-36 and S-45-51 sites were subcontracted to other bridge contractors. The roadway approaches on all sites were subcontracted to other road contractors. S-40-69 (self-performed by UIG) was completed 24 days early to achieve the \$60k incentive.</p> <p>All work was completed safely with no significant quality issues, within budget, and with minor LDs on some sites per below.</p> <p>Key Individuals: Lindy Hallman, Project Manager, Dec/2015 – Sept/2017</p>					
h. Self-Assessment. The information provided in this section should be a self-assessment of UIG’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.					
Not Applicable					
i. Quality Initiatives. Discuss UIG’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.					
Not Applicable					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, UIG shall provide a detailed explanation below.					
<p>UIG was assessed liquidated damages on the below project sites as follows:</p> <ul style="list-style-type: none">- S-28-36 (101 Days) - Due to lack of performance by a bridge subcontractor we utilized/trusted for this site.- S-40-827 (6 Days) - Due to difficulty in removing the damaged existing bridge which was buried by the flood sediment and also unforeseen foundation installation conditions encountered in the new bridge construction.- S-45-51 (10 Days) - Due to lack of performance by a bridge subcontractor we utilized/trusted for this site.					

Appendix C
WORK HISTORY AND QUALITY FORM – CONTRACTOR
United Infrastructure Group, Inc.

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 UIG’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 UIG (in thousands)
Name: Federal Aid Bridge Replacement Project Package E Location: Cherokee, Chester, Fairfield, Lancaster, and York Counties, SC	Name: Infrastructure Consulting and Engineering	Name of Owner: SCDOT Project Manager: Shane Parris Phone: 864-489-5760 Email: parrissl@scdot.org	2019	\$53,080	\$53,080
g. Narrative describing the work performed by UIG. If submitting work completed by an affiliated or subsidiary company of UIG, identify the full legal name of the affiliate or subsidiary and their role on the Project.					
<p>UIG managed and performed all aspects of this design-build bridge replacement project consisting of 12 sites with 13 bridges in 5 counties totaling 4048 LF of bridge, 184704 SF of deck, 39 spans, 4 miles of roadway, and the bridge demolitions, as well as steel pile, concrete pile, and drilled shaft foundations, reinforced concrete substructures, and flat slab, cored slab, and concrete and steel beam superstructures. UIG managed and self-performed all work described below except as noted herein:</p> <ul style="list-style-type: none">- 405’-2” Type III and 65” Modified BT Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying S-12-77 (Hightower Road) over Fishing Creek,- 331’ 54” Bulb Tee Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying S-12-141 (Brooklyn Road) over Rocky Creek,- 325’ 54” Bulb Tee Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying SC 200 (Great Falls Hwy) over Wateree Creek,- 1,424’-6” 54” MBT and Florida 78” BT Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying SC 9 (Chester and Lancaster Hwy) over Catawba River,- 180’ Type III Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying SC 200 (Monroe Hwy) over Cane Creek,- 330’ 54” Bulb Tee Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying S-46-22 (Pleasant Rd) over Steele Creek,- 220’ and 140’ Cored Slab Bridges on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying S-46-64 (Lincoln Rd) and S-46-732 (Boyd Rd) over Allison Creek and Calabash Branch,- 90’ Type III Girder Bridge on Steel Pile end bent Foundations carrying S-46-347 (Gordon Rd) over Stoney Fork Creek,- 156’ Steel Girder Bridge on Steel Pile end bent Foundations carrying I-85 Overpass over NSRR,- 400’ Type III Girder Bridge on Steel Pile end bent and Drilled Shaft interior bent Foundations carrying S-46-103 (Oak Park Rd) over Fishing Creek, and- 44’-6” Flat Slab Bridge on Steel Pile end bent Foundations carrying S-11-41 (Beech St) over Peoples Creek. <p>Sites S-46-22, S-46-347, S-46-732, and S-46-103 were subcontracted to another bridge subcontractor. All roadway work on all sites was subcontracted to other road contractors.</p>					
h. Self-Assessment. The information provided in this section should be a self-assessment of UIG’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.					
<p>Maintained control of as many site activities as possible, assimilating highly experienced and committed resources, having excess resources available when needed, routine and effective communication and collaboration, and early identification and abatement of issues. When these measures were not implemented, project delivery was adversely impacted. Likewise, UIG learned that utilizing subcontractors that do not share our same culture/commitment and/or with whom there is no established long-term working relationship led to some poor results from a schedule and cooperation perspective. Nonetheless, despite UIG’s shortcomings and lessons learned on this project and several other adversities, all sites were successfully completed in a quality manner without any claims, dispute proceedings, litigation and arbitration, and with no additional cost to SCDOT.</p>					
i. Quality Initiatives. Discuss UIG’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.					
<p>Claims avoidance became very important on this project and via the initiatives to address these matters openly and honestly with SCDOT, all issued were resolved. On the most successful of the sites, collaboration with all team members proved extremely valuable, along with very detailed budgets and schedules that were routinely disseminated. UIG’s QC firm (ICE) remained integrally involved at all times during construction, and any quality issues discovered during construction were documented/vetted with SCDOT quickly.</p>					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, UIG shall provide a detailed explanation below.					
<p>UIG was assessed the following LDs: S-12-141 (7 days, \$17,500) for delays encountered in the relocation of an existing sewer line, SC 200 (83 days, \$124,500) for improper ready mix concrete supplied to site which required removal/replacement plus there were excessive rain days and a flood, S-46-22 (108 days, \$162,000), S-46-64 (10 days, \$25,000) and S-46-347 (70 days, \$245,000) for delays related to a major turnkey subcontractor failing to meet contractual deadlines, S-46-732 (86 days, \$129,000), I-85 (475 days, \$1,662,500) for time to resolve a beam deflection issue between the owner and EOR and time associated with extensive remediation of poor subsurface soils in the existing interstate embankments and excessive weather delays, S-46-103 (99 days, \$148,500) for delays related to grading and paving subcontractors failing to complete work per contractual deadlines, and for the overall project (83 days, \$149,400) resulting from the delays mentioned above.</p>					

Appendix C
WORK HISTORY AND QUALITY FORM – CONTRACTOR
United Infrastructure Group, Inc.

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 UIG’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 UIG (in thousands)
FY 17 Bridge Replacement Project (Batch 1) Location: Districts 2, 3, and 6 in Georgia	Name: Infrastructure Consulting & Engineering	Name of Owner: GDOT Project Manager: Andrew Hoenig, PE Phone: 8404-985-4377 Email: ahoenig@dot.ga.gov	October 2020	\$7789	\$7789
g. Narrative describing the work performed by UIG. If submitting work completed by an affiliated or subsidiary company of UIG, identify the full legal name of the affiliate or subsidiary and their role on the Project.					
<p>This Design-Build project includes the accelerated removal and replacement of 7 bridges and approach roadways on secondary roads over waterways. UIG, as the Contracting Entity and Lead Contractor, managed and self-performed all the work except some of the roadway approach work. The work included 650 LF and 22,905 SF of bridge, demolition of existing bridges, and approximately 0.5 miles of approach roadway as necessary to tie new approaches to existing roadways. All work was completed with no lost time incidents, no significant quality issues, under the Owner’s budget, within the overall 1095 days allowed, and without any disputes or claims. The work included reinforced concrete end bents on steel piles and shafts, reinforced concrete interior bents on concrete piles and drilled shafts, prestressed concrete slabs with asphalt overlays, cast-in-place flat slabs, and prestressed concrete beams with cast-in-place decks. Extensive coordination with the Owner, as well as with third parties and utilities, was critical maintain the accelerated delivery schedules. Road closure durations ranged from 90 to 180 days which often required work to proceed 7 days of week with multiple crews. The sites in this batch included:</p> <ul style="list-style-type: none">Lincoln County - Jones Martin Road over Dozier Branch 65’ 1-span bridge with end bents on steel piles supporting Cored Slab with an Asphalt Overlay Road Closure: 90/90 Days (actual/contract)Burke County - Quaker Road over Walnut Branch 80’ 1-span bridge with end bents on steel piles supporting Box Beams with an Asphalt Overlay Road Closure: 133/90 Days (actual/contract)Spalding County – Vaughn Road over Heads Creek 180’ 5-span bridge with end bents on steel piles and 3 interior bents on H-Piles with Encasements supporting a Flat Slab Deck Road Closure: 217/180 Days (actual/contract)Chattooga County - Green Road over Chattooga River Tributary 50’ 1-span bridge with end bents on steel piles supporting a Cored Slab with an Asphalt Overlay Road Closure: 162/90 Days (actual/contract)*Carroll County – Tyus-Veal Road over Becks Creek 80’ 1-span bridge with end bents on steel piles supporting Box Beams with an Asphalt Overlay Road Closure: 120/120 Days (actual/contract)*Warren County - Ansley Road over Long Creek 115’ 1-span bridge with end bents on steel piles supporting Box Beams with an Asphalt Overlay Road Closure: 120/120 Days (actual/contract)Baldwin County - Roberts Road over Fishing Creek 80’ 1-span bridge with end bents on steel piles supporting Box Beams with an Asphalt Overlay Road Closure: 107/120 Days (actual/contract) <p><i>*subcontracted to others</i></p>					
h. Self-Assessment. The information provided in this section should be a self-assessment of UIG’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.					
<p>Some early construction work was advanced at risk prior to RFC plans. Multiple crews and cranes worked on each site to meet schedule deadlines, and crews worked 7 days per week at critical times. Project management closely coordinated with GDOT to address and abate issues quickly, and with suppliers and subcontractors to ensure long lead-time items were well planned in order to maintain schedule milestones. Severe inclement weather and other issues beyond control delayed completion of a 3 sites and extra resources were allocated to minimize delays.</p>					
i. Quality Initiatives. Discuss UIG’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.					
<p>In addition to the items above, stone screenings were utilized for portions of the embankment to allow work to proceed during inclement weather.</p>					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, UIG shall provide a detailed explanation below.					
<p>Even though some liquidated damages were assessed for a few individual sites, the entire batch of bridges and contract was complete on time without liquidated damages. The site liquidated damages were: Burke County-40 Days x \$713, Spalding County-37 Days x \$713, Chattooga County - 72 Days x \$713*</p>					

Appendix C
WORK HISTORY AND QUALITY FORM – CONTRACTOR
United Infrastructure Group, Inc.

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 UIG’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 UIG (in thousands)
FY 17 Bridge Replacement Project (Batch 2) Location: Districts 2, 3, and 4 in Georgia	Name: Infrastructure Consulting & Engineering	Name of Owner: GDOT Project Manager: Andrew Hoenig, PE Phone: 8404-985-4377 Email: ahoenig@dot.ga.gov	September 2020	\$9126	\$9126
g. Narrative describing the work performed by UIG. If submitting work completed by an affiliated or subsidiary company of UIG, identify the full legal name of the affiliate or subsidiary and their role on the Project.					
<p>This Design-Build project includes the accelerated removal and replacement of 6 bridges and approach roadways on secondary roads over waterways. UIG, as the Contracting Entity and Lead Contractor, managed and self-performed all the work except some of the roadway approach work. The work included 978 LF and 33,898 SF of bridge, demolition of existing bridges, and approximately 0.35 miles of approach roadway as necessary to tie new approaches to existing roadways. All work was completed with no lost time incidents, no significant quality issues, under the Owner’s budget, within the overall 1095 days allowed, and without any disputes or claims. The work included reinforced concrete end bents on steel piles and shafts, reinforced concrete interior bents on concrete piles and drilled shafts, prestressed concrete slabs with asphalt overlays, cast-in-place flat slabs, and prestressed concrete beams with cast-in-place decks. Extensive coordination with the Owner, as well as with third parties and utilities, was critical maintain the accelerated delivery schedules. Road closure durations ranged from 75 to 180 days which often required work to proceed 7 days of week with multiple crews. The sites in this batch included:</p> <p>Dodge County – Milan-Chauncey Rd/Sugar Creek 155’ 3-span bridge with end bents on steel piles and 2 interior bents on concrete piles supporting cored slabs with asphalt overlay Road Closure: 150/150 Days (actual/contract)</p> <p>Dooly County - Weeks Rd/Lilly Branch 133’ 3-span bridge with end bents on steel piles and 2 interior bents on concrete piles supporting Type 1 mod beams with a concrete deck Road Closure: 143/120 Days (actual/contract)</p> <p>Colquitt County – Doerun Norman Park Rd/Okapilco Creek 180’ 5-span bridge with end bents on steel piles and 4 interior bents on steel piles supporting a flat slab deck Road Closure: 245/180 Days (actual/contract)</p> <p>Quitman County – Lower Lumpkin Rd/Hodchodkee Creek 220’ 4-span bridge with end bents on steel piles and 3 interior bents on concrete piles supporting cored slabs with asphalt overlay Road Closure: 157/180 Days (actual/contract)*</p> <p>Echols County – Toms Creek Rd/Toms Creek 160’ 4-span bridge with end bents on steel piles and 3 interior bents on H-Piles supporting a flat slab deck Road Closure: 214/180 Days (actual/contract)</p> <p>Thomas County - Reichertville Rd/McKeever Slough Crk 130’ 3-span bridge with end bents on steel piles and 2 interior bents on concrete piles supporting cored slabs with asphalt overlay Road Closure: 74/75 Days (actual/contract)*</p> <p>*Subcontracted to others</p>					
h. Self-Assessment. The information provided in this section should be a self-assessment of UIG’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.					
<p>Some early construction work was advanced at risk prior to RFC plans. Multiple crews and cranes worked on each site to meet schedule deadlines, and crews worked 7 days per week at critical times. Project management closely coordinated with GDOT to address and abate issues quickly, and with suppliers and subcontractors to ensure long lead-time items were well planned in order to maintain schedule milestones. Severe inclement weather and other issues beyond control delayed completion of a 3 sites and extra resources were allocated to minimize delays</p>					
i. Quality Initiatives. Discuss UIG’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.					
In addition to the items above, stone screenings were utilized for portions of the embankment to allow work to proceed during inclement weather.					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, UIG shall provide a detailed explanation below.					
Even though some liquidated damages were assessed for a few individual sites, the entire batch of bridges and contract was complete on time without liquidated damages. The site liquidated damages were: Dooly-23 Days x \$713, Colquitt-65 Days x \$713, Echols-34 Days x \$713.					

Appendix C

WORK HISTORY AND QUALITY FORM – CONTRACTOR

United Infrastructure Group, Inc.

OSHA Violations:

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 UIG’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 UIG (in thousands)
Name: SC Hwy 378 over Lynches River Location: Scranton, SC	Name: SCDOT	Name of Owner: SCDOT Project Manager: James E. Poston, RCE Phone: 843-307-4072 Email: postonje@scdot.org	11/2017	40,311	13,063
g. Narrative describing the work performed by UIG. If submitting work completed by an affiliated or subsidiary company of UIG, identify the full legal name of the affiliate or subsidiary and their role on the Project. UIG self-performed the removal and replacement of 3 bridges over waterways as part of this 8.9-mile long project, which included 1,470 LF and 118,320 SF of bridge, culvert and bridge demolitions, and approach slabs. The work at each site included: - US 378 over High Hill Creek – 90’ bridge with 30’ flat slab spans on reinforced concrete end bents and interior bents w/20” concrete piles, - US 378 over Lynches River Swamp – 180’ bridge with 60’ Type II concrete beam spans on reinforced concrete end bents w/14” steel piles and interior bents w/66” drilled shafts, - US 378 over Lynches River – 1200’ bridge with 120’ BT 72” concrete beam spans on reinforced concrete end bents w/14” steel piles and interior bents w/78” drilled shafts, All work was completed safely with no significant quality issues, within budget, and on time.					
h. Self-Assessment. The information provided in this section should be a self-assessment of UIG’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. Not Applicable					
i. Quality Initiatives. Discuss UIG’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. Not Applicable					
j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, UIG shall provide a detailed explanation below. OSHA Inspection No 1264639.015 on 9/7/2017, 5 initial violations resulting in 1 serious citation due to employee not using fall protection equipment, even though company provided equipment. Monetary Penalty reduced from \$35,250 to \$7,000 via Informal Settlement Agreement, Optional Repot No.0581-15 w/ SCOSHA (Karl Maddox). Closing Conference on 3/2/2018 via Telephone, Cased closed on 6/12/2018.					

APPENDIX **D**

Legal and Financial

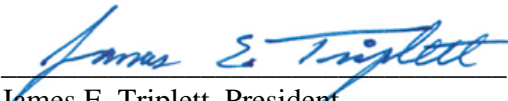




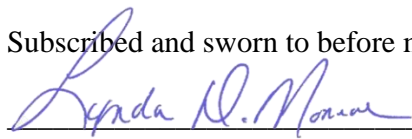
Letter of Financial Capacity

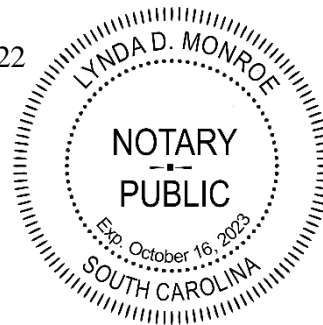
The undersigned, being duly sworn, deposes and says that he is James E. Triplett, President of United Infrastructure Group, Inc. He further states that, United Infrastructure Group, Inc. has the financial capacity and resources necessary to complete the US 301 Over Four Hole Swamp Design-Build Project as proposed in the Request for Proposals issued by South Carolina Department of Transportation.

Signed this 31st day of March 2022


James E. Triplett, President
United Infrastructure Group, Inc.

Subscribed and sworn to before me this 31st day of March 2022


NOTARY PUBLIC FOR SOUTH CAROLINA
My Commission Expires: Oct. 16, 2023



seal



Marsh McLennan Agency
Mid-Atlantic Region
5605 Carnegie Blvd. | Suite 300
Charlotte | NC 28209
T +1 704 365 6213
www.MarshMMA.com

March 31, 2022

South Carolina Department of Transportation

Re: United Infrastructure Group, Inc., Great Falls, SC
Project: US 301 Over Four Hole Swamp, Orangeburg County, SC

To Whom It May Concern:

This is to advise you that our office provides bid, performance, and payment bonds for United Infrastructure Group, Inc. Their surety is Arch Insurance Company, which carries an A.M. Best Rating of "A+" and Argonaut Insurance Company, which carries an A.M. Best Rating of "A-" and both are licensed in the State of South Carolina and on the current Department of the Treasury's Listing of Approved Sureties {Dept. Circular 570}.

Based upon normal and standard underwriting criteria at the time of the request, Arch Insurance Company and Argonaut Insurance Company should be in a position to provide United Infrastructure Group, Inc. Performance and Payment Bonds for single projects in the amount of \$200,000,000.00 and aggregate support in excess of \$500,000,000.00. We reserve the right to review final contractual documents, bonds forms and obtain satisfactory evidence of funding prior to final commitment to issue bonds.

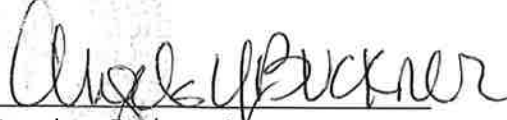
United Infrastructure Group, Inc. is an excellent contractor and we hold them in the highest regard. We feel extremely confident in our contractor and encourage you to offer them an opportunity to execute any upcoming projects.

This letter is not an assumption of liability, nor is it a bid or performance and payment bond. It is issued only as a bonding reference requested by our respected client. We do not assume liability to any third party, including you, if we do not execute said bonds.

If you should have any questions, please do not hesitate to give me a call.

Sincerely,

ARCH INSURANCE COMPANY
ARGONAUT INSURANCE COMPANY

By: 
Angela Y. Buskner, Attorney-in-Fact

A business of Marsh McLennan

Your future is limitless.™

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Note, Loan, Letter of Credit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Angela Y. Buckner, Bradford W. Gibson, Debra S. Ritter, H. Thomas Dawkins, Jenny Snell, Martin D. Pallazza, Raymond J. Garruto, Robert C. Tresher and Wendy E. Lahm of Charlotte, NC (EACH)

its true and lawful Attorney(s)-in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed: Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding Ninety Million Dollars (\$90,000,000.00). This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

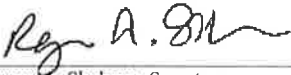
This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on December 10, 2020, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"VOTED, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on December 10, 2020:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on December 10, 2020, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company. **In Testimony Whereof**, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 1st day of December, 2021.

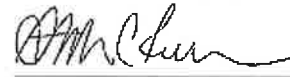
Attested and Certified


Regan A. Shulman, Secretary

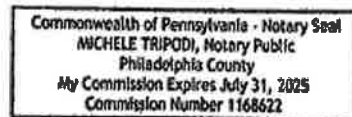
STATE OF PENNSYLVANIA SS
COUNTY OF PHILADELPHIA SS

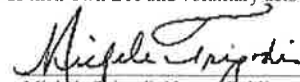


Arch Insurance Company


Stephen C. Ruschak, Executive Vice President

I, Michele Tripodi, a Notary Public, do hereby certify that Regan A. Shulman and Stephen C. Ruschak personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.

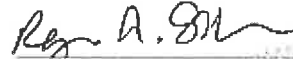



Michele Tripodi, Notary Public
My commission expires 07/31/2025

CERTIFICATION

I, **Regan A. Shulman**, Secretary of the Arch Insurance Company, do hereby certify that the attached **Power of Attorney** dated **December 1, 2021** on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said Stephen C. Ruschak, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this 31st day of March, 2022.


Regan A. Shulman, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance – Surety Division
3 Parkway, Suite 1500
Philadelphia, PA 19102



**To verify the authenticity of this Power of Attorney, please contact Arch Insurance Company at SuretyAuthentic@archinsurance.com
Please refer to the above named Attorney-in-Fact and the details of the bond to which the power is attached.**

Argonaut Insurance Company
Deliveries Only: 225 W. Washington, 24th Floor
Chicago, IL 60606

United States Postal Service: P.O. Box 469011, San Antonio, TX 78246

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the Argonaut Insurance Company, a Corporation duly organized and existing under the laws of the State of Illinois and having its principal office in the County of Cook, Illinois does hereby nominate, constitute and appoint:

Brad W. Gibson, Debra S. Ritter, Martin D. Pallazza, Angela Y. Buckner, Wendy E. Lahm, Robert C. Tresher, H. Thomas Dawkins, Jennifer Underhill,
Anne Baker, James P. Lowrey

Their true and lawful agent(s) and attorney(s)-in-fact, each in their separate capacity if more than one is named above, to make, execute, seal and deliver for and on its behalf as surety, and as its act and deed any and all bonds, contracts, agreements of indemnity and other undertakings in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

\$97,550,000.00

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolution adopted by the Board of Directors of Argonaut Insurance Company:

"RESOLVED, That the President, Senior Vice President, Vice President, Assistant Vice President, Secretary, Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the Company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the Argonaut Insurance Company, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

IN WITNESS WHEREOF, Argonaut Insurance Company has caused its official seal to be hereunto affixed and these presents to be signed by its duly authorized officer on the 19th day of November, 2021.

Argonaut Insurance Company



by:

[Signature]

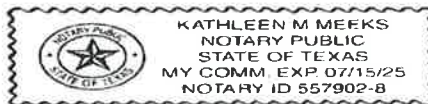
Gary E. Grose, President

STATE OF TEXAS

COUNTY OF HARRIS SS:

On this 19th day of November, 2021 A.D., before me, a Notary Public of the State of Texas, in and for the County of Harris, duly commissioned and qualified, came THE ABOVE OFFICER OF THE COMPANY, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and he acknowledged the execution of same, and being by me duly sworn, deposed and said that he is the officer of the said Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate Seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said corporation, and that Resolution adopted by the Board of Directors of said Company, referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Harris, the day and year first above written.



Kathleen M. Meeks

(Notary Public)

I, the undersigned Officer of the Argonaut Insurance Company, Illinois Corporation, do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand, and affixed the Seal of said Company, on the 31st day of March, 2022.



[Signature]

Austin W. King, Secretary

APPENDIX **E**

Organizational Conflict of Interest



Company

APPENDIX **F**

Confidential or Proprietary Information Summary List





Appendix F

Confidential and Proprietary Information Page List

Requirement: In the Technical Proposal appendix, Proposer shall include a list of page numbers that contain confidential and/or proprietary information. Failure to include this list in the Technical Proposal appendix waives the confidentiality protection and subjects the information to disclosure in accordance with the law.

NOT APPLICABLE.

This package does not contain confidential and/or proprietary information.

APPENDIX **G**

Addendum Receipt Form(s)





South Carolina
Department of Transportation

NOTICE TO PROPOSERS

**US 301 over Four Hole Swamp
Design-Build – Project ID 0040308
Orangeburg County**

March 30, 2022

NOTICE TO PROPOSERS - Enclosed is **Addendum 1** to the Request for Qualifications (RFQ) for the US 301 over Four Hole Swamp design-build project. The information provided in this notice and the addendum shall be made part of the contract documents.

The **yellow** highlights identify the revisions associated with Addendum 1.

This addendum is being issued in order to provide clarification and additional information for the project. The following sections of the RFQ contain revisions:

- 2.6 Non-Confidential and Confidential Questions
- 2.7 Milestone Schedule
- 3.4.5 Lead Design Engineer
- 5.1.1 Due Date, Time and Location
- 6.7 Weighted Criteria Determination



NOTICE OF RECEIPT
US 301 over Four Hole Swamp
Design-Build – Project ID 0040308
Orangeburg County

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

03/31/2022

Date

David Michael Grey, Chief Business Officer

Printed Name

For: United Infrastructure Group, Inc.
Design-Build Team Name



APPENDIX **H**

Key Individual and Contractor / Designer Reference Form(s)



[illegible]

References from Previous Working Relationships Table

Email	First Name	Last Name	Company Name	Project Name	Team
ristergd@scdot.org	David	Rister	SCDOT	SCDOT District 4 Bridge Replacements 2009-2010	United & ICE Design-Build
parrissl@scdot.org	Shane	Parris	SCDOT	SCDOT SC 150 Emergency Bridge 2011	United & ICE Design-Build
parrissl@scdot.org	Shane	Parris	SCDOT	SCDOT Package C Bridge Replacements 2012-2014	United & ICE Design-Build
greenfk@scdot.org	Keith	Green	SCDOT	SCDOT Package D Bridge Replacements 2012- 2014	United & ICE Design-Build
			Beaufort County	Beaufort County Perryclear Bridge Replacement 2014-2015	United & ICE Design-Build
parrissl@scdot.org	Shane	Parris	SCDOT	SCDOT Package E Bridge Replacements 2015-2018	United & ICE Design-Build
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	SCDOT US 176 Bridge over Cannons Creek 2015-2016	United & ICE Design-Build
redfearnwt@scdot.org	Tyke	Redfearn	SCDOT	SCDOT Emergency Bridge Package 4 2016	United & ICE Design-Build
redfearnwt@scdot.org	Tyke	Redfearn	SCDOT	SCDOT US 21 Bridge over Harbor River 2018-2021	United & ICE Design-Build
mattoxjh@scdot.org	Jae	Mattox	SCDOT	SCDOT Emergency Bridge Package 2018-1 2019	United & ICE Design-Build
rwbaucom@ncdot.gov	Rick	Baucom	NCDOT / NCTA	NCDOT Monroe Bypass/Connector	United/Boggs/Anderson Columbia
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	SCDOT Emergency Bridge Package 2018-2B 2019	United & ICE Design-Build
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	SCDOT I-26 Widening (MM 85-101) 2019-2022	Archer-United, JV & ICE DB
greenfk@scdot.org	Keith	Green	SCDOT	SCDOT US 15 over Indian Field Swamp Bridge 2020	United & ICE Design-Build
Theresa@hughesinvestments.com	Phil	Hughes	Hughes Investments	MAULDIN Bridgeway Station Pedestrian Bridge	United & ICE Design-Build
lacycr@scdot.org	Chris	Lacy	SCDOT	SCDOT Carolina Crossroads Phase 1	Archer-United, JV & ICE DB
lacycr@scdot.org	Chris	Lacy	SCDOT	SCDOT Carolina Crossroads Phase 1	Archer-United, JV & ICE DB

References from Work History Forms

Email	First Name	Last Name	Company Name	Project Name	Team
greenfk@scdot.org	Keith	Green	SCDOT	SCDOT US 15 over Indian Field Swamp Bridge 2020	United & ICE Design-Build
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	SCDOT US 176 Emergency Bridge Replacement 2016	United & ICE Design-Build
braggik@scdot.org	Jared	Bragg	SCDOT	SCDOT I-77 SB over Catawba Bridge 2021	United
redfearnwt@scdot.org	Redfearn	Tyke	SCDOT	SCDOT Emergency Bridge Package 4 2016-2017	United & ICE Design-Build
mattoxjh@scdot.org	Jae	Mattox	SCDOT	SCDOT Emergency Bridge Package 2018-1 2019	United & ICE Design-Build
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	SCDOT Emergency Bridge Package 2018-2B 2019	United & ICE Design-Build





JE INFRASTRUCTURE
CONSULTING & ENGINEERING

