

# I-95 City of Richmond Bridge Superstructure Replacement and Rehabilitation Bundling



UPC 111300 (U000-127-023, P101, R201, C501, B601; STP-BR04(287)) | UPC 111294 (0064-127-022, P101, B661; NHPP-064-3(510)) | UPC 113375 (0250-127-050, P101, R201, C501; NHPP-BR04(307))  
UPC 113388 (0004-127-051, P101, R201, C501; NHPP-BR04(308)) | 7th Street Bridge  
Contract ID Number: C00111300DB107



**ATTACHMENT 2.10**

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION**

**RFQ NO.**                    C00111300DB107

**PROJECT:**                I-95 City of Richmond Bridge Superstructure  
Replacement and Rehabilitation Bundling

**ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA**

Acknowledgement shall be made of receipt of the Request for Qualifications (RFQ) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Statement of Qualifications (SOQ) submission date shown herein. Failure to include this acknowledgement in the SOQ may result in the rejection of your SOQ.

By signing this Attachment 2.10, the Offeror acknowledges receipt of the RFQ and/or following revisions and/or addenda to the RFQ for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

- 1. Cover letter of RFQ – December 15, 2020  
(Date)
- 2. Cover letter of Q&A - January 12, 2021  
(Date)
- 3. Cover letter of \_\_\_\_\_  
(Date)

  
\_\_\_\_\_  
SIGNATURE

01/29/2021  
\_\_\_\_\_  
DATE

EJ O'Neill  
\_\_\_\_\_  
PRINTED NAME

Vice President  
\_\_\_\_\_  
TITLE

# 3.2 Letter of Submittal





February 2, 2021  
Commonwealth of Virginia  
Department of Transportation (VDOT)  
1401 E. Broad Street  
Richmond, VA 23219  
Attn: Joseph A. Clarke, PE, DBIA (APD Division)

**RE: I-95 City of Richmond Bridge Superstructure Replacement and Rehabilitation Bundling**

City of Richmond, Virginia  
Contract ID No.: C00111300DB107

Dear Mr. Clarke:

**Archer Western Construction, LLC** (AWC) is pleased to share our credentials, experience, and ideas on how to work collaboratively with VDOT, and the community for a successful I-95 City of Richmond Bridge Superstructure Replacement and Rehabilitation Bundling Project. This Team was assembled based upon our strength and experience with bridge replacements along this part of the I-95 corridor and our understanding and mitigation strategies of the challenges of your bridge superstructure replacement and rehabilitation project. With **WSP USA Inc.** (WSP) as our Lead Designer, AWC has assembled a veteran Team with a successful track record of delivering design-build (DB) bridge replacement/rehabilitation projects on-time and on budget.

**3.2.1 - OFFEROR:** The full legal name and address of the Offeror is Archer Western Construction, LLC, 13454 Sunrise Valley Drive, Suite 440, Herndon, VA 20171.

**3.2.2 - OFFEROR'S PRIMARY CONTACT:**  
David Pupkiewicz, FDBIA, Mgr Alternative Pursuits  
13454 Sunrise Valley Dr, Suite 440  
Herndon, VA 20171  
Phone: 404-721-5050 Fax: 301-347-4681  
[dpupkiewicz@walshgroup.com](mailto:dpupkiewicz@walshgroup.com)

**3.2.3 - PRINCIPAL OFFICER OF THE OFFEROR:**  
EJ O'Neill, Vice President  
13454 Sunrise Valley Dr, Suite 440  
Herndon, VA 20171  
Phone: 301-347-4680 Fax: 301-347-4681  
[ejoneill@walshgroup.com](mailto:ejoneill@walshgroup.com)

**3.2.4 -** The legal structure of the team is AWC will be the signatory to the design-build contract with VDOT, as a limited liability company with all financial responsibility. AWC will provide all performance and payment bonds for the project. WSP, serving as the Lead Designer, will be a subcontractor to AWC.

**3.2.5 -** The Lead Contractor is **Archer Western Construction, LLC**, the Lead Designer is **WSP USA Inc.**

**3.2.6 -** A complete list of affiliates and subsidiary companies may be found on Attachment 3.2.6.

**3.2.7 -** Signed Certification Regarding Debarment Forms for both Primary and Lower Tier Covered Transactions are included as Attachments 3.2.7(a) and 3.2.7(b).

**3.2.8 -** Archer Western's prequalification ID is A210 and the firm's status is active. Please refer to the Appendix for supporting documentation.

**3.2.9 -** A surety letter from our bonding company is included in the Appendix, confirming their willingness to provide any and all bonds for this project.

**3.2.10 -** Virginia State Corporation Commission (SCC) and Virginia Department of Professional and Occupational Regulations (DPOR) registration information for all business entities on our team are included in Attachment 3.2.10 with evidence of the registrations and licenses provided in the Appendix.

**3.2.11 -** AWC is committed to achieving the 9% DBE goal for the entire value of the contract.

The Archer Western Team is fully qualified and committed to the successful delivery of the I-95 City of Richmond Bridge Superstructure Replacement and Rehabilitation Bundling Project! We look forward to working with you on this critical project for the Richmond area.

Sincerely,  
**Archer Western Construction, LLC**

EJ O'Neill  
Vice President

# 3.3 Offeror's Team Structure





### 3.3 OFFEROR’S TEAM STRUCTURE

#### INTRODUCTION

The Archer Western Team is comprised of industry leading design and construction firms in Virginia and the Southeastern United States with the resources, experience and capabilities to successfully manage the design-build (DB) project specific risks and construct this important bridge superstructure replacement and rehabilitation project in Richmond, Virginia. Our team members have a proven track record and were carefully selected based on previous working relationships and capabilities in providing complementary services and resources in design, construction, quality, utility coordination, and traffic management plan development. Structured as an integrated organization, our team supports effective communication with established internal and external relationships that will serve as the foundation for our partnership with VDOT. This approach will help us manage the various design and construction requirements necessary to provide VDOT with a project that meets the goals of not only eliminating the structural deficiencies, but also to increasing the vertical clearance to 15 feet minimum at each bridge.

Archer Western Construction (AWC) is a general contracting, construction management, and DB firm, that is a member of the Walsh Construction Group, a fourth generation, family-owned business, dating back 123 years. This \$5 billion-per-year construction company is ranked as the Largest Southeast Transportation and Design-Build Contractor, 2<sup>nd</sup> Largest Bridge Builder, and the 4th Largest Highway Contractor in the U.S. according to 2020 *Engineering News Record*. AWC has delivered over \$6.5 billion in DB transportation projects in the southeast over the last five years. AWC has maintained its presence in Virginia since the 1980s, completing bridge projects along the I-95 corridor, I-395 in Arlington, and on I-495 in Tysons. Additionally, AWC successfully completed the previous I-95 Richmond bridge superstructure replacement project, providing this team a unique understanding of the corridor, challenges, and approaches necessary to deliver this project successfully.

Our success on DB projects is due in large part to the selection of personnel and team members, each with strengths that address critical project risks. Further, we bring additional DB strength to the Project through our partners and specialty firms as shown in Table 1 and in our Organizational Chart (Page 7).

Table 1 – The Archer Western Team Members	
Firm	Role on Project
	WSP USA Inc. (WSP) will serve as the Lead Designer for this project. WSP is an industry leader in transportation engineering and bridge design, recently being ranked as the #1 Pure Design Firm in the U.S. by Engineering News-Record and #2 in bridges by Roads & Bridges. They bring extensive knowledge of the city of Richmond and a deep bench of engineers to include bridge, roadway, traffic, and utility design experts with the experience of successfully working together on past successful VDOT projects which include interstate bridge rehabilitation for VDOT’s Richmond District. WSP will serve as the lead designer for the following elements: bridge design; roadway design; maintenance of traffic; geotechnical engineering; and public outreach. WSP is also responsible for all design-related QA/QC internally and for the subconsultants in the design phase.
	MBP will be responsible for providing QA services on the project. MBP specializes in construction management and quality assurance and is one of the largest providers of these services to VDOT. They have over 40 local inspectors that are fully VDOT and DEQ certified, many of which have experience on DB projects in either QA, QC or IA



**Table 1 – The Archer Western Team Members**

Firm	Role on Project
	<p>roles. All MBP’s key staff proposed for this contract have VDOT DB experience and are ideally suited to implement the project specific QA/QC Plan which will be developed for this project in accordance with VDOT’s Minimum Requirements for Quality Assurance and Quality Control on DB projects. MBP has recent relevant experience providing quality assurance services to AWC on the \$57M I-395 HOV Ramp at Seminary Road for VDOT.</p>
	<p>McCormick Taylor (MT) will provide utility design and coordination. MT brings a well-rounded and diverse group of transportation professionals with experience and knowledge to provide services on this project. Being located in Glen Allen, MT has close and in-depth knowledge of the project area. They have a good working relationship with the staff in VDOT’s Richmond District and have successfully completed multiple projects in this area. MT recently completed PAC plans for VDOT’s Route 6 Patterson Avenue/Parham Road Intersection Improvement project in the Richmond District. They are a subconsultant under the VDOT statewide on-call Utility Relocation Design contract and work extensively with VDOT on many other projects.</p>
	<p>H&amp;B Surveying and Mapping, LLC (H&amp;B) will provide surveying and 3D scanning of bridge elements. H&amp;B is a certified woman-owned SWaM/WBE-DBE/VSBEP/Micro Business specializing in professional land surveying services. The firm’s partners have more than 30 years of experience in all phases of land surveying and aerial photogrammetry. H&amp;B has provided surveying services on numerous DB contracts throughout the state for various agencies, local governments, and municipalities including VDOT. Completed Richmond area projects include I-64 Widening and RTE 623 Interchange Improvements in Henrico and Goochland Counties, I-64 Widening Exits 200-205 in Henrico County, and I-95 Bridge Restoration in Richmond.</p>
	<p>O. R. Colan Associates, LLC (ORC) will provide right-of-way and construction easement acquisition services. ORC specializes in land acquisition, relocation, and program management for public works projects. ORC is recognized nationally for the provision of acquisition and relocation assistance for projects subject to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646, as amended); and implementing regulations issued by the Department of Transportation at 49 Code of Federal Regulations Part 24. ORC has completed a variety of infrastructure improvement projects in the Commonwealth of Virginia including VDOT Route 60 Widening Design-Build Project in Midlothian, VDOT I-395 Express Lanes in Arlington, and Routes 221 &amp; 613 Bridge Replacement Projects in Roanoke.</p>
	<p>Wetland Studies and Solutions, Inc. (WSSI) will provide environmental permitting services. WSSI has worked with VDOT for more than 20 years. Their transportation experience includes large-scale projects across the Commonwealth such as the I-64 Southside Widening and High-Rise Bridge Replacement, the Chesapeake Bay Bridge Tunnel, the Parallel Thimble Shoal Tunnel project, 95 Express Lanes, 495 Express Lanes, and I-895, and other VDOT projects, including the Martinsville Connector and the Hillsville Bypass. WSSI has worked on many smaller local primary and secondary roads, including new roads, improvements, turn lanes, and widenings.</p>



### 3.3.1 Key Personnel

Additional information on Key Personnel in Table 2 is included as Attachment 3.3.1 - Key Personnel Resumes.

Table 2 - Key Personnel									
Name   Firm Position Relevant Projects	Years of Experience	Design-Build Delivery	Bridge Rehabilitation	Design/Construction of Bridge Superstructures	Effective Communication Strategies/ Stakeholder	Utility Coordination/ Relocations	Multi-Phase TMP/MOT	Work above active Interstate Highway	Experience in Developed Urban Corridors
<b>Larry Wadman, PE   AWC</b> <b>Design-Build Project Manager</b>	39	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> <li>• South Capitol Street Corridor Phase 1 (DB), Washington, DC, \$456M</li> <li>• I-395 HOV Ramp at Seminary Rd. &amp; NB Aux Lane (DB), Alexandria, VA, \$57M</li> </ul>									
<b>Duncan Stewart, PE, CCM, PSP   MBP</b> <b>Quality Assurance Manager</b>	24	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> <li>• US 15/I-64 Interchange (DB), Zions Crossroads, VA, \$7M</li> <li>• Route 35 Darden Bridge Replacement, Courtland, VA, \$13M</li> </ul>									
<b>Rex Gilley, PE   WSP</b> <b>Design Manager</b>	30	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> <li>• I-440 Widening DB, Davidson County, TN, \$153M</li> <li>• Tidewater Drive/Little Creek Intersection Improvements, Norfolk, VA, \$6M</li> </ul>									
<b>Matt Phillips   AWC</b> <b>Construction Manager</b>	12	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> <li>• I-95 Richmond Bridges Replacement, Richmond, Virginia, \$73M</li> <li>• I-395 HOV Ramp at Seminary Rd. &amp; NB Aux Lane (DB), Alexandria, VA, \$57M</li> </ul>									
<b>Sam Styers, PE, ENV SP   MT</b> <b>Lead Utilities Coordination Manager</b>	24	✓	✓	✓	✓	✓	✓	✓	✓
<ul style="list-style-type: none"> <li>• Greenview Drive Widening (DB), Lynchburg, VA, \$11M</li> <li>• Route 10 Superstreet, Chesterfield County, VA, \$64M</li> </ul>									

Each individual was selected because of their extensive experience in the design, construction, and administration of DB projects, bridge rehabilitation, as well as overall design and construction expertise on projects with a similar risk profile. Their experience as reflected on the resumes in the Appendix demonstrates their familiarity with projects of similar scope, size, challenges, and risks. Additionally, each of our Key Personnel and value-added staff have recent relevant DB transportation project experience. They understand the unique aspects of DB transportation projects and have successfully completed projects for VDOT.

### 3.3.2 Organizational Chart

Structured as an integrated organization, our team supports effective communication with established internal and external relationships that will serve as the foundation for our work with VDOT. The Organizational Chart at the end of this section outlines the structure of our proposed Team. The “chain of command” shown in the chart by solid lines represents the primary reporting relationships. Dashed lines represent communication relationships between major project disciplines and participants. This structure has been created to specifically



address the overall project scope, the anticipated schedule for completion, and risks involved in meeting project objectives. This structure will:

- Promote decision making to the appropriate level of the organization keeping project momentum and preventing the project from being bogged down waiting on a single individual
- Foster communication within our team, VDOT, City of Richmond, adjacent projects, and affected utilities
- Allocate resources efficiently to respond to project challenges
- Assure independence for quality, safety and environmental personnel
- Develop and execute a schedule with flexibility and concurrency to successfully mitigate the project risks

**Design and Construction Coordination** - The Archer Western Team is organized to integrate design, procurement, construction, inspection, testing, and safety certification into one cohesive group with the single point of contact for VDOT being our Design-Build Project Manager (DBPM), Larry Wadman. Larry has the authority to represent and make decisions for Archer Western, overseeing the performance of the Team. The following narrative describes the functional relationships and communications among our Team:

***Design-Build Project Manager (DBPM), Larry Wadman, PE*** will serve as the Design-Build Project Manager and be responsible for the overall project design and construction. Larry has over 40 years of experience in the industry and has recently served as the DBPM on the \$456M South Capitol Street Corridor Phase 1 (South Cap) design-build project in Washington, DC. On the South Cap project, Larry led over 250 employees (a tremendous public outreach effort), managed the design, coordinated with utilities to mitigate relocation risk, and provided input on the roadway and structures design on this complex project. Larry will be AWC's primary decision maker on the project and will assure all disputes are mitigated or resolved quickly and efficiently for all parties. Prior to the South Cap project, Larry served as the DBPM, completing the \$57M design-build I-395 HOV Ramp at Seminary Road & NB Aux Lane in Alexandria, Virginia, and is well versed with the challenges of working over an active interstate highway.

***Quality Assurance Manager (QAM), Duncan Stewart, PE, CCM, PSP*** reports directly to the DBPM and will oversee both design and construction quality. Through this reporting structure he is completely independent of the design and construction teams. Duncan has more than 24 years of experience and spent the last 20 years serving in the QAM role on several design-build transportation projects, including the \$25M DB Lakeside Drive Bridge Replacement in Lynchburg and the \$13M DB Darden Road Bridge Replacement for VDOT. MBP and AWC's design-build relationship dates back to 2015 and the \$57M DB I-395 HOV Ramp project where MBP served as the QAM.

***Design Manager (DM), Rex Gilley, PE*** reports to the DBPM and has overall responsibility for management of the design process. Rex's role includes oversight of design subconsultants and communication with each of the discipline leads identified. Rex will attend progress and coordination meetings with VDOT and any public outreach meetings for the project. Rex will also oversee the implementation of the design QA/QC program for WSP and its design subconsultant team members. He will remain involved during construction, attending construction progress meetings and ensuring that RFIs, questions, submittals, and shop drawings are routed to the appropriate design discipline for review and response. Rex has extensive experience as a DM, having served in this same role on other design-build projects including I-264 Widening and MLK Jr. Expressway Extension and the I-440 bridge widenings. Challenging structural design project experience includes the widening of the bridges located in the I-440/I-65 interchange. Currently, Rex is part of VDOT's consultant team leading the review effort for the new and replacement approach trestles that are part of the Hampton Roads Bridge Tunnel Expansion project.

***Construction Manager (CM), Matt Phillips*** will serve as the CM and report to the DBPM. Matt will have oversight for all construction activities on the project. Matt will hold the Virginia DEQ Responsible Land Disturber Certification along with the VDOT Erosion and Sediment Control Contractor Certification. Matt has



approximately 12 years of construction experience – all with Archer Western. In addition to his experience on the I-395 HOV Ramp and NB Auxiliary Lane design-build project, Matt has relevant experience on the corridor having served in a Construction Engineer role on the previous I-95 Richmond Bridges Replacement project. Matt successfully dealt with multi-phase MOT plans, utility coordination and relocation, and challenging bridge superstructure replacements and rehabilitation, all of the risks discussed in Section 3.5. Matt will oversee all construction QC activities and will be involved in reviewing designs for constructability with the DM.

***Lead Utility Coordination Manager (LUCM), Sam Styers*** will serve as the Lead Utility Coordination Manager and is responsible for leading our efforts in the coordination and relocation of the utilities on this project, including verifying conflicts; determining cost responsibilities; conducting utility field inspections; coordinating utility relocation design; reviewing and recommending approval of utility relocation plans and estimates; and oversight of utility relocations. He will also review, verify, and coordinate the modifications of utility designs to resolve conflicts. Sam's recent experience includes utility coordination and design for all private and public utilities on VDOT's Greenview Drive Widening Design-Build project in Lynchburg, Virginia.

### **Additional Team Members (Value Added)**

The following value-added positions will facilitate constructability and coordination between design and construction; enhance our commitment to safety of the traveling public and our construction work force; and contribute to the mitigation of the top three risks discussed in Section 3.5.

***Chris Adams, PE, will lead the structural design efforts.*** Chris has recently led the design for bridges as part of the I-66 DB project in Northern Virginia. He understands the coordination and collaboration required to develop a cost-effective, constructible design. Having worked on VDOT projects for over 20 years, he has a thorough understanding of VDOT's design and detailing methodologies. Chris has been invaluable in recent bridge review work performed on the HRBT Expansion as part of VDOT's consultant team.

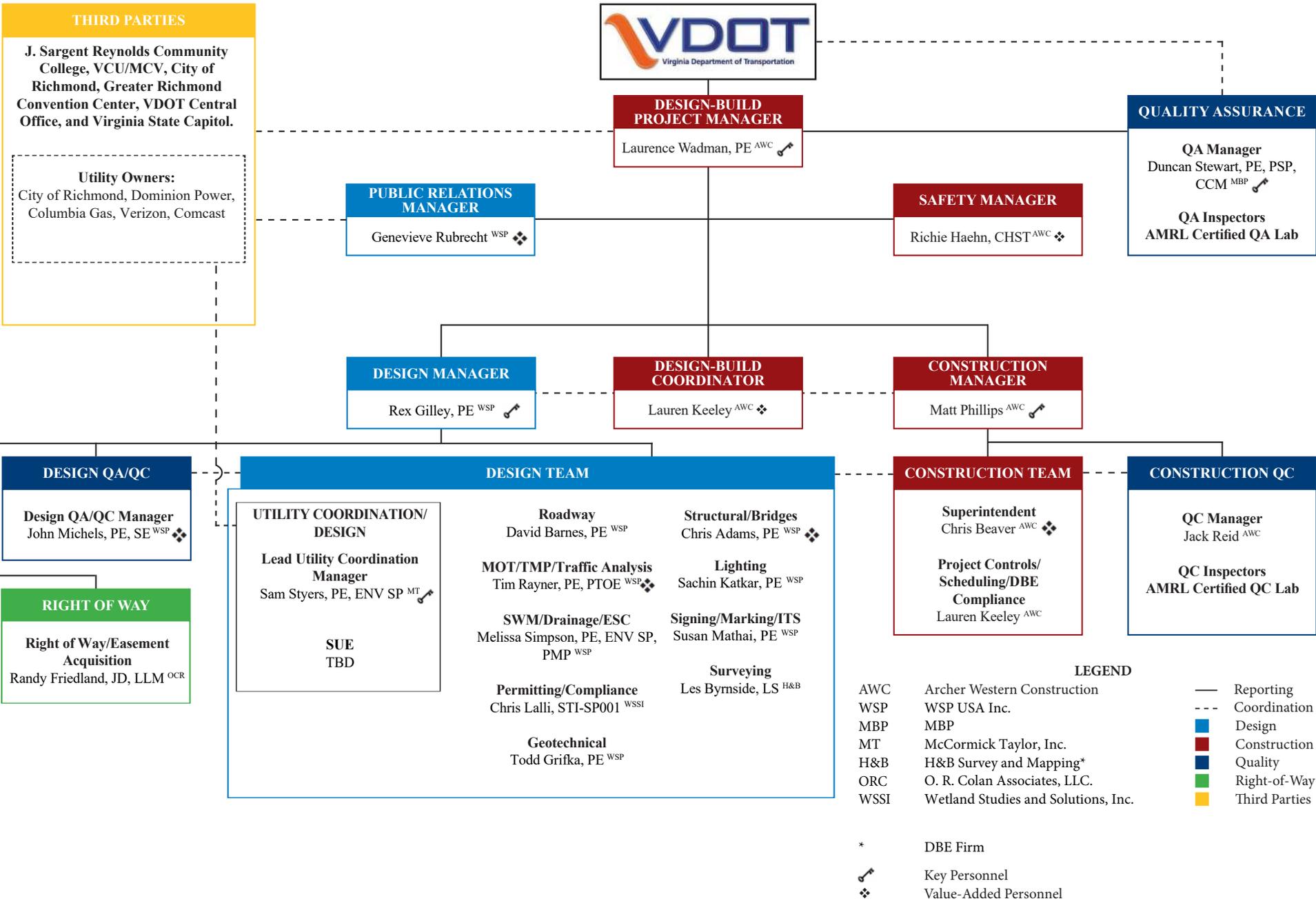
***Tim Rayner, PE, PTOE, will lead our Traffic Engineering and TMP development.*** Tim worked on the I-264 Widening and MLK Jr. Expressway Extension project and understands the effort required to develop a TMP and MOT plans that keep the construction on schedule and traffic moving freely. Recently Tim has been heavily involved in the HRBT Expansion leading the review effort for VDOT's consultant team to ensure the technical requirements for the design are being met.

***Chris Beaver is AWC's Project Superintendent.*** Chris has more than 22 years of industry experience and has overseen the construction operations on several DB bridge replacement and rehabilitation projects, including the previous \$73M I-95 Richmond Bridges Replacement project and the \$27M SC 277 Bridge replacement over I-77 in Columbia, South Carolina. He brings invaluable experience with accelerated bridge construction techniques and bridges in developed urban corridors.

***Safety Manager Richie Haehn, CHST, is overseeing AWC's safety program.*** Richie has over 12 years of experience and will be heavily involved in the safety program creation and implementation. He led the safety programs on DB projects including VDOT's Jones Branch Connector and DDOT's South Cap Project. He will work with the designers to verify third-party safety consideration in the work zone.

***Genevieve Rubrecht is leading public engagement services.*** Genevieve has 10 years of experience in community engagement and public awareness services associated with transportation infrastructure, including DB projects. Her recent experience includes the I-40/I-77 Reconstruction DB, on which she increased public awareness and education through project materials, the website, and public meeting information. In addition, she recently provided PIM support for VDOT's Braddock Road & Old Lee Road Improvement project.

***Lauren Keeley is AWC's Design-Build Coordinator.*** Lauren has over 12 years of experience in the transportation industry. She will lead task force meetings between design disciplines to assure a fully coordinated and constructible design is produced for the project team. Lauren is uniquely experienced in this role through similar services she recently provided on the \$456M South Cap Project.



# 3.4 Experience of Offeror's Team





### 3.4 EXPERIENCE OF OFFEROR’S TEAM

AWC and WSP have achieved a widely recognized level of success by paying specific attention to detail in controlling, managing, and executing their work. This approach will truly benefit VDOT through a team with a history of successfully designing and constructing bridge replacement/rehabilitation projects. Bringing this team together for the I-95 City of Richmond Bridge Superstructure Replacement and Rehabilitation Bundling Project unifies the abilities of each to perform in a complimentary manner based on our past performance together. Each team member, including our specialized subconsultants, was specifically selected due to their previous experience delivering DB projects of similar complexity and confirms our qualifications to successfully deliver all elements of this bridge replacement/rehabilitation project.

Example projects for AWC and WSP that demonstrate our past performance in the design and construction of similar bridge replacement/rehabilitation projects are presented on our Lead Contractor Work History Form (Attachment 3.4.1.a) and Lead Designer Work History Form (Attachment 3.4.1.b) located in the Appendix. Below is a summary of our key projects as they relate to the needs of your project.

**Table 3: Relevant Experience**

Project Name Location/Construction Value	Design-Build Delivery	Bridge Rehabilitation	Design/Construction of Bridge Superstructures	Complex Utility Coordination/Relocations	Multi-Phase TMP/MOT	ABC Techniques	Developed Urban Corridor	Key People Involved
I-95 Richmond Bridges Replacement, Richmond, VA, \$73M		✓	✓	✓	✓	✓	✓	✓
South Capitol Street Corridor PH 1, Washington, DC, \$456M	✓	✓	✓	✓	✓	✓	✓	✓
I-395 Seminary Rd HOV Ramp, Arlington, VA, \$57M	✓	✓	✓	✓	✓	✓	✓	✓
Tidewater Drive and Little Creek Road Intersection Reconstruction, Norfolk, VA \$6M		✓	✓	✓	✓	✓	✓	✓
I-440 Widening, Davidson County, TN, \$153M	✓	✓	✓		✓	✓	✓	✓
Route 8 Superstructure Replacements, Bridgeport, CT, \$35M	✓	✓	✓		✓	✓	✓	

In addition to the projects highlighted in Attachments 3.4.1(a) and 3.4.1(b), the AWC Team has the following relevant bridge replacement/reconstruction experience:



**Jones Branch Connector over I-495, Tysons, VA, \$45M** – The project involved construction of a new four-lane road and bridge over the I-495 Express Lanes/Jones Branch Drive interchange to Scotts Crossing Road. Improvements were also made along the access road from Jones Branch Drive to the I-495 Express Lanes, and Scotts Crossing Road. A multi-phase TMP was developed and coordination with VDOT and Transurban was critical to the construction over the active interstate and express lanes.



**SCC 277 Bridge Replacement, Columbia, SC, \$27M** – AWC delivered this DB bridge replacement project that involved a new bridge and related roadway approaches along SC 277 Northbound over I-77 and demolishing the existing bridge. All lanes of traffic along I-77 and SC 277 were maintained during construction. Demolition of the existing bridge occurred over a weekend while I-77 traffic was detoured. **Our Project Superintendent, Chris Beaver, was the Project Superintendent.**



**I-64/CSX RR Bridge, Henrico County, VA, \$24M** – AWC constructed two 515-foot mainline bridges on I-64 over the CSX Railroad yard. The project involved demolition of two existing structures while maintaining all lanes of traffic on I-64 and maintaining active railroad operations in the CSX yard. A multi-phase TMP was implemented and coordination with VDOT and CSX was critical to the construction over the active rail yard and along I-64.

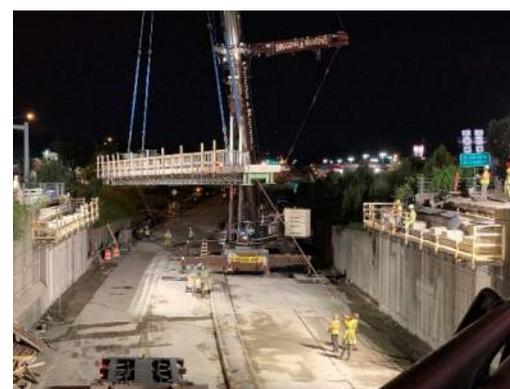
**Churchland Bridge Replacement, Portsmouth, VA, \$35M** – WSP delivered preliminary and final construction plans as lead designer for the replacement of the northbound bridge for this 2000-foot-long water crossing. The southbound bridge controlled the bridge profile which required shallow superstructure elements for the northbound structure to maintain the existing vertical clearance. Rehabilitation of the southbound bridge and the northbound bridge replacement are being constructed under multiple MOT phases. The City waterline and other utilities were coordinated and designed as needed by WSP to upgrade or maintain existing utilities. **Our Design Manager, Rex Gilley served as the project manager and is leading WSP's efforts during the construction phase.**



**I-264 Widening and MLK Jr. Expressway Extension (DB), Portsmouth, VA, \$250M** – WSP was the lead designer and delivered preliminary and final construction plans for the widening of I-264, a new interchange, and the MLK Jr. Expressway Extension (a new, one-mile elevated freeway) through urban Portsmouth, Virginia. The project included eight new or widened bridges; mainline bridge MLK Jr. Expressway extension elevated structure over CSX's Portsmouth yard; 18 retaining walls; three noise barriers; 11 stormwater BMPs; lighting, landscaping, and aesthetic

treatments; utility relocations for overhead electrical and communications; and utility relocation design for City of Portsmouth water transmission main (located under the I-264 bridge over Norfolk and Portsmouth Beltline Railroad and crossing under the railroad tracks). **Our Design Manager, Rex Gilley served as structural lead during the preliminary and final design phases.**

**EB Wilson Boulevard over Route 50, Fairfax County, VA, \$2.2M** – WSP provided final design and construction phase support for this award-winning superstructure replacement project. Wilson Boulevard is located in the heavily congested region of Seven Corners in Falls Church, Virginia, and crosses Route 50, a major thoroughfare into Washington D.C. Due to the poor condition of the existing concrete bridge deck and need to minimize traffic disruption during construction, the project was an ideal candidate for accelerated bridge construction (ABC) methodology. This project involved demolishing and replacing the superstructure in a single weekend. The ABC methodology included three preconstructed composite units (PCU's) erected at the site using very early strength latex concrete deck closure pours providing the required cure time, strength and durability.



# 3.5 Project Risks



## 3.5 PROJECT RISKS

### RISK 1: MAINTENANCE OF TRAFFIC

The AWC Team considers maintenance of traffic (MOT) the most critical risk associated with the superstructure replacement and rehabilitation of five bridges over I-95 in the City of Richmond. Each of these bridges crosses I-95 and must be reconstructed without major impacts to the operation of this facility. They also serve as a critical link in the City's urban transportation network for both vehicular and pedestrian traffic.

#### Why the Risk is Critical

Work zones and changing patterns along the interstate or a cross street with mixed with local traffic and regular pedestrian activity create a high potential for congestion and incidents if MOT is not properly planned and implemented. Implementing work zones and MOT plans at each location must balance the safety of workers, pedestrians and traveling public while constructing a quality project. In our experience, finding this appropriate balance can be subjective and polarizing among stakeholders



4th Street Bridge



5th Street Bridge

if the proper communication and planning does not occur prior to and during the design phase, which can lead to design delays or worse, a design that does not address all stakeholders' concerns, creating unnecessary congestion or safety concerns.

#### Impact on the Project

I-95 is a critical corridor for the entire east coast, with a mix of intrastate, interstate and commercial traffic. Maintaining smooth traffic flow is paramount and any work zone set up along the interstate can impact traffic, increasing the potential for incidents and local or regional traffic congestion. This can have a profound impact on the project by:

- Limiting times when work can occur
- Delaying deliveries to project site
- Extending the overall construction schedule
- Creating negative public response

Each cross street is a unique part of the City's transportation network and serves local traffic, provides access to the interstate, and provides pedestrian facilities. Maintaining access across the interstate and accommodating a mix of local vehicle and pedestrian traffic can have a major impact on the project by:

- Increasing the number of construction phases and traffic shifts
- Limiting the workspace in each phase
- Extending the construction duration of each phase
- Creating a negative response from local stakeholders

A safe environment is paramount and protecting worker safety and the safety of the traveling public is imperative for the success of a project. Without a solid approach to project safety, at best the quality of the construction of the bridges suffers and at worst a catastrophic incident occurs. Neither of these outcomes are acceptable, but the risk of their occurrence can be significantly reduced. There are three primary focuses for reducing the risk to safety of this project: minimizing work zones on I-95, maintaining traffic over the bridge, and maintaining pedestrian access.



## Mitigation Strategies

**Minimizing work zones on I-95:** The nature of a work over high volume and high-speed interstate traffic requires careful consideration in designing the bridge work and developing the MOT plan to minimize the risk. During the design, consideration will be given to minimize activities during construction that could impact I-95 by accommodating reconstruction without work zones along I-95. Techniques such as prefabricated bridge units and false deck systems used during construction will maximize the opportunity to work over I-95 without impacting traffic by reducing the number of times required to stop traffic to set structural elements in place and minimizing the risk of falling debris. Other construction techniques will be investigated to minimize or eliminate the need to have work zones along I-95 to stage equipment, reducing the risk of impacts and allowing work to occur while traffic freely flows on I-95.

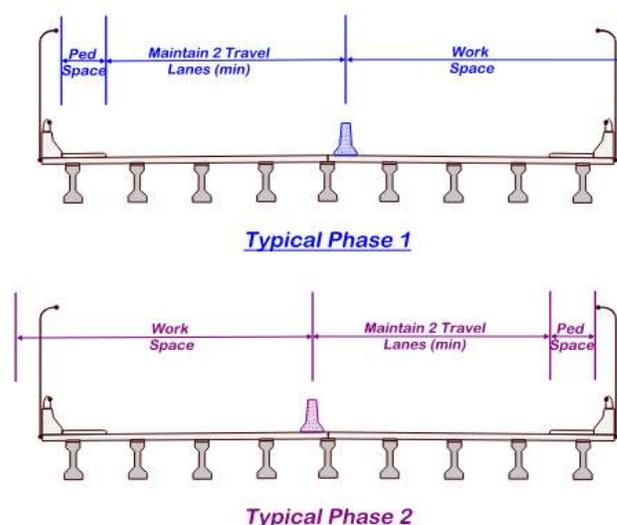


Lombardy St. over CSX

**Maintaining traffic over the bridge:** Maintaining traffic on cross streets is critical to the City of Richmond’s transportation network. Designing and implementing work zones on these cross streets will be focused on providing adequate space for construction, minimizing the overall number of traffic phases required, while providing open travel lanes during each phase to accommodate travel patterns similar to existing. This can be accomplished within the existing bridge limits by utilizing extra space within medians and pedestrian paths. In some cases, the overall number of lanes may be able to be reduced, allowing additional space for construction and pedestrians. They also provide space for barriers between construction and the traveling public, maximizing safety of workers and the public. If lane reductions become necessary, through working with the City of Richmond, work zones on adjacent bridges at the same time will be minimized to reduce the overall impact on the City’s transportation network. Each bridge is unique in the width, the work required, and the traffic they serve; however, the typical phasing shown represents how traffic can be maintained, limiting the number of phases and achieving an efficient construction schedule. Other techniques will be considered during the design for individual bridges to further optimize the phasing, such as full closures and implementation of Accelerated Bridge Construction methods.

**Maintaining Pedestrian Access:** The location of the five bridges within Richmond makes these crossings critical for pedestrians. Without these crossings, I-95 becomes a barrier for people needing to walk to destinations across it. Pedestrian crossings will be considered when designing and implementing the work zone for each crossing. This includes always maintaining at least one path across the bridge, providing separation from work zone and from vehicular traffic, and positive signage to direct pedestrians safely through the area.

A comprehensive and robust Transportation Management Plan will support these focus areas. After initial development of the TMP and MOT plans, the AWC Team will continually evaluate and update these plans as the project conditions warrant for each bridge. The TMP will be developed as a “living document,” initially describing the design MOT, but during implementation examining effectiveness and identifying potential issues and methods of improvements. A critical part of our TMP is including extensive communications with the traveling public. Tim Rayner and Genevieve Rubrecht will work together closely to develop and implement an



Typical Two-phase Construction

A comprehensive and robust Transportation Management Plan will support these focus areas. After initial development of the TMP and MOT plans, the AWC Team will continually evaluate and update these plans as the project conditions warrant for each bridge. The TMP will be developed as a “living document,” initially describing the design MOT, but during implementation examining effectiveness and identifying potential issues and methods of improvements. A critical part of our TMP is including extensive communications with the traveling public. Tim Rayner and Genevieve Rubrecht will work together closely to develop and implement an



effective Public Communications Plan and a strong public outreach effort that will help keep motorists and stakeholders informed of construction progress as well as upcoming changes to traffic patterns.

### **Role of VDOT and other Agencies**

No additional efforts will be needed by VDOT or the City of Richmond. We welcome active engagement with VDOT and City staff for input, for review and approval of the final TMP and Incident Management Plan. This will confirm that best practices from their experience are included and implemented. We also recognize their need to provide formal notification to first responders and the traveling public of scheduled lane-closures or other traffic restrictions.

## **RISK 2: UTILITIES**

### **Why the Risk is Critical**

The design and construction phases for the bridge rehabilitation work will require extensive and targeted coordination with utilities to minimize impacts wherever possible and to complete unavoidable relocations systematically and expeditiously. The RFQ conceptual plans indicate the existing utilities that are active assets must be removed and reset on the structures. Our evaluation of the sites has found more than 60 facilities currently attached to the bridges. In particular, there are multiple poles with overhead lines attached to the 1<sup>st</sup> Street bridge and multiple bridges with existing water, sewer and gas mains as well as conduits with electric and communications lines that are likely critical to the region. Further, the RFQ requirement to reduce girder web depth in order to increase vertical clearance under the bridge may restrict or prevent the ability to accommodate the same sized facilities that are in service today.



*1<sup>st</sup> Street Bridge*

This presents a significant undertaking for the project. Poorly planned and executed relocation strategies can create situations with unidentified critical services or hindered response time by parties directly involved in the project. Based on our Team's past experience coordinating utilities on similar projects, this risk is critical to the Project for the following reasons:

- An unscheduled shutdown to the utilities could severely disrupt numerous customers with a subsequent economic impact that is difficult to measure.
- ROW or easement acquisition may be necessary to accommodate a temporary or permanent relocation at several of the locations, depending on the ultimate placement of the adjusted utilities.
- Conflicts are expected with at least five different utility types (water, sewer, gas, power, and telecommunications) owned by no less than four entities (including City of Richmond, Dominion Power, Comcast, and Verizon) and will require substantial time and effort to coordinate and design the required utility relocations. It should be noted that some utility companies have had difficulties completing their tasks in a timely manner on projects with accelerated schedules.

### **Impact on the Project**

It is likely that rehabilitation of the bridge superstructures cannot proceed until most, if not all, of the attached utilities have been relocated or arrangements made for temporary shutdown. Such relocations can present a variety of risks that impact the project (schedule, cost), commerce, and public health and safety. The exact nature and criticality of the existing utilities has not been determined yet but almost certainly they play a vital role in serving the adjacent businesses, schools and residences, as well as the neighboring communities. Given the nearby utility customers, it will be imperative to perform a comprehensive and accurate evaluation of the existing utilities. We will coordinate those findings with the proposed bridge rehabilitation work in order to avoid costly delays on the project, or more importantly, the unintended disruption of critical services to those locations that could then generate negative publicity or affect emergency response. Other impacts that may



increase project scope, cost and/or schedule could include redesign of the superstructure to facilitate the proposed vertical clearance or the extension of utility relocations beyond the project limits.

In addition, delays during any portion of the relocation process (identification, coordination, owner agreements, design, construction) will impact schedule and could impact the project in the following ways:

- Delay in completing superstructure construction, thereby extending the shutdown or temporary provision of existing utility service, some of which are major feeds serving downtown Richmond and the surrounding area;
- Delay in completing overall bridge improvements, thus prolonging the need for MOT;
- Direct impact as to how and when the bridge work can occur and the extents of such work given the utility facilities that are attached to the bridges.

### **Mitigation Strategies**

Our Team will work with the utility owners (City of Richmond, Columbia Gas, Verizon, Comcast, etc.) to ascertain appropriate shutdown durations, recognize applicable re-connection activities, identify potential temporary provisions for continued service, bypass operations, or allowable disruption, and accommodate permanent placement of relocated facilities. With nearby stakeholders such as J. Sargent Reynolds Community College, VCU's MCV Campus, Richmond City agencies, Greater Richmond Convention Center, VDOT Central Office, and the Virginia State Capitol, our coordination will be conducted to minimize shutdown of critical services. Our planned actions will consist of the following activities:

- Assigning Sam Styers, PE, ENV SP, as the Lead Utility Coordination Manager (LUCM) mitigates utility challenges. His 24 years of experience (last 7 years focused on utility design and coordination) and utility owner relationships will prove invaluable to this important project effort.
- Immediately coordinate with utility owners to develop relocation strategies, including the feasibility of multiple shutdowns or permanent relocation of the structures to minimize interruptions.
- Perform a thorough field survey and implement a detailed SUE program to accurately depict the existing facilities.
- Identify any existing facilities attached to the bridges that can be downsized, consolidated, or removed from service. This will reduce the amount of time needed for utility coordination, relocation design, and relocation construction.
- Sequence and schedule the necessary utility relocations and/or temporary provisions to align with the intended bridge work.
- Develop an MOT plan that provides as much flexibility as possible for utility relocations.
- Continuously coordinate with utility owners, expedite subsequent relocation designs and P&E review, and develop contingency plans as necessary.
- Identify the utility relocations that directly affect the project schedule's Critical Path and work diligently to promptly confirm conflicts with the Team and utility owners.
- Focus on particular design elements that most directly impact the shutdown duration of existing utilities such as any limitations for tie-in locations or splicing requirements.

### **Role of VDOT and other Agencies**

No additional efforts will be needed by VDOT or the City of Richmond. The role of VDOT, FHWA and other agencies generally will be the same as that of other similar projects. With VDOT's proven expertise and experience in coordination of utility relocations, we would anticipate participation with utility coordination typical of this project scope and area, advice on potential avoidance concepts, and timely review and approval of relocation plans. By utilizing its staff's institutional knowledge and existing relationships with utility owners, VDOT will be a great partner in helping navigate the impacts, communicating the importance of the project to some utility owners, providing assistance should any utility become unresponsive, and helping to find the path of least resistance.



## RISK 3: WORKING WITH STRUCTURALLY DEFICIENT BRIDGES

Working with and around structurally deficient bridges always poses risks to the project's scope, schedule, and budget because the extent of necessary repairs may not be fully known until selective demolition has begun. Maintaining traffic on existing portions of the bridges may subject them to loads that they have not yet experienced. In addition, a goal of this project is to increase the vertical clearance provided by these bridges over I-95. Increasing the height of beam seats on poor condition pier caps may require replacement of some pier caps, which could require additional work on columns. AWC's previous I-95 Richmond Bridges Replacement project involved similar risks including repair of deficient substructures to support cranes (while holding demolition pieces), new PCUs, and heavy hauling equipment. This required in-depth analysis of every structure and exact placement of cranes, trailers, and equipment throughout construction to avoid deck failures. AWC performed temporary repairs to several bridge elements for equipment support and construction access. These repairs were then removed as a part of upgrading the superstructure.

### Why the Risk is Critical

In our experience, the extent of the repairs necessary to adequately rehabilitate structures in conditions similar to the five bridges included in this contract are not fully known until after selective demolition has begun. For example, many of the pier caps and columns for bridges in this contract show significant amounts of deterioration. Once we have ascertained information related to the condition of each structure, a decision on repair versus replacement of substructure components must be made.

In addition, maintaining traffic on portions of an existing bridge introduces load distributions that the structure has not experienced throughout of its life-cycle; and construction activities underway in proximity to these bridges may subject them to impact or vibration loads that could cause additional damage. This may create risks to the traveling public in terms of falling debris or potential failure of superstructure members, which has the potential to delay construction activities until sufficient measures have been taken to ensure the structural integrity of the sections of the bridge that remain in use during construction.

### Impact on the Project

Given the volume of traffic carried by these structures and their locations crossing highly active interstates, as well as the varying condition of the substructures, there is the potential for:

- Negative public perception as a result of traffic interruptions due to work zones, lane closures, falling debris or failure of superstructure members.
- Schedule delays as a result of additional structural repairs needed due to damage or unforeseen structural concerns encountered during construction.
- Expansion of the scope due to additional work required to repair, rehabilitate or replace deteriorated substructure elements. The determination of repair versus replacement must consider condition as well as factors such as construction duration, allowable work zones, staging areas and allowable lane closures.

### Mitigation Strategies

Our team members have extensive experience working with structurally deficient bridges and will apply some of the best practices that we have developed through that experience to mitigate this risk, including:

***Develop a clear understanding of the as-built condition of the structures:*** Our team will obtain an initial understanding of the as-built condition of the structures by thoroughly reviewing all available data regarding these bridges, including original construction plans, maintenance or rehabilitation records, and routine inspection reports.

***Determine the current condition of the structures:*** After the document review, we will conduct our own in-depth inspection during the scope validation period to ensure that our team concurs with the findings identified in the routine inspection reports or other project documents.



**Establish sequence of construction for each structure:** Based on the information gathered during the document review and our field investigation, the design and construction teams will work together to establish a sequence of construction (SOC) that clearly identifies the scope of work necessary to maintain traffic on portions of the existing structures while portions of the substructures are repaired or replaced to receive new superstructure elements. This SOC will be specifically tailored for each bridge with the number of lanes required to be maintained dictating the number of phases of construction needed for each structure. For instance, the 1st and 5th street bridges currently carry one lane in each direction. If it is acceptable to reduce these structures to one lane during construction, or detour traffic such that they can be completely shut down, construction could be completed in one or two phases. For the 4th, 7th and Broad Street Bridges which each carry four lanes of traffic, there may be sufficient width to allow construction to be completed in two phases, while maintaining acceptable lane widths.

**Conduct structural analysis:** Once the sequence of construction is established for each bridge, we will conduct a structural analysis of the portions of the existing structure expected to remain in place during each stage of construction. This will include a load rating analysis to ensure that the structure can continue to carry the loads it currently carries without load posting or restriction of certain vehicles.

**Consider temporary barrier placement location:** We will evaluate placement of temporary barriers in phases where an interior girder now becomes an exterior girder to confirm that the deck and the now exterior girder can accommodate vehicle impact loads. Our design and construction teams will work closely together to minimize or avoid the need for any temporary retrofit or strengthening to the extent possible. This will also require close coordination between structural and roadway designers to ensure that sufficient roadway widths are provided to maintain vehicular and pedestrian traffic.

**Implement Accelerated Bridge Construction (ABC) techniques to minimize construction duration:** In order to meet the schedule and to minimize the time the existing structures must be used to maintain traffic in each phase, we will consider the use of ABC techniques, which may include:

- Use of precast substructure elements that can be readily erected. For example, in cases where there is significant deterioration of a pier cap; or where the height of the beam seat needed to meet a shallower superstructure being erected to increase vertical clearance exceeds desirable levels, it may be more advantageous to replace the cap rather than to repair it. This could be completed by demolishing sections of the existing cap and portions of the columns, casting column extensions in place, and erecting precast pier caps on the extended columns.
- Fabrication and erection of modular sections of the superstructure that could be constructed off site and erected in short duration, overnight shutdowns. WSP recently employed this approach on the Route 50 superstructure replacement project in Northern Virginia; and Archer Western utilized this approach on their I-95 Richmond Bridges Replacement project.



*To expedite construction, AWC employed ABC techniques on the I-95 Richmond Bridges Replacement project.*

**Role of VDOT or other agencies:** No additional efforts will be needed by VDOT or the City of Richmond. We expect that VDOT would be engaged throughout the process with typical activities such as plan reviews and coordination. The City of Richmond will be engaged in determining allowable restriction of lanes or pedestrian accommodations at each bridge site, which may require coordination with Virginia Commonwealth University. As these bridges cross a very active interstate highway, FHWA may also be involved in determining allowable work zones or lane restrictions on I-95.

# SOQ Checklist



**ATTACHMENT 3.1.2**

**Contract ID C00111300DB107**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
<b>Statement of Qualifications Checklist and Contents</b>	Attachment 3.1.2	Section 3.1.2	no	Appendix
<b>Acknowledgement of RFQ, Revision and/or Addenda</b>	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix
<b>Letter of Submittal (on Offeror's letterhead)</b>				
Authorized Representative's signature	NA	Section 3.2.1	yes	1
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	1
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	1
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	Appendix
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix

**ATTACHMENT 3.1.2**

**Contract ID C00111300DB107**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
<b>SCC and DPOR registration documentation (Appendix)</b>	Attachment 3.2.10	Section 3.2.10	no	Appendix
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	Appendix
<b>DBE statement within Letter of Submittal</b> confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
<b>Offeror's Team Structure</b>				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	5-6
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix
Key Personnel Resume – Lead Utility Coordination Manager	Attachment 3.3.1	Section 3.3.1.5	no	Appendix
Organizational chart	NA	Section 3.3.2	yes	7

**ATTACHMENT 3.1.2**

**Contract ID C00111300DB107**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
Organizational chart narrative	NA	Section 3.3.2	yes	4-6
<b>Experience of Offeror's Team</b>				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix
<b>Project Risk</b>				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	10-15

# Key Personnel Resume Forms



## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>Laurence Wadman, PE – Senior Project Manager</b>
b. Project Assignment: <b>Design-Build Project Manager</b>
c. Name of the Firm with which you are employed at the time of submitting SOQ.: <b>Archer Western Construction, LLC</b>
d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>39</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):  <b>Archer Western Construction, LLC, 2015 to Present, Senior Project Manager:</b> As Senior Project Manager, Larry has corporate oversight responsibilities to deliver multiple projects (or a single larger project). He has direct responsibility for overall project delivery including coordination and management of: design-build policies/procedures; safety processes; risk mitigation; quality management; stakeholder coordination; subcontractor solicitation, negotiation, award and contract administration; dispute avoidance and resolution; cost control for self-performed work and subcontractors; creation and maintenance of Primavera CPM schedule; material/equipment procurements; monthly job status summaries; estimating; chairing weekly progress and coordination meetings; training staff; and execution of monthly pay applications.  <b>The Industrial Company (a wholly owned subsidiary of Kiewit effective 2009), 1996-2015, Senior Construction Manager:</b> Larry's responsibilities included the development of business opportunities through existing and new client contact; the management of the estimating department in the preparation of cost proposals; contract negotiation and administration with owners, management of design professionals (design-build projects) and subcontractors; and project start-up and staffing along with establishment of management systems. He was ultimately responsible for the successful delivery of a project to the owner.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Delaware, Newark, DE / Bachelor of Science / 1977 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1988 / Professional Engineer / 0402018578
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b>  <b>South Capitol Street Corridor PH 1 (DB), (\$456M), Washington, DC</b> <span style="float: right;"><b>Role:</b> DBPM/Project Executive</span> <b>Firm:</b> Archer Western Construction <span style="float: right;"><b>Dates:</b> 2017-2019</span> <ul style="list-style-type: none"><li>• Led a staff of over 20 supervisors and 230 self-performing craft workers</li><li>• Responsible for Risk Management and Mitigation strategies</li><li>• Managed public outreach and stakeholder coordination</li><li>• Supervised the design, permitting, and construction on the design-build project</li><li>• Coordinated with multiple stakeholders utilizing oral, written, and social media outlets to assure public and all stakeholders were informed</li><li>• Provided constructability reviews on design to minimize conflicts that could affect schedule</li><li>• Managed the project control and document control systems</li><li>• Managed labor and procured subcontractors and materials in time to meet a demanding schedule</li><li>• Managed the application of the project specific safety, environmental, and quality control plans</li></ul>

This project includes the construction of the six-lane new Frederick Douglass Memorial Bridge (FDMB) with parallel alignment across the Anacostia River. Additional scope included widening of I-295 from six to eight-lanes for approximately 2.1 miles, replacement of I-295 bridges over Firth Sterling Ave, Suitland Pkwy, Howard Rd, and Good Hope Rd; and interchange/ramp improvements at the Howard Rd and Suitland Pkwy Interchanges.

**Similarities to Richmond Bridge Project:** *Design-Build, bridge construction, superstructure rehabilitation, multi-phase TMP/MOT, dense urban environment, multiple utility relocations, stormwater management considerations, environmental considerations, innovative design and construction techniques, significant stakeholder coordination*

**I-395 HOV Ramp at Seminary Rd. & NB Aux Lane (DB), (\$57M), Alexandria, VA**

**Role:** DBPM

**Firm:** Archer Western Construction

**Dates:** 2015-2016

- Responsible for Risk Management and Mitigation strategies
- Managed public outreach and stakeholder coordination
- Supervised the design, permitting, and construction on the design-build project
- Coordinated with multiple stakeholders utilizing oral, written, and social media outlets to assure public and all stakeholders were informed
- Provided constructability reviews on design to minimize conflicts that could affect schedule
- Managed the project control and document control systems
- Managed labor and procured subcontractors and materials in time to meet a demanding schedule
- Managed the application of the project specific safety, environmental, and quality control plans

This design-build project includes constructing a new I-395 HOV Ramp to the existing Seminary Rd Bridge, replacing the superstructure of the Seminary Rd Bridge, constructing a new pedestrian bridge, widening and rehabilitating the Sanger Ave Bridge, widening the I-395NB General Purpose Lanes, widening the Seminary Rd Off-Ramp, and widening the Duke St On-Ramp.

**Similarities to Richmond Bridge Project:** *Design-Build, bridge construction, superstructure rehabilitation, multi-phase TMP/MOT, dense urban environment, multiple utility relocations, stormwater management considerations, environmental considerations, innovative design and construction techniques, significant stakeholder coordination*

**CSX – Bridge 2A Bridge Replacement (\$28M), Baltimore, MD**

**Role:** Design-Build Project Manager

**Firm:** The Industrial Company

**Dates:** 2015-2016

- Supervised the design, permitting, and construction on the design-build project
- Managed labor and procured subcontractors and materials in time to meet a demanding schedule
- Managed stakeholder coordination
- Managed the application of the project specific safety, environmental, and quality control plans
- Administered schedule to ensure milestones were met
- Managed the project control and document control systems

Design-Build project to replace a 190' pinned truss bridge over the mainline of Amtrak. Outages were limited to a single 40-hour CSX track outage. Existing power lines along the Amtrak R/W restricted access to the site. An electrified catenary system for 3 of the 4 rail tracks was inches from the low chord of the existing truss. Larry developed the scheme, design, and CAD models, to switch out the bridge using a longitudinal rolling system to avoid impact to the electrical utilities surrounding the bridge. The new 190' through plate girder span was built off line just south of the existing span. During the outage the new span was rolled into the existing truss. The existing truss was then raised and rolled out using the new through plate girder span. Temporary runways were constructed for Hillman rollers. Hydraulic cylinders and air tuggers were used to move the spans.

**Similarities to Richmond Bridge Project:** *Design-Build, multi-phase construction, utility relocations, ABC construction techniques, environmental considerations, significant stakeholder coordination*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

**Not applicable for this position**



**Lakeside Drive Bridge (DB) (\$20M), Lynchburg, VA****Role:** Quality Control Manager**Firm:** MBP**Dates:** 2020 – present

- Provided QA services (developed the project's QA/QC plan)
- Provided QA inspection and testing, and project records management services during the construction phase.
- Prepared, maintained, and submitted project documentation including diaries, EEO, ARRA, materials notebook/documentation, as-built sketches, and monthly pay documents including verifying and approving monthly pay packages; prepared and submitted final records
- Managed the QA inspection team
- Coordinated QA with the design builder's QC inspection staff

This project consisted of construction of a new bridge and relocation of Lakeside Drive. Construction features included drilled shafts, drilled H-piles, MSE walls, new roadway, drainage, pavement, and a multi-use pedestrian pathway.

*Similarities to the I-95 Project: Design-Build delivery, bridge construction, multi-phase TMP/MOT, environmental considerations, stakeholder coordination*

**I-895 Airport Connector Road (DB) (\$40M), Richmond VA****Role:** Quality Assurance Manager**Firm:** MBP**Dates:** 2008-2011

- Provided QA services (developed the project's QA/QC plan)
- Provided QA inspection and testing, and project records management services during the construction phase.
- Prepared, maintained, and submitted project documentation including diaries, EEO, ARRA, materials notebook/documentation, as-built sketches, and monthly pay documents including verifying and approving monthly pay packages; prepared and submitted final records
- Managed the QA inspection team
- Coordinated QA with the design builder's QC inspection staff

This project consisted of construction of 1.5 miles of a limited access 4-lane highway from I-895 to Charles City Road, including a new bridge over I-895, a new interchange at I-895, a new bridge over Sprouse Drive, and a new bridge over the CSX Railway. Construction included extensive MSE retaining walls, steel girder and concrete beam bridges, and the widening of an existing bridge on I-895.

*Similarities to the I-95 Project: Design-Build delivery, Richmond District, interstate construction, bridge construction, multi-phase TMP/MOT, environmental considerations, stakeholder coordination*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

**Current Assignments:**

- City of Lynchburg Lakeside Drive Bridge over Blackwater Creek, QCM, substantial completion September 2021
- VDOT On-call Finals Contract, Project Manager, current term ends June 2021

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>Rex Gilley, PE – Senior Supervising Structural Engineer</b>
b. Project Assignment: <b>Design Manager</b>
c. Name of the Firm with which you are employed at the time of submitting SOQ.: <b>WSP USA Inc.</b>
d. Employment History: With this Firm <u>21</u> Years With Other Firms <u>9</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):  <b>WSP USA Inc., 1999 to Present, Director/Structural Engineer:</b> Rex has 30 years of innovative engineering design experience, including the last 28 years which have been focused on VDOT projects as well as Locally Administered Projects utilizing VDOT standards. He has served as lead structural engineer on projects and as project manager on VDOT's 2008 Bridge On-call, which resulted in 13 bridge replacements. Rex's technical experience includes structural engineering of bridge structures over active navigable channels, major highway structures, retaining walls, overhead sign structures, design of new fender systems, in addition to design of various foundation types for transportation structures. His work includes preliminary and final design of reinforced concrete, prestressed concrete, and structural steel elements on complex, environmentally sensitive bridge structures to improve capacity, enhance safety, and improve ability for emergency/evacuation routes. In addition, Rex's construction phase experience provides clients with valuable insight in producing and coordinating designs that incorporate both owner's standards and contractor's preferences.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Tennessee - Knoxville, Knoxville, TN / Master of Science / 1991 / Structural Engineering University of Memphis, Memphis, TN / Bachelor of Science / 1988 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1994 / Professional Engineer / 0402025213
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i>  <b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b>  <b>I-440 Widening (DB), (\$153M), Davidson County, TN</b> <b>Role:</b> Structural Engineer-of-record; Design Manager for bridge widenings and rehabilitation packages <b>Firm:</b> WSP USA Inc. <b>Dates:</b> 2018-2020 <ul style="list-style-type: none"><li>• Responsible for coordinating individual design disciplines and ensuring overall Project design is in conformance with Project Technical Requirements for the bridges and structures.</li><li>• Responsible for establishing and overseeing a QA/QC program for all disciplines pertinent to bridge packages (including review of design, working plans, shop drawings, specifications, and constructability)</li><li>• Responsible for review of designs and to verify and modify designs as needed based on field conditions.</li><li>• Responsible for the final design and load rating activities for the widening of six interstate bridges. This included all substructure and superstructure design activities related to the widening of six bridges on I-440 as well as the coordination of all bridge elements with the contractor, CSX, geotechnical, roadway, drainage, traffic, MOT, noise wall design, noise wall design/repair, lighting disciplines, and all related plan production activities.</li></ul> This design-build project consisted of 7.5 miles of interstate highway and bridge widening, including the widening of curved, twin 4 <sup>th</sup> level interchange crossings at I-440 over I-65, and a CSX railroad utilizing continuous steel plate girders. The total bridge lengths were 1,018' (WB) and 1,039' (EB). The distance between the existing bridges was 32'. Due to superelevated cross-slope, the existing bridges were widened independently. The bridges' constrained

workspace at this system interchange required careful design and construction planning. Innovative rolling gantry cranes were utilized to place rebar cages for the drilled shafts and pier columns, and to lift girder pairs from the roadway median to place them on the substructures. Bridge piers consist of reinforced concrete hammerhead piers supported on single drilled shafts. Work at this interchange was constrained for MOT as there were only a few weekends allowed for closures of the interchange. Girder erection schemes allowed much of the girder fit-up to occur off the bridge, thus limiting the amount of time required when a full closure was needed.

***Similarities to I-95 Richmond Bridges Bundling Project :*** *Design-build procurement; multi-phase MOT; interstate construction, urban corridor; constrained workspace; innovative bridge design solutions and construction techniques; limited impacts to traffic and community; schedule constraints; innovative girder erection scheme; coordination of elements with the contractor; stakeholder coordination; and construction phase support.*

### **Churchland Bridge (\$35M construction), Portsmouth, VA**

**Role:** Project Manager

**Firm:** WSP USA Inc.

**Dates:** 2015-ongoing

- Responsible for coordinating individual design disciplines and ensuring overall Project design is in conformance with VDOT's Locally Administered Projects Manual, including AASHTO LRFD Code and City of Portsmouth requirements.
- Responsible for establishing and overseeing a QA/QC program for all pertinent disciplines including review during design as well as construction phase review of working plans, shop drawings, specifications, and constructability.
- During construction phase responsible for review of designs and to verify and modify designs as field conditions warrant for bridge replacement and rehabilitation.

WSP provided preliminary and final plans for the northbound half of a four-lane bridge to replace the fracture-critical pin-and-hanger structure over the Elizabeth River. The northbound and southbound bridges are separated by a one-inch longitudinal deck joint. The northbound bridge replacement utilizes post-tensioned spliced-girder construction over the channel with prestressed concrete beams, made continuous for the approaches. The replacement bridge utilizes innovative, cost-effective, spliced girders to maintain the bridge profile and channel clearance of the southbound bridge that is to remain. The project also included rehabilitation of the southbound roadway, approach roadway modifications, right-of-way coordination and acquisition, offsite stormwater facility design, public waterline replacement, and private utility coordination.

***Similarities to I-95 Richmond Bridges Bundling Project :*** *Multi-phase MOT; urban corridor; constrained workspace; limited impacts to traffic and community; VDOT design and detailing methodology; and construction phase support.*

### **Richmond District Rehabilitation of 7 Bridges (On call construction) (\$3M construction), Richmond, VA**

**Role:** Project Manager

**Firm:** WSP USA Inc.

**Dates:** 2016-2019

- Responsible for coordinating individual design disciplines and ensuring overall Project design is in conformance with VDOT Design Standards for rehabilitation of interstate bridges.
- Responsible for establishing and overseeing a QA/QC program for all disciplines pertinent to bridge rehabilitation (including review of design, working plans, shop drawings, specifications, and constructability).
- Responsible for review of designs and to verify and modify designs as needed based on field conditions.

This task was performed as part of a VDOT Statewide On-call contract. It included work on I-64, I-85 and US-58 bridges over local roads. The rehabilitation included deck mill and overlay, deck joint closures and expansion joint construction in multiple phases. I-64 WBL over 4<sup>th</sup> Street was included in this work and in the immediate vicinity of the Richmond Bridge Bundle Project.

***Similarities to I-95 Richmond Bridges Bundling Project :*** *Multi-phase MOT; interstate construction, urban corridor; constrained workspace; limited impacts to traffic and community; VDOT design and detailing methodology; and construction phase support including coordination with on-call contractor.*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

**Not applicable for this position**

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>Matthew Phillips – Project Manager</b>
b. Project Assignment: <b>Construction Manager</b>
c. Name of the Firm with which you are employed at the time of submitting SOQ.: <b>Archer Western Construction, LLC</b>
d. Employment History: With this Firm <u>11</u> Years With Other Firms <u>1</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):  <b>Archer Western Construction, LLC, 2019-Present, Project Manager:</b> Matthew is responsible for project administration, including project start-up, staffing, and contract negotiation with subcontractors and suppliers. He oversees maintenance of quality control systems, schedule requirements, construction of the project, cost accountability, and the establishment of management systems. It is his duty to ensure close coordination among all project team members, ensuring owners a successful project delivery  <b>Archer Western Construction, LLC, 2017 -2019, Assistant Project Manager:</b> Matthew supervised on-site teams and manages daily field operations. This included management of project timelines, development of progress reports for owner meetings, and coordination/supervision of contractors. Other duties included managing bid solicitation, contract drafting, buyouts, shop drawing review and submittal review, cost estimating, plan distribution, project pay requests, and change order/purchase order drafting. He also monitored materials and equipment installed by contractors, enforced quality control, and ensured compliance with safety standards and contract requirements.  <b>Archer Western Construction, LLC, 2015 -2017, Construction Manager:</b> Matthew was responsible for the completion of all phases of the project. His duties included the review of plans, scheduling of work, tracking of job costs, managing daily field operations and coordinating with the owner's engineers. He was also responsible for on-site safety management, subcontractor coordination, and the supervision of all construction work, ensuring owner satisfaction.  <b>Archer Western Construction, LLC, 2009 -2015, Project Engineer:</b> Matthew supported on-site teams and daily field operations. This included support of project timelines, updating progress reports for owner meetings, and coordination/supervision of contractors. Other duties included bid solicitation, contract drafting, buyouts, shop drawing review and submittal review, cost estimating, plan distribution, project pay requests, and change order/purchase order drafting.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:  North Carolina State University, Raleigh, NC / Bachelor of Science / 2010 / Construction Engineering Mgmt
f. Active Registration: Year First Registered/ Discipline/VA Registration #:  Mr. Phillips will hold a Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) prior to the commencement of construction.
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i>  <b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b>  <b>I-395 HOV Ramp at Seminary Rd &amp; NB Aux Lane (DB), (\$57M), Alexandria, VA</b> Role: Construction Manager <b>Firm:</b> Archer Western Construction <b>Dates:</b> 2014-2016

- Managed labor and procured subcontractors and materials in time to meet a demanding schedule
- Administered schedule to ensure milestones were met
- Applied safety, environmental, and quality plans
- Provided constructability reviews on design to minimize conflicts that could affect schedule
- Managed self-perform crews, heavy equipment, and subcontractors to assure schedule was met
- Tracked quantities, cost accounting, coordinate weekly client meetings, assure work planning was completed
- Implemented Traffic Management Plan
- Managed utility coordination and relocation efforts

This design-build project includes constructing a new I-395 HOV Ramp to the existing Seminary Rd Bridge, replacing the superstructure of the Seminary Rd Bridge, constructing a new pedestrian bridge, widening and rehabilitating the Sanger Ave Bridge, widening the I-395NB General Purpose Lanes, widening the Seminary Rd Off-Ramp, and widening the Duke St On-Ramp.

**Similarities to Richmond Bridge Project:** *Design Build, bridge construction, superstructure rehabilitation, multi-phase TMP/MOT, dense urban environment, multiple utility relocations, stormwater management considerations, environmental considerations, innovative design and construction techniques, significant stakeholder coordination*

**Jones Branch Connector over I-495 (\$45M), Tysons, VA**

**Role:** Construction Manager

**Firm:** Archer Western Construction

**Dates:** 2017-2019

- Managed labor and procured subcontractors and materials in time to meet a demanding schedule
- Applied safety, environmental, and quality plans
- Administered schedule to ensure milestones were met
- Managed the project control and document control systems
- Managed utility coordination and relocation efforts
- Tracked quantities, cost accounting, coordinate weekly client meetings, assure work planning was completed

This project included construction a new four-lane road and bridge from the I-495 Express Lanes/Jones Branch Drive interchange to Scotts Crossing Road. Improvements also were made along the access road from Jones Branch Drive to the I-495 Express Lanes, and Scotts Crossing Road.

**Similarities to Richmond Bridge Project:** *Bridge over interstate highway, dense urban environment, multi-phase TMP/MOT, multiple utility relocations, environmental considerations, stakeholder coordination*

**I-95 Richmond Bridges, (\$73M), Richmond, VA**

**Role:** Project Engineer

**Firm:** Archer Western Construction

**Dates:** 2010-2014

- Managed labor and procured subcontractors and materials in time to meet a demanding schedule
- Administered schedule to ensure milestones were met
- Tracked quantities, cost accounting, coordinate weekly client meetings, assure work planning was completed
- Responsible for Risk Management and Mitigation strategies
- Supported utility coordination and relocation efforts
- Applied safety, environmental, and quality plans

This project included the rehabilitation of 20 individual interstate bridge structures located at 10 separate on I-95 in Richmond, VA. The work also included adding two miles of shoulder to widen existing roadway, which entailed widening four of the bridges. The rehabilitation work called for complete replacement of all superstructure elements for the 20 bridge structures using the technique employed by AWC circa 1999 on the nearby James River Bridge, i.e. nightly bridge deck/beam removal followed by immediate replacement with Preconstructed Composite Units (PCUs).

**Similarities to Richmond Bridge Project:** *Bridge construction, superstructure rehabilitation, use of ABC techniques, multi-phase TMP/MOT, dense urban environment, multiple utility relocations, stormwater management considerations, environmental considerations, stakeholder coordination*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

**Current Assignments:**

- Route 9 Traffic Calming, Hillsboro, VA, Project Mgr, through March 2021

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>Sam A. Styers, PE, ENV SP – Senior Manager, Transportation Engineering</b>
b. Project Assignment: <b>Lead Utility Coordinator Manager</b>
c. Name of the Firm with which you are employed at the time of submitting SOQ.: <b>McCormick Taylor, Inc.</b>
d. Employment History: With this Firm <u>8</u> Years With Other Firms <u>16</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):  <b>McCormick Taylor, Inc., 2017-Present, Senior Manager, Transportation Engineering:</b> Sam oversees the business operations at the firm's Verona, VA office, including contract and project management, staff resourcing and development, client relations, and business development. He is an active industry participant with memberships in ASCE, AWWA and WEF as well as Co-Chair of Virginia811's Western Virginia Damage Prevention Committee. He is part of the firm's regional Senior Managers group and is a member of the company File Management Committee.  <b>McCormick Taylor, Inc., 2013-2017, Senior Utilities Engineer:</b> Sam was responsible for all activities associated with utility coordination and relocation design for the firm's Virginia projects. He also managed and oversaw multiple roadway, sidewalk, and trail projects administered by locality clients through VDOT's LAP Program. He was heavily involved in business development and client relations. In addition, Sam was a member of the firm's File Management Committee.  <b>Pennoni Associates, Inc. (formerly PHR+A), 1997-2013, Senior Project Manager (most recent position):</b> Having begun his employment at PHR+A shortly after graduating college, Sam moved up the ranks from engineer to project engineer to project manager and ultimately becoming a senior project manager. While in the most recent position, he managed contracts and projects for both public and private clients and was heavily involved in business development. His work generally included water and sewer relocation design and hydraulic modeling for numerous clients; Phase I and II ESAs, EIRs and other environmental studies; and various projects for the DOD at bases in the Mid-Atlantic region.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: West Virginia University / Bachelor of Science / 1996 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: June 2003 / Virginia Professional Engineer / #0402036571
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i>  <b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b>  <b>Greenview Drive Widening Design-Build (\$11M), VDOT, Lynchburg, VA</b> <b>Role:</b> Assistant Design Manager/Senior Utilities Engineer <b>Firm:</b> McCormick Taylor, Inc. <span style="float: right;"><b>Dates:</b> 2015-2018</span> <ul style="list-style-type: none"><li>• Managed relocation design for 1,300 linear feet of 6- to 12-inch water main and water service line.</li><li>• Managed relocation design for 250 linear feet of 8-inch sanitary sewer main relocation with associated abandonment of a drainfield.</li><li>• Coordinated utility relocations with five utility companies that involved 15 poles with associated aerial facilities, 2,400 linear feet of 8-inch high-pressure gas main, and 1,500 linear feet of buried copper communications line.</li><li>• Coordinated right-of-way acquisition for over 40 properties.</li><li>• Coordinated internal project reviews and constantly communicated with prime contractor.</li></ul>

- Provided engineering support during construction.

This design-build project included the widening of Greenview Drive from two to four lanes for approximately 0.6 miles in length, construction of a 5' sidewalk and 10' shared use path, and improvements to the Greenview Drive and Leesville Road intersection and adjacent approaches that presented vertical challenges. Additionally, the project involved traffic signal upgrades, signing and pavement marking, roadway lighting, landscaping, environmental permitting, retaining walls and public involvement. McCormick Taylor was the Lead Engineer and EOR.

**Similarities to Richmond Bridge Project:** *Design-build, numerous utility relocations, multi-phase TMP/MOT, significant stakeholder coordination, urban environment, significant traffic volumes, innovative design and construction approach*

**Route 10 Superstreet (\$64M), Chesterfield County, VA**

**Role:** Senior Utilities Engineer

**Firm:** McCormick Taylor, Inc.

**Dates:** 2013-Ongoing

- Oversaw extensive coordination with six private utility companies involving the relocation of more than 50 overhead power poles (single and double circuits), several telephone poles, and thousands of feet of medium and high-pressure gas mains, and buried power, telecommunications, and fiber optic throughout the project corridor.
- Managed relocation design for 14,000 linear feet of 6- to 16-inch water main plus associated water service line and multiple interconnections along the corridor.
- Managed relocation design for 11,000 linear feet of sewage force main (18-inch AC pipe to 24-inch DI pipe).
- Managed relocation design for 800 linear feet of 6- to 8-inch gravity sewer main.
- Managed relocation design for closure of multiple existing water wells and septic systems.
- Currently providing engineering support for construction.

This is a VDOT locally administered project for preliminary and final design to widen 1.9 miles of the four-lane urban principal arterial to eight lanes between Bermuda Triangle Road and Rivers Bend Boulevard. This project features the innovative use of a signalized “Superstreet” intersection, the first of its kind in Virginia, as well as five unsignalized Superstreet intersections. This design approach is an unconventional intersection treatment in which all traffic on the minor streets are channelized to make a right turn and then a subsequent downstream U-turn. McCormick Taylor was responsible for all roadway design, utility coordination, MOT/sequence of construction plans, water/sewer relocation design, traffic signal plans, drainage, public involvement, VISSIM and Synchro traffic analysis, and NEPA permitting. After it is constructed, the project will improve the link from I-95 to I-295 and relieve the current congestion. The project is currently scheduled to complete construction in March 2022.

**Similarities to Richmond Bridge Project:** *Major utility relocations, multi-phase TMP/MOT, significant stakeholder coordination, dense urban environment, significant traffic volumes, innovative design approach*

**Cedar Lane (SR 623)/Route 1 Intersection (\$4M), Hanover County, VA**

**Role:** Senior Utilities Engineer

**Firm:** McCormick Taylor, Inc.

**Dates:** 2014-2019

- Responsible for utility coordination with five private utility companies related to the relocation of 12 power poles and several thousand feet of buried facilities, including a critical, high security fiber optic facility.
- Oversaw the relocation design for 1,100 linear feet of 8- and 16-inch water main and associated interconnections along the existing Cedar Lane and US Route 1 and the extension of 900 linear feet of 16-inch water main and along the realigned Cedar Lane (SR 623).
- Provided engineering support during construction.

This project included improving the geometrics and operation of the State Route 623 and US Route 1 intersection, which is located in an older, established business corridor in Hanover County. Route 1 was widened to provide left/right turn lanes at the new intersection and a cul-de-sac was constructed for existing Cedar Lane. MT provided pre-scoping horizontal and vertical alignment alternatives for various design speeds; lane and shoulder widening and intersection realignment to improve safety; addition of turn lanes, signal warrant study and signal design; extensive stakeholder coordination with the County and local businesses; right-of-way acquisition; utility coordination and relocation design; hydraulic analysis and drainage design; development of final construction plans; and bid assistance.

**Similarities to Richmond Bridge Project:** *Significant utility relocations, multi-phase TMP/MOT, substantial stakeholder coordination, urban environment, significant traffic volumes*

\* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

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.

N/A

# Work History Forms



**ATTACHMENT 3.4.1(a)**  
**LEAD CONTRACTOR - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)
					Original Contract Value	Final or Estimated Contract Value	
<b>VDOT I-95 Richmond Bridges Richmond, Virginia</b>	<b>AECOM (Formerly URS Corporation)</b>	Name of Client/ Owner: <b>VDOT</b> Project Manager: Scott Fisher Phone: (804) 674-2452 Email: <a href="mailto:scott.fisher@VDOT.Virginia.gov">scott.fisher@VDOT.Virginia.gov</a>	<b>10/24/2014</b>	<b>10/16/2014</b>	<b>\$67,958</b>	<b>\$73,537</b> (due to Owner directed changes & bonus payment)	<b>\$51,476</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



**PROJECT NARRATIVE AND SCOPE:**

In September 2010, AWC was awarded the contract for the rehabilitation of 20 mainline interstate bridges on I-95 in Richmond, Virginia, including 2 miles of shoulder widening and the extension of acceleration lanes. Specific elements of the project included:

- Superstructure work that included nightly bridge deck/beam removal and immediate replacement with precast composite deck sections
- Multiple utility relocations
- Substructure work included rehabilitation of existing columns and Pier Caps
- Retaining walls for the widening of four bridges
- Shoulder widening and pavement improvements
- Stormwater management improvements
- Public outreach

Maintenance of traffic (MOT) requirements were extensive, because I-95/I-64 in Richmond was reduced to one lane in each direction for approximately 200 nights of superstructure replacement in a two-year period, with corresponding lane closures or traffic detours on underlying City of Richmond streets.

The project also included an extensive construction engineering effort for superstructure shop drawings, temporary falsework, pier reconstruction, superstructure demolition/erection plans, and three approved VECPs.

**LIMITING IMPACTS TO THE TRAVELING PUBLIC/AFFECTED BUSINESSES AND COMMUNITIES:**

Lane closures and detours were restricted to nights and weekends with monetary penalties involved if the lanes were not reopened by the specified time. The use of Accelerated Bridge Construction (ABC) techniques, precast deck units, reduced bridge replacements from several weeks to days. Additional components included:

- Assigning a dedicated MOT/Incident Manager responsible for implementing the plan and acting as the single point of contact for all MOT issues
- Holding regular meetings with third party stakeholders regarding MOT phasing, upcoming traffic shifts, and construction activity
- Having the MOT Manager attend meetings regarding changes in the traffic patterns, lane closures, and upcoming activities
- Implementing an Incident Management Plan with communication protocols with law enforcement and emergency responders to clear accidents
- Strategically located laydown and casting areas to reduce construction traffic

**ON-TIME COMPLETION:**

This challenging bridge replacement and rehabilitation project **was completed 3 months ahead of schedule** and earned a \$3,000,000 "NO EXCUSES" early completion bonus.

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:**

Along with the ABC Techniques used on previous VDOT projects, additional innovations used on this project included:

- Match-casting the pre-constructed composite bridge units assuring the quality of the finished product
- Enhancing the accuracy of the As-Built Survey by utilizing Laser Scanning technology
- Utilized "Live Load" shoring to replace the existing pier caps allowing the existing bridges to remain in operation



*Match-casting slabs assured quality.*



*Live Load shoring reduced traffic impacts.*

**RISK IDENTIFICATION AND MITIGATION:**

AWC identified and mitigated the same three critical risks on this project that are discussed in Section 3.5 of this SOQ. Those risks and our specific mitigation strategies are described below:

- **MOT:** A detailed TMP was implemented, dedicated MOT supervisor was onsite during all lane closures, VDOT standard devices were installed in accordance with the TMP. Additionally, VDOT led an exhaustive public information program with AWC support to inform the community about upcoming activities, lane closures, access and restrictions.
- **Utilities:** AWC worked closely with VDOT to identify all utilities on each bridge superstructure, coordinate relocations prior to demolition activities, and have contingency plans in place should an incident occur.
- **Structurally Deficient Bridges:** AWC worked with VDOT to gather additional data on the substructure once demolition had begun. Updated load ratings and element capacities were determined which factored into our temporary shoring plan. Live Load shoring as discussed above was used to allow traffic to remain in place while pier caps were replaced.

**SIMILARITIES TO**

**I-95 RICHMOND SUPERSTRUCTURE REPLACEMENT AND REHABILITATION**

- Bridge construction
- Superstructure rehabilitation
- Use of ABC techniques
- Multi-stage traffic management plan
- Utility relocations and avoidance
- Environmental permitting and strict compliance monitoring
- MOT operations minimizing impacts
- Independent QA program
- AWC responsible for QC program
- Public involvement and outreach
- Third party stakeholder communication and coordination
- CM served in similar role
- Project superintendent served in same role

**ARCHER WESTERN'S ROLE:**

Archer Western Construction was the prime contractor for the VDOT I-95 Richmond Bridges replacement project.

**ATTACHMENT 3.4.1(a)**  
**LEAD CONTRACTOR - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)
					Original Contract Value	Final or Estimated Contract Value	
South Capitol Street Corridor Phase 1 (DB)  Washington, DC	AECOM Technical Services, Inc.	Name of Client: <b>DDOT</b> Project Manager: <b>Rick Kenney</b> Phone: <b>202-671-2249</b> Email: <a href="mailto:richard.kenney@dc.gov">richard.kenney@dc.gov</a>	12/2021	12/2021 (Estimated)	\$ 440,786	<b>\$456,136*</b> * Difference due to Owner added scope	<b>\$234,575</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



- SIMILARITIES TO I-95 RICHMOND SUPERSTRUCTURE REPLACEMENT AND REHABILITATION**
- Design-build delivery
  - Bridge construction over interstate highway
  - Superstructure rehabilitation
  - Multi-stage traffic management plan
  - Utility relocations and avoidance
  - Environmental permitting and strict compliance monitoring
  - MOT operations minimizing impacts
  - Independent QA program
  - AWC responsible for QC program
  - Public involvement and outreach
  - Third party stakeholder communication and coordination
  - DBPM served in same role
  - DB coordinator served in same role

**ARCHER WESTERN'S ROLE:**  
 Archer Western Construction's (AWC) role in the project is the Managing Member of the South Capitol Bridgebuilders JV and lead contractor. In this capacity AWC has overall responsibility and management of the complete scope of work including all design and engineering, utility relocations, permitting, quality control, construction, public outreach, and overall project administration and management. AWC is the primary point of contact with the owner and created and monitored the project schedule.

**PROJECT NARRATIVE AND SCOPE:**

In June 2017, South Capitol Bridgebuilders JV (with AWC as managing member), was awarded the contract for the design and construction of a new Anacostia River crossing, Frederick Douglass Memorial Bridge (FDMB), and widening and reconstruction along I-295 in Washington, DC. Specific elements of the project included:

- Designing and constructing new traffic ovals in an urban setting at each end of the river crossing
- Multiple utility relocations
- Widening of I-295 from six to 8-lanes for approximately 2.1 miles
- Replacement of I-295 bridges over Firth Sterling Ave, Suitland Pkwy, Howard Rd, and Good Hope Rd
- Interchange/Ramp improvements at the Howard Rd and Suitland Pkwy Interchanges
- Stormwater management improvements
- Drainage improvements and adequate outfall channel enhancements
- New 3-span arch bridge over the Anacostia River
- Public outreach

All interstate work was performed on a heavily traveled roadway, and all lane restrictions were coordinated by AWC with DDOT to allow for public notifications of construction activity.

AWC in partnership with DDOT developed a local area hiring program that targeted existing workforce development programs and established an "On-the-Job-Training" (OJT) program. The program is organized by job types and is structured as an apprenticeship program with the goal of graduation to journeyman status.

**LIMITING IMPACTS TO THE TRAVELING PUBLIC/AFFECTED BUSINESSES AND COMMUNITIES:**

Minimizing impacts to the traveling public was a critical aspect of this congested corridor. AWC applied the use of a MOT "Task Team" from pursuit phase through TMP implementations. The Task Team was comprised of Designers, Construction personnel, DDOT representatives, and emergency responders (local fire and police). The MOT Task Team developed the TMP around the goals of safety, efficiency, stability, access, and communication. Key components included:

- Assigning a dedicated MOT/Incident Manager responsible for implementing the plan and acting as the single point of contact for all MOT issues
- Holding regular meetings with third party stakeholders regarding MOT phasing, upcoming traffic shifts, and construction activity
- Having the MOT Manager attend meetings at the DDOT Traffic Management Center regarding changes in the traffic patterns, lane closures, and upcoming activities
- Dividing the project into three segments each with only two phases until traffic was placed in its final configuration
- Implementing an Incident Management Plan with communication protocols with law enforcement and emergency responders to clear accidents
- Strategically located laydown and storage areas to reduce construction traffic and minimize trucks from entering existing traffic lanes
- Use of additional temporary drainage inlets between phases to improve drainage and eliminate ponding, thereby keeping all travel lanes open during rain events

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:**

AWC utilized our experience and "lessons learned" from several interstate highway widening and bridge reconstruction/rehabilitation projects to implement several innovative design solutions. First, the interstate widening/reconstruction scope was extensive enough to allow an optimized roadway alignment and geometry which minimized the amount of temporary pavement, reduced earthwork quantities and eliminated two MOT phases. The revised phasing also minimized nighttime construction work, representing a safety improvement to our team's field staff and inspection staff, as well as reduced impacts to the traveling public.

Additional innovative design solutions included optimizing the river crossing span lengths (eliminating one foundation) and foundation design to limit the amount of "in water" work that needed to be performed. The team also developed designs for preassembled bridge deck elements. Use of preassembly reduced schedule, minimized traffic impacts, improved quality, and eliminated potential safety issues.

**RISK IDENTIFICATION AND MITIGATION:**

AWC identified and mitigated the same three critical risks on this project that are discussed in Section 3.5 of this SOQ. Those risks and our specific mitigation strategies are described below:

- **MOT:** Replacement of I-295 mainline bridges over four crossroads required a phase approach in order to maintain all existing lanes of traffic. A detailed TMP was implemented, a dedicated MOT supervisor was onsite full time, detours and closures were restricted to nights and weekends, and temporary concrete barrier separated traffic from construction activity.
- **Utilities:** AWC worked with DDOT, the City, DC Water, and PEPCO to identify potential conflicts, coordinate relocations, and have contingency plans in place should an incident occur. Use of "call before you dig" and extensive potholing were implemented. A dedicated utility coordinator and task team was key to mitigating potential impacts.
- **Structurally Deficient Bridges:** Working adjacent to the existing FDMB bridge (as close as 10') required additional inspections and designs to create our pile driving plan for both the temporary trestle and new bridge foundations. Vibration monitoring was employed, and the closest piles were driven in off peak hours to reduce loads on the existing bridge.

**ON-TIME COMPLETION:**

Design plans were completed on-time and construction is currently on-track for on-time completion.

**ATTACHMENT 3.4.1(a)**  
**LEAD CONTRACTOR - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)
					Original Contract Value	Final or Estimated Contract Value	
<b>I-395 HOV Ramp at Seminary Road &amp; NB Aux Lane Extension (DB)</b>  <b>Alexandria, VA</b>	<b>Parsons</b>	Name of Client: <b>VDOT</b> Project Manager: <b>Arif Rahman, PE</b> Phone: <b>703-259-1940</b> Email: <a href="mailto:MD.rahman@VDOT.virginia.gov">MD.rahman@VDOT.virginia.gov</a>	<b>12/2015</b>	<b>05/2016</b> * Difference due to Owner added scope	<b>\$55,448</b>	<b>\$57,755*</b> * Difference due to Owner added scope	<b>\$35,404</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



**SIMILARITIES TO**  
**I-95 RICHMOND SUPERSTRUCTURE REPLACEMENT AND**  
**REHABILITATION**

- Design-build delivery
- Bridge construction over interstate highway
- Superstructure rehabilitation
- Multi-stage traffic management plan
- Utility relocations and avoidance
- Environmental permitting and strict compliance monitoring
- MOT operations minimizing impacts
- Independent QA program
- AWC responsible for QC program
- Public involvement and outreach
- Third party stakeholder communication and coordination
- DBPM served in Same role
- CM served in similar role

**ARCHER WESTERN'S ROLE:**

Archer Western Construction (AWC) was the design-builder and prime contractor for the VDOT I-395 HOV Ramp at Seminary Road and NB Auxiliary Lane Extension.

**PROJECT NARRATIVE AND SCOPE:**

In 2013, AWC, was awarded the contract for the design and construction of the I-396 HOV Ramp at Seminary Road and new NB Auxiliary Lane in Alexandria, Virginia. Specific elements of the project included:

- New elevated HOV ramp in median of I-395
- Replacement of the existing Seminary Road Bridge superstructure
- Multiple utility relocations
- Widening and rehabilitation of the existing Sanger Road Bridge
- Interchange/ramp improvements Seminary Road Interchange
- Drainage improvements and adequate outfall channel enhancements
- New pedestrian bridge and multi-use trail spanning I-395
- New soundwalls and MSE walls
- Public outreach

All interchange and work along I-395 was performed on a heavily traveled roadway and all lane restrictions were coordinated by AWC with VDOT and the City to allow for public notifications of construction activity.

**LIMITING IMPACTS TO THE TRAVELING PUBLIC/AFFECTED BUSINESSES AND COMMUNITIES:**

Minimizing impacts to the traveling public was a critical aspect of this congested corridor. AWC applied the use of a MOT "Task Team" from pursuit phase through TMP implementations. The Task Team was comprised of Designers, Construction personnel, VDOT representatives, and emergency responders (local fire and police). The MOT Task Team developed the TMP around the goals of safety, efficiency, stability, access, and communication. Key components included:

- Assigning a dedicated MOT/Incident Manager responsible for implementing the plan and acting as the single point of contact for all MOT issues
- Holding regular meetings with third party stakeholders regarding MOT phasing, upcoming traffic shifts, and construction activity
- Implementing an Incident Management Plan with communication protocols with law enforcement and emergency responders to clear accidents
- Strategically located laydown and storage areas to reduce construction traffic and minimize trucks from entering existing traffic lanes
- New auxiliary lane along I-395 was scheduled and completed prior to the start of construction of the new HOV ramp and Seminary Road bridge rehabilitation adding capacity to I-395 through the construction zone

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:**

AWC utilized our experience and "lessons learned" from several interstate highway widening and bridge reconstruction/rehabilitation projects to implement several innovative design solutions. First, the HOV ramp (bridge) designed was optimized to increase span length and reduce substructure which improved schedule and reduced the number of shifts our crews would be working in the median.

The auxiliary lane was completed and opened before the median work began allowing for additional capacity and providing a larger median workzone. This approach also reduced the number of traffic shifts along I-395. The revised phasing also minimized nighttime construction work, representing a safety improvement to our team's field staff and inspection staff, as well as reduced impacts to the traveling public.

The superstructure rehabilitation along Seminary Road was completed in two phases (eliminating one traffic shift) and maintained all existing lanes of traffic. Pedestrian traffic was detoured to the newly completed multi-use path and pedestrian bridge.

**RISK IDENTIFICATION AND MITIGATION:**

AWC identified and mitigated the same three critical risks on this project that are discussed in Section 3.5 of this SOQ. Those risks and our specific mitigation strategies are described below:

- **MOT:** AWC developed a phasing plan that maintained the same number of travel lanes through all phases of construction. Traffic along I-395 was only shifted once before being placed into its final configuration. The superstructure rehab along Seminary Road was phased, eliminating long term lane closures and eliminating a traffic shift.
- **Utilities:** AWC worked with VDOT to identify potential conflicts, coordinate relocations, and have contingency plans in place should an incident occur. Use of "call before you dig" and extensive potholing were implemented. A dedicated utility coordinator was key to mitigating potential impacts.
- **Structurally Deficient Bridges:** AWC performed additional analysis on the substructure to confirm that only the superstructure elements needed to be replaced. Ultimately no substructure strengthening was required. The superstructure replacement was phased, shifting traffic to allow complete removal of deck and beams. Loads were calculated determining where traffic had to be located in each phase to not adversely affect the existing structure

**ON-TIME COMPLETION:**

Design plans were completed on-time and the new auxiliary was opened on schedule.

**ATTACHMENT 3.4.1(b)**  
**LEAD DESIGNER - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
<b>Tidewater Drive and Little Creek Road Intersection Reconstruction</b>  Norfolk, VA	Corman Construction	Name of Client: <b>City of Norfolk DPW</b> Project Manager: <b>David Pfiffer</b> Phone: <b>757-664-4638</b> Email: <a href="mailto:David.pfiffer@norfolk.gov">David.pfiffer@norfolk.gov</a>	<b>01/2014</b>	<b>02/2015</b>	<b>\$6,000</b>	<b>\$6,000</b>	<b>\$859</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.



**SIMILARITIES TO**  
**I-95 CITY OF RICHMOND BRIDGE SUPERSTRUCTURE**  
**REPLACEMENT AND REHABILITATION BUNDLING**

- Maintained vehicular and pedestrian traffic
- Multi-phase traffic management plan
- Utility coordination and design
- Environmental permitting
- MOT operations minimized impacts
- WSP responsible for QC program
- Public involvement
- Third party stakeholder communication and coordination
- Bridge inspection for rehabilitation
- DM served as PM during construction

**WSP'S ROLE:**  
WSP was responsible for the management, coordination and data collection necessary to provide complete survey, bridge plans, road plans, right-of-way plans, demolition plans, hydraulic and hydrologic analysis, traffic control plans, lighting plans, geotechnical engineering, and public involvement efforts.

**PROJECT NARRATIVE AND SCOPE:**

The pre-existing intersection of Tidewater Drive and Little Creek Road was grade-separated with diamond ramps that allowed access to the adjacent properties. The existing bridge, the structural boat section depressing Tidewater Drive below grade, and a pumping station required extensive, constant maintenance to remain in service. As a result, the City required an objective evaluation of the cost for ongoing maintenance versus the cost of a major rehabilitation.

To alleviate these challenges, WSP evaluated the intersection to determine the most cost-effective, efficient solution for replacement. WSP developed final design plans and assisted the City during construction of improvements to the intersection.

Because the bridge is located on a critical arterial (Little Creek Road) with high traffic volumes, WSP began exploring ways to minimize construction duration. After thorough investigation of many options, it was determined that this superstructure replacement was a prime candidate for utilization of an FHWA-supported ABC method utilizing full-depth deck panels including closure pours, post-tensioning and an overlay. Incorporated with precast beams, this entire bridge is almost exclusively precast, facilitating installation that impacted Little Creek Road traffic for approximately two weeks per phase.

Rehabilitation of the boat section base slab was performed by making repairs to the joints and placing a new riding surface overlay.

The project included:

- Bridge superstructure replacement
- Full-depth pavement replacement
- Waterline replacement
- Signal replacements
- Mill and silica-fume overlay of depressed roadway slab
- Pedestrian improvements

**LIMITING IMPACTS TO THE TRAVELING PUBLIC/AFFECTED BUSINESSES AND COMMUNITIES:**

Tidewater Drive is a major corridor with multiple businesses adjacent to the intersection with Little Creek Road. Local businesses in or near a work zone such as this often suffer a loss of business. It was also critical to minimize impacts to both vehicular and pedestrian traffic in this congested corridor. Coordination with the City, local businesses, residents, and other stakeholders allowed WSP to develop maintenance of traffic (MOT) phasing to balance those needs with the construction activities needed to rehabilitate the bridge superstructure.

WSP's traffic design team developed the Traffic Management Plan (TMP) around the goals of safety, efficiency, stability, access, and communication. Key components included:

- Development of a robust TMP to address multiple phases.
- Review of the contractor's schedule and coordination with the contractor during the construction phase to keep the TMP implementation on track.

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:**

WSP utilized our experience from other ABC projects to design and implement innovative solutions. The time to construct each phase was a key consideration in the design. Elements that could be fabricated offsite would help to minimize the duration of each phase. Standard precast VDOT PCBT-29 beams were appropriate for the loading, but a traditional cast-in-place deck would require a much longer construction period. Lightweight precast deck panels made to act compositely with the beams provided a prefabricated solution that still performed well structurally. The skewed precast deck panels were designed using a 3D finite element analysis that captured the unique load distributions at different stages during construction and in the final condition. To obtain a high quality riding surface that was durable, a latex modified concrete overlay was utilized.

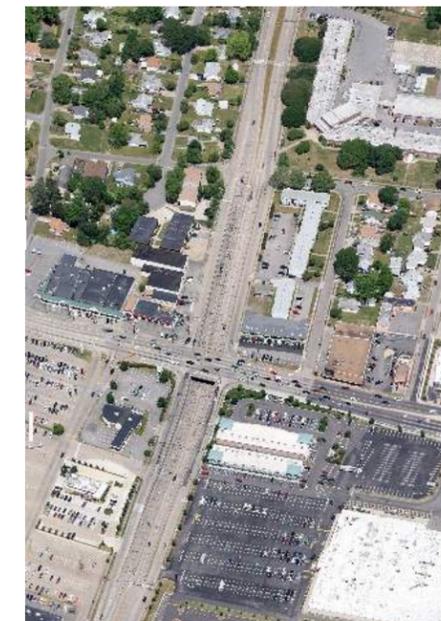
**RISK IDENTIFICATION AND MITIGATION:**

WSP identified and mitigated the same three critical risks on this project that are discussed in Section 3.5 of this SOQ. Those risks and our specific mitigation strategies are described below:

- **MOT:** A comprehensive understanding of the traffic flow through this critical intersection made it practical and necessary to utilize ABC construction in multiple phases to keep traffic flowing safely and efficiently during construction.
- **Utility Relocation:** WSP worked closely with the City and private utility owners to provide assessment of the impact to the project and subsequent relocation design as needed to minimize the effects of the bridge rehabilitation construction.
- **Structurally Deficient Bridges:** Minimizing impacts to the existing substructure as well as maintaining the existing vertical clearance were necessary to control the extents and costs of the project. Precast beams with lightweight precast concrete composite deck panels avoided an increase in superstructure dead load while maintaining the existing structure depth.

**ON-TIME COMPLETION:**

Design plans were completed on-time. WSP also provided timely reviews for shop drawings and RFI's during construction to maintain the construction schedule.



**ATTACHMENT 3.4.1(b)**  
**LEAD DESIGNER - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/general contractor for the overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
<b>I-440 Widening (DB)</b> <b>Davidson County, TN</b>	<b>Kiewit Construction Company</b>	Name of Client: <b>TDOT Construction Division</b> Project Manager: <b>Lia O'Baid</b> Phone: <b>615-532-7522</b> Email: <b>lia.obaid@tn.gov</b>	<b>08/2018</b>	<b>07/2020</b>	<b>\$152,000</b>	<b>\$152,000</b>	<b>\$8,600</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.



**SIMILARITIES TO**  
**I-95 CITY OF RICHMOND BRIDGE SUPERSTRUCTURE**  
**REPLACEMENT AND REHABILITATION BUNDLING**

- Design-build delivery
- Interstate highway construction
- Asphalt paving
- Multi-stage traffic management plan
- Utility relocations and avoidance
- Environmental permitting
- MOT operations minimizing impacts
- WSP responsible for QC program
- Public involvement and outreach
- Third party stakeholder communication and coordination
- DM served as design manager for bridge packages

**WSP'S ROLE:**

As lead designer, WSP was responsible for roadway design, structures design, drainage, geotechnical, lighting, ITS/traffic/signals, MOT design, design management, public involvement oversight, utility coordination oversight, environmental permitting oversight, and subconsultant oversight.

**PROJECT NARRATIVE AND SCOPE:**

This project involved reconstruction and widening in the median of I-440 from the I-40 junction to the I-24 junction, approximately 7.6 miles in length. Specific project elements included:

- Replacing existing concrete pavement with asphalt pavement for the entire mainline alignment
- Adding a lane and a widened median shoulder in each direction with roadway widening to the median, including bifurcated roadway segments
- Widening bridges at three locations with one bridge being a fourth level complex bridge spanning I-65 and the CSXT Railroad
- Drainage, rock slope, and rockfall mitigation along cuts and slopes in karstic terrain, bridge deck repair, new noise walls, noise wall repair, new retaining wall, lighting, ITS, signage, and ramp repairs
- Railroad Coordination with CSX Transportation

Design was broken up into 21 design packages with all design completed within seven months of NTP. Accelerated design packages allowed the contractor to start on critical path construction items within three months of NTP. At peak design, WSP utilized 35 FTEs to complete all work. By taking advantage of streamlined file sharing via ProjectWise, and quality control checks and reviews via Bluebeam, the team was able to maintain an aggressive design schedule that was critical to project success.

**LIMITING IMPACTS TO THE TRAVELING PUBLIC/AFFECTED BUSINESSES AND COMMUNITIES:**

This contract required maintaining two lanes of traffic in both directions of I-440. Minimizing impacts to the traveling public was a critical aspect of this congested corridor. WSP developed a two-phase MOT scheme for the project to minimize traffic shifts through the project corridor and shorten the construction duration for the project. This helped minimize risk to the traveling public and workers in the construction zones. Other aspects of limiting the impacts include the following:

- As an alternative to complete removal and reconstruction of the pavement along the corridor, the existing concrete slabs were rubblized in-place and used as a base course for the new flexible asphalt pavement. Using rubblization to recycle and reuse the existing concrete slabs maintained the integrity of the subgrade while reducing the duration of impacts to users and businesses.
- To minimize the need to close traffic below the I-440 over I-65 bridge, the plate girder pairs were assembled in the median off the bridge. This allowed the placement of the span over I-65 to be completed in less than one full weekend closure.

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:**

WSP worked closely with the contractor during the bid phase to determine the most viable construction techniques for the I-440 over I-65 pair of bridges. Given the length of the bridge, the 80-foot clearance below, and limited access in the interchange, rolling gantry cranes proved to be advantageous for all construction activities. Additional design elements that simplified the construction include:

- Girder field splice locations and erection sequence were coordinated with the rolling gantry load rating and existing bridge load rating.
- Utilizing top and bottom lateral bracing in the longest span to maintain stability of each girder pair avoided the need to connect to the existing steel box beams.
- Designed and detailed a permanent overhang bracket for deck placement that was stiff enough to support the deck but flexible enough to shed impact loadings from traffic barriers.

**RISK IDENTIFICATION AND MITIGATION:**

WSP identified and mitigated the same three critical risks on this project that are discussed in Section 3.5 of this SOQ. Those risks and our specific mitigation strategies are described below:

- **MOT:** Reduction of the shoulders and shifting of traffic on the bridges were handled in the same way as the roadway work. By having less traffic pattern changes, the work could be completed more efficiently while the traffic utilized a traffic pattern to which they had become accustomed.
- **Utility Relocation:** Noise walls were an early work item that required completion prior to proceeding with widening of the interstate. Close coordination was required to avoid conflicts between noise wall posts and existing utilities.
- **Structurally Deficient Bridges:** The variation of the radius of each bridge coupled with the narrow gap between the bridges made geometric control critical. Utilizing the original baseline radius, new plate girder pairs were placed concentrically with variable width deck closure pours that allowed the flexibility to complete the widened structure.



**ON-TIME COMPLETION:**

Design plans were completed on-time and the entire project was completed within the contractual limit of 23 months.

**ATTACHMENT 3.4.1(b)**  
**LEAD DESIGNER - WORK HISTORY FORM**  
**(LIMIT 1 PAGE PER PROJECT)**

. Project Name & Location	b. Name of the prime/general contractor for the overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
<b>Route 8 (DB), Rehabilitations of Bridges No. 03761, 03862, 03764, and 03765</b>  <b>Bridgeport, CT</b>	<b>Manafort Brothers, Inc.</b>	Name of Client: <b>Connecticut DOT</b> Project Manager: <b>Mark Rolfe</b> Phone: <b>860-594-2701</b> Email: <b>mark.rolfe@ctdot.gov</b>	<b>05/2015</b>	<b>09/2016</b>	<b>\$34,700</b>	<b>\$36,000</b>	<b>\$2,731</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.



**SIMILARITIES TO I-95 CITY OF RICHMOND BRIDGE SUPERSTRUCTURE REPLACEMENT AND REHABILITATION BUNDLING**

- Design-build delivery
- Bridge design
- Highway design
- Drainage design
- Maintenance and protection of traffic
- Roadside safety design
- Design services during construction
- Public outreach
- Accelerated bridge construction
- Working with existing bridges

**WSP'S ROLE:**

As lead designer, WSP's services included highway and bridge design, traffic and geotechnical engineering, incident management system design, as well as public outreach and project controls including scheduling and document control.

**PROJECT NARRATIVE AND SCOPE:**

The Route 8 project in Bridgeport was the first design-build project for the Connecticut Department of Transportation, rehabilitating four bridges (Nos. 03761, 03762, 03764 and 03765) included in a 1/3 of a mile stretch of Route 8 located approximately two miles north of Interstate 95. Specific project elements included:

- Construction of full-depth pavement
- Mill and overlay
- Ramp and intersection reconfiguration
- Drainage improvements
- Bridge superstructure replacement
- Retaining wall construction
- Rehabilitation of an existing bin wall

The reconfiguration of the intersection of Lindley Street with North Avenue was included in the initial upgrade stage and involved widening both Lindley Street and the Route 8 northbound exit ramp.

Reconstruction of the bridges followed in two 14-day construction stages. In each stage, the traffic of Route 8 was diverted to one side of the expressway (northbound and southbound separated by temporary barriers) while the Contractor completed bridge replacement and full depth roadway construction on the opposite bound. This required the construction of two temporary "crossovers" within the median of existing Route 8 at the northern and southern project construction limits. The alignment, profiles and cross sections of the temporary roadway required a unified design that would accommodate both directions of traffic. The two Lindley Street bridges were reduced from 7-spans to 2-spans structures, each by filling the five northerly spans and replacing the superstructure for the two southerly spans. The fill sections were supported by cast-in-place retaining walls constructed under the existing spans that were to be removed. New drainage structures were added within these limits. The two Capitol Avenue bridge superstructures were also replaced. Detours were implemented for local roadways below the replaced structures.

The bridges were constructed utilizing accelerated bridge construction (ABC) techniques to reduce the time of construction and the impact to the public. The progress of the project was captured by aerial photography which was shown on the public outreach website via live feed.

The new superstructures consist of prefabricated bridge units. By using ABC techniques, the major portion of the project construction was reduced from 2 years to 1 year. WSP worked closely with the Contractor to save overall project costs and reduce construction time through the fabrication of the prefabricated bridge units (PBUs) on site.

The project also included the rehabilitation of an existing large bin wall supporting Route 8. WSP worked with the Contractor to simplify the construction of the bin wall by reducing the number of prefabricated elements and designing the wall to eliminate a row of soil anchors. Construction for the project began in July 2015 and was completed by summer 2016.

**LIMITING IMPACTS TO THE TRAVELING PUBLIC/AFFECTED BUSINESSES AND COMMUNITIES:**

Minimizing impacts to the traveling public was a critical aspect of this congested limited access corridor. WSP utilized PBUs which could be constructed offline away from traffic. When the fourteen-day closures were needed, traffic was shifted to one side of the highway to allow traffic and workers to proceed safely.

**INNOVATIVE DESIGN SOLUTIONS/CONSTRUCTION TECHNIQUES:**

WSP contributed innovative solutions throughout the design and construction of this project. Alternate Technical Concepts (ATC) and other design changes were used to contribute cost and time savings.

WSP evaluated eight girders per bridge cross section verses the proposed twelve and determined this change would be beneficial to the project. Reducing the number of girders significantly reduced the cost of steel material and high performance concrete material used in the closure pours. Plate girders were utilized rather than rolled girders which optimized the area of steel and avoided the need to rely on rolling schedules for steel delivery. Reducing the number of girders therefore reduced the number of prefabricated bridge units PBUs per span from six to four, removing a total of twelve PBUs from the project. This saved time in the fourteen day construction periods by having twelve less crane picks for the PBUs and twelve less closure pours required.

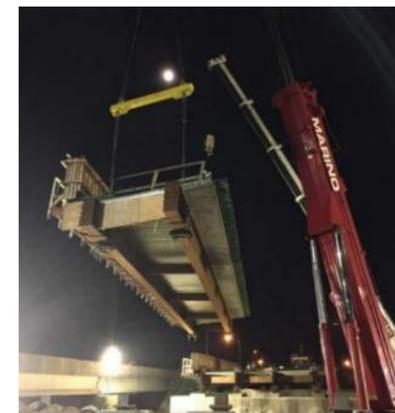
WSP and Manafort worked together to revise the proposed abutment, end diaphragm, approach slab and miscellaneous precast elements to simplify the details and improve the construction. The initial concept proposed precast components that were required to fit with proposed and existing structures. Instead, the use of cast-in-place elements were utilized which avoided conflicts during the critical closure periods when unexpected existing structure dimensions were found.

WSP and Manafort utilized cast-in-place retaining walls in lieu of modular walls. This change allowed the construction of full height walls prior to any closure period. This also allowed the walls to be constructed with a cast-in-place roadway barrier. The change improved the schedule and resulted in a safer design.

**RISK IDENTIFICATION AND MITIGATION:**

WSP identified and mitigated the same three critical risks on this project that are discussed in Section 3.5 of this SOQ. Those risks and our specific mitigation strategies are described below:

- **MOT:** With average daily traffic of nearly 90,000 vehicles, keeping traffic moving while maintaining a safe work zone was critical. By moving major portions of the construction offline, the duration for each closure was shortened to only 14 days. By closely monitoring the schedule daily, the construction activities could be adjusted to keep the closure limited to the agreed upon length.
- **Utility relocation:** Due to heavy PBUs and utilities within the bridge site, coordination with underground utilities (water, gas and electrical/communication duct banks) resulted in an erection plan that included pressure allowances above/around utilities during construction.
- **Structurally deficient bridges:** Existing bridge dimensions are a significant constraint and one that can drive changes to prefabricated elements. By eliminating many of the spans and reducing the number of PBUs the risk of improper PBU fit-up was reduced significantly.



**ON-TIME COMPLETION:**

WSP provided timely reviews for shop drawings. The overall project finished ahead of schedule with the ABC methodology reducing the schedule by one year.

# SCC and DPOR Registration Documents



## ATTACHMENT 3.2.10

### Contract ID C00111300DB107

#### SCC and DPOR Information

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 3.2.10 and that all businesses and individuals listed are active and in good standing.

<b>SCC &amp; DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)</b>							
<b>Business Name</b>	<b>SCC Information (3.2.10.1)</b>			<b>DPOR Information (3.2.10.2)</b>			
	<b>SCC Number</b>	<b>SCC Type of Corporation</b>	<b>SCC Status</b>	<b>DPOR Registered Address</b>	<b>DPOR Registration Type</b>	<b>DPOR Registration Number</b>	<b>DPOR Expiration Date</b>
Archer Western Construction, LLC	T0437006	Foreign Limited Liability Company	Active	929 W Adams St Chicago, IL 60607	Class A Contractor	2705141795	07-31-2021
WSP USA Inc	F0501603	Stock Corporation	Active	277 Bendix Rd Ste 300, Virginia Beach, VA 23452	APELSCIDLA ENG, ARC	0411000137	02-28-2022
WSP USA Inc	F0501603	Stock Corporation	Active	1100 Boulders Pkwy Ste 503 Richmond, VA 23225	APELSCIDLA ENG	0411000637	02-28-2022
WSP USA Inc	F0501603	Stock Corporation	Active	13530 Dulles Technology Dr Ste 300, Herndon, VA 20171	APELSCIDLA ENG	0411000142	02-28-2022
MBP	3518008	Corporation	Active	7401 Beaufont Spring Dr, Boulders VI, Ste 301, Richmond, VA 23225	APELSCIDLA ENG	411000604	2-28-2022
McCormick Taylor, Inc	F1296914	Stock Corporation	Active	2001 Market St, Two Commerce Square, Philadelphia, PA 19103	APELSCIDLA ENG	0411000771	02-28-2022
H&B Surveying and Mapping, LLC	S290560-4	Limited Liability Company	Active	614 Moorefield Park Dr, Richmond, VA 23236	APELSCIDLA LS	0407005432	12-31-2021
O. R. Colan Associates	T0653610	Limited Liability Company (Florida)	Active	N/A	N/A	N/A	N/A
Wetland Studies and Solutions Inc	03826229	Stock Corporation	Active	5450 Peters Creek Rd Roanoke, VA 24019	APELSCIDLA, Business Entity Registration	0411001212	02-28-2022

**ATTACHMENT 3.2.10**

**Contract ID C00111300DB107**

**SCC and DPOR Information**

<b>DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)</b>						
<b>Business Name</b>	<b>Individual's Name</b>	<b>Office Location Where Professional Services will be Provided (City/State)</b>	<b>Individual's DPOR Address</b>	<b>DPOR Type</b>	<b>DPOR Registration Number</b>	<b>DPOR Expiration Date</b>
Archer Western Construction, LLC	Laurence J. Wadman	Not providing Professional Services	37838 Piggott House Pl Purcellville, VA	Professional Engineer	0402018578	07-31-2022
MBP	Duncan Kenneth Stewart	Richmond, VA	13318 Railey Hill Dr Midlothian, VA 23114	Professional Engineer	0402036991	06-30-2022
WSP USA Inc.	Rex Darren Gilley	Virginia Beach, VA	537 Blackwater Loop, Virginia Beach, VA 23457	Professional Engineer	0402025213	06-30-2022
McCormick Taylor, Inc.	Samuel Adam Styers	Roanoke, VA	180 Lofton Dr Weyers Cave, VA 24486	Professional Engineer	0402036571	06-30-2021

# State Corporation Commission Clerk's Information System

## Entity Information

### Entity Information

Entity Name: Archer Western Construction, LLC	Entity ID: T0437006
Entity Type: Limited Liability Company	Entity Status: <b>Active</b>
Formation Date: N/A	Reason for Status: Active
VA Qualification Date: 06/30/2010	Status Date: 06/30/2010
Industry Code: 0 - General	Period of Duration: Perpetual
Jurisdiction: IL	Annual Report Due Date: N/A
Registration Fee Due Date: Not Required	Charter Fee: N/A

### Registered Agent Information

RA Type: Entity	Locality: RICHMOND CITY
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO TRANSACT BUSINESS IN VIRGINIA	
Name: CORPORATION SERVICE COMPANY	Registered Office Address: 100 Shockoe Slip Fl 2, Richmond, VA, 23219 - 4100, USA

### Principal Office Address

Address: 929 W ADAMS ST, CHICAGO, IL, 60607 - 0000, USA

### Principal Information

Management Structure: N/A

# State Corporation Commission Clerk's Information System

## Entity Information

### Entity Information

Entity Name: WSP USA Inc.

Entity ID: F0501603

Entity Type: Stock Corporation

Entity Status: **Active**

Formation Date: N/A

Reason for Status: Active and In Good Standing

VA Qualification Date: 02/11/1986

Status Date: 03/11/2002

Industry Code: 70 - All professions not listed  
above

Period of Duration: Perpetual

Jurisdiction: NY

Annual Report Due Date: 02/28/2021

Registration Fee Due Date: 02/28/2021

Charter Fee: \$0.00

### Registered Agent Information

RA Type: Entity

Locality: HENRICO COUNTY

RA Qualification: BUSINESS ENTITY THAT IS  
AUTHORIZED TO TRANACT  
BUSINESS IN VIRGINIA

Name: C T CORPORATION SYSTEM

Registered Office Address: 4701 Cox Rd Ste 285, Glen  
Allen, VA, 23060 - 6808, USA

## Entity Information

### Entity Information

Entity Name: WSP USA Inc.  
Entity ID: F0501603  
Entity Type: Stock Corporation  
Entity Status: **Active**  
Formation Date: N/A  
Reason for Status: Active and In Good Standing  
VA Qualification Date: 02/11/1986  
Status Date: 03/11/2002  
Industry Code: 70 - All professions not listed above  
Period of Duration: Perpetual  
Jurisdiction: NY  
Annual Report Due Date: 02/28/2021  
Registration Fee Due Date: 02/28/2021  
Charter Fee: \$0.00

### Registered Agent Information

RA Type: Entity  
Locality: HENRICO COUNTY  
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO  
TRANSACTION BUSINESS IN VIRGINIA  
Name: C T CORPORATION SYSTEM  
Registered Office Address: 4701 Cox Rd Ste 285, Glen Allen, VA, 23060 - 6808,  
USA

### Principal Office Address

Address: One Penn Plaza , 4th Floor, NEW YORK, NY, 10119,  
USA  
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([https://www.scc.virginia.gov/cis/cis\\_contact.aspx](https://www.scc.virginia.gov/cis/cis_contact.aspx))

(<https://www.facebook.com/VirginiaStateCorporationCommission>)

Principal Information

(<https://twitter.com/VASateCorpComm>)

Title	Director	Name	Address	Last Updated
Secretary	No	Hillary F Jassey	One Penn Plaza , 4th Floor, NY, 10119, USA	02/13/2020
President	Yes	Bernard P McNeilly	One Penn Plaza , 4th Floor, NY, 10119, USA	02/13/2020
Executive Director	No	Lewis P Cornell	1100 Town and Country Rd , STE 200, Orange, CA, 92868, USA	02/13/2020
Senior Vice President	Yes	Roger W Blair	16200 Park Row , STE 200, HOUSTON, TX, 77084, USA	02/13/2020
Senior Vice President	No	Gerald s Jannetti	One Penn Plaza , 4th Floor, NY, 10119, USA	02/13/2020

Current Shares

Total Shares: 30000

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# Commonwealth of Virginia



## State Corporation Commission

### CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That McDonough Bolyard Peck, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the corporation was incorporated on December 29, 1989;

That the corporation's period of duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

January 14, 2021

A handwritten signature in cursive script, reading "Bernard J. Logan".

---

Bernard J. Logan, Clerk of the Commission

## Entity Information

### Entity Information

Entity Name: McDonough Bolyard Peck, Inc.  
Entity ID: 03518008  
Entity Type: Stock Corporation  
Entity Status: **Active**  
Formation Date: 12/29/1989  
Reason for Status: Active and In Good Standing  
VA Qualification Date: 12/29/1989  
Status Date: 01/17/2020  
Industry Code: 0 - General  
Period of Duration: Perpetual  
Jurisdiction: VA  
Annual Report Due Date: N/A  
Registration Fee Due Date: Not Required  
Charter Fee: \$500.00

### Registered Agent Information

RA Type: Individual  
Locality: FAIRFAX COUNTY  
RA Qualification: Member of the Virginia State Bar  
Name: REES BROOME, PC  
Registered Office Address: 1900 GALLOWS RD STE 700, TYSONS CORNER, VA,  
22182 - 0000, USA

### Principal Office Address

Address: 3040 Williams Dr Ste 300, Fairfax, VA, 22031 -  
4654, USA

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Principal Information (<https://www.facebook.com/VirginiaStateCorporationCommission>)

(<https://twitter.com/VASateCorpComm>)

Title	Director	Name	Address	Last Updated
President, Chief Executive Officer	Yes	CHRISTOPHER J PAYNE	8111 GEORGETOWN PIKE, MCLEAN, VA, 22102 - 0000, USA	12/21/2020
Chairman	Yes	MAIRAV R MINTZ	12212 SOMERSWORTH DRIVE, SILVER SPRING, MD, 20902 - 0000, USA	12/21/2020
Treasurer, Chief Operating Officer	Yes	JOHN L MACKAY	9025 CORNELL DR, WAKE FOREST, NC, 27587 - 0000, USA	12/21/2020
Secretary	Yes	SCOTT A GALBRAITH	3138 CHRISTOPHERS WATCH LANE, RUSKIN, FL, 33570, USA	12/21/2020
Director	Yes	DON C YOUNG	3225 WINDSOR RIDGE SOUTH, Williamsburg, VA, 23188, USA	12/21/2020
Director	Yes	JAMES T PECK	608 CLAREECE PARK PLACE, Franklin, TN, 37069, USA	12/21/2020
Assistant Secretary	No	CHRISTINA C ALLEN	25487 KYLEMORE DRIVE, Aldie, VA, 20105, USA	12/21/2020
Director	Yes	KEVIN L BOCOCK	1727 MILLWOOD DRIVE, Salem, VA, 24153, USA	12/21/2020

Current Shares

Total Shares: 250000

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# Commonwealth of Virginia



## State Corporation Commission

### CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That McCORMICK TAYLOR, INC., a corporation incorporated under the laws of PENNSYLVANIA, is authorized to transact business in the Commonwealth of Virginia;

That the corporation obtained a certificate of authority to transact business in Virginia from the Commission on June 2, 1997; and

That the corporation is in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

July 22, 2020

A handwritten signature in cursive script, appearing to read "Bernard J. Logan".

---

Bernard J. Logan, Interim Clerk of the

Commission

## Entity Information

### Entity Information

Entity Name: McCORMICK TAYLOR, INC.  
Entity ID: F1296914  
Entity Type: Stock Corporation  
Entity Status: **Active**  
Formation Date: N/A  
Reason for Status: Active and In Good Standing  
VA Qualification Date: 06/02/1997  
Status Date: 07/22/2020  
Industry Code: 0 - General  
Period of Duration: Perpetual  
Jurisdiction: PA  
Annual Report Due Date: N/A  
Registration Fee Due Date: Not Required  
Charter Fee: \$150.00

### Registered Agent Information

RA Type: Entity  
Locality: CHESTERFIELD COUNTY  
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO  
TRANSACTION BUSINESS IN VIRGINIA  
Name: COGENCY GLOBAL INC.  
Registered Office Address: 250 Browns Hill Ct, Midlothian, VA, 23114 - 9510,  
USA

### Principal Office Address

Address: 1818 Market St Fl 16, Philadelphia, PA, 19103 -  
3604 USA  
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(<https://www.facebook.com/VirginiaStateCorporationCommission>)  
Principal Information  
(<https://twitter.com/VASateCorpComm>)

Title	Director	Name	Address	Last Updated
VP HUMAN RES	No	DAWN A BRUNO, PHR,SHRM-CP	1818 Market Street, 16th Floor, PHILADELPHIA, PA, 19103 - 0000, USA	07/22/2020
Officer	Yes	Patrick J. Guise	1818 Market Street, 16th Floor, Philadelphia, VA, 19103, USA	07/22/2020
Officer	Yes	James C. Wiggins	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
Vice President	No	Gregory T. Filosa	1818 Market Street, 16th Floor, Philadelphia, VA, 19103, USA	07/22/2020
Vice President	No	Michael A. Maholick	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
Vice President	No	Sandra G Martin	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
General Counsel	No	Malcolm B. Jacobson	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
General Counsel	No	Gunther O. Carrle	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
President	No	Thomas A. Caramanico	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
Vice President, Chief Financial Officer	No	Darryl J. Freedman	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020
Vice President	No	Susan M. Ridenour	1818 Market Street, 16th Floor, Philadelphia, PA, 19103, USA	07/22/2020

### Current Shares

Total Shares: 70000  
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# Commonwealth of Virginia



## STATE CORPORATION COMMISSION

*Richmond, April 27, 2009*

*This is to certify that the certificate of organization of*

**H & B Surveying and Mapping, LLC**

*was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: April 27, 2009*



*State Corporation Commission*

*Attest:*

*Joel H. Beck*  
Clerk of the Commission

SCC ID: S2905604

## Entity Information

### Entity Information

Entity Name: H & B Surveying and Mapping, LLC  
Entity ID: S2905604  
Entity Type: Limited Liability Company  
Entity Status: **Active**  
Formation Date: 04/27/2009  
Reason for Status: Active  
VA Qualification Date: 04/27/2009  
Status Date: 04/27/2009  
Industry Code: 0 - General  
Period of Duration: Perpetual  
Jurisdiction: VA  
Annual Report Due Date: N/A  
Registration Fee Due Date: Not Required  
Charter Fee: N/A

### Registered Agent Information

RA Type: Individual  
Locality: HENRICO COUNTY  
RA Qualification: Member of the Virginia State Bar  
Name: TIMOTHY H GUARE  
Registered Office Address: TIMOTHY H GUARE PLC, 6802 PARAGON PL STE  
100, HENRICO, VA, 23230 - 0000, USA

### Principal Office Address

Address: 614 MOOREFIELD PARK DRIVE, RICHMOND, VA,  
23236 - 0000, USA

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# Commonwealth OF Virginia



## State Corporation Commission

### *CERTIFICATE OF FACT*

*I Certify the Following from the Records of the Commission:*

That O.R. COLAN ASSOCIATES, LLC, a limited liability company organized under the law of Florida, obtained a certificate of registration to transact business in Virginia from the Commission on May 9, 2016; and

That it is registered to transact business in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.

*Signed and Sealed at Richmond on this Date:*

*June 3, 2016*

A handwritten signature in cursive script that reads "Joel H. Peck".

*Joel H. Peck, Clerk of the Commission*



## Entity Information

### Entity Information

Entity Name: O.R. COLAN ASSOCIATES, LLC  
Entity ID: T0653610  
Entity Type: Limited Liability Company  
Entity Status: **Active**  
Formation Date: N/A  
Reason for Status: Active  
VA Qualification Date: 05/09/2016  
Status Date: 06/09/2020  
Industry Code: 0 - General  
Period of Duration: Perpetual  
Jurisdiction: FL  
Annual Report Due Date: N/A  
Registration Fee Due Date: Not Required  
Charter Fee: N/A

### Registered Agent Information

RA Type: Entity  
Locality: RICHMOND CITY  
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO  
TRANSACTION BUSINESS IN VIRGINIA  
Name: CORPORATION SERVICE COMPANY  
Registered Office Address: 100 Shockoe Slip Fl 2, Richmond, VA, 23219 -  
4100, USA

### Principal Office Address

Address: 7005 SHANNON WILLOW RD STE 100,  
CHARLOTTE, NC, 28226 - 0000, USA  
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# Commonwealth of Virginia



## State Corporation Commission

### CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That WETLAND STUDIES AND SOLUTIONS, INC. is duly incorporated under the law of the Commonwealth of Virginia;

That the corporation was incorporated on October 18, 1991;

That the corporation's period of duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

December 1, 2020

A handwritten signature in cursive script, reading "Bernard J. Logan".

---

Bernard J. Logan, Interim Clerk of the Commission

## Entity Information

### Entity Information

Entity Name: WETLAND STUDIES AND SOLUTIONS, INC.  
Entity ID: 03826229  
Entity Type: Stock Corporation  
Entity Status: **Active**  
Formation Date: 10/18/1991  
Reason for Status: Active and In Good Standing  
VA Qualification Date: 10/18/1991  
Status Date: 12/01/2020  
Industry Code: 0 - General  
Period of Duration: Perpetual  
Jurisdiction: VA  
Annual Report Due Date: N/A  
Registration Fee Due Date: Not Required  
Charter Fee: \$50.00

### Registered Agent Information

RA Type: Entity  
Locality: HENRICO COUNTY  
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO  
TRANSACTION BUSINESS IN VIRGINIA  
Name: C T CORPORATION SYSTEM  
Registered Office Address: 4701 Cox Rd Ste 285, Glen Allen, VA, 23060 - 6808,  
USA

### Principal Office Address

Address: 5300 Wellington Branch Dr Ste 100, Gainesville,  
VA 20155 - 4063, USA  
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(<https://www.facebook.com/VirginiaStateCorporationCommission>)  
Principal Information (<https://twitter.com/VAStateCorpComm>)

Title	Director	Name	Address	Last Updated
CEO/CHAIRMAN	Yes	PATRICK M COVEY	1500 N. MANTUA ST, KENT, OH, 44240 - 0000, USA	06/30/2020
chief technical officer	No	MICHAEL S ROLBAND	1500 N MANTUA ST, KENT, OH, 44240 - 0000, USA	06/30/2020
CFO/ASST SECTY	Yes	JOSEPH R PAUL	1500 N MANTUA ST, KENT, OH, 44240 - 0000, USA	10/22/2019
Vice President	Yes	BRENT R REPENNING	1500 N. MANTUA ST, KENT, OH, 44240 - 0000, USA	06/30/2020
CONTROLLER	No	VICKI L. SCHRECKENGOST	1500 N MANTUA ST, KENT, OH, 44240 - 0000, USA	10/22/2019
co-president	No	brian chromeey	1500 N. MANTUA STREET, Kent, OH, 44240, USA	06/30/2020
co-president	No	frank graziano	1500 N. MANTUA STREET, Kent, OH, 44240, USA	06/30/2020

## Current Shares

Total Shares: 5000

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COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

07-31-2021

NUMBER

2705141795

BOARD FOR CONTRACTORS  
CLASS A CONTRACTOR  
\*CLASSIFICATIONS\* CBC H/H RBC



ARCHER WESTERN CONSTRUCTION LLC  
929 W ADAMS ST  
CHICAGO, IL 60607



*Mary Brod-Vaughan*  
Mary Brod-Vaughan, Acting Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

CLASS A BOARD FOR CONTRACTORS  
CONTRACTOR

\*CLASSIFICATIONS\* CBC H/H RBC

NUMBER: 2705141795 EXPIRES: 07-31-2021

ARCHER WESTERN CONSTRUCTION LLC  
929 W ADAMS ST  
CHICAGO, IL 60607



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON  
02-28-2022

NUMBER  
0411000137

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, ARC



WSP USA INC  
277 BENDIX ROAD  
SUITE 300  
VIRGINIA BEACH, VA 23452



Status can be verified at <http://www.dpor.virginia.gov>

*Mary Broz-Vaughan*  
Mary Broz-Vaughan, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APPLSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000137 EXPIRES: 02-28-2022  
PROFESSIONS: ENG, ARC  
WSP USA INC  
277 BENDIX ROAD  
SUITE 300  
VIRGINIA BEACH, VA 23452



(FOLD)

VOID

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON  
02-28-2022

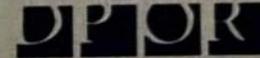
NUMBER  
0411000637

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



WSP USA INC  
1100 BOULDERS PKWY  
STE 503  
RICHMOND, VA 23225



*Mary Broz-Vaughan*  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2011)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

02-28-2022

NUMBER

0411000142

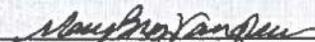
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONAL ENG



WSP USA INC  
13530 DULLES TECHNOLOGY DR STE 300  
HERNDON, VA 20171



  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON  
02-28-2022

NUMBER  
0411000604

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



MCDONOUGH BOLYARD PECK INC  
7401 BEAUFONT SPRING DR  
BOULDERS VI SUITE 301  
RICHMOND, VA 23225



*Mary Broz-Vaughan*  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

**DPOR** COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000604 EXPIRES: 02-28-2022  
PROFESSIONS: ENG  
MCDONOUGH BOLYARD PECK INC  
7401 BEAUFONT SPRING DR  
BOULDERS VI SUITE 301  
RICHMOND, VA 23225



(FOLD)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

02-28-2022

NUMBER

0411000771

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



MCCORMICK TAYLOR INC  
2001 MARKET ST  
TWO COMMERCE SQUARE  
PHILADELPHIA, PA 19103



*Mary Broz-Vaughan*  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APPLSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000771 EXPIRES: 02-28-2022  
PROFESSIONS: ENG  
MCCORMICK TAYLOR INC  
2001 MARKET ST  
TWO COMMERCE SQUARE  
PHILADELPHIA, PA 19103



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (02/2017)

PERMITS: 6/10/2006 5:40:10

# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

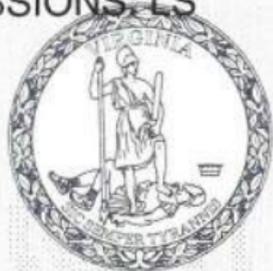
12-31-2021

NUMBER

0407005432

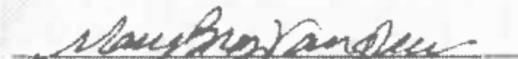
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY REGISTRATION

PROFESSIONS: LS



H & B SURVEYING & MAPPING LLC  
614 MOOREFIELD PARK DR  
RICHMOND, VA 23236



  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

02-28-2022

NUMBER

0411001212

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



WETLAND STUDIES AND SOLUTIONS INC  
5450 PETERS CREEK RD  
ROANOKE, VA 24019



*Mary Broz-Vaughan*  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APESCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411001212 EXPIRES: 02-28-2022  
PROFESSIONS: ENG  
WETLAND STUDIES AND SOLUTIONS INC  
5450 PETERS CREEK RD  
ROANOKE, VA 24019



(FOLD)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

07-31-2022

NUMBER

0402018578

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE



LAURENCE J. WADMAN  
37838 PIGGOTT HOUSE PLACE  
PURCELLVILLE, VA 20132



*Mary Broz-Vaughan*  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APPLSCIDLA  
PROFESSIONAL ENGINEER LICENSE  
NUMBER: 0402018578 EXPIRES: 07-31-2022

LAURENCE J. WADMAN  
37838 PIGGOTT HOUSE PLACE  
PURCELLVILLE, VA 20132



(FOLD)

PREVIOUS EDITIONS

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (02/2017)

# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

06-30-2022

NUMBER

0402036991

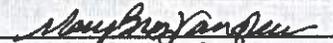
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE



DUNCAN KENNETH STEWART  
13318 RAILEY HILL DRIVE  
MIDLOTHIAN, VA 23114



Status can be verified at <http://www.dpor.virginia.gov>

  
Mary Broz-Vaughan, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)



COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
PROFESSIONAL ENGINEER LICENSE  
NUMBER: 0402036991 EXPIRES: 06-30-2022

DUNCAN KENNETH STEWART  
13318 RAILEY HILL DRIVE  
MIDLOTHIAN, VA 23114



(FOLD)

(DETACH HERE)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

06-30-2022

NUMBER

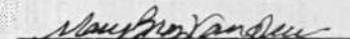
0402025213

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE



REX DARRIN GILLEY  
5377 BLACKWATER LOOP  
VIRGINIA BEACH, VA 23457



  
Mary Broz-Vaughan, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON

06-30-2021

NUMBER

0402036571

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS  
AND LANDSCAPE ARCHITECTS  
PROFESSIONAL ENGINEER LICENSE



SAMUEL ADAM STYERS  
180 LOFTON DR  
WEYERS CAVE, VA 24486



*Mary Brock-Vaughan*  
Mary Brock-Vaughan, Acting Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

# Debarment Forms



**ATTACHMENT 3.2.7(a)**

**CERTIFICATION REGARDING DEBARMENT  
PRIMARY COVERED TRANSACTIONS**

**Contract ID C00111300DB107**

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

 _____	01/29/2021 _____	Vice President _____
Signature	Date	Title

Archer Western Construction, LLC  
\_\_\_\_\_  
Name of Firm

**ATTACHMENT 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Contract ID C00111300DB107**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



---

Signature

February 01, 2021

---

Date

Local Business Leader

---

Title

WSP USA Inc.

---

Name of Firm

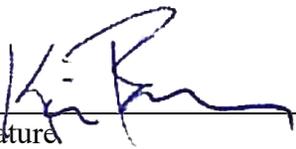
**ATTACHMENT 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Contract ID C00111300DB107**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

  
\_\_\_\_\_  
Signature

January 14, 2021  
Date

Vice President, Transportation Services Leader  
Title

MBP  
\_\_\_\_\_  
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS

**Contract ID C00111300DB107**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

  
Signature

January 28, 2021  
Date

Chief Visionary Officer  
Title

McCormick Taylor, Inc.  
Name of Firm

**ATTACHMENT 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Contract ID C00111300DB107**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

  
\_\_\_\_\_  
Signature

January 13, 2021  
\_\_\_\_\_  
Date

Vice President  
\_\_\_\_\_  
Title

H & B Surveying and Mapping, LLC  
\_\_\_\_\_  
Name of Firm

**ATTACHMENT 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Contract ID C00111300DB107**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

 Signature	January 19, 2021 Date	President Title
--	--------------------------	--------------------

O. R. Colan Associates, LLC  
Name of Firm

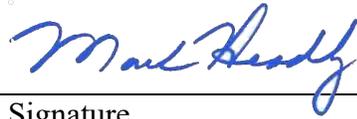
**ATTACHMENT 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Contract ID C00111300DB107**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

January 13, 2021

Date

Operations Manager

Title

Wetland Studies and Solutions, Inc.

Name of Firm

# Affiliated and Subsidiary Companies





# Offeror's VDOT Prequalification Evidence





**Department's List of Prequalified Vendors  
Includes All Qualified Levels As Of 1/4/2021**

- A -

---

**Vendor ID:** A210  
**Vendor Name:** ARCHER WESTERN CONSTRUCTION, LLC  
**Prequal Level:** Prequalified  
**Prequal Exp:** 01/31/2022

**-- PREQ Address --**

13454 SUNRISE VALLEY DRIVE SUITE 440  
HERNDON, VA 20171  
Phone: (301)347-4680  
Fax: (301)347-4681

**Work Classes (Listed But Not Limited To)**

002 - GRADING  
003 - MAJOR STRUCTURES  
006 - PORTLAND CEMENT CONCRETE PAVING  
007 - MINOR STRUCTURES

**Bus. Contact:** TALLEY, SAM  
**Email:** AWCESTIMATING@WALSHGROUP.COM

**-- DBE Information --**

**DBE Type:** N/A  
**DBE Contact:** N/A

# Evidence of Bonding





Travelers Bond  
215 Shuman Blvd.  
Naperville, IL 60563  
Telephone: (630) 961-7052  
Fax: (630) 961-7020

January 12, 2021

Joseph A. Clarke, PE, DBIA  
Alternative Project Delivery Division  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, VA 23219

**RE: I-95 City of Richmond Bridge Superstructure Replacement and  
Rehabilitation Bundling  
City of Richmond, Virginia  
Contract ID Number: C00111300DB107**

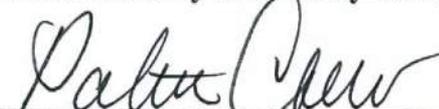
Dear Mr. Clarke:

We have been advised that **Archer Western Construction, LLC** is submitting a Statement of Qualifications in response to the Request for Qualifications for the above mentioned project. **Travelers Casualty and Surety Company of America** is pleased to recommend **Archer Western Construction, LLC** as a professional, well-financed construction company.

**Travelers Casualty and Surety Company of America** is currently providing **Archer Western Construction, LLC** with bonding support of \$400 million dollars on single contracts and \$8 billion dollars for an aggregate work program. As surety for **Archer Western Construction, LLC**, **Travelers Casualty and Surety Company of America**, with a A.M. Best Financial Strength Rating of A++ and Financial Size Category XV, is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction of \$37,000,000, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of **Archer Western Construction, LLC**, in the event that **Archer Western Construction, LLC** be the successful bidder and enter into a contract for this Project. All issuance of bonds is subject to the review and approval of all contract terms, conditions and bond forms.

Should you have any questions, or need additional information, please feel free to contact me.

Yours truly,  
**Travelers Casualty and Surety Company of America**

By:   
\_\_\_\_\_  
Patricia Collins, Attorney-in-Fact





**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Patricia Collins** of **SARASOTA Florida**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **17th** day of **January**, **2019**.



State of Connecticut

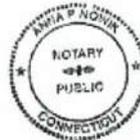
City of Hartford ss.

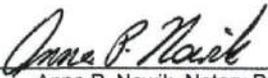
By:   
Robert L. Raney, Senior Vice President

On this the **17th** day of **January**, **2019**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, **2021**



  
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

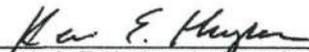
**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **12** day of **January**, **2021**



  
Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
Please refer to the above-named Attorney-in-Fact and the details of the bond to which this Power of Attorney is attached.**