

Response to Request for Qualifications

I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 1A City of Norfolk, Virginia

State Project No.: 0064-122-470
Federal Project No.: NHPP-064-3(520)
Contract ID No.: C00117840DB112

MARCH 3, 2022



3.2: Letter of Submittal



March 3, 2022

Commonwealth of Virginia
Department of Transportation (VDOT)
1401 E. Broad Street
Richmond, VA 23219
Attn: Bryan Stevenson, PE, DBIA (APD Division)

**RE: I-64 Hampton Roads Express Lanes (HREL)
Segment 1A**
City of Norfolk, Virginia
State Project No.: 0064-122-470
Federal Project No.: NHPP-064-3(520)
Contract ID No.: C00117840DB112

Dear Mr. Stevenson:

Archer Western Construction, LLC (Archer) is pleased to share our credentials, experience, and ideas working collaboratively with VDOT and the community for a successful I-64 Hampton Roads Express Lanes (HREL) Segment 1A Project (the Project). Our Team was assembled based upon each firm's core strengths and experience to address the needs and challenges of your interstate highway project. With **Dewberry Engineers Inc.** (Dewberry) as our Lead Designer, Archer offers VDOT a veteran Team with a successful track record of delivering Design-Build (DB) interstate highway projects on-time and on budget.

3.2.1	Offeror: Archer Western Construction, LLC, 13454 Sunrise Valley Dr, Suite 440, Herndon, VA 20171, Phone: 301-347-4680 Fax: 301-347-4681, is the legal entity who will execute the contract with VDOT.
3.2.2	OFFEROR'S PRIMARY CONTACT: Jeffrey Mays, Program Manager 13454 Sunrise Valley Dr, Suite 440 Herndon, VA 20171 Phone: 301-347-4680 Fax: 301-347-4681 jmays@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
3.2.4	Archer Western Construction, LLC, a limited liability company operating under federal tax ID number 27-0887868, will be financially responsible for the referenced project and does not have any liability limitations. Dewberry, serving as the Lead Designer, will be a subcontractor to Archer.
3.2.5	The Lead Contractor is Archer Western Construction, LLC and the Lead Designer is Dewberry Engineers Inc.
3.2.6	A complete list of affiliates and subsidiary companies may be found in 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's prequalification ID is A210 and the firm's status is active. Please refer to the Appendix for supporting documentation
3.2.9	Archer's surety letter is located in the Appendix.
3.2.10	Virginia State Corporation Commission (SCC) and Virginia Department of Professional and Occupational Regulations (DPOR) registration information for our team members are included in Attachment 3.2.10 with evidence of the registrations and licenses provided in the Appendix.
3.2.11	Archer is committed to meeting the 12% DBE participation goal for the entire value of the contract.

The Archer Western Team looks forward to working with VDOT and is fully qualified and committed to the successful delivery of this critical Project!

Sincerely,

EJ O'Neill
Vice President

3.3: Offeror's Team Structure





3.3 OFFEROR’S TEAM STRUCTURE

Introduction

The Archer 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 project specific risks and construct this high-profile transportation project in Hampton Roads, 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 right-of-way acquisitions services. Structured as an integrated organization, our team supports effective communication with established internal and external relationships serving as the foundation for our partnership with VDOT. This approach will help us manage the widely varied design and construction requirements necessary to provide VDOT with a project that meets the goals of providing additional capacity, reducing congestion, improving accessibility and mobility, and improving safety.

Archer/Dewberry Team Members

	<p>Archer Western Construction, LLC (Archer) is a general contracting, construction management, and DB firm, who is a member of the Walsh Construction Group, a fourth generation, family-owned business dating back 124 years. This \$5 billion per year construction company is ranked as the Largest Southeast Transportation and DB Contractor, 2nd Largest Bridge Builder and 4th Largest Highway Contractor in the U.S. according to 2021 Engineering News Record. Archer has delivered over \$6.5 billion in DB transportation projects in the southeast over the last five years. We have maintained our presence in Virginia since the 1980s, completing DB projects along the I-95 corridor, I-395 in Arlington, and on I-495 in Tysons. Archer is a self-perform contractor with the experience and resources to provide VDOT and the public a team with a head-on mentality to tackle the risks and challenges likely to be encountered on this project. Our success on DB projects is due in large part to the selection of personnel and team members, each with strengths to address critical project risks. Further, we bring additional DB strength to the Project through our partners and specialty firms as shown herein and our Organizational Chart.</p>
	<p>Dewberry Engineers Inc. (Dewberry) will be the Lead Designer, responsible for all engineering design services and environmental permitting, as well as permit monitoring during construction. Dewberry will oversee all design subconsultants, ensuring all deliverables have completed the QA/QC processes required by the DB contract. Dewberry has extensive DB experience as the Lead Designer on over 20 DB projects for VDOT, including as the lead designer on I-64 Capacity Improvements Segments I and III, and the I-64 Pavement Rehabilitation project which improved the roadway segments proposed for widening as part of this Project. Key staff proposed by Dewberry were involved in each of those previous I-64 improvement projects. Dewberry is a nationally recognized engineering company headquartered in Fairfax, Virginia and is ranked among Engineering News- Record’s Top 25 highway design firms.</p>
	<p>Quinn Consulting Service, Incorporated, (QCS) is a quality oriented, 100% woman owned small business enterprise and will provide the Quality Assurance Manager (QAM) and construction quality assurance staff for the Project. QCS offers construction engineering and inspection services (CEI) to commercial companies as well as to federal, state and municipal governments and authorities. Quinn has extensive experience working in the Hampton Roads District, having served as the QA firm on I-64 Capacity Improvements Segments I, II and III projects.</p>

	<p>McCormick Taylor, as a subconsultant to Dewberry, will provide all noise modeling and analysis services and will also be responsible for coordinating with all utility companies and managing utility designs and relocations. They have extensive experience providing both of these services throughout the Commonwealth on VDOT projects, and have experience working with both Dewberry and Archer as they are currently working in these same capacities on our I-81 Widening project in Roanoke County and the City of Salem.</p>
	<p>ECS Mid-Atlantic, LLC (ECS), as a subconsultant to Dewberry, will serve as the lead geotechnical firm, overseeing and completing all geotechnical field investigations and testing and providing all geotechnical recommendations during design. ECS has extensive experience in the Hampton Roads District and the I-64 corridor. Utilizing their past experience and understanding of this area’s geology, as well as information obtained from geotechnical exploration efforts specific to this Project, they will provide specific recommendations for all of the conditions anticipated, including but not limited to global stability of retaining walls and combination noise barriers/retaining walls, slope stability, and roadway and bridge widening.</p>
	<p>Surveying and Mapping, LLC (SAM), as a subconsultant to Dewberry, will provide all utility designation and test pitting services. SAM specializes in providing these services, and has worked as a subconsultant to Dewberry on more than 50 unique transportation/infrastructure projects over the past 20 years, the majority of which were for VDOT projects, or facilities which were ultimately maintained and operated by VDOT.</p>
	<p>Diversified Property Services Inc., (Diversified) is a registered DBE in the Commonwealth of Virginia, and will manage the right-of-way and land acquisition services. As a VDOT prequalified ROW acquisition firm, they will handle all areas of appraisal and appraisal review services, negotiations, acquisition of rights, and relocations. Diversified has extensive experience in the Hampton Roads region, having completed acquisitions for the I-64 Capacity Improvements Segments I and III projects.</p>

3.3.1 Key Personnel

Information on Key Personnel in Table 1 is included as Attachment 3.3.1 - Key Personnel.

3.3.2 Organization Chart

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. The following narrative describes the functional relationships and communications among our Team:

The Archer/Dewberry Team has worked together collectively to successfully deliver projects in four different states.

Jeffrey Mays will serve as the **DB Project Manager (DBPM)** and be responsible for the overall project design and construction. Jeff has over 20 years of experience in the industry and has recently served as the DBPM on the \$1.4B METRO Crenshaw / LAX DB Project in Los Angeles, CA. On the Crenshaw project, Jeff led 1,200 employees, a tremendous public outreach effort, and managed the design, permitting and construction on this very complex project. Jeff will be Archer’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 Crenshaw Project, Jeff has served as the PM on the \$1B SH 130 and \$136M SH 45/I-35 interstate projects in Texas and is well versed with interstate and

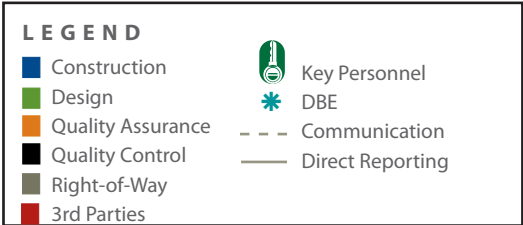
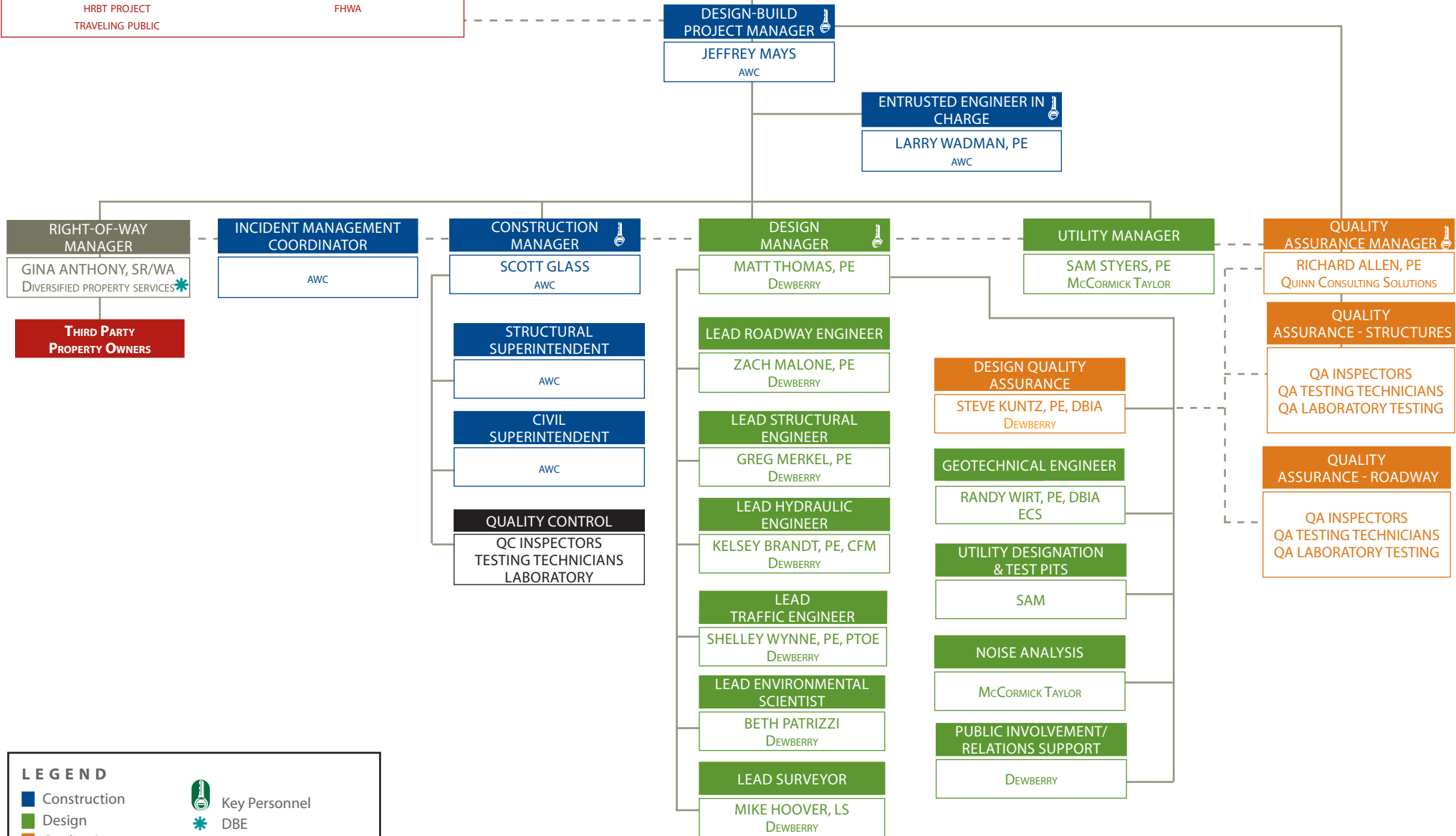
highway construction and associated risk mitigation. Additionally, Jeff has been responsible for the successful startup on the I-81 Widening Design Build Project in Salem VA where he has worked hand in hand with VDOT, Dewberry, ECS, and McCormick Taylor. He has also completed the successful execution and ultimate delivery of several recent VDOT sponsored projects ahead of schedule and under budget including the Potomac Creek Bridge in Stafford, VA, the Glebe Road Bridge in Arlington, VA and the award winning Route 9 Traffic Calming Project in Hillsboro, VA.

Larry Wadman, PE will serve as the *Entrusted Engineer in Charge (EIC)*, and report directly to the DBPM. Larry brings extensive heavy civil construction experience to the Archer team and has supervised and directed project teams during all phases of construction including serving as the DBPM on the VDOT Seminary Road DB project and the Project Director and Design Manager on the DDOT South Cap Bridge Project. He has delivered transportation construction efforts in some of the nation's most constrained environments. Larry's knowledge in traffic sequencing and self-perform work will be crucial to safety and efficient construction of this project. He is responsible for project administration, including start-up, staffing, and contract negotiation with subcontractors. It is his duty to ensure close coordination among all project team members, ensuring VDOT a successful project delivery.

Richard Allen, PE, DBIA will serve as the *Quality Assurance Manager (QAM)*, and will be independent from all construction operations. Richard will be on site full-time for the duration of construction operations. He has over 20 years of experience in construction quality assurance and civil structural engineering with a heavy emphasis in transit and transportation projects including rail stations, roadways, bridges, and tolling facilities.

Matt Thomas, PE, will serve as the *Design Manager (DM)*, reporting to the DBPM and has overall responsibility for management of the design process. Matt's role includes oversight of design subconsultants and communication with each of the discipline leads identified. Matt will attend progress and coordination meetings with VDOT and any public outreach meetings for the project. Matt will also oversee implementation of the design QA/QC program, which will be followed by Dewberry and all design subconsultant team members. He will remain involved during construction, attending construction progress meetings and ensuring RFIs, questions, submittals, and shop drawings are routed to the appropriate design discipline for review and response. Matt has a successful history of working on VDOT projects including his recent work as the Deputy Design Manager on the VDOT's I-81 Widening DB project where he has worked collaboratively with the Archer Western personnel assigned to this job.

Scott Glass will serve as the *Construction Manager (CM)* reporting to the DBPM. Scott is an experienced Project Manager with more than 20 years of complex transportation project experience. He will have oversight for all construction activities, including all Quality Control (QC) activities, on the project. Scott will hold the Virginia DEQ Responsible Land Disturber Certification along with the VDOT Erosion and Sediment Control Contractor Certification.



3.4: Experience of Offeror's Team

Please see Attachments 3.4.1(a) Lead Contractor Work History Forms and Attachments 3.4.1(b) Lead Designer Work History Forms in the Appendix.

3.5: Project Risks

3.5 PROJECT RISKS

CRITICAL RISK # 1 - MAINTENANCE OF MOBILITY & SAFETY

Why is the Risk Critical?

I-64 is a crucial east-west artery for commuters, commerce, and tourists traveling to and from the Southside via the Hampton Roads Bridge Tunnel (HRBT), as well as within the City of Norfolk. I-64 carries over 100,000 vehicles per day and exhibits severe congestion due to the proximity of the HRBT, signifying the importance of the need for a comprehensive maintenance of traffic (MOT) program maintaining safety and mobility throughout construction. This program will be critical to the preservation of mobility for commuters, commercial vehicles, and weekend tourist traffic, and ensures safety is held paramount for the public and construction personnel.

For any incidents, we know the critical importance of quickly detecting and clearing the travel lanes. In addition, due to the severe congestion on I-64 particularly in the westbound direction towards the HRBT in the afternoon/evening peak, combined with construction impacts associated with this Project, cut-through traffic off of I-64 westbound to Ocean View Avenue and throughout the arterial network within the City of Norfolk is likely to increase, impacting the community. Finally, the Project will connect directly to the HRBT project which is proposed to have a similar completion date. MOT coordination between the Project and the HRBT project is crucial to transition traffic successfully between each project terminus. The combination of these complicating factors makes safety and mobility a risk that the DB Team must address as a top priority.

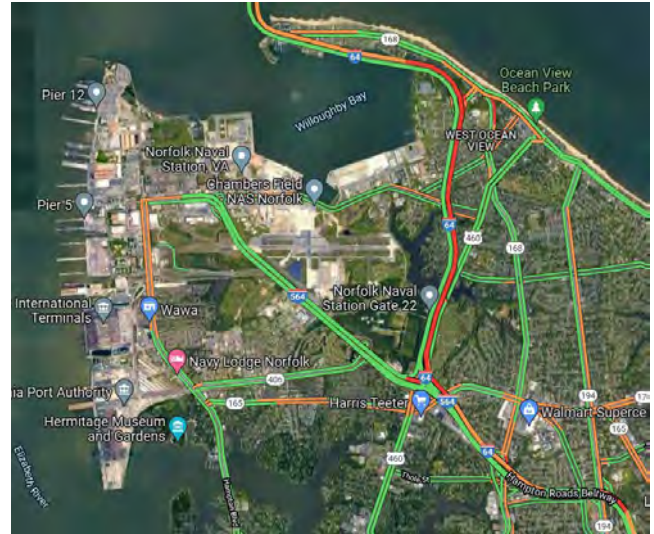


Figure 1: Afternoon Peak Congestion on WB I-64 Within Project Limits

Impact on the Project

The impact of improperly or inadequately maintaining traffic in a safe or efficient manner, inadequately responding to and clearing incidents, or inadequately communicating construction activities with the traveling public and adjacent projects, could have substantial consequences including:

1. Degradation of safety for the public, VDOT personnel, and/or construction personnel;
2. Additional travel delays along I-64;
3. Loss of thru lane capacity;
4. Loss of emergency responder access and/or evacuation access;
5. Impacts to City of Hampton streets and neighborhoods;
6. Frustration or loss of public support; and
7. Delays to the project schedule or adjacent project schedules.

Mitigation Strategies

Our Team is adamant about maintaining the highest possible levels of traffic mobility and safety within our work zones. We are committed to making mobility and safety our top priorities, and to exceeding the standard project requirements by implementing the following mitigation strategies:

- 1. Assembling An Industry Leading MOT Task Force:** Upon NTP our team will establish a MOT Task Force comprised of a multi-disciplinary team focused on planning, designing, and implementing the Project’s work zone traffic control Program. This task force will consist of Archer construction personnel, engineers, executive management, and safety professionals. Additionally, VDOT and third parties will be invited to participate. As we know it takes all parties to work together for a successful project, establishing

and maintaining this task force allows for construction collaboration which ultimately ensures safety, mobility, and constructability are optimized.

Our Team is well versed in designing and implementing Transportation Management Plans (TMPs) for Type C “significant” projects per VDOT’s IIM-LD-241.7 (Work Zone Safety and Mobility) process and has extensive interstate DB experience on some of the most congested interstates in Virginia including I-64, I-95, and I-495. Dewberry completed design on three design-build projects on I-64 within the Hampton Roads District including Segment III Capacity Improvements, Segment I Capacity Improvements, and I-64 Pavement Rehabilitation. This pavement rehabilitation DB was within the Project limits of this project, stretching from Willoughby Spit to I-564, giving our Team an intimate understanding of this section of I-64.

Our Task Force members have recent relevant design experience on I-64, allowing us to understand the unique challenges and solutions of this corridor.

2. Coordinating Concurrent Projects: To ensure coordination with adjacent projects, the MOT Task Force will work directly with

adjacent projects’ design and construction teams, VDOT, and all applicable 3rd parties from the initial onset of TMP development. The eastern terminus of this project will tie directly to the HREL Segment 1B project and the western terminus will tie directly to the HRBT project, with all projects under construction simultaneously. Coordination with these adjacent projects will focus on providing seamless transitions between projects and coordinating MOT operations so safety, mobility, construction sequencing, and design features are fully coordinated.

3. Verifying Acceptable Operations Will Be Maintained For Off-Peak Temporary Lane Closures: We will accomplish this by collecting current traffic volumes and analyzing all potential MOT operations using software such as Quick Zone and HCS to ensure temporary lane closures are limited to the hours of least impact. This strategy

holds true for customizing lane closure schedules to account for seasonal variations in traffic volumes occurring on I-64. For example, during the summer beach traffic season, lane closures times may need to be limited during the late-night periods. Understanding this from the outset is crucial to avoid an unforeseen modification to lane closure hours mid-construction, which could impact the Project schedule. We are well versed in this exact type of analysis, which Dewberry recently performed as part of the I-64 Segment I and Segment III Widening and the Archer / Dewberry team recently performed along I-81.

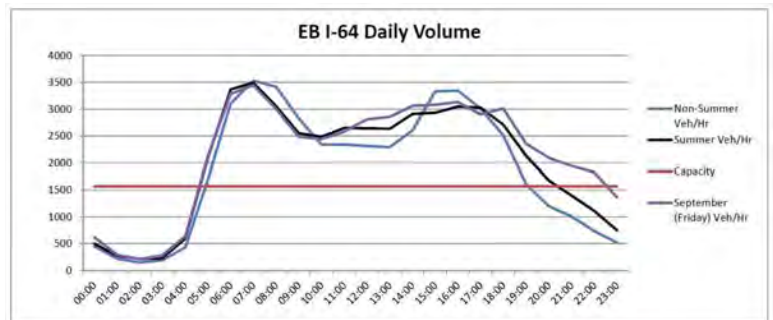


Figure 2: Example Temporary Lane Closure Analysis Graph

4. Focusing on Site-Specific Enhanced Incident Avoidance Strategies: These efforts begin by studying the preconstruction safety concerns and crash statistics, and then making interim safety enhancements as part of the first stage of our MOT plans in order to deliver immediate improvements to the traveling public. A preliminary review completed by our Team has found 557 crashes within the Project limits in the last five years, including three fatalities. Based on this preliminary investigation showing crash rates above statewide averages, we have identified the following innovative enhancements we may potentially employ to maximize safety and operations:

- Temporary raised pavement markers and “wet reflective” pavement markings for increased visibility;
- Using a Work Zone ITS system with Portable Changeable Message Signs (PCMS), overhead Dynamic Message Signs, and/or Advance Queue Detection systems to detect and alert drivers of slow or stopped traffic and new traffic patterns; and
- Providing lane shifts that exceed minimum design criteria to reduce the likelihood of rear end crashes.

5. Designing and Sequencing the Work in a Manner that Maintains Shoulders: As part of our TTC design we will strive to maintain a full paved shoulder along one side of I-64. Maintenance of a shoulder allows drivers to avoid rear-end crashes, provides an area for incident management without blocking lanes, provides an area for safe police enforcement, and provides a means for emergency crews to more quickly bypass queues and arrive at the incident site.

Role of VDOT and Other Agencies

VDOT is expected to be involved from a review and approval standpoint during the development of the plans and we will encourage VDOT to participate in the MOT Task Force. We anticipate that VDOT will also remain involved in the public outreach process during design and construction. During construction we anticipate VDOT will remain active in reviewing and approving lane closures, as well as helping to promote work zone safety. We also anticipate coordinating MOT operations and incident management during construction with other agencies, such as the US Navy and City of Norfolk emergency responders.

CRITICAL RISK # 2 - COMPLEXITIES OF BRIDGE CONSTRUCTION AND WIDENING

Why is the Risk Critical?

Widening and rehabilitation of existing bridges presents challenges due to the need to avoid impacts to the existing bridge elements and minimize impacts to traffic while completing varying width widenings, deck overlays, and substructure modifications. Extensive analysis must be completed during design to ensure the new bridge elements will not adversely impact existing conditions, superstructure repairs can be completed while minimizing temporary traffic impacts, and to ensure the new elements can be easily and successfully connected to the existing structure. During construction, care must be taken to not adversely impact the existing bridge elements while also completing the necessary excavation, pile driving, partial demolition, and temporary support of excavation to safely maintain operations and traffic at all times. These challenges become even more critical when work is completed in a constrained work location, such as within existing medians, in close proximity to travel lanes, adjacent to intersections and turning movements, and around existing utilities.

The RFQ information Package shows four of the bridges (eastbound over Grandby Street; eastbound over E. Little Creek Road; and eastbound and westbound over Tidewater Drive) to be modified span over tight, urban roadways and will require pier construction within existing medians and in close proximity to the existing travel lanes. Additionally, it appears the existing pier caps for the eastbound bridge over E. Little Creek Road extend beyond the face of the parapet and may require modification, and the southernmost column is partially within the pavement immediately adjacent to the existing intersection; therefore, widening of the center pier will temporarily impact traffic operations of that intersection. The fifth bridge (eastbound I-64 over I-564) will require pier construction in close proximity to the outsides of the roadway and within a narrow, barrier separated median. In addition to excavation being required within confined areas and immediately adjacent to traffic, excavation and new foundation construction will need to be completed in close proximity to multiple existing underground utilities which need to be maintained. Overhead transmission lines will further complicate the widening of the eastbound I-64 bridge over Tidewater Drive. Finally, although no bridge plans were provided with the RFQ Information Package, information provided in the RFQ Information Presentation indicates the existing bridge decks are to be milled and overlaid, and only minimal width widening is required to provide the ultimate typical section. This could result in areas of the deck which are constantly “under traffic”, making placement of deck overlays difficult.

The ability to safely complete the bridge widening and rehabilitations becomes a critical risk to this project due to the potential impacts they could have on the existing structures, utilities, traffic operations, safety, the overall project schedule, and cost of the improvements.

Impact on the Project

The impact of not accounting for all of the existing conditions and constraints during design and construction could have the following impacts:

1. Unintended impacts to existing bridges, roadways and utilities resulting in construction delays, additional relocation needs, and potentially additional reconstruction work;
2. Increased construction costs;

3. Schedule delays associated with lost productivity;
4. Adverse impacts to traffic and operations;
5. Degradation of safety for motorists, construction personnel, and inspection staff; and
6. Loss of public support and public frustration.

Mitigation Strategies

Our Team has extensive experience in designing and constructing bridge widenings and rehabilitations in constrained and urban environments. This experience is what leads us to extensively review existing information and work collectively as a team to ensure our design concepts and details, work sequences, construction techniques, and construction approach all account for challenging existing conditions and constraints and are properly coordinated with each other. Proper planning from the outset will ensure the proposed improvements can be completed as intended, without cost or schedule impacts, and without adverse impacts to the public. Mitigation strategies our Team will employ include the following:

1. Review of Existing Documents: Our Team has already begun reviewing existing documentation provided with the RFQ Information Package and visited the project site to see first-hand the unique challenges associated with each of the bridge widenings. In addition to reviewing the available information, we will obtain record information from VDOT for all of the bridges (including the latest inspection reports) and obtain information from utility companies to understand where all utilities are around, under and above the existing bridges. Review of existing documents will identify limitations we need to consider when developing the designs of new bridge substructure elements, sequencing of construction plans to ensure traffic is adequately maintained around the construction areas, and for developing construction sequencing plans.

2. Collect Extensive Survey Data: In addition to obtaining all record information, we will complete an extensive survey and field investigation effort. We recognize survey and utility designation information was provided with the RFQ Information Package and will most likely be provided with the RFP documents. Our Team will completely resurvey all existing conditions prior to start of design. These additional surveys will include high-accuracy pavement information to ensure horizontal and vertical positioning of existing infrastructure is understood and accounted for, mobile scans of the existing bridges are completed to obtain a complete “picture” of the underside of the bridge superstructure, utility designations are updated and test pits completed to verify vertical and horizontal positions of utilities, and survey of the overhead transmission towers and lines will be completed to verify vertical clearances. All of this information will be utilized during design to ensure adequate clearances both above and below the bridges are maintained, and to ensure detailed designs can be completed with a thorough understanding of areas and elements which need to be protected or avoided during construction.

3. Coordination with All Utility Owners: Utility coordination efforts will begin at the outset of design, well in advance of any formal UFI meetings or other formal processes. Following receipt of utility as-built information, we will work with each utility company to understand their concerns, any current limitations with their facilities due to minimal clearances to the existing bridges, and what restrictions they may place on the new bridge widening elements. We will discuss any concerns they have, and review potential relocation requirements in accordance with the VDOT Utility Manual of Instructions. As preliminary designs are developed for the bridge widenings, they will be provided to the utility companies to ensure no additional concerns are raised. This early coordination and communication will avoid redesign efforts later in the design process to address utility avoidance requests and reduce relocation requirements.

4. Coordination between Design and Construction Disciplines: A benefit of the DB process is the close coordination between designer and contractor. During the design phase, decisions on temporary construction elements (sheeting, shoring, support, etc.) will be discussed on a “real-time” basis between our design and construction staff to account for all means and methods. Desired and/or required construction sequencing will be reflected in our bridge plans and in the temporary traffic control plans to ensure all traffic movements are maintained in a safe and efficient manner throughout all stages of construction. Early discussion of limitations regarding traffic impacts will result in identification of

equipment with as small of a footprint as possible to perform the work, minimizing impacts to traffic. As the geotechnical investigation and analysis advances, we will evaluate the potential impact to the adjacent structures or utilities of vibrations caused by pile driving operations. This may require use of different equipment or installation methods (e.g. predrilling of piles rather than driving full depth) to mitigate identified concerns. Internal to the design team, roadway, bridge, geotechnical, and traffic design teams will hold formal coordination meetings on at least a weekly basis, and informal discussions will occur on a daily basis, to ensure design details are coordinated throughout the design process. Our Team will also hold weekly coordination meetings between design, construction, and utility staff to ensure all aspects of the project are accounted for as design progresses, thereby avoiding re-work activities which could impact the plan development schedule, or require rework once plans are approved for construction.

5. Involvement of Specialty Subcontractors: Some aspects of the bridge demolition, support, and construction will require involvement of specialty subcontractors. During the design phase, specialty firms will be engaged through the construction team to participate in constructability reviews and meetings to provide feedback on their intended approach to the work. Specific questions related to types of equipment to be used during each stage of work, and the resulting required work area which must be accounted for, can be discussed openly and reflected in temporary traffic control and sequencing plans. Similar to the coordination between our design and construction staff, this involvement of specialty subs will ensure the need for resequencing of work, or the schedule and cost impacts associated with implementing changes after plan approval and during construction, are avoided. Additionally, specialty subcontractors will be aware of critical areas before work is started in the field. Understanding coordination which has already occurred with utility companies, for example, will allow us to monitor critical conditions from the outset (such as vibration monitoring of existing utilities) to ensure adverse impacts are avoided, and data is available to identify preconstruction conditions.

6. Coordinate Bridge Widening Sequence with Repairs: We expect the RFP Information Package will have detailed information on the scope of bridge rehabilitations, deck overlays, and potentially abutment modifications which are required. As we review that information, we will develop a sequence of construction which enables us to utilize the proposed bridge widenings in a way which will facilitate completion of rehabilitations while minimizing impacts to traffic. This may result in bridge deck overlays being completed later during the overall construction sequence, after bridge widenings have been completed. Additionally, consistent with some of our past projects on I-64, we will review interchange and ramp operations and develop unique sequences of construction so all movements are maintained during completion of deck repair and overlay. Finally, consideration will be given to using different concrete mix designs (as allowed by VDOT specifications and special provisions) to provide rapid curing so temporary night-time lane closures can be used for completion of the overlays while allowing for full traffic operations during daytime and peak periods.

Role of VDOT and Other Agencies

We do not anticipate any additional involvement from VDOT beyond the normal roles and responsibilities associated with plan review and approval processes. Should unique design solutions be necessary to avoid impacts to existing substructure elements or existing utilities, we expect VDOT will discuss those solutions, review any special details, and provide feedback as to whether they will be acceptable. Temporary lane and shoulder closures, where allowed by the contract, will be authorized by the Traffic Operations Center, and our Team will communicate with VDOT to ensure there are no impacts to the adjacent projects which are also expected to be under construction. Minimal involvement from other agencies is anticipated with respect to the bridge modifications, although public outreach efforts will be completed by our Team to relay any temporary traffic impacts to the local community and third party stakeholders.

CRITICAL RISK #3 – RESOURCE ALLOCATION AND SCHEDULING

Why The Risk Is Critical

Schedule delivery is critical and may present a risk to on time completion. There are factors out of the control of both VDOT and the contractor which have developed presenting schedule implications on projects across the country, especially in regions of high construction, such as the Hampton Roads area. Material procurement

can have not only schedule implications but cost implications as well. The COVID-19 pandemic has caused industry-wide delays in manufacturing and raw materials delivery affecting the duration of procurement activities. Availability of qualified workforce adds to the schedule risk, caused from the high number of heavy/civil projects currently underway in the Hampton Roads region.

Impact on The Project

Price Escalations. Material price increases from bid to construction pose a significant risk to DB projects. We are currently seeing extreme price increases on raw materials, such as lumber, steel, concrete and asphalt which place more uncertainty on material pricing. With only preliminary designs at time of bid, material pricing cannot generally be “locked-in” with suppliers and subcontractors.

Material Lead Times. Driven by high demand, lead times for construction materials have grown significantly. In particular, permanent materials involving steel and electronics are currently the most significantly impacted items. Archer has reached out to several material suppliers and manufacturers to gain current lead-times for procurement. The durations shown in table 1 include the time for engineered shop drawings.

Work Force. The I-64 corridor is undergoing significant improvements. With numerous large scale projects currently underway and continuing for the next several years, the risk of unavailable workforce is high. Archer makes the commitment to cultivate the available workforce along with implementing a resourceful plan for recruiting and training of the future workforce in the Hampton Roads region to contribute to the successful delivery of these projects. Archer embraces this investment in the future through workforce development helping to serve Archer and VDOT on the future projects in the Hampton Roads region.

Mitigation Strategies

Price Escalations. Archer will tailor its design to minimize the pricing risk where opportunities are presented. DB enables the contractor team to work collaboratively in pricing while designing, checking with material suppliers and fabricators on alternative solutions to maintain the Project cost. During the Project, we will evaluate the cost-benefit of procuring and storing materials early in the Project to hedge against escalations, engaging frequently with VDOT to consider design alternative options minimizing impacts from material price escalations.

Alternative materials becoming more economical, or efficient, in mitigating the procurement duration include the following design approaches:

- Temporary re-use of existing Overhead sign structures, light and camera poles and ITS DMS signs;
- RCP versus CMP/HDPE
- Concrete vs. Corrugated Metal or HDPE pipe;
- Alternate Stormwater Management (SWM) material and/or device options;
- Stone underdrain in lieu of corrugated pipe; and
- Retaining wall type/material options.

Material lead times: During the bid and procurement stage, we will engage suppliers and fabricators to determine accurate lead times for material procurement. Lead times will be incorporated into the Project

Table 1: Approximate Material Procurement Lead Times

MATERIAL PROCUREMENT LEAD TIMES	
MATERIAL	TIMING
Bearings	~13 weeks
Sign Structures	~28 weeks
ITS Equipment	~20 weeks
Cabinets and Poles	~20-30 weeks
Switches and switchgears/ cabinets	~30 weeks
Precast Concrete	~12 weeks
Steel	~8-10 weeks
DMS	~24 weeks
OH Sign Anchor Bolts	~8 weeks
Fiber Optic Cable	~8 weeks

schedule to ensure adequate time for long lead-time materials. Additionally, sequence of the schedule will take into consideration activities such as ITS integration, presenting the most efficient sequence of construction to mitigate the impacts of longer duration activities. When appropriate, critical vendors will be contracted early based on resource commitments and schedule certainty rather than lowest price.

Work Force. Within a 200-mile radius of this project Archer has over 720 experienced skilled craftsmen. Projects in Northern Virginia, Western North Carolina, and Northeastern South Carolina will have resources available to transfer to the Project. As the need for additional craft personnel increases, Archer will utilize several strategies to recruit, train, and retain the additional workforce. Archer is open to new ideas and will host a kick-off meeting with various stakeholders, exploring additional recruitment and training concepts. Initial concepts/strategies to grow our workforce in the area include:

- 1. Recruiting at local high schools:** Archer will participate in career days at local high schools to assure the teachers and counselors know who we are and what type of career students could have with Archer in the construction industry.
- 2. Recruit/Train at vocational schools:** Archer will work with regional trade schools, enter the classroom to assist with training, and bring the students to the project for hands-on experience.
- 3. Recruit local talent:** The COVID-19 pandemic has caused many people to rethink their current job situation, many with skillsets needed to be a great construction worker. Archer will focus on local communities in Hampton Roads, reaching out to skilled operators and laborers who have lost their jobs due to the COVID-19 pandemic, or are looking for higher wage career opportunities in the heavy civil construction industry.
- 4. Partner with Local Programs:** Archer will partner with local workforce development programs and community groups and be active in the Chamber of Commerce to provide opportunity for trainees to get the experience they need in the career fields of their choice.
- 5. On-the Job Training programs:** Safety will be first and foremost and all employees will receive safety training applicable to their roles on the project including first aid and CPR, operator, rigging, confined space, work zone traffic control, safe driving, environmental, and 10-hour OSHA Orientation. The basic training, along with measured trade focused skill training, will attract new hires to gain skills helping to ensure long-term employment in the industry.
- 6. Craft Compensation:** Archer will provide competitive pay attractive to the local craftsmen, as well as craft from surrounding regions such as Northern Virginia, Richmond, and North Carolina. Along with pay rates, Archer provides our craft with a competitive 401k program, top of the line insurance packages and two-weeks of Paid Time Off (PTO) each year. These benefits have improved our recruiting and retention by over 18.5%.

Role of VDOT and Other Agencies

We do not anticipate any additional requirements of VDOT beyond normal roles and responsibilities. During the design and construction of the Project, Archer will work with subcontractors, suppliers, vendors and regional employment resources to mitigate schedule risks associated with procurement and workforce availability. Similar to investing time toward strengthening the position of our relationships with key materials suppliers to reduce the risk of supply-chain delays, a high-quality end product completed safely and on-time depends on constantly recruiting and continuing the training of future construction tradespeople.

3.1.2: SOQ Checklist

ATTACHMENT 3.1.2

Project: 0064-122-470

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.

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	Appendix
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix
Letter of Submittal (on Offeror's letterhead)				1
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

Project: 0064-122-470

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	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
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	2-3
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix
Key Personnel Resume – Entrusted Engineer in Charge (EIC)	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
Organizational chart	NA	Section 3.3.2	yes	5
Organizational chart narrative	NA	Section 3.3.2	yes	3-4

ATTACHMENT 3.1.2

Project: 0064-122-470

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Experience of Offeror's Team				
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
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	6-12

2.10 Acknowledgment of Receipt of RFQ, Revisions, and/or Addenda Form C-78- RFQ

ATTACHMENT 2.10

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00117840DB112
PROJECT NO.: 0064-122-470

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 – January 20, 2022
(Date)
- 2. Cover letter of RFQ- February 10, 2022
(Date)
- 3. Cover letter of RFQ Q&A- February 11, 2022
(Date)



SIGNATURE

03-01-2022

DATE

EJ O'Neill

PRINTED NAME

Vice President

TITLE

3.2.6 List of Affiliated and Subsidiary Companies

ATTACHMENT 3.2.6

State Project No. 0064-122-470

Affiliated and Subsidiary Companies of the Offeror

Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

<input type="checkbox"/> The Offeror does not have any affiliated or subsidiary companies.
<input type="checkbox"/> Affiliated and/ or subsidiary companies of the Offeror are listed below.

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address

ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-122-470

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.

 _____	03-01-2022 _____	Vice President _____
Signature	Date	Title

Archer Western Construction, LLC (EJ O'Neill)

Name of Firm

ATTACHMENT 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-122-470

- 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

3/3/2022
Date

Executive Vice President
Title

Dewberry Engineers Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-122-470

- 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

2/17/2022

Date

President

Title

Quinn Consulting Services, Inc.

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-122-470

- 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.

Pat J. [Signature] 1/31/2022 CVO
Signature Date Title

McCormick Taylor, Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-122-470

- 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.

<p>James R Wirt <small>Digitally signed by James R Wirt DN: c=US, o=ECS MID-ATLANTIC, ou=A01410C00000174598925B40 0003843, cn=James R Wirt Date: 2022.01.30 15:51:41 -05'00'</small></p>	<p>1/30/22</p>	<p>Vice President</p>
Signature	Date	Title

ECS Mid-Atlantic, LLC

Name of Firm

ATTACHMENT 3.2.7(b)

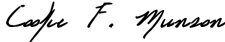
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-122-470

- 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.

<small>DocuSigned by:</small>  <small>D830117A89C54AD...</small>	01-28-2022	Vice President, General Counsel & Secretary
_____ Signature Cookie F. Munson	_____ Date	_____ Title

Surveying And Mapping, LLC

Name of Firm

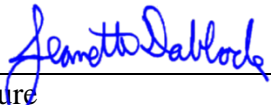
ATTACHMENT 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-122-470

- 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	1/25/2022 Date	President Title
---	-------------------	--------------------

Diversified Property Services, Inc.
Name of Firm



Virginia Department of Transportation

Date Printed: 01/26/2022

Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 1/26/2022

- A -

Vendor ID: A210
Vendor Name: ARCHER WESTERN CONSTRUCTION, LLC
Prequal Level: Prequalified
Prequal Exp: 01/31/2023

-- 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



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

February 23, 2022

Bryan W. Stevenson, P.E., DBIA
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: I-64 Hampton Roads Express Lanes (HREL) Segment 1A
From: 0.150 miles East of Patrol Road
To: 0.663 miles East of Tidewater Drive
State Project No.: 0064-122-470
Federal Project No.: NHPP-064-3(520)
Contract ID Number: C00117840DB112

Dear Mr. Stevenson:

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 \$117,000,000, 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(s)-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 **21st** day of **April, 2021**.



State of Connecticut

City of Hartford ss.

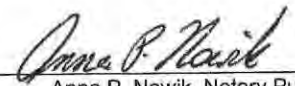
By: 
Robert L. Raney, Senior Vice President

On this the **21st** day of **April, 2021**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, 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, 2026**




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 each of the Companies, 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 each of the Companies, 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 **23rd** day of **February, 2022**.




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(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.**

3.2.10 SCC and DPOR Information Tables, Licenses and Registrations

ATTACHMENT 3.2.10

State Project No. 0064-122-470

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.

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Archer Western Construction, LLC	T0437006	Foreign Limited Liability Company	Active	929 W. Adams St. Chicago, IL 60607	Class A Contractor	2705141795	07/31/2023
Dewberry Engineers Inc.	F100462-3	Corporation	Active	8401 Arlington Blvd. Fairfax, VA 22031	Business Entity Branch Office	0411000941	02/29/2024
Dewberry Engineers Inc.	F100462-3	Corporation	Active	4805 Lake Brook Dr. Suite 200 Glen Allen, VA 23060	Business Entity Branch Office	0411000942	2/29/2024
Quinn Consulting Services, Inc.	0492551-7	S, Corporation	Active	14160 Newbrook Dr. Suite 220, Chantilly, VA 20151	Business Entity	0407003733	12/31/2023
Quinn Consulting Services, Inc	0492551-7	Corporation	Active	1801 Pleasure House Rd. Suite 101 Virginia Beach, VA 23455	Business Entity Branch Office	0411001133	2/29/2024
McCormick Taylor, Inc.	F1296914	Stock Corporation	Active	111 Mill PI Pkwy Unit 105, Verona, VA 24482	Business Entity Branch Office Registration	0411000771	02/29/2023
McCormick Taylor, Inc.	F1296914	Stock Corporation	Active	4951 Lake Brook Dr Ste 275, Glen Allen, VA 23060	Business Entity Registration	0407004111	12/32/2023
McCormick Taylor, Inc.	F1296914	Stock Corporation	Active	509 South Exeter St 4th Floor, Baltimore, MD 21202	Business Entity Branch Office Registration	0411000726	2/29/2024
ECS Mid-Atlantic, LLC	S1208216	Limited Liability Company	Active	7670 Enon Dr., Suite 101 Roanoke, VA 24019	Business Entity Branch Office	411000381	2/29/2024
ECS Mid-Atlantic, LLC	S1208216	Limited Liability Company	Active	2119-D N. Hamilton St Richmond, VA 23230	Business Entity Branch Office	41000384	2/29/2024

ATTACHMENT 3.2.10

State Project No. 0064-122-470

SCC and DPOR Information

Diversified Property Services, Inc.	F130410	S Corp	Active	20 E. Timonium Rd. Suite 111 Timonium, MD 21093	Appraisal Business	400801190	11/30/2022
Surveying and Mapping, LLC	T0564965	Limited Liability Company	Active	7679 Limestone Dr. Building B, Ste 155 Gainesville, VA 20155	Business Entity Branch Office	0407006626	12/31/2023

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
Archer Western Construction LLC	Laurence Wadman	Herndon, VA	37838 Piggott House Pl. Purcellville, VA 20132	Professional Engineer	0402018578	7/31/2022
Dewberry Engineers Inc.	Matthew C Thomas	Glen Allen, VA	4805 Lake Brook Dr. Suite 200 Glen Allen, VA 23060	Professional Engineer	0402046511	6/30/2022
Quinn Consulting Service, Inc.	Richard Meinrad Allen	Chantilly and Virginia Beach, VA	443 Shady Dell Rd. Thomasville, PA 17364	Professional Engineer	0402036809	11/30/2023

DPOR License Lookup License Number 2705141795

License Details

Name	ARCHER WESTERN CONSTRUCTION LLC
License Number	2705141795
License Description	Contractor
Firm Type	Corporation
Rank ¹	Class A
Address	929 W ADAMS ST, CHICAGO, IL 60607
Specialties ²	Commercial Building (CBC) Highway / Heavy (H/H) Residential Building (RBC)
Initial Certification Date	2011-07-12
Expiration Date	2023-07-31

- 1 Refer to the Statutory Definitions (<http://law.lis.virginia.gov/vacode/title54.1/chapter11/section54.1-1100/>) for descriptions of the rank or class of license (A, B, or C) that determines the monetary limits on contracts/projects.
- 2 Refer to the Classification Definitions (<http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+18VAC50-22-20>) and Specialty Definitions (<http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+18VAC50-22-30>) for detailed definitions of these classifications and specialties.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,452 (built 2021-09-14 01:36:33).

DPOR License Lookup License Number

0411000941

License Details

Name	DEWBERRY ENGINEERS INC
License Number	0411000941
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	8401 ARLINGTON BLVD, FAIRFAX, VA 22031
Initial Certification Date	2012-07-02
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0401005284	WELLS, JOSEPH EDWARD	Architect License	Architecture	2023-10-31
0406001718	CENA, JANICE MARIE	Landscape Architect License	Landscape Architecture	2023-01-31
0402023693	JAMES, RUSSELL R	Professional Engineer License	Engineering	2023-03-31

Showing 1 to 3 of 3 entries

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DPOR License Lookup License Number

0411000942

License Details

Name	DEWBERRY ENGINEERS INC
License Number	0411000942
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	4805 LAKE BROOK DR STE 200, GLEN ALLEN, VA 23060
Initial Certification Date	2012-07-02
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402033505	FULLER, JAMES SEABORN	Professional Engineer License	Engineering	2022-06-30
0402032880	MAXWELL, DAVID SCOTT	Professional Engineer License	Engineering	2023-01-31
0403001755	HOOVER, MICHAEL WILLIAM	Land Surveyor License	Land Surveying	2022-06-30

Showing 1 to 3 of 3 entries

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DPOR License Lookup License Number

0407003733

License Details

Name	QUINN CONSULTING SERVICES INCORPORATED
License Number	0407003733
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	14160 NEWBROOK DR STE 220, CHANTILLY, VA 20151
Initial Certification Date	1998-03-05
Expiration Date	2023-12-31

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402026380	VICINSKI, JOHN KEVIN	Professional Engineer License	Engineering	2023-08-31

Showing 1 to 1 of 1 entries

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DPOR License Lookup License Number

0411001133

License Details

Name	QUINN CONSULTING SERVICES INCORPORATED
License Number	0411001133
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	1801 PLEASURE HOUSE RD STE 101,102, VIRGINIA BEACH, VA 23455
Initial Certification Date	2014-06-25
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402040981	CLARKE, RICHARD LAYNE	Professional Engineer License	Engineering	2023-05-31

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DPOR License Lookup License Number

0411000771

License Details

Name	MCCORMICK TAYLOR INC
License Number	0411000771
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	111 MILL PL PKWY UNIT 105, VERONA, VA 24482
Initial Certification Date	2010-10-27
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402036571	STYERS, SAMUEL ADAM	Professional Engineer License	Engineering	2023-06-30

Showing 1 to 1 of 1 entries

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DPOR License Lookup License Number

0411000726

License Details

Name	MCCORMICK TAYLOR INC
License Number	0411000726
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	509 SOUTH EXETER ST 4TH FLOOR, BALTIMORE, MD 21202
Initial Certification Date	2010-03-25
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402041865	DORSEY, HAROLD JAMES	Professional Engineer License	Engineering	2024-02-29

Showing 1 to 1 of 1 entries

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DPOR License Lookup License Number

0407004111

License Details

Name	MCCORMICK TAYLOR INC
License Number	0407004111
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	4951 LAKE BROOK DR STE 275, GLEN ALLEN, VA 23060
Initial Certification Date	2001-05-22
Expiration Date	2023-12-31

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402036571	STYERS, SAMUEL ADAM	Professional Engineer License	Engineering	2023-06-30

Showing 1 to 1 of 1 entries

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DPOR License Lookup License Number

3334000006

License Details

Name	ECS-MID-ATLANTIC LLC
License Number	3334000006
License Description	Asbestos Analytical Lab Branch Office
Firm Type	LLC - Limited Liability Company
Rank	Branch Office License
Address	2119 D NORTH HAMILTON STREET, RICHMOND, VA 23230
Initial Certification Date	2020-01-08
Expiration Date	2022-01-31

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DPOR License Lookup build 1,452 (built 2021-09-14 01:36:33).

DPOR License Lookup License Number

0411000381

License Details

Name	ECS-MID-ATLANTIC LLC
License Number	0411000381
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	7670 ENON DR STE 101, ROANOKE, VA 24019
Initial Certification Date	2004-12-10
Expiration Date	2024-02-29

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402035334	WYATT, BRIAN SCOTT	Professional Engineer License	Engineering	2023-01-31

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DPOR License Lookup License Number

0407006626

License Details

Name	SURVEYING AND MAPPING LLC
License Number	0407006626
License Description	Business Entity Registration
Firm Type	LLC - Limited Liability Company
Rank	Business Entity
Address	7679 LIMESTONE DR BLDG B STE 155, GAINESVILLE, VA 20155
Initial Certification Date	2014-10-15
Expiration Date	2023-12-31

Related Licenses ¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0403001937	SPENCER, MELVIN E	Land Surveyor License	Land Surveying	2023-01-31
0403001764	SHACKELFORD, MICHAEL GARY	Land Surveyor License	Land Surveying	2022-06-30
0402022310	SKAHN, CARY ALAN	Professional Engineer License	Engineering	2023-06-30

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DPOR License Lookup License Number

4008001190

License Details

Name	DIVERSIFIED PROPERTY SERVICES OF VIRGINIA INC
License Number	4008001190
License Description	Appraisal Business Registration
Firm Type	Corporation
Rank	Business Entity
Address	20 E TIMONIUM ROAD SUITE 111, TIMONIUM, MD 21093-0000
Initial Certification Date	2000-11-29
Expiration Date	2022-11-30

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DPOR License Lookup License Number

0402018578

License Details

Name	WADMAN, LAURENCE J.
License Number	0402018578
License Description	Professional Engineer License
Rank	Professional Engineer
Address	PURCELLVILLE, VA 20132
Initial Certification Date	1988-07-11
Expiration Date	2022-07-31

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DPOR License Lookup License Number

0402046511

License Details

Name	THOMAS, MATTHEW C
License Number	0402046511
License Description	Professional Engineer License
Rank	Professional Engineer
Address	GLEN ALLEN, VA 23060-9278
Initial Certification Date	2010-06-17
Expiration Date	2022-06-30

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DPOR License Lookup License Number

0402036809

License Details

Name	ALLEN, RICHARD MEINRAD
License Number	0402036809
License Description	Professional Engineer License
Rank	Professional Engineer
Address	THOMASVILLE, PA 17364
Initial Certification Date	2001-11-30
Expiration Date	2023-11-30

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DPOR License Lookup build 1,452 (built 2021-09-14 01:36:33).

- Applied safety, environmental, and quality plans
- Administered schedule to ensure milestones were met

The project is an 8.5-mile light rail line that includes 5.5 miles of at-grade track, 3,600 feet of cast-in-place bridge structures, 4,600 feet of U-wall, 4,700 feet of cut and cover trench and approximately 6,000 feet of dual bored tunnels. In addition, the project includes 8 stations and a signature parabolic bridge over I-405, the busiest and most congested freeway in the U.S., where Walsh used innovative design and construction techniques to temporarily shore the new parabolic bridge structure off an existing rail bridge to drastically minimize impacts to traffic and mitigate project risks.

Similarities to I-64 Project: Design-Build delivery, bridge construction, retaining walls, asphalt, drainage, Interstate and roadwork, utility relocations, multi-phase traffic management, workforce development, procurement coordination, schedule management, environmental considerations, stakeholder coordination, DBE coordination

CTxHC SH 130 Segments 5 & 6 (DB), (\$1.0B), Lockart, TX

Role: Project Manager

Firm: Archer Western Construction

Dates: 2009-2011

- Responsible for Risk Management and Mitigation strategies
- Developed and managed the project control and document control systems
- 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 including constructing 68 bridges in 2 years.
- Provided constructability reviews on design to minimize conflicts that could affect schedule

This privately developed Design-Build project spanned over 40 miles of private toll road from Mustang Ridge through Lockhart to IH-10 in Seguin, Texas. AWC's scope included 68 bridges, 31 retaining walls, and over 40 miles of roadway including work along Interstate 10 and 183.

Similarities to I-64 Project: Design Build, interstate highway construction, bridge construction, retaining walls, multi-phase due to permitting, stormwater management considerations, environmental considerations, innovative design and construction techniques, stakeholder coordination

TxDOT SH45 – I-35 & Hester's Crossing (\$136M), Austin, TX

Role: Project Manager

Firm: Archer Western Construction

Dates: 2004-2008

- 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
- Developed and managed the project control and document control systems
- Tracked quantities, cost accounting, coordinate weekly client meetings, assure work planning was completed
- Managed self-perform crews, heavy equipment, and subcontractors to assure schedule was met

This project included 2.3 miles of new interstate highway construction and widening, interchange reconstruction, direct connectors, frontage roads, ramps, and toll plaza facilities. Additional scope included retaining walls, concrete and asphalt paving, storm sewers, stormwater management facilities, MBGF, sign structures, MOT, electrical work, and ITS communication.

Similarities to I-64 Project: Interstate highway widening, bridge construction, retaining walls, utility relocations, drainage 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.

Not applicable for this position

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Laurence Wadman, PE Senior Project Manager
b. Project Assignment: Entrusted Engineer in Charge (EIC)
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Archer Western Construction, LLC
d. Employment History: With this Firm <u>6</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): Archer Western Construction, 2015-Present. As Senior Project Manager, Mr. Wadman has corporate oversight responsibilities to deliver multiple projects (or a single larger project) to the expectations of his clients and the AWC ownership. He has direct responsibility for project staffing, schedule, budget, and cost control, subcontractor relations, and provides direction and coordination for Project Managers and other supervisory staff. TIC-The Industrial Company (a wholly owned subsidiary of Kiewit effective 2009) 1996-2015. As a Senior Construction Manager/Program Manager, Mr. Wadman has corporate oversight responsibilities to deliver multiple projects (or a single larger project) to the expectations of his clients and the company ownership. He has direct responsibility for project staffing, schedule, budget/cost control, subcontractor relations, and provides direction and coordination for Project Managers and other supervisory staff.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Delaware, Newark, DE–B.S. 1977 Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1988/Professional Engineer/VA #0402018578
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities 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> (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.) Hurricane Florence Milcon Pkg 4 (Bridges) Design-Build, Stella, North Carolina Role: Design-Build Coordinator Firm: Archer Western Construction, LLC Dates: 2020-2022 Specific Responsibilities: As the Design Build Coordinator, Larry was responsible for managing the design process and ensuring a well-integrated design in conformance with Contract Documents and specifications. Larry made engineering decisions on this complex, multi-discipline project and has also been responsible for temporary works design. Under Larry’s leadership the design was completed ahead of schedule. This Design-Build project will replace three bridges at MCB Camp LeJeune as part of the Hurricane Florence Recovery. Included in the work is the replacement of one existing 70-year-old swing bridge at Onslow Beach over the Intracoastal Waterway with a single-leaf bascule bridge and roadway approaches on a new alignment and replacement of two railroad trestle bridges on existing alignment; one trestle is 2,500 linear feet over the White Oak River; the other is 61 linear feet over Queens Creek. This project also includes an allotment for the replacement of timber ties and ballast along the entire 34-mile rail line between MCAS Cherry Point and MCB Camp LeJeune. <i>Similarities to I-64 Project: Design Build, bridge construction, asphalt, drainage, utility coordination and relocation, stormwater management, environmental considerations, stakeholder coordination.</i> South Capital Street Corridor (Phase I), Washington, DC Role: Project Director Firm: Archer Western Construction, LLC Dates: 2017-Present Specific Responsibilities: As Project Director Larry was activity involved in the design process attending the weekly task force meetings during the design phase. Larry was also instrumental in identifying design concerns at the task force meetings and escalated the issues to senior DDOT personnel for resolution to minimize impact to the schedule. Larry worked with the project team to develop designs for pile driving, support of excavation, and steel erection.

Larry's involvement with the utility coordination (specifically PEPCO) resulted in a separate design-build project with Dewberry as the designer to install a new transmission duct bank through the South Cap Project.

The South Capitol Street Corridor PH 1 Project is a Design-Build Project that includes the replacement of the Frederick Douglas Memorial Bridge (FDMB) across the Anacostia River in DC. The new bridge will be located downstream of the existing bridge and consists of three steel arches with clear spans up to 492' and 168' high. The bridge is supported on two river piers with 60" steel pipe piles. Extensive approach work including 500' long ovals providing roadway connectivity to the FDMB. Coordination with several utility companies is required as extensive utility relocations are required. Roadway upgrades are also included between the east oval and 295. Three bridges are included in the rehabilitation of 1.5 miles of I-295. MOT is an extremely important part of the project with lane closure restrictions include normal rush hours and sporting events at the adjacent baseball and soccer stadiums.

Similarities to I-64 Project: Design Build, bridge construction, retaining walls, asphalt, drainage, utility coordination and relocation, stormwater management, environmental considerations, noise analysis, stakeholder coordination.

I-395 HOV Ramp at Seminary Rd. & NB Aux Lane (DB), Alexandria, VA **Role:** Design-Build Project Manager, **Firm:** Archer Western Construction, LLC **Dates:** 2015-2016

Specific Responsibilities: Larry took over as the Design-Build Project Manager for the I-395 HOV Ramp at Seminary Road Project and was responsible for successfully bring the project to completion. Specific duties included:

- 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 I-64 Project: Design Build, bridge construction, asphalt, drainage, utility coordination and relocation, stormwater management, environmental considerations, safety oversight, and 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.

Mr. Wadman is currently wrapping up his Hurricane Florence Package 4 responsibilities and the South Capitol Corridor project and will be available for the I-64HREL Segment 1A by project award.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Richard Allen, P.E., DBIA, Quality Assurance Manager
b. Project Assignment: Quality Assurance Manager
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Quinn Consulting Services, Inc.
d. Employment History: With this Firm 8 Years With Other Firms 20 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): Quinn Consulting Services, Inc., 2013 – Present, Quality Assurance Manager Responsible for overseeing the Quality Assurance process, providing oversight of the QA staff and coordination of QA/QC testing requirements on Virginia Department of Transportation Design-Build projects. Dulles Transit Partners, LLC (JV Team- Bechtel &URS), 2002-2012, Unity Structural Engineer Served as a Unit Lead Structural Engineer and provided Quality Assurance Oversight during the construction phase on this \$1.6B Dulles Metrorail (Silver Line) Light Rail Design-Build PPTA Project in Northern Virginia. Reinforced Earth Company, 2000-2007, Regional Engineer Oversaw the complete and final design of MSE wall drawings and calculations including internal, external, and occasionally global stability on projects throughout the United States.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Old Dominion University Norfolk, VA 1995 ME Civil Engineering Pennsylvania State University State College, PA 1992 BS Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2001 Professional Engineer Virginia 0402036809
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">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> (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.) VDOT I-66 Outside the Beltway Design Build PPTA, Northern VA Role: Quality Assurance Manager Firm: Quinn Consulting Services, Inc. Dates: 10/2017 – Present This Design-Build project modified nearly 23 miles of I-66 to provide two (2) express lanes in each direction alongside three regular travel lanes from I-495 to University Boulevard near Route 29 in Gainesville, with dedicated express lanes access points, and space in the median reserved for future transit. It included the installation of Intelligent Management System (ITS) equipment including fiber optic cable, cameras, variable message signs, lane control signals, reversible gates, etc. In addition, the project consists of 4,000 park and ride spaces, new and expanded commuter bus service throughout the corridor, safety and operational improvements at key interchanges, auxiliary lanes between interchanges, and bicycle and pedestrian paths and connections. Richard’s responsibilities include implementing and maintaining the Quality Management System (QMS); providing leadership to a team of Quality Assurance (QA) inspectors; monitoring and verifying the Quality Control (QC) Process; scheduling, facilitating, and preparing meeting minutes for Preparatory Inspection Meetings; providing document management support; initiating the non-conformance process; conducting internal/external design and construction auditing; overall internal auditing responsibilities to verify that the QA/QC material sampling and testing process meets or exceeds the contract minimum requirements, ensuring proper Materials Notebook documentation; and materials sampling and testing audits. Similarities to I-64 Project: <i>Design-Build delivery, VDOT Project, interchanges, IMS, Express Lanes, QMS Implementation, QA/QC and materials testing.</i> Route 7 Over Dulles Toll Road Design Build Project, Dulles, VA Role: Quality Assurance Manager

Firm: Quinn Consulting Services, Inc.

Dates: 6/2015-5/2018

This design-build project for VDOT consisted of the following activities: new construction of Route 7 west of Tyco Road to tie into previous Route 7 improvements conducted under the Metrorail (Silver Line) project including widening from four lanes to six lanes; complete deck replacements of two bridges over the DTR including abutments and substructure repairs; addition of a shared use path in each direction of Route 7; drainage and storm water management improvements; and design and construction of several noise barrier and MSE abutment walls.

Richard was responsible for overseeing the project Quality Assurance process, providing oversight of the project QA staffing and coordination of QA/QC testing requirements. Additional responsibilities included verification that all work performed on the project is inspected and tested in accordance with the VDOT minimum requirements for QA and QC on design-build and Public-Private Transportation Act (PPTA) projects and the project specific QA/QC plan.

Similarities to I-64 Project: Design-Build delivery, VDOT Project, roadway widening, QA/QC and materials testing.

VDOT I-95 Express Lanes Design-Build PPTA Project, Northern VA Role: Quality Assurance Manager

Firm: Quinn Consulting Services, Inc.

Dates: 10/2013-10/2016

The VDOT P3 I-95 Express Lane project was divided into four segments. Segment 1 (8.3 miles) – Garrisonville Road to Dumfries Road, two lane reversible section on new location (seven new bridges, inclusive of two flyovers and northbound slip ramp). Segment 2 (7 miles) – Dumfries Road to Prince William Pkwy., maintained geometry of existing roadway. Segment 3 (11.9 miles) – Prince William Parkway to I-495, added third lane. Segment 4 (2.2-miles) – I-495 to north of Edsall Road, added 3rd Lane.

Richard's responsibilities included implementing and maintaining the Quality Management System (QMS) throughout the project; providing leadership to a team of QA inspectors responsible for monitoring and verifying the QC process; scheduling, facilitating, and preparing meeting minutes for preparatory inspection meetings; and initiating the non-conformance process for those items reported by the QA inspection and testing team. He conducted internal and external design and construction auditing; overall internal auditing responsibilities to verify that the QA/QC material sampling and testing process meets or exceeds the contract minimum requirements, and the Materials Notebook documentation is in conformance with the established process; and provided materials sampling and testing audits to ensure practices and procedures are consistent throughout the project. Richard conducted periodic auditing of erosion and sediment control measures and project documentation to verify adherence with the project requirements and recommend procedural improvements as deemed necessary. He provided continuing improvement to the existing QA/QC process.

Similarities to I-64 Project: Design-Build delivery, VDOT Project, Express Lanes, Implementation of the QMS, QA/QC and materials testing.

* 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.

Richard is currently assigned to the I-66 Outside the Beltway project which is scheduled to be complete in December 2022. He will be available on-site full time prior the start of construction on this Project.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Matt Thomas, PE, Associate
b. Project Assignment: Design Manager (DM)
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Dewberry Engineers Inc.
d. Employment History: With this Firm 16 Years With Other Firms 0 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): Dewberry Engineers Inc.; 2010-Present, Design Manager/Project Manager General responsibilities include management of Dewberry's Richmond, Virginia roadway design staff and oversight of multiple transportation design projects. Management responsibilities include setting project schedules, developing agendas and attending progress meetings, and coordinating with agencies to gain environmental and construction permits. Project responsibilities include oversight of roadway plan development, signing and sealing plans for right-of-way acquisition and construction, coordination and direct communication with design sub-consultants, leading coordination of internal design disciplines including roadway, structural, stormwater management/water resources, and environmental staff, and implementation of design QC processes. During construction, responsibilities include communicating and coordinating directly with construction staff to respond to questions, distribute and review shop drawings, submittals, and RFIs, and continues to serve as the single point of contact between Dewberry and the client. Dewberry Engineers Inc.; 2005-2010, Project Engineer: General responsibilities included setting horizontal and vertical roadway geometry, roadway plan development, coordination with other roadway, drainage, stormwater management/water resources, structural, and environmental staff. During construction, responsibilities included reviewing shop drawings, submittals, and RFIs.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute & State University, Blacksburg, VA / BS / 2005 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2010/Professional Engineer/Virginia #0402 046511
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">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> (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.) Skiffes Creek Connector (DB), (\$24.5M), James City County, VA Role: Design Manager Firm: Dewberry Engineers Inc. Dates: 2/2020 – 10/2022 <ul style="list-style-type: none">• Oversaw design staff to coordinate all design elements;• Responsible for the roadway design layout;• Coordinated with subconsultants;• Developed content and participated in public outreach;• Participated in monthly owner meetings through design and construction; and• Provided construction support through RFI and submittal reviews. <p>This project constructs 0.9 miles of a new two-lane roadway in James City County, including two new bridges, one of which was over Skiffes Creek that ultimately feeds the Skiffes Creek Reservoir. This Project also included the design of two new traffic signals, several MSE walls, multiple ground mounted signs, and multiple stormwater management facilities. During the preliminary design of the vertical profile, Matt developed a profile along Route 60 that corrected a substandard vertical curve and eliminated the need for complete replacement of the existing pavement that had recently been milled and overlaid.</p> <p><i>Similarities to I-64 Project: Design Build, bridge construction, retaining walls, asphalt, drainage, utility coordination and relocation, stormwater management, environmental considerations, noise analysis, stakeholder coordination.</i></p>

I-64 Pavement Rehabilitation (DB), (\$14.5M), Norfolk, VA**Firm:** Dewberry Engineers Inc.**Role:** Lead Roadway Engineer;**Dates:** 1/2014 – 11/2014

- Responsible for the layout of the horizontal and vertical geometry;
- Developed and analyzed existing cross slopes for corrections;
- Coordinated roadway design with other design disciplines;
- Coordinated with subconsultants;
- Participated in Public Outreach; and
- Provided construction support through reviews of RFIs and submittals

This project rehabilitated 5 miles of I-64 partly within the limits of the I64 HREL Segment 1A project. This project was scheduled to be completed in only 10 months from Notice to Proceed along with an interim milestone for the patching and THMACO placed by August of 2014. In order to achieve this, Matt was responsible for coordinating an early works package (Phase 1) that included the temporary traffic control, concrete pavement patching details, and limits of the THMACO to be placed. Matt worked with his roadway designers, traffic engineers, and geotechnical engineers to develop and submit the plan in less than 1 month from NTP, allowing construction to begin in April of 2014.

Similarities to I-64 Project: Design Build, within the same project corridor, asphalt, drainage, utility coordination and relocation, multi-phase TMP/MOT, environmental considerations, stakeholder coordination.

I-64 Capacity Improvements – Segment I (DB), (\$101.4M) Newport News, VA**Firm:** Dewberry Engineers Inc.**Role:** Lead Roadway Engineer**Dates:** 3/2015 – 12/2017

- Developed the horizontal and vertical geometry;
- Managed staff from multiple offices and disciplines;
- Facilitated weekly internal design meetings;
- Coordinated with subconsultants;
- Participated in Public Outreach; and
- Provided construction support through RFI and submittal reviews.

This project consisted of the construction of 5.5 miles of one lane widening and resurfacing of the existing two lanes in each direction on I-64, including widening two sets of bridges and complete replacement of one set of bridges. As part of an owner requested change order, Matt was responsible for the design to strengthen the outside shoulders from Fort Eustis Boulevard to the eastern project limits to be used as a future managed lane. This change was designed, constructed, and delivered on time for the original completion date of December 1, 2017.

Similarities to I-64 Project: Design Build, bridge construction, noise barriers, retaining walls, asphalt, drainage, utility coordination and relocation multi-phase TMP/MOT, stormwater management, 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. **Not applicable for this position.**

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: Scott Glass, Senior Project Manager
b. Project Assignment: Construction Manager
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Archer Western Construction, LLC
d. Employment History: With this Firm 4 Years With Other Firms 24 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): Archer Western Construction, LLC, 2018-Present, Senior Project Manager Scott is responsible for overall project delivery including coordination and management of design-build policies/procedures, risk mitigation, quality management, stakeholder coordination, subcontractor solicitation, negotiation, award and contract administration; cost control for self-performed work and subcontractors; design and maintenance of Primavera CPM schedule; material/equipment procurements; monthly job status summaries; estimating; chaired weekly progress and coordination meetings; training staff; and execution of monthly pay applications. Lane Construction Company, Inc., 2016-2019, Senior Project Manager Scott held similar responsibilities to those described above also including, management of project operations under construction, as well as pursuit of new project opportunities. Coordinated with owners, engineers, superintendents, project managers, project engineers, and administrative personnel in the execution of design-build and design-bid-build projects throughout Maryland, DC and Virginia. Facchina Construction Company, Inc., 2012-2016, Senior Project Manager Scott's project management responsibilities included oversight of project operations under construction, as well as pursuit of new project opportunities. Coordinated with owners, engineers, superintendents, project managers, project engineers, and administrative personnel in the execution of design-build and design-bid-build projects throughout Maryland, DC and Virginia. AMEC Earth & Environmental, 2006-2012, DB Manager, LEED AP, PMP Scott was responsible for coordinating all aspects of design and construction functions for projects under multiple award contracts for the U.S. Air Force and the Department of Homeland Security. His regular duties included active pursuit of new business opportunities and leading proposal preparation for Government clients in the Continental United States (CONUS) and overseas projects ranging in size from \$10M to over \$500M. In the role of DBPM, managed the oversight and design coordination with Client, ensured achievement of LEED goals, and on-time schedule completion.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Bucknell University, Lewisburg, PA Bachelor of Science 1996 Civil Engineering Johns Hopkins, Baltimore, MD Master of Science 2010 Real Estate & Construction Management
f. Active Registration: Year First Registered/ Discipline/VA Registration #: OSHA 30 Hour
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities 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> (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.) South Capitol St. Corridor Phase 1 (DB) (\$450M), Washington, DC Role: Roadway Construction Manager, Design Coordinator Firm: Archer Western Construction Dates: 2018-Present <ul style="list-style-type: none">• Oversight, coordination, and management of land-based operations including oversight of the superintendents, project managers and engineering staff• Coordinating with design partner, providing constructability analysis, MOT sequence of construction coordination to streamline the scheduling of the operations associated with the construction of approximately three miles of roadway/highway removal and replacement• Applies safety, environmental, and quality plans• Extensive coordination with QA/QC Managers to ensure work meets contract requirements• Procurement of material suppliers, subcontractors with over \$40M in DBE/MBE commitments• Extensive, complex management and strategizing for MOT and commuting traffic during construction

- Coordinate design of electrical, ITS and signalization with electrical subcontractor, designer and project sequence of construction

Similarities to I-64 Project: Design-Build delivery, sequence of construction planning, staged bridge construction, MSE/CIP concrete retaining walls, asphalt, drainage, Interstate and roadwork, Electrical/ITS/DMS/Signals Integration, Overhead sign structures, utility relocations, multi-phase traffic management, lane closure restrictions, workforce development, procurement coordination, schedule management, environmental considerations, stakeholder coordination, DBE coordination, coordination with adjacent projects

MD 5 at Brandywine and MD 373 Interchange (DB) (\$55M), Brandywine, MD **Role:** Project Manager

Firm: Lane Construction Company

Dates: 2016-2019

- Initiated project execution, from estimate through project mobilization, and orchestrated project execution
- Solved numerous design conflicts and revised sequence of construction to mitigate impacts of utility relocations, enabling the project to meet completion in 2019
- Worked with DOT PE and DOR to revise the MOT plans to relieve congestion and optimize the design the a series of value engineering solutions
- Erection of new bridge structures spanning highly travelled commuting corridor to Washington, DC
- Electrical/ITS/OH Sign design revisions and procurement coordination with MSHA, DOR and Subcontractor

Similarities to I-64 Project: New Bridge construction, retaining walls, shoulder hardening/asphalt, drainage, new freeway construction/widening, utility relocations, unsuitable soils, Electrical/ITS/DMS/Signals Integration, multi-phase traffic management plan re-design, lane closure restrictions, procurement coordination, schedule resequencing, ESC mitigations, stakeholder coordination, Contract change negotiation/facilitation, DBE participation plan development/implementation

MDOT MD 4 from Forestville Road to MD458 Community Safety and Enhancement Project D-B (\$23M), Forestville, MD

Firm: Facchina Construction

Role: Construction Manager

Dates: 2014-2016

- Supervise daily field operations and adherence to allowable Work Times
- Developed MOT/TMP revisions to accelerate schedule
- Oversaw Safety and QC personnel to ensure policies and procedures are met
- Maintained overall Project and 3-week look ahead and daily schedules

Similarities to I-64 Project: Design-Build delivery with Dewberry, concrete paving, asphalt, drainage, SWM design, Urban roadway corridor, utility relocations, multi-phase traffic management, workforce development, procurement coordination, schedule management, ESC mitigations, stakeholder coordination, DBE 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.

Mr. Glass is currently working on pursuits/estimating. He is available for the I-64HREL Segment 1A project.

3.4.1 (a) Work History Form/Lead Contractor

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 or Owner 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	
Name: Northwest Corridor Managed Lane Project (DB) Location: Atlanta, GA	Name: Parsons	Name of Client/ Owner: Georgia DOT Project Manager: John Hancock Phone: (678) 784-7050 Email: jhancock@dot.ga.gov	11/2013	12/2018	\$598,533	\$651,900* *Difference due to added scope	\$491,084

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-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 1A PROJECT

- Design-Build
- New/Reconstruct Paving
- Incident Control/Management
- Multiphase MOT
- Roadway Work in Median
- Drainage/Stormwater
- ITS Installation and Integration
- Tolling infrastructure and coordination w/Integrator
- Managed Lane Project
- Stakeholder Coordination
- Public Relations Outreach
- Interstate Highway in Urban Area

Project Narrative and Scope: This 29.7-mile, design-build-finance project involved the addition of reversible managed lanes along I-75 and I-575. The proposed improvements extend the existing High Occupancy Vehicle lanes from the previous terminus at Akers Mill Road northward along I-75 and I-575. Scope of work included design, permitting, and construction of all infrastructure including open-road tolling. The project included 39 bridges of mostly precast concrete girders. There are four bridges made of curved steel plate girders. Also included are over 650,000 sf of MSE walls, 1.4 million sf of noise walls, 313,000 sy of concrete paving, and 1.6 million cy of earthwork. The project was divided into six segments with concurrent construction along the 29-mile corridor to meet the aggressive three-year construction schedule.

On-Time Completion: As a Lump Sum contract, AWC had the risk associated with cost increases. However, the initial project cost was below GDOT's budget which allowed for additional scope to be added. Specifically, the addition of managed lane access points at the southern terminus, which included a bridge and tolling gantries, contributed to the difference in original contract value and estimated value at completion. The remaining difference was in multiple utility betterments that GDOT passed through the contract.

Schedule management on GDOT's longest Managed Lane Project was paramount as revenue generation was a high priority to accommodate the repayment of the bonds used to fund the project. AWC had a dedicated Schedule Engineer who would input the information provided by the designers, field personnel, and subcontractors into our integrated project schedule. AWC used Primavera Project Planner (P6) to develop a Cost Loaded Critical Path Method schedule (CPM). Twice a month the project schedule was updated and distributed, along with a narrative report that detailed the activities along the critical path and potential "rocks in the road". At each Owner Progress Meeting a three-week Look Ahead schedule was reviewed and agreed upon. This was followed by monthly submissions of the progress schedule with our pay application.

Successful Coordination with Adjacent Projects: While there were no adjacent interstate highway projects during construction, several municipalities had smaller safety improvement, pavement rehabilitation, and capacity improvement projects. AWC, through our Public Information Coordinator, established a communication/coordination plan with each municipality. Key aspects of this approach included:

- During the design phase, held introductory and follow up meetings to communicate design details and upcoming construction activities with each designer and municipality for each adjacent project.
- During construction phase (while active in that community) held weekly meetings with adjacent contractors and owners to exchange schedules and information on upcoming activities.
- Assigning a dedicated single Point of Contact responsible for communicating the construction plan, upcoming activities, schedule, and answering any questions.

Delivery of Projects in Urban Corridors: The project had multiple phase construction adjacent to, under, and over the highly urbanized and congested I-75 corridor. Additionally, there were significant environmental constraints and two multilevel system-to-system interchanges. This reversible managed toll lanes project included construction of a separate dual managed lane system outside of the existing lanes of I-75 between I-285 and I-575, and a single managed lane facility in the median north on I-75 and on I-575 in Cobb and Cherokee Counties

Innovative Design Solutions and Construction Techniques: Archer developed a front-loaded approach to accelerating construction. By creating early work packages focusing on areas without utilities and environmental impact concerns, crews were able to hit the ground running as soon as the main NTP 2 was approved. While these early works packages were being built, Archer simultaneously coordinated with appropriate agencies, utilities, and other stakeholders to prepare the remainder of the construction packages. Archer submitted 13 Alternative Technical Concepts (ATCs) totaling over \$65M in savings and a seven-month schedule reduction. ATCs included various alternative road alignments, an alternative deck design, reduced MSE panel thickness, the use of steel cross frames and weathering steel, and alternative barrier standards. Several of the ATCs also benefited ROW requirements by eliminating 25 of 81 planned acquisitions and reducing the acquisition size on nine parcels. The project team developed a different geometric design to avoid relocating a high-voltage electric transmission line—saving the project \$3M and drastically reducing health and safety risks to construction crews by eliminating a high danger component and preventing the public impact of potential service delays to electric customers.

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, GDOT 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 Manager responsible for implementing the plan and acting as the single point of contact for all MOT issues
- Having the MOT Manager attend meetings at the GDOT Traffic Management Center regarding changes in the traffic patterns, lane closures, and upcoming activities
- Developing contingencies to alleviate congestion if traffic backups became unreasonable
- Dividing the project into six segments each with only two phases until traffic was placed in its final configuration
- Providing exit or entrance ramps and emergency pull offs every three-fourths of a mile
- Implementing an Incident Management Plan with communication protocols with law enforcement and emergency responders to clear accidents
- **Laydown and storage areas were strategically located to reduce construction traffic and minimize trucks from entering existing traffic lanes**

Effective Communication Strategies with Businesses & Stakeholders: The PIC supported GDOT in their communications with the public and would respond to general public inquires and comments including impacts regarding construction phasing/traffic shifts. This included meeting with neighborhood associations, business and property owners, and other stakeholders.

Archer's role on the project was the prime contractor. In this capacity Archer had overall responsibility and management of the complete scope of work including all construction engineering, utility relocations, internal quality control, construction, public outreach, and overall project administration and management.

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	
Name: I-95 Richmond Bridge Replacements Location: Richmond, Virginia	Name: AECOM	Name of Client/ Owner: VDOT Project Manager: Scott Fisher Phone: (804) 674-2452 Email: scott.fisher@VDOT.Virginia.gov	10/2014	10/2014 <i>Completed all work orders in less than the originally planned allowable contract time and achieved the incentive bonus</i>	\$67,957	\$73,537* <i>*Cost difference due to owner directed scope changes and payment of early completion bonus</i>	\$51,476

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-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT
1A PROJECT**

- Urban Interstate Highway Widening
- Asphalt Paving
- Multi-Stage Bridge Construction/Replacement
- Use of Innovative Design Solutions and Construction Techniques
- Taking Calculated Risks and Realizing Incentives
- Utility Relocations & Avoidance
- Environmental Compliance Monitoring
- Mot Operations Minimizing Impacts
- AWC Provided Internal Qc Program
- Public Involvement and Outreach
- Third Party Stakeholder Communication & Coordination

Archer's role in the project was the prime contractor. In this capacity Archer had overall responsibility and management of the complete scope of work including all construction engineering, utility relocations, internal quality control, construction, supporting VDOT public outreach, and overall project administration and management. Archer was the primary point of contact with the owner and created and monitored the project schedule.

Project Narrative and Scope: Rehabilitation of 20 interstate bridges, two miles of shoulder widening, and the extension of acceleration lanes along I-95 in Richmond, Virginia. Specific elements of the project included:

- Widening shoulders of I-95 from for approximately 2.1 miles;
- Replacement of superstructure (beams, deck, barrier) of 20 I-95 mainline bridges;
- Construction engineering, fabrication, and delivery of pre-constructed bridge units (PCUs)
- Substructure rehabilitation including concrete patching and pier repair;
- Stormwater management improvements along I-95;
- New foundations, substructure, and retaining walls at four bridge widenings;
- Replacement of five pier caps while bridges remained active;
- Utility coordination
- Supported Public outreach

All interstate work was performed on a heavily traveled roadway and all lane restrictions were coordinated by Archer with VDOT to allow for public notifications of construction activity. Maintenance of traffic (MOT) requirements were extensive, as 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.

On-Time Completion: This challenging bridge replacement and reconstruction project achieved substantial completion **3 months ahead of schedule** and earned a \$3,000,000 "NO EXCUSES" early completion bonus.

Successful Coordination with Adjacent Projects: The project team facilitated adjacent construction along the busy stretch of I-95 by working directly with the VDOT and other contractors to resolve any scheduling conflicts by Wednesday of each week prior to any traffic control implementation. Working with VDOT modifications were made to temporary traffic control plans to include and accommodate other work such as milling, paving and maintenance. Lane closures were extended, shifted, or switched to other locations to allow VDOT to stay on budget, and keep their commitments.

Delivery of Projects in Urban Corridors: The project was located on the I-95 corridor through the limits of the Richmond central business district with significant lane closure time restrictions required to mitigate the impact on the rush hour traffic. Archer developed a TMP that accommodated the movements of vehicular and pedestrian traffic, while providing safe work zone access to construct the Project. The urban situation of the project also required significant coordination with utility companies to resolve conflicts with existing facilities while avoiding impacts and property damage. The project management team actively worked with VDOT to develop comprehensive work plans to address these challenges and adapt to change as demanded.

Innovative Design Solutions and Construction Techniques: Archer utilized our experience and "lessons learned" from a previous VDOT project to develop our approach to engineering, fabricating, and installing the 234 PCUs. First, in order to improve quality, match-casting the pre-constructed composite bridge units was instituted to ensure the fit would work at the installation site. Enhancing the accuracy of the as-built survey (prior to fabrication of the PCUs) to ensure a proper field fit was accomplished using laser scanner technology. The laser scan coupled with detailed field measurements eliminated all potential fit issues. Lastly, Archer utilized "Live Load" shoring in the locations where the five pier caps were replaced. This approach allowed the existing bridges to remain in operation significantly reducing impacts to traffic, improving quality, and eliminating potential safety issues.

Limiting Impacts to the Traveling Public, Affected Businesses, and Communities: Minimizing impacts to the traveling public was a critical aspect of this congested corridor. Archer applied the use of a dedicated MOT Superintendent and support team. The Team was comprised of MOT engineers, construction personnel, and MOT device subcontractors and suppliers. Weekly MOT meetings that included our MOT Team, VDOT representatives, and emergency responders (local fire and police) were held to review upcoming activities and the detour routes. Our approach to the implementation of the TMP centered around the goals of safety, efficiency, stability, access, and communication. Key components included:

- Assigning a dedicated MOT Superintendent responsible for implementing the plan and acting as the single point of contact for all MOT issues.
- Developing each bridge replacement plan with site specific details, necessary material, labor and equipment needs, first responder input, and delivery route for PCUs
- Implementing an Incident Management Plan with communication protocols with law enforcement and emergency responders to clear accidents.
- Strategically located laydown and PCU fabrication area to reduce construction traffic and minimize travel distance.
- Developed a schedule restricting bridge demolition and PCU installation to specific weekends each year with hold out for special events and holidays.

Effective Communication Strategies with Businesses & Stakeholders: VDOT launched a robust communications strategy to keep the traveling public informed of the construction schedule and worked tirelessly to schedule construction around major events, including working with local organizations to inform those in homeless camps of alternative options. We participated with timely construction notifications and by working with traffic operations to use DMS signage to alert drivers in advance construction work would be underway during certain times over the two-year period. Prior to installing traffic control devices our Traffic Control Supervisor would call the VDOT Traffic Operations Center (TOC) to confirm the lane closure locations and start/stop times. Calls were made at the beginning of traffic control installations, and at the end when the last traffic control device was removed, and the road had been restored. We informed the TOC of accidents occurring in or near the work zone each shift. We also coordinated with the Virginia State Police to assist with safely installing, removing, and patrolling each lane closure along the Interstate and to escort every oversize load safely from the Precast Yard to the Bridge Site. The City of Richmond Police patrolled along all side roads and underpasses where we constructed bridges overhead.

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 or Owner 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	
Name: South Capitol Street Corridor Phase 1 (DB) Location: Washington, DC	Name: AECOM Technical Services, Inc.	Name of Client/ Owner: DDOT Project Manager: Rick Kenney Phone: (202) 671-2249 Email: richard.kenney@dc.gov	12/2021	6/2022	\$ 440,786	\$455,538* *Difference due to Owner added scope	\$ 227,769

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-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 1A PROJECT**
- Design-Build Delivery
 - Interstate Highway Widening
 - Bifurcated lanes
 - Asphalt paving
 - Multi-stage bridge construction/replacement
 - Utility relocations & Avoidance
 - Adjacent Project Coordination
 - Environmental Permitting and Strict Compliance Monitoring
 - Storm Drainage and SWM Pond Facilities
 - MOT Operations minimizing impacts
 - Noise barrier analysis, design, and construction
 - Independent QA program
 - AWC responsible for QC program
 - Third Party Stakeholder communication & coordination

Project Narrative and Scope: This Design-Build project includes the construction for the widening of I-295 from six to eight lanes for approximately 2.1-miles, as well as the six-lane new Frederick Douglass Memorial Bridge (FDMB) with parallel alignment across the Anacostia River. Specific elements of the project included:

- Replacement of I-295 bridges over Firth Sterling Ave, Suitland Pkwy, and Howard Rd
- Interchange/Ramp improvements at the Howard Rd and Suitland Pkwy Interchanges;
- Green stormwater management improvements;
- Drainage improvements and adequate outfall channel enhancements;
- Ground Improvements of unsuitable soils
- New 3-span arch bridge over the Anacostia River
- New traffic ovals at each end of the river crossing
- 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.

On-Time Completion: Design plans were completed on-time and construction is currently on-track for on-time completion of the revise date; due to added scope of the Project.

Successful Coordination With Adjacent Projects: The Project interfaced successfully with many high profile projects in the District; including Audi Field Soccer Stadium, multiple new high rise buildings, the Malcolm X/295 project and future phases of the South Capitol Street Corridor Program.

Delivery Of Projects In Urban Corridors: The Project along with the FDMB is an essential revitalization component. The project links Ward 6 and Ward 8, increasing mobility to support continued growth and improvement in the area. Increased bicycle and pedestrian facilities allow for safer transit through the corridor, aiding DDOT in reaching its Vision Zero goals. AWC implemented MOT schemes for pedestrian and cyclists. Archer Western engaged with the local communities throughout the project and the communities are pleased with the results.

Innovative Design Solutions And Construction Techniques: AWC utilized our experience and “lessons learned” from several major river crossings and interstate highway widening 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 travelling 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 revised span lengths also reduced the amount of navigation lane closures needed to construct the superstructure. 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.

Innovative Design Solutions And Construction Techniques: CONTINUED

Innovative protection techniques were implemented due to large, aging, and fragile underground infrastructure criss-crossing the Project alignment. AWC developed protection measures for these assets. For example, Archer Western built and buried bridges over two large-diameter force mains in the east traffic oval area and used foamed glass aggregate as lightweight fill over them. This allowed for the required 16'+ of roadway embankment to be placed.

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
- Having the MOT Manager attend meetings at the DDOT Traffic Management Center 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 storage areas to reduce construction traffic and minimize trucks from entering existing traffic lanes
- Developing a revised roadway profile to minimize the height of bifurcation between MOT phases and provide a safer work zone
- Use of additional temporary drainage inlets between phases to improve drainage and eliminate ponding, thereby keeping all travel lanes open during rain events

Effective Communication Strategies with Businesses & Stakeholders:

The AWC team co-located with the owner, designer, and key subcontractors. This project includes collaboration among District and federal agencies, institutional and private sector developers, and surrounding residential and business communities. AWC established a very good working relationship with and regularly meets with the National Parks Service (river owner), USACE, USCG, and the DC Department of Energy and Environment, DC Water, WMATA, Commission of Fine Arts, National Capital Planning Commission, State Historic Preservation Office, and advisory neighborhood commissions. AWC held outreach meetings, met with emergency responders to review MOT plans, attended career fairs, and coordinated tours. The firm’s exceptional environmental compliance was the backbone of these stakeholder relationships.

AWC’s role in the project was the Managing Member of the South Capitol Bridgebuilders JV and lead contractor. AWC had overall responsibility and management of the complete scope of work and created and monitored the project 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)	
Name: I-64 Capacity Improvements – Segment I Design-Build Location: Newport News, VA	Name: Shirley Contracting Company, LLC	Name of Client: VDOT Project Manager: Janet M. Hedrick Phone: 757-956-3071 Email: Janet.Hedrick@VDOT.Virginia.gov	3/2015	12/2017	\$84,879	\$101,396* *Difference due to Owner Added Scope	\$6,024

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-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 1A PROJECT

- Design-Build Delivery
- Interstate I-64 Widening
- Interstate Bridge Widening & Rehabilitation
- Interchange Ramp Auxiliary Lane Improvements
- Closed System Median Storm Drainage
- Phased ESC Plans
- High Traffic Volumes & Travel Speeds
- MOT Operations Minimizing Congestion
- Updated Comprehensive Field Surveys
- Geotechnical Challenges addressed through Comprehensive Investigations and Design Solutions
- Environmental Permitting and Compliance Monitoring
- Noise Analysis & Noise Barrier Construction
- Coordination with Adjacent Projects
- QA/QC
- Construction Engineering Inspection

PROJECT NARRATIVE AND SCOPE:

In 2015, Dewberry (as the lead engineer on our design-build team) was awarded the contract for the widening and pavement rehabilitation of I-64 in York County, Virginia which included:

- Widening of I-64 from four to six lanes for approximately 5.2 miles;
- Widening of I-64 bridges over Lee Hall Reservoir and Fort Eustis Boulevard;
- Demolition and replacement of the I-64 bridges over Industrial Park Drive and CSX Railroad;
- Lengthening of the auxiliary lanes at the Fort Eustis Boulevard Interchange;
- Stormwater management improvements;
- Drainage improvements including closed system median storm sewers beneath median barriers supporting raised medians and landscaping/planting areas; and
- Approximately 12,500 linear feet of noise barriers

The demolition and replacement of the I-64 bridges over Industrial Park Drive were not required by the RFP, but our team recognized that replacing the bridges would provide a longer-lasting product which required less maintenance. Dewberry developed plans for the new bridges, consisting of 2-span structures instead of matching the existing 3-span structures. During the design process, VDOT expressed an interest in adding shoulder strengthening to the contract, with the stipulation that the additional work needed to be completed without a contract time extension. Dewberry worked quickly to complete additional surveys and utility designations so that a plan revision was completed to depict the additional work, allowing construction to continue unimpacted. The additional work, nearly one mile of additional shoulder demolition and repaving, was completed on-time when the project was accepted.

Dewberry's scope included:

- Updated field surveys;
- Wetland and stream delineations, environmental permitting, and permit monitoring;
- Roadway engineering design;
- Bridge structural designs;
- Hydrologic and hydraulic analysis for the bridges over Lee Hall Reservoir;
- Drainage and stormwater management design;
- Traffic engineering design including signing & marking, ITS, and temporary traffic control design;
- Landscaping design; and
- Public outreach

To advance the start of construction, temporary traffic control plans for outside shoulder strengthening were developed as an advance, separate plan set to allow for construction activities to start while final right-of-way acquisition and construction plans were still being developed.

DEWBERRY'S ROLE:

As the Lead Designer, Dewberry's Fairfax and Glen Allen (Richmond), Virginia offices were responsible for completion of all engineering services. In addition, Dewberry completed all design field surveys, environmental permitting and documentation, and quality control (QC) during construction. Dewberry oversaw subconsultant services to complete updated aerial mapping, utility designations and test pits, geotechnical investigations and recommendations, noise analysis, and pipe video inspections.

ON-TIME COMPLETION

Our Team successfully completed this project on-time, inclusive of the additional shoulder strengthening work which was added to the contract. To facilitate an early construction start, we developed a separate construction plan set for shoulder strengthening and widening which enabled construction of the first stage of work to begin while final roadway plans were completed and approved.

SUCCESSFUL COORDINATION WITH ADJACENT PROJECTS

During construction, design information was shared with the I-64 Segment II team which was just beginning their design efforts. Coordination was completed for drainage improvements, median barriers, and temporary traffic control plans and lane alignments/configurations. The coordinated efforts between projects resulted in cost savings to both projects and reduced duplicate and re-work efforts.

DELIVERY OF PROJECTS IN URBAN CORRIDORS

The Fort Eustis Interchange provided direct access to military and secure facilities, and the eastern portion of the project was located immediately adjacent to extensive residential communities. We developed designs which limited impacts to the travelling public and adjacent communities, and developed temporary traffic control plans which incorporated wider temporary shoulders during construction. Design enhancements to the stormwater management approach eliminated all right-of-way acquisitions from public property, further reducing impacts within the urban development adjacent to the corridor.

USE OF INNOVATIVE DESIGN SOLUTIONS:

Although the RFP allowed for the widening and rehabilitation of the existing 4-span bridges over Industrial Park Drive and CSXT Railroad, our Team developed plans which provided two new 2-span bridges to completely replace the existing structures. The resulting shorter structures require less maintenance for VDOT and also provided additional horizontal clearance between the CSXT railroad and the substructure of the bridge. As construction began, the conditions of both bridges and identification of large voids beneath the approach slabs and adjacent to the abutments made it clear that the choice to completely replace both bridges provided a safer and superior overpass of the CSXT railway than what would have been possible through repair and widening of the existing bridges.

EXPERIENCE LIMITING IMPACTS TO THE PUBLIC, BUSINESSES & COMMUNITIES:

To reduce impacts to the travelling public, an advance temporary traffic control plan was developed so that shoulder strengthening could be completed during night-time operations, ultimately allowing for all major activities to occur behind concrete barrier. As part of the final improvements, approximately 12,500 linear feet of noise barriers were installed within existing right-of-way, with minimal private property impacts, to provide noise reductions to nearly 1,000 homes and apartments. Further, elimination of stormwater management facilities on private properties reduced right-of-way impacts, construction costs, community impacts, and maintenance efforts.

EFFECTIVE COMMUNICATION STRATEGIES WITH BUSINESSES & STAKEHOLDERS:

Throughout design and construction, our team was involved in public outreach efforts and communication with adjacent property owners and citizens. The element requiring the most extensive outreach efforts was the noise barrier approval and voting process. Our team participated in several meetings to discuss the noise barrier analysis and resulting noise barrier locations, helping to address concerns from adjacent property owners.

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

b. 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)	
Name: I-64 Capacity Improvements – Segment III Design-Build Location: York County, VA	Name: Shirley Contracting Company, LLC	Name of Client: VDOT Project Manager: Janet M. Hedrick Phone: 757-956-3071 Email: Janet.Hedrick@VDOT.Virginia.gov	12/2017	12/2021	\$178,282	\$182,767* *Difference due to Owner Added Scope	\$10,177

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.



PROJECT NARRATIVE AND SCOPE:
 In December 2017, Dewberry (as the lead engineer on our design-build team) was awarded the contract for the widening and reconstruction of I-64 in York County, Virginia which included:

- Widening of I-64 from four to 6-lanes for approximately 8.3 miles;
- Widening of I-64 bridges over Lakeshead Drive and The Colonial Parkway;
- Demolition and replacement of the 900' bridges over Queens Creek;
- Interchange auxiliary lane improvements at the Route 199 and Route 143 Interchanges;
- Stormwater management improvements;
- Drainage improvements and adequate outfall channel enhancements;
- Noise barrier analysis, design, and construction; and
- Public outreach

Design of these improvements were coordinated with the on-going I-64 Segment II project, which was under construction but not yet completed at the time of plan development and at the start of construction. Since the existing pavement was required to be completely demolished and replaced, the horizontal alignment of the eastbound and westbound lanes were adjusted where possible to minimize impacts to existing ITS facilities, adjacent properties, and environmentally sensitive areas including Queens Lake, Queens Creek, and the associated contributing channels and streams.

Dewberry's scope included:

- Updated field surveys;
- Wetland and stream delineations, environmental permitting, and permit monitoring;
- Roadway engineering design;
- Bridge structural designs;
- Hydrologic and hydraulic analysis for Queens Creek;
- Drainage and stormwater management design;
- Traffic engineering design including an interchange traffic signal, signing & marking, ITS, and temporary traffic control design; and
- Public outreach

Advance temporary traffic control plans were developed and approved, allowing construction to start while final right-of-way and construction plans were completed and approved concurrent with initial construction activities. Extensive public outreach occurred for proposed noise barriers, coordination with the National Park Service for work over and on The Colonial Parkway, and with Camp Peary, a secure government property located immediately adjacent to westbound I-64.

DEWBERRY'S ROLE:
 As the Lead Designer, Dewberry's Fairfax and Glen Allen (Richmond), Virginia offices were responsible for completion of all engineering identified above. Dewberry also completed all design field surveys, environmental permitting and documentation, and oversight of subconsultant services to complete updated aerial mapping, utility designations and test pits, geotechnical investigations and recommendations, noise analysis, and pipe video inspections.

ON-TIME COMPLETION
 Our Team successfully completed this project on-time. To facilitate an early construction start, we developed a separate construction plan set for shoulder strengthening and widening which enabled construction of the first stage of work to begin while final roadway plans were completed and approved.

SUCCESSFUL COORDINATION WITH ADJACENT PROJECTS
 The adjacent I-64 Segment II project was under construction when we began our design efforts. We immediately initiated coordination efforts to obtain all design files and computations, including for temporary traffic control configurations which were in-place and would be implemented in the future. We discussed timing of future lane shifts so the temporary traffic control plans for I-64 Segment III were properly coordinated. During construction, we continued to coordinate with the Segment II project team to ensure temporary lane configurations were coordinated, avoiding adverse impacts to traffic and operations.

DELIVERY OF PROJECTS IN URBAN CORRIDORS
 The Segment III improvements passed through multiple residential developments, including the Queens Lake community, and also made improvements to the Route 143 Interchange (Exit 234) which is the primary access for the Camp Peary government facility. We successfully developed temporary traffic control plans which maintained all lanes and a wide shoulder throughout construction, and completed extensive outreach efforts with adjacent property owners and developments during design and construction.

USE OF INNOVATIVE DESIGN SOLUTIONS:
 Dewberry utilized our experience and "lessons learned" from the I-64 Capacity Improvements – Segment I project to implement several innovative design solutions. First, since the existing pavement would be reconstructed, we developed an alternate roadway alignment which minimized the amount of temporary shoulder strengthening. This reduced nighttime construction work, representing a safety improvement to our team's field staff and inspection staff, as well as reduced impacts to the travelling public. The adjustments to the horizontal alignments also enabled us to eliminate a 1,300' retaining wall in the median of I-64, reducing the amount of closed-system drainage and temporary excavation required adjacent to travel lanes in both directions. Additional innovative design solutions included developing profiles which minimized temporary wedge overlay required on the existing pavement to maintain pavement drainage, resulting in reduced construction costs. Finally, roadside ditch grading on the outsides of I-64 were designed to minimize excavation over the existing ITS conduit, allowing long areas of it to be salvaged and reused.

EXPERIENCE LIMITING IMPACTS TO THE PUBLIC, BUSINESSES & COMMUNITIES:
 Our unique design concept minimized the amount of temporary shoulder strengthening required during the initial phase of construction which reduced night-time construction operations and temporary impacts to traffic and improved safety for the travelling public, construction, and inspection staff. During the design phase, it was realized that the preliminary noise analysis didn't properly account for existing topography further away from the interstate. As a result of updated noise modeling, three additional noise barriers totaling approximately 6,500 linear feet were added to the project, reducing noise impacts to numerous residents who were not expecting to receive noise barriers. For the replacement of the bridges over Queens Creek, we developed an alternate sequence of construction which eliminated one stage of construction and a temporary cross-over within the median of I-64.

EFFECTIVE COMMUNICATION STRATEGIES WITH BUSINESSES & STAKEHOLDERS:
 Throughout design and construction, our team was involved in public outreach efforts and communication with adjacent property owners and citizens. The noise barriers which were added because of final design noise analysis required extensive outreach efforts. We led discussions with the adjacent property owners as part of the noise barrier public outreach efforts, explaining the process which was completed for final design and why some barriers were added while other areas still did not meet requirements. These processes were completed successfully and efficiently in coordination with VDOT's public affairs and project team staff.

- SIMILARITIES TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 1A PROJECT**
- Design-Build Delivery
 - Interstate I-64 Widening
 - Interstate Bridge Widening & Rehabilitation
 - Interchange Ramp Auxiliary Lane Improvements
 - Closed System Median Storm Drainage
 - Phased ESC Plans
 - High Traffic Volumes & Travel Speeds
 - MOT Operations Minimizing Congestion
 - Updated Comprehensive Field Surveys
 - Geotechnical Challenges addressed through Comprehensive Investigations and Design Solutions
 - Environmental Permitting and Compliance Monitoring
 - Noise Analysis & Noise Barrier Construction
 - Coordination with Adjacent Projects
 - QA/QC
 - Construction Engineering Inspection

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

c. 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)	
Name: I-64 Pavement Rehabilitation Location: Norfolk, VA	Name: Branscome, Inc.	Name of Client: VDOT Project Manager: Frank Fabian, P.E. Phone: 757-272-9203 Email: Frank.Fabian@VDOT.Virginia.gov	1/2014	11/2014	\$14,449	\$14,449	\$520

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-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 1A PROJECT**
- Design-Build Delivery
 - Within the HREL Segment 1A Corridor
 - Interstate Paving
 - High Traffic Volumes & Travel Speeds
 - MOT Operations minimizing Congestion
 - Safety Hardware upgrades
 - ITS and Lighting adjustments
 - Utility adjustments
 - Updated Comprehensive Field Surveys
 - Environmental Permitting and Compliance Monitoring
 - Coordination with Adjacent Projects
 - QA/QC
 - Construction Engineering Inspection

PROJECT NARRATIVE AND SCOPE:

In 2014, Dewberry (as the lead engineer on our design-build team) was awarded the contract for the pavement rehabilitation of I-64 in Norfolk, Virginia which included:

- Rehabilitation of existing concrete pavement and placement of variable depth asphalt overlay of the existing 4 lanes for approximately 5 miles between the HRBT and the Little Creek Road Bridge;
- Horizontal and Vertical geometric analysis to maintain drainage patterns and clearances for existing infrastructure;
- Drainage Improvements, including modifications to existing barrier inlets;
- Upgrades to existing safety hardware such as barriers, guardrail, curbs, signing, and pavement markings;
- ITS, lighting and utility adjustments; and
- Public outreach

Design of these improvements were coordinated with the concurrent rehabilitation projects along I-64 and I-264 as part of a more than 163-lane-mile initiative undertaken by VDOT. This was the first of the three projects on the corridor and held the shortest schedule for completion at less than one year. As it tied to the Hampton Roads Bridge Tunnel (HRBT), coordination through the project was key to maintaining a safe work zone for the construction staff and motorists.

Dewberry's scope included:

- Updated field surveys;
- Wetland and stream delineations, environmental permitting, and permit monitoring;
- Roadway engineering design;
- Drainage and stormwater management design;
- Traffic engineering design including signing & marking, ITS, and temporary traffic control design; and
- Quality Control during construction;
- Public outreach

Notice to proceed was issued in January 2014 and an interim milestone for this project was to patch damaged concrete sections and place a Thin Hot Mix Asphalt Concrete Overlay (THMACO) by August 2014. To achieve this date, Dewberry prepared two separate plan package submissions. The first package focused only on the concrete patching and THMACO work, which included advance temporary traffic control plans and was submitted in February 2014. The plans were approved through a collaborative effort with VDOT staff for construction to begin in April 2014 and meet the interim milestone.

DEWBERRY'S ROLE:

As the Lead Designer, Dewberry's Fairfax and Glen Allen (Richmond), Virginia offices were responsible for completion of all engineering identified above. Dewberry also completed all design field surveys, environmental permitting and documentation, and oversaw subconsultant services to complete updated aerial mapping, utility designations and test pits, geotechnical investigations and recommendations.

ON-TIME COMPLETION

Our Team successfully completed this project on-time. To facilitate an early construction start, we developed a separate construction plan set for the concrete repairs and THMACO which enabled construction of the first stage of work to begin in April while final roadway plans were completed and approved.

SUCCESSFUL COORDINATION WITH ADJACENT PROJECTS

This project was one of three projects that were awarded on the same day for the rehabilitation of I-64 and I-264. Our section of I-64 was the first scheduled to be completed, however, we initiated coordination between the other two segments to ensure lane closures and timings of lane shifts so that each phase could be completed on time. During construction, we continued to coordinate with the other segments to ensure temporary lane configurations were coordinated, avoiding adverse impacts to traffic and operations.

DELIVERY OF PROJECTS IN URBAN CORRIDORS

The I-64 Pavement Rehabilitation project passed through multiple residential developments, including a portion through Willoughby Spit, and alongside military housing. This project also rehabilitated I-64 through the I-64/I-564 interchange, which is the primary access to Norfolk Naval Station. We successfully developed temporary traffic control plans and detours for the project during an early works package that was applicable throughout construction.

EXPERIENCE LIMITING IMPACTS TO THE PUBLIC, BUSINESSES & COMMUNITIES:

This section is one of the more heavily traveled lengths of I-64 in the Hampton Roads area with a bottleneck at the HRBT. Because of its location and sensitivity to traffic congestion, the construction and lane closures were limited to only nighttime to have the least impact to motorists through the corridor. One of the unique elements of our traffic control plan and construction was that no temporary traffic control devices could be left in place during the day and all equipment had to be removed before opening back to traffic. To accommodate this, our team implemented a series of slow rolls each night through the tunnel to allow for crews and equipment to enter the work zone and setup the nightly lane closures. We successfully developed temporary traffic control plans and transportation management plans, including detailed individual detour plans for closures of each ramp through the project limits. The temporary closures and detours were communicated to the communities through our public relations and outreach efforts.

EFFECTIVE COMMUNICATION STRATEGIES WITH BUSINESSES & STAKEHOLDERS:

Throughout design and construction, our team was involved in public outreach efforts and communication with adjacent property owners and citizens. With the large traffic impacts occurring at night, we had a robust public outreach and relations effort in place throughout construction. This effort, which included social media outlets and radio tags, was led by our team and completed with coordination with VDOT's public affairs and project team staff.



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