Response to Request for Qualifications

WARRENTON SOUTHERN INTERCHANGE US 15/17/29

Fauquier County, Virginia

State Project Nos.: 0029-030-121, P101, R201, C501, B616

Federal Project No: STP-032-7(032)

Contract ID No.: C00077384DB100
3.2 - Letter of Submittal
June 2, 2017

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

RE: Warrenton Southern Interchange US 15/17/29
Fauquier County, Virginia
Contract ID Number: C00077384DB100
3.2 Letter of Submittal

Dear Mr. Stevenson:

Shirley Contracting Company, LLC (Shirley), as the Offeror, is pleased to submit to the Virginia Department of Transportation (VDOT) our response to your Request for Qualifications (RFQ) for the project referenced above. With Dewberry Consultants LLC (Dewberry) as our Lead Designer, Shirley offers VDOT an experienced Team with a proven track record of delivering design-build projects on time, under budget and with a partnering approach. As an example of our experience and our history working together as a team, Shirley and Dewberry have been awarded 38 design-build projects totaling more than $3.2 billion.

3.2.1-The full legal name and address of the Offeror is Shirley Contracting Company, LLC, 8435 Backlick Road, Lorton, VA 22079.

3.2.2-Our Point of Contact is:
Garry A. Palleschi, Vice President
8435 Backlick Road, Lorton, VA 22079
703-550-3579 (Phone) 703-550-9346 (Fax)
gpalleschi@shirleycontracting.com

3.2.3-Our Principal Officer is:
Michael E. Post, President/CEO/Manager
8435 Backlick Road, Lorton, VA 22079
703-550-8100 (Phone)

3.2.4-Shirley Contracting Company, LLC, a limited liability company, will be the legal entity, will have financial responsibility for the Project, and will have joint and several liability for the performance of the work. There are no liability limitations. Our bonding approach will be to provide performance and payment bonds for the total contract value and time period.

3.2.5-The Lead Contractor for the Project will be Shirley Contracting Company, LLC and the Lead Designer will be Dewberry Consultants LLC.

3.2.6-The full legal names and addresses of all affiliated and/or subsidiary companies of the Offeror are provided in Attachment 3.2.6.

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

3.2.8-Shirley Contracting Company, LLC is currently Prequalified (active status) with VDOT. Our Vendor Number is S018. A copy from VDOT’s on-line Prequalified List is attached as Attachment 3.2.8.

3.2.9-Included as Attachment 3.2.9 is a letter from our surety that provides evidence that we are capable of obtaining a performance and payment bond for the current estimated contract value, and that these bonds will cover the Project and any warranty periods.

3.2.10-Virginia State Corporation Commission (SCC) and Virginia Department of Professional and Occupational Regulations (DPOR) registration information for all business entities on the Offeror’s team are included in Attachment 3.2.10. Full size copies of registrations and licenses or evidence indicating the same are provided in the appendix to this Statement of Qualifications.

3.2.11-Our Team is committed to achieving the 11% DBE participation goal for the entire value of the contract.

On behalf of our Team, we thank VDOT for the opportunity to submit this SOQ and we look forward to partnering with VDOT and all involved to deliver another successful project.

Sincerely,

Michael E. Post
President/CEO/Manager
3.3 - Offeror’s Team Structure
3.3 Offeror’s Team Structure

Introduction
Shirley Contracting Company, LLC (Shirley) exceeds the experience and personnel requirements to successfully manage all design-build elements of the Warrenton Southern Interchange US 15/17/29 Project (the Project). Shirley, along with Dewberry Consultants LLC (Dewberry) as our Lead Designer, are VDOT’s most experienced design-build team having been awarded 18 VDOT design-build projects to date, valued at over $1.1 billion. Each of these projects has provided our Team with a range of unique challenges which required distinctive solutions resulting in a level of experience that no other team can match. As shown in Table 1 below, our design-build projects have won numerous awards including:

<table>
<thead>
<tr>
<th>Project</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-66 Widening</td>
<td>2017 - DBIA Mid-Atlantic Region Transportation</td>
</tr>
<tr>
<td></td>
<td>2016 - HCCA Excellence in Infrastructure</td>
</tr>
<tr>
<td>Route 27/244 Interchange Modifications</td>
<td>2016 - DBIA National Award of Merit</td>
</tr>
<tr>
<td></td>
<td>2016 - DBIA Mid-Atlantic Region Transportation</td>
</tr>
<tr>
<td></td>
<td>2016 - DBIA Mid-Atlantic Excellence in Engineering</td>
</tr>
<tr>
<td></td>
<td>2015 - HCCA Excellence in Infrastructure</td>
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<tr>
<td>InterCounty Connector - Contract C</td>
<td>2012 - DBIA National Transportation Award</td>
</tr>
<tr>
<td></td>
<td>2012 - ABC Award of Excellence for Heavy/Industrial/Transportation</td>
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<tr>
<td></td>
<td>2012 - NCCACI - Award of Excellence in Heavy Construction</td>
</tr>
<tr>
<td></td>
<td>2011 - The Maryland Asphalt Association - Quality Pavement Award/New Construction</td>
</tr>
<tr>
<td></td>
<td>2011 - Roads and Bridges Top 10 Roads Award (#3)</td>
</tr>
<tr>
<td>Dulles Greenway Improvements</td>
<td>2008 - DBIA Regional Design-Build Excellence Award - Transportation: Over $50M</td>
</tr>
<tr>
<td>Route 28 Corridor Improvements PPTA</td>
<td>2012 - NVTA Salute</td>
</tr>
<tr>
<td></td>
<td>2004 - Tower of Dulles Award</td>
</tr>
</tbody>
</table>

3.3.1 Key Personnel
Key Personnel are listed in Table 2 and Key Personnel Resume Forms are included in Attachment 3.3.1:

<table>
<thead>
<tr>
<th>Key Personnel Position</th>
<th>Name</th>
<th>Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-Build Project Manager (DBPM)</td>
<td>Joe Fragale, PE, DBIA</td>
<td>Shirley Contracting Company, LLC</td>
</tr>
<tr>
<td>Quality Assurance Manager (QAM)</td>
<td>Avtar Singh, PE, DBIA, CCM, PMP</td>
<td>CES Consulting, LLC</td>
</tr>
<tr>
<td>Design Manager (DM)</td>
<td>Jeremy Beck, PE</td>
<td>Dewberry Consultants LLC</td>
</tr>
<tr>
<td>Construction Manager (CM)</td>
<td>Bryan Shillingburg</td>
<td>Shirley Contracting Company, LLC</td>
</tr>
</tbody>
</table>

Each individual has extensive experience in the design, construction, and administration of VDOT design-build projects, as well as significant overall design and construction expertise.

Design-build projects require a high level of coordination and integration among the various disciplines as shown in Figure 3.3.1. It is crucial that Key Personnel have a history of working together and an understanding of how all project disciplines interact. A successful team must integrate the design, construction, QA/QC,
3.3 Offeror’s Team Structure

ROW, utilities, permitting, safety, third party coordination, and public outreach disciplines into a single, cohesive project.

To mitigate risks and to address specific scope elements, our Team is exeeding the RFQ requirements by committing the Value Added personnel in Table 3. These individuals play an important role in our ability to complete the work ahead of schedule, under budget, and in a safe, quality manner with minimal resource requirements from VDOT.

<table>
<thead>
<tr>
<th>Value Added Position</th>
<th>Name</th>
<th>Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Maintenance of Traffic (MOT) Engineer</td>
<td>Jerry Mrykalo, PE, PTOE</td>
<td>Dewberry Consultants LLC</td>
</tr>
<tr>
<td>Utility Coordinator</td>
<td>Keith Gardner, Assoc. DBIA</td>
<td>Shirley Contracting Company, LLC</td>
</tr>
<tr>
<td>Safety Manager</td>
<td>Charlie Wilson</td>
<td>Shirley Contracting Company, LLC</td>
</tr>
</tbody>
</table>

3.3.2 Organizational Chart

With more than 15 years working together as a design-build Team, Shirley and Dewberry have built a cohesive, well-integrated group of personnel, consultants, subcontractors, and specialty firms. We know each other’s strengths, understand the importance of working in a partnering environment, and are constantly focused on minimizing risk and maximizing value. As shown in our Organizational Chart, our Team is comprised of the following firms:

**SHIRLEY CONTRACTING COMPANY, LLC**

Shirley as the Offeror and Lead Contractor for our Team is one of Virginia’s largest and most experienced design-builders. To date, Shirley has completed or is completing 38 design-build projects, including 18 for VDOT. Shirley has earned numerous awards for quality and safety and specializes in completing complicated projects on a fast-track basis.

**Dewberry**

Dewberry will be the Lead Designer and will provide construction quality control services for our Team. Dewberry has extensive design-build experience as the lead designer on all of Shirley’s 18 design-build projects for VDOT. Dewberry is a nationally recognized engineering firm headquartered in Fairfax, Virginia and is ranked among Engineering News-Record’s Top 25 transportation engineering firms.

**CES Consulting, LLC (CES)**

CES Consulting, LLC (CES) will provide the Quality Assurance Manager and Quality Assurance Inspectors for the Project. CES is a registered DBE in the Commonwealth of Virginia and specializes in providing Construction Management and Project Controls Services to governmental agencies and contractors.

**Dulles Engineering**

Dulles Engineering will provide QA material testing as a subcontractor to CES and is a professional consulting firm that provides high-quality services to public and private clients. Dulles Engineering’s team of professionals and technical specialists provide expertise in the fields of Geotechnical Engineering, Construction Testing, and Materials Engineering and Testing.

**DMY Engineering Consultants Inc. (DMY)**

DMY Engineering Consultants Inc. (DMY) will provide geotechnical investigations, testing, and analysis as a subconsultant to Dewberry. DMY is a registered DBE in the Commonwealth of Virginia whose expertise lies in providing geotechnical site investigation, drilling, instrumentation, geotechnical design and analysis, laboratory testing, and construction materials testing/inspection.
Quantum Spatial (Quantum) will provide aerial mapping as a subconsultant to Dewberry. Founded in 1969, Quantum is a professional geospatial mapping organization with a proud record of performance providing similar services to multiple state, local, federal, and private organizations.

So-Deep, Inc. (So-Deep) will complete utility designations and test pits as a subconsultant to Dewberry. They specialize in providing comprehensive subsurface utility engineering services, focused on reducing utility conflicts and utility relocation costs.

Skelly & Loy, Inc. (Skelly) will be completing noise modeling and analysis to provide the final noise abatement design report as a subconsultant to Dewberry. They provide professional engineering and environmental services to various industries and businesses, government, and the private sector throughout the United States.

Diversified Property Services Inc. (Diversified) will provide right-of-way and land acquisition services and has been a member of our Team for more than 12 years. The firm handles all areas of negotiation, acquisition of rights, expert witness testimony, and relocations. As a VDOT prequalified right-of-way acquisition firm, Diversified offers relocation assistance, feasibility studies, appraisal/appraisal review services, negotiation and acquisition, project management and title research. Diversified also renders tax assessment and appeal services as well as condemnation assistance.

Key Title, will provide title research and settlement services for properties acquired on the Project as a subconsultant to Diversified. Key Title has closed over 50,000 real estate transactions since 1973 and has a wealth of experience in all aspects of the real estate closing process.

The Organizational Chart on the following page outlines the structure of our proposed Team. The “chain of command” shown on the chart by solid lines represents the primary reporting relationships. Dashed lines represent communication relationships between major project disciplines and participants.
3.3 Offeror’s Team Structure
3.3 **Offeror’s Team Structure**

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

**Key Personnel**

- **Design-Build Project Manager, DBPM (Joe Fragale, PE, DBIA)** has full and complete authority over all aspects of the Shirley Team’s responsibilities throughout design and construction, and is the primary point of contact with VDOT. Joe is responsible for the timely completion and integration of all aspects of the design-build process including design, construction, permitting, right-of-way, utilities, and quality assurance/quality control. He has ultimate responsibility for Contract administration and has full authority to resolve all disputes or disagreements through best efforts and good faith negotiations with the Department’s representatives. He will create, monitor, and update the Project CPM to ensure the work is well-planned and completed on-time. Joe will coordinate with all third-party stakeholders, public outreach efforts, public meetings, and answer project questions/inquiries.

- **Quality Assurance Manager, QAM (Avtar Singh, PE, DBIA, CCM, PMP)** reports to the DBPM and is completely independent from the construction operations and QC inspections. Avtar has full responsibility for assuring that the Project is in compliance with the Contract Documents, manages all aspects of the QA program, and directs the QA inspections by the QA inspectors and independent QA testing technicians. This position is unique in that Avtar has the autonomy to report findings directly to VDOT in addition to the DBPM, and if the work is not in compliance with the Contract Documents, he has the authority to unilaterally halt or suspend the work and the responsibility to assure corrective action is taken before the work is accepted and certified for payment.

- **Design Manager, DM (Jeremy Beck, PE)** reports to the DBPM and has the overall responsibility for managing all aspects of the design process, including overseeing design development and ensuring that roadway, structural, hydraulic, geotechnical, and traffic design disciplines are properly coordinated and in conformance with the Project requirements. Jeremy is the primary point of contact for all sub-consultant services including aerial mapping, utility designations and test pits, geotechnical investigations and reporting, pipe video inspections, and noise analysis. He communicates regularly with the entire design team to ensure deliverables are provided in a timely manner to support plan approvals and construction activities. Jeremy also integrates the design disciplines with construction, right-of-way, utility, and safety personnel, and establishes and oversees the Design QA/QC program. He remains involved during the construction phase to support implementation of design, coordinate reviews of product submittals and shop drawings, provide responses to RFI’s, and attends regular construction progress meetings.

- **Construction Manager (Bryan Shillingburg)** reports to the DBPM and has the responsibility to manage all aspects of construction and the Quality Control process. Prior to construction, Bryan facilitates all constructability reviews for the design, works closely with the Utility Coordinator to plan relocations, and coordinates with the Right-of-Way Manager to prioritize and schedule acquisitions. During construction, he is on site at all times, updates the project schedule, and coordinates with the QC Manager, Project Manager, and Superintendent to ensure all construction materials and activities are in accordance with the Contract Documents. Bryan also communicates with the Design Manager to arrange for design engineer’s review of construction submittals and shop drawings.

**Value Added Positions**

- **Lead Maintenance of Traffic (MOT) Engineer (Jerry Mrykalo, PE, PTOE)** reports directly to the Design Manager and is responsible for all MOT design elements. He provides expertise and monitoring of the Transportation Management Plan (TMP) and Temporary Traffic Control (TTC) plans throughout design and construction to ensure safe and efficient operations are maintained. As a Professional Traffic
Operations Engineer (PTOE), Jerry has successfully lead the MOT design on 17 previous VDOT design-build projects. Jerry also has the specialized experience of leading the MOT design for several new interchange and roundabout implementation projects including a double roundabout interchange and a new interchange along US 29. As a VDOT certified Work Zone Traffic Control training instructor, Jerry will also provide the added value of safety training tailored to the unique project challenges.

**Utility Coordinator (Keith Gardner, Assoc. DBIA)** reports directly to the DBPM and is responsible for the entire utility coordination process, beginning in the design phase and continuing through the completion of construction. As his first priority, Keith develops solutions to avoid conflicts and relocations. For relocations that are required, he focuses on minimizing these relocations. Working closely with each individual utility provider, Keith determines the location of all existing utilities, obtains relocation plans and estimates, determines prior rights and cost responsibility, holds UFI meetings, reviews and approves plans and estimates, integrates relocations into the right-of-way and permitting processes, and coordinates with construction activities and the schedule. As utility relocations are progressing, he monitors their progress and schedule, coordinates with construction activities, ensures all work is inspected, coordinates revisions to relocation plans if necessary, and ensures that disruptions to service are avoided and/or minimized.

**Safety Manager (Charlie Wilson)** report to the DBPM and reviews the plans and field activities to provide a safe environment for VDOT, the construction workers, the traveling public, and local residents. He trains and informs those engaged on the Project of specific safety hazards and enforces all aspects of applicable industry safety standards, Shirley’s Corporate Safety Policy and the Project’s Health, Safety and Welfare Plan. Charlie monitors the field activities and crews and has full and complete authority to halt or suspend any activity not in compliance with the applicable safety standards.
3.4 - Experience of the Offeror’s Team
3.4 Experience of Offeror’s Team

Please see Attachment 3.4.1 for the Lead Contractor and Lead Designer Work History Forms.
3.5 - Project Risks
3.5 Project Risks

Design-build projects by their very nature have elements of risk which the Project Team must identify and address early in project development in order to effectively manage and mitigate their potential effects. Our Team’s experience working with VDOT, and a proactive approach to project risk, is a strength that is unmatched. Our successful methods have reduced risks to VDOT resulting in lower project costs and resource requirements.

In preparation of this SOQ, we carefully reviewed all of the RFQ documents and visited the site to understand the existing conditions and constraints in order to best identify and address the Projects risks and challenges. Our Team is committed to taking ownership of each risk factor and establishing strategies and mitigation measures to address them. At this stage of project development, the three most relevant and critical risks are:

CRITICAL RISK #1 – Maintenance of Traffic Mobility and Safety

Why the Risk is Critical

The US 15/17/29 corridor is a crucial north-south artery for both local Fauquier County traffic and long-distance travelers, carrying over 44,000 vehicles per day. In addition to providing access to the Town of Warrenton and Lord Fairfax Community College, the roadway is a vital regional route connecting points south (Culpeper, Charlottesville, Lynchburg) to points north (Northern Virginia, Maryland, Pennsylvania, northeastern cities). Furthermore, the signalized intersection with US 15/17/29 Business is isolated from other signals by more than 3.5 miles in each direction, leading to lengthy delays and high crash rates. The combination of these high traffic volumes, high travel speeds (posted speed of 55 mph), and high existing crash rates compounds the importance of preparing and implementing a comprehensive maintenance of traffic (MOT) program. It will be critical that this program ensures the preservation of traffic mobility and makes certain safety is held paramount for the public and construction personnel. Safety and mobility becomes a critical risk when:

1. Existing traffic and crash trends are not carefully studied and thoroughly mitigated;
2. The project team does not have specialized design or construction experience with this type of interchange construction on high volume roadways;
3. “Typical” lane closure hours are implemented without performing detailed traffic analysis;
4. The interchange reconstruction doesn’t account for multi-stage temporary traffic control (TTC), maintenance of two thru lanes in each direction, and maintenance of all turn movements;
5. Construction access directly to and from US 15/17/29 is not well planned and minimized; and
6. Traffic incident response and roadway maintenance are not immediately addressed.

Impact on the Project

The impact of improperly or inadequately maintaining traffic in a safe manner throughout the duration of the Project, or inadequately communicating construction activities with the public, could result in:

1. Degrading safety for the traveling public, college students, and/or construction personnel;
2. Additional travel delays and increased queuing along the corridor;
3. Changes in lane closure restrictions;
4. Loss of capacity and/or emergency responder access;
5. Loss of direct access for the business route, adjacent properties, and the college;
6. Driver frustration;
7. Delays to the project schedule; and
8. Increased costs.
3.5 Project Risks

Mitigation Strategies

Our Team is adamant about maintaining the highest possible levels of traffic mobility and providing industry leading safety within the work zone for the traveling public and construction personnel. We are committed to utilizing our extensive relevant experience on similar projects to deliver enhanced and innovative mitigation strategies to successfully address this risk. By making mobility and safety our top priorities, we will exceed the standard project requirements by implementing the mitigation strategies discussed in the following narrative.

An Industry Leading MOT Team

Our Organizational Chart identifies a value added Lead Maintenance of Traffic Engineer (Jerry Mrykalo, PE, PTOE). He and his design team are well versed in the development of Transportation Management Plans (TMPs) for similar projects on National Highway System (NHS) routes, as well as the development of Temporary Traffic Control (TTC) plans per the IIM-LD-241.7 (Work Zone Safety and Mobility) process. During the construction planning process, they will work with the Construction Manager and the Safety Manager to develop sequencing that provides for suitable constructability while allowing mainline US 15/17/29 and all turn movements to safely and continuously operate.

Dewberry has also taken the additional step of implementing an in-house work zone design training program, allowing our design staff to achieve VDOT Advance Work Zone Traffic Control certification. Most importantly, we have recent relevant MOT design and construction experience, having designed and constructed six new interchanges as a team where bridges over mainline traffic were constructed while maintaining full access to intersecting streets. This similar experience allows us to understand many of the unique considerations and challenges for this Project.

Ensuring Acceptable Operations During Temporary Lane Closures

We understand that temporary lane closures, especially on mainline US 15/17/29, can result in exorbitant cumulative delays and back-ups if not implemented during the window with the lowest traffic volumes. Therefore, our Team is committed to the development of both directional-specific and seasonal-specific temporary lane closure hours, which our Team will tailor to the Project based on current 24-hour traffic data. Given that Warrenton is an outer suburb for commuters to Northern Virginia and Washington D.C., volumes are highly directional, with peak hours earlier than encountered in most of the Culpeper District.

At our recently completed Linton Hall Road interchange along Route 29 in Gainesville, we successfully minimized travel delays by implementing customized lane closure schedules for each direction of travel, with four different lane closure schedules on Route 29. Also, given that this is a vital long-distance and recreational route, we understand the importance of considering seasonal traffic variations on the corridor. To accomplish this delay minimization, we analyze MOT operations (shown in Figure 1) using software such as Quick Zone and HCS to ensure temporary lane closures will be limited to the hours of least impact. Understanding these patterns is crucial to ensuring that we maximize construction efficiency while also limiting motorist delay.

Figure 1 - Existing traffic volumes at the Project site showing the high deviations between northbound and southbound hourly volumes.
3.5 Project Risks

Staging of Work To Minimize Impacts

Our Team has already formulated solutions to accomplish this which includes the following:

1. **Maintaining Intersection Turning Movements** - While constructing the interchange ramps and proposed bridge over US 15/17/29, it will be critical to utilize a multi-phased approach to maintain all movements. Our Team has extensive experience in this type of construction, having built temporary diversion roadways (or “detours”) around existing intersections on several recent projects (as shown in Figure 2). To accomplish this, temporary pavement is designed and constructed in a manner that safely maintains full access while also allowing for efficient construction. While we envision the need for the use of diversions for some movements, the goal will be to minimize changes in travel patterns, and to ensure any changes are intuitive and easy to comprehend. For all stages of construction before interchange opening, turn movements will be checked for sight distances, signal operations will be analyzed, and temporary turn lane lengths will ensure queuing will not spill back onto the mainline.

2. **Maintaining Shoulders** - We will strive to maintain either a full left or full right shoulder along mainline US 15/17/29 at all times. This shoulder will provide valuable room for emergency access, incident management, and police enforcement without blocking a thru lane. Also, providing a shoulder in advance of turn lanes provides refuge for queued vehicles without blocking thru lanes in the uncommon situation where queues extend beyond turn lanes.

3. **Roundabout Implementation** - The introduction of new roundabouts, where they currently do not exist, requires careful planning from both the construction phasing and public outreach standpoints. As the roundabouts will most likely be opened prior to the completion of all construction activities, use of enhanced traffic control devices such as oversized warning signs, tightly spacing channelizing devices, and extra-wide pavement markings will be critical given that the area will be dynamic with ongoing construction. In addition, it will be vital that thorough public outreach is performed prior to implementation, as roundabouts require drivers to alter their driving decision process.

Utilizing Enhanced Safety and Mobility Strategies Exceed Requirements

This strategy will improve traffic operations and safety during construction and begins with studying the pre-construction safety concerns and crash statistics, and then making interim safety and operational enhancements as part of our MOT plans in order to deliver immediate improvements. A preliminary investigation and assessment has already been completed by our Team, and has identified 94 documented crashes within the Project limits between January 2015 and February of 2017 (including one fatality). Given the high number of crashes, the majority of which have been rear-end crashes (60%), we have identified the following innovative enhancements that will maximize safety and operations:

1. Lane shift geometry utilizing the full “L” length for the posted speed limit (double the minimum length) as avoidance of abrupt transitions is especially important on high speed roadways;
2. Enhanced pavement message markings (SIGNAL AHEAD) and temporary transverse rumble strips to alert drivers of new alignments or altered traffic signal locations;
3. Temporary raised pavement markers and wider than minimum temporary lane markings for drastically increased visibility;
4. Supplemental and near-side traffic signal heads to enhance signal visibility as drivers may be distracted by construction activity or overhead bridge work;
5. Portable Changeable Message Signs (PCMS) to alert motorists of slow or stopped traffic prior to point of traffic queue distances from signal.

**Minimizing Construction Traffic Interactions with Public Traffic**

To mitigate the potentially dangerous speed differentials between trucks entering and exiting the median and traffic in the left lane, we will:

1. Consolidate entrance/exit points to the locations with greatest sight distances;
2. Eliminate access directly to/from the mainline thru lanes where possible by utilizing cross streets and existing intersections; and
3. Provide full AASHTO acceleration/deceleration lengths for trucks as feasible (where direct access will be required), which will minimize slow truck interaction with high speed traffic.

**A Proactive and Robust Public Outreach Program**

A comprehensive program in partnership with VDOT is especially important for this Project given the high speeds, high volumes, and high crash history. Our Team had already identified the following potential public outreach solutions:

1. Holding regular “pardon-our-dust” and public information meetings throughout design and construction, especially prior to implementing major traffic pattern switches;
2. Coordination with VDOT to provide updates via a project website;
3. Direct communication with emergency responders prior to traffic switches including in-person meetings with construction personnel to plan access routes, in the event of an emergency in the work zone; and
4. Use of Portable Changeable Message Signs (PCMS) and overhead Dynamic Message Signs to alert motorists of new traffic patterns.

**Role of VDOT and Other Agencies**

It is expected that VDOT will be involved from a review and approval standpoint during the development of the plans. Analysis of traffic volumes and travel patterns as well as the proposed construction sequencing will be discussed with VDOT during the TMP and TTC development process to determine if the proposed configurations are acceptable. We anticipate that VDOT will remain involved in the public outreach process during design and construction. During construction we also anticipate that VDOT will remain active to review and approve lane closures, as well as help to promote work zone safety. Finally, we anticipate coordination during construction with other stakeholders (such as Lord Fairfax Community College, Fauquier County and Warrenton emergency responders) to develop incident and emergency response plans.

**CRITICAL RISK #2 – 20” Columbia Gas Transmission Line**

**Why the Risk is Critical**

Columbia Gas has a 20-inch diameter gas transmission line within the expected Project limits. This line crosses US 15/17/29 Bypass diagonally at approximate Station 109+00, Lord Fairfax Road at approximate Station 90+00, and continues in both the east and west directions in a 50-foot wide easement beyond the current right-of-way. Although the RFQ documents are understandably preliminary at this stage of the procurement, a review clearly indicates that this gas line is located within proposed construction limits.

As part of our preparation of this SOQ, our Utility Coordinator contacted the Columbia Gas representative to review the Project scope, discuss the location of the gas line, and discuss possible solutions should future unavoidable conflicts arise. We were informed that the existing gas transmission line carries between 700-900 psi, is contained within a sleeve only under the current southbound lanes of US 15/17/29, and is relatively shallow in many locations. In addition, Columbia Gas is currently inspecting the line to
establish the condition of the existing corrosion protection. It was clear from our discussions with them that Columbia Gas is concerned about the impacts the Project will have on their facility.

Our Team’s experience with relocations of similar gas transmission lines, and recent discussions with Columbia Gas, indicate that if conflicts cannot be avoided, the line would likely have to be offset from the existing line and relocated, using trenchless technology, outside of proposed right-of-way limits in a new easement. The cost to complete this relocation has historically ranged from $2,500-$4,000 per linear foot and can take more than six months to complete, all depending on the nature of the relocation required. It is for these cost and schedule reasons that we consider the Columbia Gas transmission line a critical risk.

**Impact on the Project**
Whether the Columbia Gas transmission line ultimately requires relocation or not, it will still impact the Project in numerous ways, including:

1. Substantial efforts to determine the as-built location, condition, and affect on construction elements;
2. Continuous coordination with Columbia Gas throughout all phases of design and construction;
3. Potential revisions to planned design elements to avoid and/or minimize conflicts;
4. Delays or revisions to the implementation of maintenance of traffic sequences and strategies;
5. Increased construction impacts to the public;
6. Additional environmental and right-of-way impacts;
7. Increased construction costs for the gas relocation, permanent construction elements, or both; and
8. Delays to the overall Project Schedule.

**Mitigation Strategies**
Having encountered large-diameter, high pressure gas transmission lines on several past design-build projects, our Team recognizes that a comprehensive approach is required to mitigate the impacts this can have on the Project. Our strategy prioritizes avoiding the relocation to the greatest extent possible. Should impacts prove unavoidable, our focus is on minimizing the utility relocation and the resulting impacts to the Work. These efforts begin in the Technical and Price Proposal phase and continue throughout design and construction and include:

1. Building on our relationship with Columbia Gas to obtain as-built information, communicate issues and concerns between all parties, and develop efficient solutions for resolving conflicts.
2. Expediting utility designations and test pits on the existing gas line to accurately determine the location at the earliest stages of design.
3. Establishing a Task Force that focuses on identifying conflicts with the design and construction, and creating design solutions to resolve them. These concepts may include revising the roadway profiles and cross-slopes, pavement buildups, ditch grading, storm sewer, and other permanent design elements that avoid physical conflicts with the gas line.
4. Exploring gas line protection options, such as bridging, protection slabs, sleeve extensions, or arches to maintain them in lieu of relocation.
5. Focusing on temporary maintenance of traffic sequences, such as the planned signalized intersection relocation on US 15/17/29, to avoid impacts and conflicts with the gas line.
6. Implementing measures during construction that allow the line to be maintained such as ‘air-bridges’ and backfill with special-mix flowable fill.
7. Establishing a ‘Utility Strike Prevention Plan’ that clearly communicates to all parties where the line is located, what steps need to be taken when working around it, and emergency contact information.
8. Working closely with Columbia Gas to design a relocation plan that is efficient and sequenced in a manner that minimizes construction impacts should the line ultimately require relocation. We will
work to determine any prior rights, acquire any necessary easements and environmental permits, and explore self-performing portions of the work.

9. Creating the project schedule and sequence of work to ensure that the work is completed on-time. This schedule will be communicated to all parties, including Columbia Gas, and monitored closely for delays. Should delays be identified, the Team will implement recovery actions such as resequencing the work, supplementing resources, and/or self-performing activities.

**Role of VDOT and Other Agencies**

To reduce the overall risk to the Project, we recommend that VDOT perform test pits on the existing line, and obtain any available as-built information and commitments from Columbia Gas, prior to the release of the RFP. During the design phase, we look forward to working with VDOT to participate in and review solutions for conflict avoidance to both permanent project elements and temporary maintenance of traffic activities. During construction, we anticipate VDOT’s assistance should the utility become unresponsive.

**CRITICAL RISK #3 – Roundabout Configuration**

**Why the Risk is Critical**

Roundabouts operate most safely when their geometry forces traffic to enter and circulate at slow constant speeds, the visibility of the roundabout is clear to approaching vehicles, sight distances for viewing potentially conflicting vehicles operating in the roundabout are adequate, and when pedestrian considerations are fully accounted for.

The two roundabouts proposed in the RFQ documents contain vertical grades greater than 4%, which exceed desirable grades identified within *NCHRP Report 672, Roundabouts, An Informational Guide*. As a result, and because of the existing terrain and other required geometry, the connecting roadways and ramps contain vertical grades that vary between +8% and -6%. The presence of relatively steep vertical grades within and adjacent to the roundabouts can degrade safety for vehicles and pedestrians by introducing geometry that increases speed variances between vehicles operating within the roundabout and vehicles entering or leaving the roundabout. These speed differentials are known to contribute to crashes and make roundabouts less comfortable to pedestrians and bicyclists.

When roundabouts are placed on grades steeper than 4% with connecting elements that also contain steep grades, challenges are introduced, including but not limited to:

1. Difficulty for entering vehicles to slow or stop on certain approaches;
2. Compromised sight lines; and
3. High speed differentials.

Our Team considers the implementation of roundabouts on steep gradients a critical risk to driver and pedestrian safety because of the potential for elevated crash occurrences (degraded sight distance), increased crash severity (speed differentials), and an amplified likelihood of large truck overturning or load shifting within the roundabout (adverse superelevation).

**Impact on the Project**

While it is recognized that roundabouts are generally able to successfully address safety and operational objectives, this can only be realized if all elements associated with the roundabouts are considered and addressed. Providing a Tight Diamond Interchange with roundabout terminals as proposed will improve traffic flow. However, if the roundabouts incorporate undesirable geometric features, an increased number of crashes may occur, pedestrian safety could be compromised, and traffic operations may be diminished.
Recognizing that these challenges must be addressed to obtain plan approval, modifications may be required which could expand the project limits, impact additional right-of-way and utilities, result in additional environmental impacts, and delay the start of construction.

**Mitigation Strategies**

*Confirmation of Interchange Type*

We approach all of our design-build endeavors in a holistic manner, which includes examining past work. Our Team appreciates that six interchange alternatives have already been explored and that two separate Tight Diamond Interchange configurations (one with signalized intersections and one with roundabout terminals) were determined to be the most favorable from a traffic operation perspective. Our first mitigation strategy to address the roundabout configurations will be to confirm that the optimal interchange type for this particular location has been identified based on existing constraints and project needs. Our goal will be to reduce crashes, increase safety, and connect dissimilar roadway classifications while meeting or exceeding VDOT requirements, achieving project commitments, and minimizing impacts and costs.

*Roundabout Operating Speed*

We may find through our investigation that the Tight Diamond Interchange with roundabout terminals is the most advantageous interchange to implement. If so, we know that the operating speed of a roundabout is widely recognized as one of its most important attributes in terms of safety performance - and crash severity is most directly tied to speed. We understand that well-designed roundabouts reduce vehicle speeds upon entry and achieve consistency in relative speeds between conflicting traffic streams.

Our designers will adjust the configuration of the roundabouts to control approach and circulatory speeds thereby limiting the potential for large speed disparities and decreasing the likelihood and severity of crashes. This is accomplished by positioning and sizing the roundabout in conjunction with the entry and exit alignments of the approaches and pedestrian needs to establish adequate deflection and speed control while also providing appropriate view angles. Vertical grade breaks near the inscribed diameter, particularly for entering vehicles, will be minimized which will also contribute to a reduction in speed variance as well as an increase in visibility. Our Team will also strive to limit the actual gradient within the roundabouts to a maximum of 3% to reduce the effects of adverse superelevation, particularly on trucks.

*Ensuring Appropriate Performance*

Providing the safest possible geometric design of a roundabout will require the balancing of several factors and will be an iterative process. Once the basic configurations of the roundabouts have been established, but before we proceed with other design elements, our engineers will conduct performance checks of the horizontal and vertical geometry which may require adjustments to the layout of the roundabouts and the connecting roadways and ramps. Some of the performance checks we will complete include:

- **Fastest Path** - Fastest path alignments for vehicles traveling through particular entry points, around the central island, and out of the relevant exits, will be established to ensure that the negotiation speed for each movement does not exceed the appropriate maximum. Should certain movements exceed this value, geometric adjustments may include shifting the approach alignment further to the left of center of the roundabout, increasing the size of the inscribed diameter, or adjusting deflection angles, splitter islands, and entry widths.

- **Sight Distance** - Our designers will systematically check stopping sight distance and intersection sight distance for the roundabouts as follows:
3.5 Project Risks

1. **Stopping Sight Distance** - Three critical areas will be checked within the roundabouts and on each entering and exiting approach to include stopping sight distance on the approach, on the circulatory roadway, and to crosswalks and exits. Where any of these distances are not met, design adjustments will be made. Once established, these sight lines will be coordinated with other disciplines such as signing and marking and landscaping to ensure that encroachments will not occur.

   Within the central island we will identify the location where landscaping or other methods of blocking sight distance across the island should be placed to limit the amount of information that needs to be processed by drivers. In other words, we will purposefully limit what particular drivers see to only those locations were conflicts may occur. This will simplify the decision making process for drivers and will lead to safer operations.

2. **Intersection Sight Distance** - Intersection sight distance checks will be made at every entry point to confirm that the length and time required for a driver without the right-of-way to perceive and react to the presence of a conflicting vehicle will be provided. Vehicles originating from other approaches or from the circulatory roadway will be checked independently. If the area bounded by the vehicle paths and sight lines from the approach in question are found to be insufficient, geometric adjustments will be made. Again, once established, these sight triangles will be coordinated with other disciplines to ensure that encroachments will not occur.

**Verifying Design Details**
A variety of design details, specific to roundabouts, such as accommodating pedestrians and bicyclists, approach treatments, and right turn bypass lanes will be thoroughly reviewed to make certain that sidewalk setbacks and treatments will be appropriate, crosswalk locations will provide adequate visibility, splitter islands and approach curves will work to control speeds, the effects of negative superelevation will be minimized, large vehicle offtracking will be accounted for, signing and marking will be clear and simple, and drainage will be safe and efficient.

**Role of VDOT and Other Agencies**
We anticipate that VDOT will be involved in the review of alternate interchange configurations including roundabout geometry, verifying that the resulting horizontal and vertical alignments are acceptable from a safety and operations standpoint. Our Team believes that early geometric reviews may be necessary to establish the desirable line and grade and we would expect VDOT to work with our Team to conduct expedient reviews.
2.10 - C-78 Form
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00077384DB100
PROJECT NO.: 0029-030-121, P101, R201, C501, B616

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 – April 26, 2017**
   (Date)

2. Cover letter of **Addendum #1 May 22, 2017**
   (Date)

3. Cover letter of
   (Date)

   Signature

   June 1, 2017

   [Signature]

   Michael E. Post
   PRINTED NAME

   President/CEO/Manager
   TITLE
3.1.2 - SOQ Checklist
ATTACHMENT 3.1.2

Project: 0029-030-121, P101, R201, C501, B616
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.

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
</tr>
</thead>
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<tr>
<td>Statement of Qualifications Checklist and Contents</td>
<td>Attachment 3.1.2</td>
<td>Section 3.1.2</td>
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<td>Section 2.10</td>
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<td>Letter of Submittal (on Offeror’s letterhead)</td>
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<tr>
<td>Authorized Representative’s signature</td>
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<td>Affiliated/subsidiary companies</td>
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## ATTACHMENT 3.1.2

**Project: 0029-030-121, P101, R201, C501, B616**  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<table>
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<tr>
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<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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<td>Full size copies of DPOR Registration (Key Personnel)</td>
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<td><strong>Offeror’s Team Structure</strong></td>
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<td>Key Personnel Resume – DB Project Manager</td>
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<td>Organizational chart narrative</td>
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## ATTACHMENT 3.1.2

**Project: 0029-030-121, P101, R201, C501, B616**  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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<th>SOQ Page Reference</th>
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<td><strong>Experience of Offeror’s Team</strong></td>
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3.2.6-Affiliated/SubsidiaryCompanies
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.

- The Offeror does not have any affiliated or subsidiary companies.
- Affiliated and/or subsidiary companies of the Offeror are listed below.

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary</td>
<td>Shirley Design-Build, LLC</td>
<td>8435 Backlick Road, Lorton, Virginia 22079</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Clark Construction Group, LLC</td>
<td>7500 Old Georgetown Road, Bethesda, Maryland 20814</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Metro Earthworks</td>
<td>8435 Backlick Road, Lorton, Virginia 22079</td>
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<tr>
<td>Subsidiary</td>
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<td>8435 Backlick Road, Lorton, Virginia 22079</td>
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<td>Affiliate</td>
<td>Capital Rail Constructions, a JV</td>
<td>7500 Old Georgetown Road, Bethesda, Maryland 20814</td>
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3.2.7 - Debarment Forms
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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 form.

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  6/1/17  President/CEO/Manager
Date          Title

Shirley Contracting Company, LLC

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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 form.

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] [Date] [Title]

[Name of Firm]
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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] 5/17/17 [Signature] 5/17/17
Date Title

CES CONSULTING LLC
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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] 5/16/17  
Vice President

Date  
Title

DMY Engineering Consultants Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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 5/21/2017

Date

Title

Dulles Engineering, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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 form.

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.

W.J. McKeague 5/16/2017
Signature Date

Vice President
Title

Quantum Spatial, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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]
Date: 5-16-17
Title: Manager

[Name of Firm]
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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 form.

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 03-16-17

Date

President

Title

Name of Firm

[Handwritten signature and date]
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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: ___________________________  Date: 5/16/2017

President

Title

Diversified Property Services, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0029-030-121, P101, R201, C501, B616

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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] 5-16-17 [Title]
Signature Date

[Name of Firm]
3.2.8 - VDOT Prequalification Certificate
Prequalified Vendors Sorted By Vendor Name
Includes All Qualified Levels As Of 5/24/2017

Vendor ID: S1060
Vendor Name: SHEPAUL ENTERPRISES, INC.
Prequal Exp: 09/30/2017

-- PREQ Address --
P. O. BOX 1638
BECKLEY, WV 25802-1638
Phone: (304)877-6451
Fax: (304)877-5789

Bus. Contact: HAPUARACHY, SUMITH PETER
Email: SH1912BECK@AOL.COM

-- DBE Information --
DBE Type: DMBE
DBE Contact: N/A

Vendor ID: S018
Vendor Name: SHIRLEY CONTRACTING COMPANY, LLC
Prequal Exp: 09/30/2017

-- PREQ Address --
8435 BACKLICK RD.
LORTON, VA 22079-1403
Phone: (703)550-8100
Fax: (703)550-7897

Bus. Contact: CLYMORE, DANIEL EDWARD
Email: DCLYMORE@SHIRLEYCONTRACTING.COM

-- DBE Information --
DBE Type: N/A
DBE Contact: N/A

Work Classes (Listed But Not Limited To)
020 - FENCE INSTALLATION
021 - GUARDRAIL INSTALLATION
023 - REINFORCING STEEL PLACEMENT
002 - GRADING
003 - MAJOR STRUCTURES
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES
3.2.9 - Surety Letter
One Tower Square
Hartford, CT 06183

May 24, 2017

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

Re: Request for Qualifications - Contract ID Number: C00077384DB100 - A Design-Build Project
Warrenton Southern Interchange US 15/17/29 From: Route 15/17/29 & Route 15/17/29 Business
To: 1.0 mile South of Route 15/17/29 & Route 15/17/29 Business
Estimated Contract Value: $20 million

Dear Mr. Stevenson:

Travelers Casualty and Surety Company of America (A.M. Best Financial Strength Rating A++, Financial Size Category XV) and their co-surety partners, have the privilege of providing surety bonds for Shirley Contracting Company, LLC. The available bonding capacity on individual projects is in excess of $750,000,000.

In our opinion, Shirley is one of the finest, best managed construction firms in the country. Shirley has handled each of its projects in a professional manner and completed all satisfactorily.

As surety for Shirley Contracting Company, LLC, Travelers Casualty and Surety Company of America, is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project, subject to acceptable review of the contract documents and bond forms, financing, availability of reinsurance, and Shirley Contracting Company, LLC continuing to satisfy other underwriting considerations at the time the bonds are requested.

This letter is not an assumption of liability and is issued only as a reference request from our client.

Sincerely,

Travelers Casualty and Surety Company of America
A.M. Best Rating A++ XV

By: _______________________
Karen C. Bowling, Attorney-in-Fact
POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 219657

Certificate No. 007067465

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the “Companies”), and that the Companies do hereby make, constitute and appoint

Diana L. Parker, and Karen C. Bowling

of the City of Columbia, State of Maryland, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, 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 9th day of December, 2016.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: ____________________________

Robert L. Raney, Senior Vice President

On this the 9th day of December, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2021.

58440-5-16 Printed in U.S.A.
This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

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

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

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

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

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 22nd day of May, 2019.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.
3.2.10 - SCC/DPOR Licenses & Registrations
# ATTACHMENT 3.2.10

State Project No. 0029-030-121, P101, R201, C501, B616

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 listed are active and in good standing.

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirley Contracting Company, LLC</td>
<td>S082038-3</td>
<td>Limited Liability Co.</td>
<td>Active</td>
<td>8435 Backlick Road Lorton, VA 22079</td>
<td>Class A Contractor</td>
<td>2705071652</td>
<td>October 31, 2018</td>
</tr>
<tr>
<td>Dewberry Consultants LLC</td>
<td>S044733-6</td>
<td>Limited Liability Co.</td>
<td>Active</td>
<td>8401 Arlington Blvd. Fairfax, VA 22031</td>
<td>Business Entity</td>
<td>0407003966</td>
<td>December 31, 2017</td>
</tr>
<tr>
<td>DMY Engineering Consultants, Inc.</td>
<td>0768895-5</td>
<td>Corporation</td>
<td>Active</td>
<td>45662 Terminal Drive Suite 110 Dulles, Va. 20166</td>
<td>Business Entity</td>
<td>0407005631</td>
<td>December 31, 2017</td>
</tr>
<tr>
<td>Dulles Engineering, Inc.</td>
<td>0814199-6</td>
<td>Corporation</td>
<td>Active</td>
<td>4230 Lafayette Center Drive STE. AB Chantilly, Va. 20151</td>
<td>Professional Corporation</td>
<td>0405002161</td>
<td>December 31, 2017</td>
</tr>
<tr>
<td>So-Deep, Inc.</td>
<td>0216275-8</td>
<td>Corporation</td>
<td>Active</td>
<td>8397 Euclid Avenue Manassas Park, Va. 20111</td>
<td>Business Entity</td>
<td>0407002900</td>
<td>December 31, 2017</td>
</tr>
<tr>
<td>Diversified Property Services of Virginia, Inc.</td>
<td>F130410-6</td>
<td>Corporation</td>
<td>Active</td>
<td>20 E. Timonium Road Suite 111 Timonium, MD 21093</td>
<td>Appraisal Business</td>
<td>4008001190</td>
<td>November 30, 2018</td>
</tr>
<tr>
<td>Old Dominion Settlements, Inc.</td>
<td>0243891-9</td>
<td>Corporation</td>
<td>Active</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>
## ATTACHMENT 3.2.10

State Project No. 0029-030-121, P101, R201, C501, B616

### SCC and DPOR Information

<table>
<thead>
<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dewberry Consultants LLC</td>
<td>Jeremy Beck</td>
<td>Fairfax, Va.</td>
<td>5862 White Dove Circle Clifton, Va. 20124</td>
<td>Professional Engineer</td>
<td>0402043254</td>
<td>July 31, 2017</td>
</tr>
<tr>
<td>CES Consulting, LLC</td>
<td>Avtar Singh</td>
<td>Gainesville, Va.</td>
<td>13991 Virginia Cedar Court Gainesville, Va. 20155</td>
<td>Professional Engineer</td>
<td>0402035169</td>
<td>January 31, 2019</td>
</tr>
</tbody>
</table>
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

LLC NAME: Shirley Contracting Company, LLC

DATE OF FILING: 08/01/2002  PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF FILING: VA VIRGINIA  MERGER INDICATOR: 0
CONVERSION/DOMESTICATION INDICATOR: Y
PRINCIPAL OFFICE ADDRESS
STREET: 8435 BACKLICK RD
CITY: LORTON  STATE: VA ZIP: 22079-0000
REGISTERED AGENT INFORMATION
R/A NAME: CT CORPORATION SYSTEM
STREET: 4701 COX ROAD, SUITE 285
CITY: GLEN ALLEN  STATE: VA ZIP: 23060-0000
R/A STATUS: 5 ENTITY AUTHORIZ EFF DATE: 10/04/13 LOC: 143 HENRICO COUNTY

YEAR FEES PENALTY INTEREST BALANCE
16 50.00

(Screen Id:/LLC_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

<table>
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<tr>
<th>LLCM3220</th>
<th>LLC DATA INQUIRY</th>
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<tr>
<td>LLC ID:</td>
<td>3044733 - 6</td>
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<tr>
<td>STATUS:</td>
<td>00 ACTIVE</td>
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<tr>
<td>STATUS DATE:</td>
<td>10/14/09</td>
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<tr>
<td>LLC NAME:</td>
<td>Dewberry Consultants LLC</td>
</tr>
</tbody>
</table>

DATE OF FILING: 01/01/2000  PERIOD OF DURATION: INVENTORY CODE: 00
STATE OF FILING: VA VIRGINIA  MERGER INDICATOR: CONVERSION/DOMESTICATION INDICATOR: PRINCIPAL OFFICE ADDRESS
STREET: 8401 ARLINGTON BLVD
CITY: FAIRFAX  STATE: VA  ZIP: 22031-0000
REGISTERED AGENT INFORMATION
R/A NAME: CORPORATION SERVICE COMPANY
STREET: Bank of America Center, 16th Floor 1111 East Main Street
CITY: RICHMOND  STATE: VA  ZIP: 23219-0000
R/A STATUS: 5 ENTITY AUTHORIZ EFF DATE: 04/29/11 LOC: 216 RICHMOND CITY
YEAR FEES PENALTY INTEREST BALANCE
17 50.00

(Screen Id:/LLC_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

<table>
<thead>
<tr>
<th>LLCM3220</th>
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<td>S341600 - 7</td>
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<td>STATUS:</td>
<td>00 ACTIVE</td>
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<tr>
<td>STATUS DATE:</td>
<td>10/14/10</td>
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<tr>
<td>LLC NAME:</td>
<td>CES Consulting, LLC</td>
</tr>
</tbody>
</table>

DATE OF FILING: 10/14/2010 PERIOD OF DURATION: INDUSTRY CODE: 70

STATE OF FILING: VA VIRGINIA MERGER INDICATOR: 
CONVERSION/DOMESTICATION INDICATOR: 
P R I N C I P A L O F F I C E A D D R E S S 
STREET: 23475 ROCK HAVEN WAY
SUITE 255
CITY: DULLES STATE: VA ZIP: 20166-0000

REGISTERED AGENT INFORMATION
R/A NAME: AVTAR SINGH

STREET: 6773 LEOPOLDS TRAIL
CITY: HAYMARKET STATE: VA ZIP: 20169-0000
R/A STATUS: 1 MEMBER/MANAGER EFF DATE: 05/18/16 LOC: 176 PRINCE WILLIAM
YEAR FEES PENALTY INTEREST BALANCE
16 50.00

(Screen Id:/LLC_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

Commonwealth of Virginia
State Corporation Commission

CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0768895 STATUS: 00 ACTIVE STATUS DATE: 10/23/14
CORP NAME: DMY ENGINEERING CONSULTANTS INC.

DATE OF CERTIFICATE: 09/06/2013 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND: Y
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: WEIYI MA

STREET: 45662 TERMINAL DRIVE AR RTN MAIL:
SUITE 110
CITY: DULLES STATE: VA ZIP: 20166-0000
R/A STATUS: 1 DIRECTOR EFF. DATE: 09/06/13 LOC : 153
ACCEPTED AR#: 216 54 0648 DATE: 10/31/16 LOUDOUN COUNTY
CURRENT AR#: 216 54 0648 DATE: 10/31/16 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
16 130.00

(Screen Id:/Corp_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0814199 - 6 STATUS: 00 ACTIVE STATUS DATE: 01/26/17
CORP NAME: Dulles Engineering, Inc.

DATE OF CERTIFICATE: 01/26/2017 PERIOD OF DURATION: 70
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: ALI DAR

STREET: 42033 FOLEY HEADWATERS ST
CITY: ALDIE

STATE: VA ZIP: 20105-0000 EFF. DATE: 01/26/17 LOC: 153
R/A STATUS: 1 DIRECTOR LOUDOUN COUNTY
ACCEPTED AR#: 000 00 0000 DATE: STATUS: ASSESSMENT INDICATOR: 0
CURRENT AR#: 000 00 0000 DATE: YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
00

(Screen Id:/Corp_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

CISM0180
CORPORATE DATA INQUIRY

CORP ID: F113594 - 8 STATUS: 00 ACTIVE STATUS DATE: 03/14/01
CORP NAME: Quantum Spatial, Inc.

DATE OF CERTIFICATE: 02/09/2000 PERIOD OF DURATION: 00
STATE OF INCORPORATION: WI WISCONSIN INDUSTRY CODE: 00
MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 200.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX ROAD, SUITE 285 AR RTN MAIL:
CITY: GLEN ALLEN STATE: VA ZIP: 23060-0000
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC: 143
ACCEPTED AR#: 217 03 2932 DATE: 02/03/17 HENRICO COUNTY
CURRENT AR#: 217 03 2932 DATE: 02/03/17 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
17 670.00

(Screen Id:/Corp_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

**Commonwealth of Virginia**
**State Corporation Commission**

**CISM0180**
**CORPORATE DATA INQUIRY**

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<tr>
<th>CORP ID:</th>
<th>0216275 - 8</th>
<th>STATUS: 00</th>
<th>ACTIVE</th>
<th>STATUS DATE: 11/15/85</th>
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<tr>
<td>CORP NAME:</td>
<td>SO-DEEP, INC.</td>
<td></td>
<td></td>
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<td>DATE OF CERTIFICATE:</td>
<td>04/07/1981</td>
<td>PERIOD OF DURATION:</td>
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<tr>
<td>STATE OF INCORPORATION:</td>
<td>VA VIRGINIA</td>
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<td>MERGER IND:</td>
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<td>R/A NAME:</td>
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<tr>
<td>STREET:</td>
<td>4701 COX ROAD</td>
<td></td>
<td>AR RTN MAIL:</td>
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<td>STATE: VA</td>
<td>ZIP: 23060-0000</td>
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<td>R/A STATUS:</td>
<td>5 B.E. AUTH IN VI</td>
<td>EFF. DATE:</td>
<td>01/05/17</td>
<td>LOC: 143</td>
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<td>ACCEPTED AR#:</td>
<td>217 51 3844</td>
<td>DATE: 04/11/17</td>
<td></td>
<td>HENRICO COUNTY</td>
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<tr>
<td>CURRENT AR#:</td>
<td>217 51 3844</td>
<td>DATE: 04/11/17</td>
<td>STATUS: A</td>
<td>ASSESSMENT INDICATOR: 0</td>
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**YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES**

17 130.00

(Screen Id:/Corp_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

CISM0180 CORPORATE DATA INQUIRY

CORP ID: F113636 - 7 STATUS: 00 ACTIVE STATUS DATE: 05/24/10
CORP NAME: SKELLY AND LOY, INC.

DATE OF CERTIFICATE: 04/05/1993 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: PA PENNSYLVANIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: N NO A-REPORT MONITOR INDICATOR:
CHARTER FEE: 200.00 MON NO:
R/A NAME: CORPORATION SERVICE COMPANY

STREET: Bank of America Center, 16th Floor AR RTN MAIL:
1111 East Main Street
CITY: RICHMOND STATE: VA ZIP: 23219-0000
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 04/29/11 LOC: 216
ACCEPTED AR#: 216 07 5864 DATE: 04/29/16 RICHMOND CITY
CURRENT AR#: 216 07 5864 DATE: 04/29/16 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
17 670.00 100,000
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

Commonwealth of Virginia
State Corporation Commission

CISM0180 CORPORATE DATA INQUIRY

CORP ID: F130410 STATUS: 00 ACTIVE STATUS DATE: 09/04/15
CORP NAME: DIVERSIFIED PROPERTY SERVICES OF VIRGINIA, INC.
(USED IN VA BY: DIVERSIFIED PROPERTY SERVICES, INC)
DATE OF CERTIFICATE: 08/05/1997 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: MD MARYLAND STOCK INDICATOR: S STOCK
MERGER IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO:
R/A NAME: BRENDAN R HANTZES
STREET: 3771 VERMACCHIA DR AR RTN MAIL:
CITY: CHANTILLY STATE: VA ZIP: 20151-0000
R/A STATUS: 2 OFFICER EFF. DATE: 08/09/02 LOC: 129
ACCEPTED AR#: 216 12 0358 DATE: 08/01/16 FAIRFAX COUNTY
CURRENT AR#: 216 12 0358 DATE: 08/01/16 STATUS: A ASSESSMENT INDICATOR:
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
16 100.00

(Screen Id:/Corp_Data_Inquiry)
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

| CORP ID: | 0243891 - 9 | STATUS: 00 ACTIVE | STATUS DATE: 08/09/16 |
| CORP NAME: | OLD DOMINION SETTLEMENTS, INC. |

| DATE OF CERTIFICATE: | 07/08/1983 | PERIOD OF DURATION: |
| INDUSTRY CODE: | 35 |

| STATE OF INCORPORATION: | VA VIRGINIA | STOCK INDICATOR: S STOCK |

| MERGER IND: | CONVERSION/DOMESTICATION IND: |
| GOOD STANDING IND: | Y |

| CHARTER FEE: | MON NO: |
| MON STATUS: | MONITOR DTE: |

| R/A NAME: | RONALD H. LAZARUS |

| STREET: | 7010 LITTLE RIVER TURNPIKE, SUITE 240 |
| AR RTN MAIL: |

| CITY: | ANNANDALE |
| STATE: VA ZIP: 22003-0000 |

| R/A STATUS: 4 ATTORNEY | EFF. DATE: 09/05/95 LOC: 129 |
| FAIRFAX COUNTY |

| ACCEPTED AR#: 216 13 5197 | DATE: 09/01/16 |
| CURRENT AR#: 216 13 5197 | DATE: 09/01/16 |

| STATUS: A ASSESSMENT INDICATOR: 0 |

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(Screen Id:/Corp_Data_Inquiry)
# DPOR License Lookup

License Number 2705071652

## License Details

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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.

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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup License Number 0407003966

License Details

Name: DEWBERRY CONSULTANTS, LLC
License Number: 0407003966
License Description: Business Entity Registration
Firm Type: LLC - Limited Liability Company
Rank: Business Entity
Address: 8401 ARLINGTON BLVD, FAIRFAX, VA 22031
Initial Certification Date: 2000-03-14
Expiration Date: 2017-12-31

Related Licenses

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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup  License Number 0407005783

License Details

Name: CES CONSULTING LLC
License Number: 0407005783
License Description: Business Entity Registration
Firm Type: LLC - Limited Liability Company
Rank: Business Entity
Address: 23475 ROCK HAVEN WAY SUITE 255, DULLES, VA 20166
Initial Certification Date: 2010-11-05
Expiration Date: 2017-12-31

Related Licenses

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Showing 1 to 1 of 1 entries

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DPOR License Lookup License Number 0407005631

License Details

Name: DMY ENGINEERING CONSULTANTS INC  
License Number: 0407005631  
License Description: Business Entity Registration  
Firm Type: Corporation  
Rank: Business Entity  
Address: 45662 TERMINAL DRIVE SUITE 110, DULLES, VA 20166  
Initial Certification Date: 2010-03-10  
Expiration Date: 2017-12-31

Related Licenses

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Showing 1 to 1 of 1 entries

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http://dporweb.dpor.virginia.gov/LicenseLookup/LicenseDetail
DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup  License Number 0405002161

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<tr>
<td>Address</td>
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<td>Initial Certification Date</td>
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Related Licenses

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Showing 1 to 1 of 1 entries

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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup  License Number 0407005489

License Details

Name  QUANTUM SPATIAL INC  
License Number  0407005489  
License Description  Business Entity Registration  
Firm Type  Corporation  
Rank  Business Entity  
Address  45180 BUSINESS CT SUITE 800, STERLING, VA 20163  
Initial Certification Date  2009-07-30  
Expiration Date  2017-12-31

Related Licenses

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Showing 1 to 1 of 1 entries

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http://dporweb.dpor.virginia.gov/LicenseLookup/LicenseDetail
DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup License Number 0407002900

License Details

Name: SO-DEEP, INC.
License Number: 0407002900
License Description: Business Entity Registration
Firm Type: Corporation
Rank: Business Entity
Address: 8397 EUCLID AVENUE, MANASSAS PARK, VA 20111
Initial Certification Date: 1989-02-06
Expiration Date: 2017-12-31

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Showing 1 to 2 of 2 entries

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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup License Number 0407001402

License Details

Name
SKELLY & LOY INC

License Number
0407001402

License Description
Business Entity Registration

Rank
Business Entity

Address
449 EISENHOWER BLVD SUITE 300, HARRISBURG, PA 17112

Initial Certification Date
1982-08-31

Expiration Date
2017-12-31

Related Licenses

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Showing 1 to 1 of 1 entries

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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
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: 2018-11-30

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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup  License Number 0402043254

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<td>License Description</td>
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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
DPOR License Lookup  License Number 0402035169

License Details

Name  SINGH, AVTAR
License Number  0402035169
License Description  Professional Engineer License
Rank  Professional Engineer
Address  HAYMARKET, VA 20169
Initial Certification Date  2001-01-18
Expiration Date  2019-01-31

Related Licenses

<table>
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DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).
3.3.1 - Key Personnel Resume Forms
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<tbody>
<tr>
<td>a. Name &amp; Title: Joe Fragale, PE, DBIA, Project Manager</td>
</tr>
<tr>
<td>b. Project Assignment: <strong>Design-Build Project Manager (DBPM)</strong></td>
</tr>
<tr>
<td>c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part time) <strong>Shirley Contracting Company, LLC - Full Time</strong></td>
</tr>
</tbody>
</table>
| d. Employment History: With this Firm **9 Years With Other Firms 3 Years**  
Please list chronologically (most recent experience 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):  
**Shirley Contracting Company, LLC, Design-Build Project Manager (DBPM), 2016 - Present**  
Joe is responsible for providing oversight and monitoring of all stages of the design-build project life cycle; coordination with internal and external stakeholders; ensuring project delivery in accordance with the project schedule; working closely with owners representatives, designers, construction staff and quality teams.  
- **Route 606 Bridge Replacement over I-95 with 606 Improvements Design-Build, ($16.4M) - 12/2016 to 9/2019 – DBPM**  
- **Route 659 (Belmont Ridge Road) Reconstruct Design-Build, ($45M) - 10/2015 to 12/2018 – Assistant DBPM**  
- **Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening Design-Build, ($74M) - 8/2014 to 11/2016 – Assistant DBPM**  
- **Water Treatment Plant Site Access and Program Administration Facilities Design-Build, ($7.4M) 6/2013 to 10/2015 – Assistant DBPM**  
- **Telegraph Road and U.S. Route 1 Intersection at United States Marine Corps Base Quantico Design-Build, ($3M) - 7/2013 to 4/2014 - Assistant DBPM**  
- **Arlington National Cemetery – Memorial Dr. Reconstruction (2.1M), 9/2012 to 11/2013 – Project Manager**  
- **Fairfax County Parkway Phase III with Contract Modification for Saratoga Park and Ride Design-Build, ($28M) – 2/2011 to 8/2014 – Assistant DBPM**  
**Shirley Contracting Company, LLC, Assistant Design-Build Project Manager (Assistant DBPM), 2011 - 2016**  
In reporting directly to the DBPM, Joe was engaged in all aspects of the design-build process from procurement through project completion. Responsibilities include providing oversight and monitoring of the project life cycle and contract requirements; managing and integrating all disciplines into the overall design-build process including design, permitting, right-of-way, utilities, QC/QC, and construction; ensuring completion of the constructability process; coordinating with third parties; monitoring the project schedule; ensuring submissions are complete and on-time; preparing and leading various project meetings; presenting and representing the project to the public; contract administration; maintaining budgets; and facilitating dispute resolution.  
**BC Consultants, Designer, 2006 – 2008**  
As a Staff Engineer, Joe was responsible for engineering subdivision and site developments including layout, site grading, storm water management, utility design, roadway and pavement designs.  
**West Virginia Department of Transportation – Division of Highways, Inspector, 2005**  
As an Inspector, Joe performed oversight on resurfacing projects throughout District #5. He ensured proper installation and removal of maintenance of traffic, performed quality control on asphalt pavement, aggregate placement, guardrail installation, and driveway improvements. |
| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:  
**West Virginia University, Morgantown, WV/B.S./2005/Civil Engineering** |
Joe played a role in the Belmont Ridge Road Widening project from project procurement through to construction. He was responsible for leading the Shirley/Dewberry Team through all phases of the Design-Build development process including design, permitting, environmental mitigation, right-of-way acquisition, and utility relocations. Joe developed the projects phased CPM schedule and performed monthly updates through construction. He led bi-weekly design, comment resolution, monthly owner and stakeholder meetings, and presented at pardon our dust meetings for public outreach. Joe estimated, proposed, and negotiated work orders with VDOT ensuring the integration of the changes occurred before to plan approval and notice to commence construction. He performed constructability reviews prior to each plan submission and verified right of way and easement limits were appropriate for the project’s needs. Joe worked closely with subcontractors and structural designers to implement an alternative foundation design which increased production and safety during installation. As a result of his Design-Build development management and scheduling efforts the project is currently three months ahead of both contractual Interim and Final Completion Milestones.

Joe oversaw this $28 million design-build project and was responsible coordinating the design, procurement and delivery of materials, scheduling of crews and subcontractors for construction, and application for project payments. Early in the project, he recreated the CPM schedule to include owner requested added features and optimized the sequence of MOT phasing. The largest added features included the owner requested change to design, permit, and construct the Saratoga Park and Ride facility. The park and ride was a sole source negotiation which Joe estimated and reviewed with Federal Highways resulting in contract modification. Joe held stakeholder meeting with Federal Highways, VDOT, Fairfax County, and USACE. He held meetings with homeowners associations, community groups, and presented at pardon our dust meetings detailing traffic changes and overall project status. He maintained the project website which was utilized to convey meeting notices, provided graphical displays of traffic pattern changes, and informed the public of lane closures on a weekly basis. Prior to construction, Joe established project controls for productions which he monitored through daily shift cost reporting. He also monitored subcontractor performance and implemented safety policies beyond contract requirements. Joe trained and mentored four office engineers, one field office manager, and three engineering interns while working on this project. The project completed on time and on budget.

Joe lead efforts on this $7.4 million design-build project to construct new access road and bridge to the water treatment plant. Joe coordinated the 4-phased design and ensure that all disciplines were fully integrated. His responsibilities included managing the design, floodplain alterations documentation, coordinating plats for Loudoun County property acquisition, obtaining all 13 permits, coordinating utility relocations, and performing constructability reviews. He hosted stakeholder coordination meetings to provide consistent dialog between owner, designer, and construction project management. To address the quantity of permits required, Joe generated a matrix which detailed the necessary permit coverage for each project phase. He held permitting meetings to gain VDOT and Loudoun County concurrence on the plans for both acquisition and subsequent closure of permits. His efforts resulted in all interim milestones being met. Joe created, updated, and maintained the project CPM schedules throughout the design-build project. He performed punchlist closeout walk-throughs with owners and representatives resulting in the project being on time and on budget.

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

For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. Not applicable for this position.
### ATTACHMENT 3.3.1
### KEY PERSONNEL RESUME FORM

#### Brief Resume of Key Personnel anticipated for the Project.

**a. Name & Title:** Avtar Singh, PE, DBIA, CCM, PMP, President

**b. Project Assignment:** Quality Assurance Manager (QAM)

**c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part time):** CES Consulting LLC – Full Time

**d. Employment History:**

<table>
<thead>
<tr>
<th>Firm</th>
<th>Position</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES Consulting LLC</td>
<td>President</td>
<td>2010 to Present</td>
</tr>
<tr>
<td>Virginia Department of Transportation</td>
<td>Area Construction Engineer</td>
<td>2005 – 2010</td>
</tr>
<tr>
<td>NXL Construction Services</td>
<td>Project Engineer</td>
<td>1998 – 2004</td>
</tr>
</tbody>
</table>

**CES Consulting LLC, President, 2010 to Present**

Manages and directs CEI firm of 60 employees as well as works as consultant QAM/RCE/CM on multiple VDOT projects. For CES, responsible for firm procedures and processes, financial management, developing and implementing business development/strategy/forecasting and goals, ensure overall compliance with State and Federal laws.

- **Route 29 Solutions Design-Build Project ($120M),** 5/2015 to 6/2017 - Quality Assurance Manager
- **I-95 Shoulder Widening, ($42M),** 3/2013 to 5/2015 - Consultant Project Manager
- **NOVA Plant Mix Program, ($60M),** 7/2011 to 3/2013 - Consultant Construction Manager

**Virginia Department of Transportation, Area Construction Engineer, 2005 – 2010**

Responsible for overall construction management of assigned projects, provide overall engineering oversight as defined by Virginia Law, provide technical and contractual guidance on resolving issues, manage CEI and consultant workforce and develop CEI budgets.

- **Multiple projects including I-66/Route 29/Linton Hall Road Interchange Advance Detour, I-66/Route 29 Interchange, I-66 Widening at Route 234, University Boulevard Bridge. ($267M) - Area Construction Engineer**

**NXL Construction Services, Project Engineer, 1998 – 2004**

Responsible for onsite construction management of assigned projects, manage CEI workforce, develop work orders and review schedules and claims, manage project correspondence, review work zones and ensure project is CQIP ready.

- **Multiple projects including Route 123 Bridge over Occoquan River ($18 M), Woodrow Wilson Bridge Approaches ($10M), Springfield Interchange ($115M), Route 234 Widening ($17M) - Project Engineer/Construction Manager**

**e. Education:**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Degree</th>
<th>Year</th>
<th>Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queens University, Ontario Canada</td>
<td>BSc and MSc</td>
<td>1992</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>Queens University, Ontario Canada</td>
<td>Masters Certificate</td>
<td>2007</td>
<td>Project Management</td>
</tr>
</tbody>
</table>

**f. Active Registration:**

- 2001/Professional Engineer/Virginia #0402035169
- 2011/CCM/A2127
- 2014/DBIA Certified Design-Build Professional

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

1. **Note your role, responsibility, and specific job duties for each project, not those of the firm.**
2. **Note whether experience is with current firm or with other firm.**
3. **Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.**

(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.)

1. **Route 29 Solutions Design-Build Project, Albemarle County, VA**
   CES Consulting, LLC, Quality Assurance Manager (5/2015 to 6/2017)

   **Responsibilities and Job Duties:** As the Quality Assurance Manager, Mr. Singh is responsible for administering the project’s Quality Assurance/Quality Control Program. He provides oversight of all construction work, ensures QA/QC inspection, testing, and reporting per the VDOT Design-Build Manual, ensures work zone and construction safety. He is
also responsible for ensures staged E&S plans are followed and installed prior to work, responsible for E&S weekly reviews, providing lists of correctable E&S items, ensuring compliance with DEQ and Army Corps. of Engineers Permit, materials documentation. He is responsible for preparatory inspection and weekly VDOT/ QA/QC meetings, drafting/resolution/sign off on NCRs, providing/ensuring punch list completed and work to resolve deficiencies, specification interpretation, field changes and other related field/utility issues. The project scope includes three distinct project elements; construction of a grade-separated intersection at Route 29 and Rio Road; construction widening of 2.9 miles of Route 29; and construction of 2.9 miles of new alignment roadway parallel to Route 29.

### 2. I-95 Shoulder Widening, Prince William County, VA
**CES Consulting, LLC, Consultant Project Manager (3/2013 to 5/2015)**

**Responsibilities and Job Duties:** Mr. Singh was responsible for managing the owner’s inspection staff, drafted all project correspondence, work orders, schedule reviews, ensured quality inspection, material testing, and reporting, and approving contractor estimates. He was also responsible for resolving field issues, coordination with multiple adjacent contractors and utilities. He ensured interstate work zone setups were safe and per VAWAPM, ensured E&S compliance and DEQ permit compliance. Coordinated relocation of government fiber line that was in the project footprint. The project scope was comprised of shoulder widening for 7 miles on I-95 and included drainage work, roadway construction items, extensive interstate roadway lighting, overhead signs, fiber relocation and other related work.

### 3. I-66/Route 29/Linton Hall Interchange Advance Detour Project, Prince William County, VA
**Virginia Department of Transportation, Area Construction Engineer (6/2009 to 10/2010)**

**Responsibilities and Job Duties:** Mr. Singh was responsible for overseeing project inspection staff. He was responsible for working with utility owners, resolving conflicts in the field by working with Prince William County utility engineers, and the contractor; he drafted and approved work orders, coordinated as-builts for the future interchange project and ensured proper inspection, material testing, and reporting. He worked closely with commercial stakeholders including the Virginia Gateway to ensure minimal disruption to their businesses and ensured safety of public travelling through the project limits. He also provided public outreach via HOA meetings, Kiwanis and Rotary clubs, and other community events during development of future interchange planning. The project scope included managing all aspects of utility relocation for the future interchange project and demolition of all abandoned structures left from right of way purchases and also included construction of detour roads for future interchange.

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. **Not applicable for this position**
**ATTACHMENT 3.3.1**  
**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title: Jeremy Beck, PE, Senior Associate</td>
</tr>
<tr>
<td>b. Project Assignment: Design Manager (DM)</td>
</tr>
<tr>
<td>c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part time) Dewberry Consultants LLC – Full Time</td>
</tr>
</tbody>
</table>
| d. Employment History: With this Firm 15 Years With Other Firms 0 Years  
Please list chronologically (most recent experience 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 Consultants LLC, Project Manager/Roadway Design Engineer, 2002 to Present**  
Jeremy is responsible for managing design aspects of design-build and design-bid-build transportation related projects. His general responsibilities include overseeing activities of multi-disciplined engineering project teams ensuring conformance with contract documents; interacting with local, state, and federal agencies; formulating alternative technical concepts; leading geometric and hydraulic plan development; directing traffic studies and analysis; integrating structural components; coordinating environmental issues; guiding public information processes; facilitating constructability reviews; developing and accessing cost estimates as well as project budgets; coordinating land acquisition and utility relocation activities; establishing and overseeing quality control and quality assurance reviews; and managing sub-consultants.  

- Route 606 Bridge Replacement over I-95 with 606 Improvements Design-Build ($16.4M), 12/2016 to 9/2019 – Design Manager  
- Dulles Corridor Metrorail, Silver Line Phase 2 ($325M), 6/2013 to 11/2015 - West Segment Design Manager  
- University Boulevard Extension Design-Build ($32M), 8/2010 to 12/2013 – Design Manager  
- Route 7/River Creek Parkway Interchange ($24M), 7/2006 to 11/2010 – Design Manager  
- Salem and Edinburg Bridge Bundles ($21M), 10/2013 to 12/2020 – Roadway Design Manager  
- Spotsylvania County Design-Build ($10M), 10/2008 to 10/2015 – Design Manager  
- Harbor Station Parkway (Potomac Shores Parkway), 5/2005 to 12/2008 – Design Manager  

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:  
The Pennsylvania State University, State College, PA/B.S./2002/Civil Engineering  
f. Active Registration: Year First Registered/ Discipline/VA Registration #:  
2009/Professional Engineer/Virginia #0402043254  
2013/Advanced Work Zone Traffic Control Training, #102210780  
g. Document the extent and depth of your experience and qualifications relevant to the Project.  
1. Note your role, responsibility, and specific job duties for each project, not those of the firm.  
2. Note whether experience is with current firm or with other firm.  
3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.  
(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.)  

1. Dulles Corridor Metrorail Project – Silver Line Phase 2 - Loudoun County, VA  
Dewberry Consultants LLC, West Segment Design Manager (6/2013 to 11/2015)  
**Responsibilities and Job Duties:** Jeremy was responsible for the delivery of plans for approximately $325 million of design and construction which included 5.5 miles of freeway widening and reconstruction, numerous secondary road improvements, several track bridges - one of which crossed over the Dulles Greenway (Route 267), 11 miles of track retaining walls, roadway drainage elements as well as numerous stormwater management facilities. Two new at-grade stations and park and ride facilities, pedestrian bridges as well as wayside facilities including tie-breaker stations and traction power substations were included in the overall design. Jeremy led and coordinated civil design efforts with MWAA, WMATA, VDOT, Loudoun County, and Toll Road Investors Partnership II in addition to numerous private developers and land owners which included transitioning the project from Part II-C to Part II-B stormwater management requirements. He
attended weekly meetings with MWAA, VDOT and Loudoun County where numerous items were reviewed and resolved in order to continuously advance the project. He served as the point of contact between the design-build team and the various public agencies, managed numerous subconsultants and DBE’s, ensured timely delivery of studies, reports and project plans, oversaw design quality control activities and provided construction engineering support. Jeremy coordinated with Shirley Contracting Company, LLC (part of the design-build team) regarding the design and construction of widening to the Dulles Greenway, improvements to secondary roads as well as the study and coordination of new park and ride facilities. The coordination also required vetting ideas relating to structural elements, complex, multi-phase traffic control plans, challenging sub-surface conditions and unique construction techniques. Environmental, utility, and right-of-way impact avoidance, minimization and coordination were key aspects of the design which Jeremy oversaw.

2. **Route 606 Bridge Replacement over I-95 with 606 Improvements Design-Build, Spotsylvania County, VA**

**Dewberry Consultants LLC, Design Manager (12/2016 to 9/2019)**

**Responsibilities and Job Duties:** Jeremy is responsible for the delivery of project plans for the $16.4 million design-build project which included the widening and re-alignment of 1,700-feet of Route 606 including the connections with and improvements to Mallard Road and Dominion Raceway Avenue, as well as the construction of three new traffic signals. The construction of a new bridge over I-95, adjacent to a structurally deficient bridge, requires extensive coordination and study of sub-surface and structural elements to address down drag and settlement issues. Roadway drainage, adequate outfall, pedestrian features, overhead and underground utility relocations, right-of-way acquisition coordination, and construction engineering support are all necessary. Jeremy directs and organizes across-the-board design efforts with VDOT including an Interchange Modification Report, Public Hearing processes, and Limited Access adjustment procedures. He manages a wide range of project elements. Traffic analyses to geotechnical studies, and rutting impacts to a Virginia Outdoor Foundation easement. He directs several sub-consultants, attends regular meetings with Shirley Contracting Company, LLC, VDOT, and interested third parties, ensures timely submission of deliverables, certifies adherence to QAQC procedures, and will provide construction engineering support. During procurement Jeremy helped to formulate an alternate interchange configuration which consisted of an offset diamond interchange that enhances traffic operations, reduces overall impacts, and remains within the original project limits while continuing to satisfy the purpose and need of the improvement. Jeremy oversees the development of multi-phase traffic control plans, E&S control plans, drainage enhancements, an overpass of a highly traveled corridor (I-95), and pedestrian & bicycle facilities. Jeremy also directs efforts needed for water and sewer relocation and betterment designs. He coordinates with multiple stakeholders, ensures the accuracy of environmental permitting activities, coordinates right-of-way elements, and manages a multi-disciplined design team and sub-consultants.

3. **Route 7/Rivercreek Parkway Interchange, Loudoun County and Town of Leesburg, VA**

**Dewberry Consultants LLC, Design Manager (7/2006 to 11/2010)**

**Responsibilities and Job Duties:** Jeremy was responsible for overall interchange planning, conceptual design, alternative analysis, final delivery of plans, and construction coordination for the $24 million diamond interchange. The project was located directly on the boundary between Loudoun County and the Town of Leesburg, within existing public right-of-way, and was completely paid for by a private developer. The project involved the widening of Route 7 for approximately one mile including the removal of two traffic signals, realigning 1.3 miles of Rivercreek Parkway including four new intersections, and bridges over Route 7 and an existing gas transmission line. Noise analysis, coordination with the public, major box culvert extensions, protection and avoidance of existing utilities, 2,000-feet of 36-inch sanitary sewer effluent force main relocation, drainage and stormwater management facilities, pedestrian features, overhead and underground private utility relocations, landscaping plans, as well as permit and right-of-way acquisition were all required. Jeremy represented the private developer on design and permitting related issues and coordinated comprehensive development activities with the Town of Leesburg, Loudoun County, VDOT, adjacent developers and provided construction support to Shirley Contracting Company, LLC. He managed numerous sub-consultants, attended weekly meeting with project stakeholders, conducted public hearing activities, and coordinated with homeowners associations. The privately financed project included the widening of a highly traveled divided roadway (Route 7) with high rear-end crash rates, intersection reconfigurations, and secondary road improvements including significant retaining walls adjacent to existing homes. Jeremy spearheaded interaction with the public regarding the interchange configuration and operation, noise attenuation, as well as lighting and landscaping elements. He oversaw design of hydraulic elements, pedestrian and bicycle facilities, and other infrastructure related items such as multi-phase traffic control plans, E&S control plans, as well as signing and pavement marking design. Jeremy coordinated the design of a bridge which eliminated an impact to an existing gas transmission line in addition to completing the design associated with public utility betterments and relocations.

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.
# Key Personnel Resume Form

**Brief Resume of Key Personnel anticipated for the Project.**

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Bryan Shillingburg, Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Construction Manager (CM)</td>
</tr>
<tr>
<td>c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part time):</td>
<td>Shirley Contracting Company, LLC - Full Time</td>
</tr>
</tbody>
</table>
| d. Employment History: | Shirley Contracting Company, LLC, Superintendent, 2007 – Present  
- Route 7 and Route 659 Interchange ($48M) 9/2015 to 2/2019-Superintendent  
- I-64 Exit 91 Interchange Improvement Design-Build, ($21M) 7/2013 to 12/2015 - Superintendent  
- Fort Belvoir Main Post Infrastructure - Phase II, ($35M) 7/2010 to 11/2012 - Superintendent  
- Pacific Boulevard Design-Build, ($19M) 7/2008 to 8/2010 - Superintendent  
- Route 28 Corridor Improvements PPTA/Design-Build, ($445M) 11/2007 to 7/2013 - Superintendent  
| e. Education: | N/A |
| f. Active Registration: | DCR Responsible Land Disturber (RLD) RLD41309  
VDOT Erosion and Sediment Control Certified Contractor ESCCC-3-00186 |
| g. Document the extent and depth of your experience and qualifications relevant to the Project. | 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.  
2. Note whether experience is with current firm or with other firm.  
3. Provide beginning and end dates for each project, projects older than fifteen (15) years will not be considered for evaluation.  
(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)  
1. Route 7 and Route 659 Interchange - Leesburg, VA  
Shirley Contracting Company, LLC, Project Superintendent (9/2015 - 2/2019)  
**Responsibilities and Job Duties:** Bryan is responsible for overall management of all construction operations for the $48 million project in Leesburg to widen Route 659 to 4-lanes from Gloucester Parkway to Promenade Drive, and create a grade-separated interchange carrying Route 659 over Route 7. His duties include conducting regular jobsite safety meetings; public notifications/awareness and ensuring compliance with the Contract documents, Specifications and Standards. His daily tasks also include coordination and scheduling of the work including material deliveries, rental equipment, trucks, Shirley’s crews and subcontractors. Bryan plans and coordinates lane closures and communicates with Loudoun County, VDOT, and consultant inspectors for quality control and quality assurance inspections. He ensures timely submission of shop drawings, RFI’s, Request for Owner Action (ROA’s), Request for Contractor Action (RCA’s), Traffic Control Plans, Structural Steel Erection Plans, materials documentation, EEO documentation, pay requests, and reconciliation of daily quantities. |
2. I-64 Exit 91 Interchange Improvement Design-Build - Fishersville, VA  
Shirley Contracting Company, LLC, Project Superintendent (7/2013 to 12/2015)  

**Responsibilities and Job Duties:** Bryan was the Superintendent for this $21 million Design-Build Project to construct a grade separated interchange over I-64. Reporting to the Construction Manager, Bryan was responsible for day-to-day coordination and scheduling of all work activities on site, management of self perform forces and subcontractors, and coordinating material deliveries. Bryan ensured that the project was constructed in accordance with approved plans and updated/monitored the Project schedule. Bryan managed the overall erosion and sediment control measures, daily maintenance of traffic operations, and provided a strong emphasis on the safety for all employees and the traveling public.

3. Fort Belvoir Main Post Phase Infrastructure - Phase II - Fort Belvoir, VA  
Shirley Contracting Company, LLC, Project Superintendent (7/2010 to 11/2012)  

**Responsibilities and Job Duties:** As the Superintendent, Bryan was responsible for management of construction operations for the $35 million project in Fort Belvoir to widen Gunston Road to 4-lanes from 12th Street to John J. Kingman Road, replace an existing 3-span steel bridge crossing over Route 1 with a new wider and longer bridge, upgrade and install new storm water management systems, and upgrade existing watermain infrastructure extending the system throughout the work corridor. Bryan was responsible for day-to-day coordination and scheduling of all work activities on site, management of self perform forces and subcontractors, and coordinating material deliveries. Bryan ensured that the project was constructed in accordance with approved plans and that construction was being completed in accordance with the project schedule. Bryan managed the overall project erosion and sediment control measures, daily maintenance of traffic operations, and provided a strong emphasis on the safety for all the project’s employees and the traveling public.

*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. **Bryan is currently assigned to the Route 7 and Route 659 Interchange Project as the Superintendent. The project is anticipated to be completed by September 2018-ahead of schedule and will therefore be available to be onsite full time for the duration of construction of the Warrenton Southern Interchange.**
3.4.1 - Work History Forms
a. Project Name & Location
b. Name of the prime design firm identified by the 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 Per Project (LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>Name</th>
<th>Route 27/244 Interchange Modifications</th>
<th>Location: Arlington, Virginia</th>
<th>Name: Dewberry Consultants LLC</th>
<th>Name of Client/Owner: Virginia Department of Transportation</th>
<th>Project Manager: Christina Briganti-Dunn, PE, CCM</th>
<th>Phone: 703-250-2960</th>
<th>Email: <a href="mailto:christiana.briganti@vdot.virginia.org">christiana.briganti@vdot.virginia.org</a></th>
<th>Original Contract Value</th>
<th>Final or Estimated Contract Value</th>
<th>Original Contract Value</th>
<th>Final or Estimated Contract Value</th>
</tr>
</thead>
</table>

**Shirley’s Role:**

As the Design-Build and Lead Contractor, Shirley was responsible for managing and oversight of construction, including design and engineering, right-of-way acquisitions, permitting, utility relocations, public outreach, overall Project administration and construction management, and QA and QC. Lane restrictions were coordinated by Shirley with VDOT to allow for public notifications of impacts to traffic. Shirley was the primary point of contact with the Owner in public relations and getting notices out to traveling motorists, businesses, homeowners and local politicians. Shirley was also responsible for creating and monitoring the schedule throughout design and construction.

**Verifiable Evidence of Good Performance:**

1. The project received the 2016 DBIA National Award of Merit, and Excellence in Engineering, as well as the 2016 HCCA Award for Excellence in Infrastructure.
2. To address stakeholder concerns, our Team engaged regularly with the community through meetings where concerns were discussed and solutions were offered. As a result, we changed the sequence of construction to eliminate planned night work that was allowed by the contract. Also, the Team modified the design which resulted in changes to the planned Maintenance of Traffic (MOT). This resulted in a reduction of impacts to neighboring residential communities and to an adjacent hotel. The Team’s response to the community concerns was above and beyond what was required by the contract and is an example of how we provided value to the Owner and stakeholders.
3. The presence of Potomac Formation clays and silts presented problems with slope instability and excessive shrink/swell characteristics. Increasing the complexity of these subsurface materials where the planned fill slopes and varying height retaining walls, up to 25’, required to widen the existing roadways. Our Team selected the most cost effective alternatives. For global stability concerns at fill slopes, H-piles were driven at 6’ spacing to achieve the required factor of safety for stability. To save costs, we coordinated the design of temporary shoring systems at the bridge approaches so shoring piles could be left in place and double as global stability piles. At larger fills where settlement was a concern, we reduced loading on compressible materials through the use of lightweight cementitious fill for the embankment and retaining wall backfill. The material reduced the total loading and expected settlement on the compressible clay layers by more than 50%. It also eliminated the need for long settlement wait times during construction enabling the project to proceed on schedule and budget.
4. The Project scope also included modifications to the interchange ramps to improve safety and address multi-modal transportation issues. Our Team worked closely with VDOT to optimize the ramp alignment while balancing the need to upgrade the existing interchange to current design standards with the need to minimize the right-of-way impacts outside of the current right urban footprint. Through this effort our Team was able to eliminate design exceptions and 21 of the 32 design waivers that VDOT’s RFP indicated would be required. The Project was completed on schedule.

**Similarities To Warrenton Southern Interchange:**

- Design-Build Delivery
- Primary Roadway Widening
- Ramp Modifications
- Phased Construction
- Maintenance of Traffic – Diversion Roadway
- Right-of-Way Acquisition
- Environmental Permitting
- Utility Relocations & Avoidance
- Quality Assurance/Quality Control
- Transportation Management Plan – Temporary Signals
- Public Involvement and Outreach
- Pedestrian and Shared Use Path
- Worked with Lead Designer – Dewberry

**Project Scopes:**

- Bridge construction including decorative parapets and abutment walls
- Ramp Modifications
- Widening of Columbia Pike
- Reconfiguration of interchange ramps
- Signaling of three intersections
- Overhead signal structures
- Shared use path
- Retaining walls
- 10’ x 10’ Double Box culvert
- Drainage structures
- Sound Barrier Wall
- Storm Water Management

**Warrenton Southern Interchange:**

A Design-Build Project
**ATTACHMENT 3.4.1(a)**

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

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-66/Route 29/Linton Hall Interchange</td>
<td>Dewberry Consultants LLC</td>
<td>Virginia Department of Transportation</td>
<td>6/2015</td>
<td>9/2015*</td>
<td>$74,389</td>
<td>$78,087*</td>
</tr>
<tr>
<td>Location: Prince William County, Virginia</td>
<td>Project Manager: Mehrdad Naderi</td>
<td>Phone: 703-259-2217</td>
<td>*Difference Due to Owner added scope</td>
<td>*Difference Due to Owner added scope</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name of Client/Owner: Interchange LLC</td>
<td>Email: <a href="mailto:mehrdad.naderi@vdot.virginia.org">mehrdad.naderi@vdot.virginia.org</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor: Shirley Contracting Company, LLC</td>
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</tbody>
</table>

**Project Narrative:**

The Virginia Department of Transportation (VDOT) awarded Shirley Contracting Company, LLC (Shirley) the I-66/Route 29/Linton Hall Interchange Improvements Project in Gainesville, Virginia. The $76 million project included a pair of overpasses: one carrying Route 29 over the Norfolk Southern Railroad, and one carrying Linton Hall Road and John Marshall Highway over the railroad and Route 29. To further improve traffic flow, Shirley widened Route 29 to 6-lanes and eliminated driveway entrances and two traffic signals between I-66 and Virginia Oaks Drive. The new, grade-separated interchange at Route 29/Linton Hall Road created a limited-access facility on Route 29 between Virginia Oaks Drive and Heathcote Boulevard. The phased construction also included construction and removal of several traffic detours during construction; over $1 million of earthwork operations including 105,000 cubic yards of excavation and 947,000 cubic yards of embankment; ground improvements; storm water and water utility installation and relocation(s); approximately 59,100 tons of aggregate base; 123,500 tons of asphalt; signal installation/modifications; roadway lighting, TMS and signage; concrete crash walls; 10 MRE retaining walls consisting of approximately 288,000 SF; and signage.

A schedule challenge was the erection of 172 prestressed concrete girders over the active Norfolk Southern Railway for bridges that spanned the rail. Being unable to alter any train schedules to perform this work, our Team developed a plan which allowed for all equipment to be located outside the active track area. Working closely with Norfolk Southern, we identified a time when there were only two trains during a 10 hour period. Unfortunately, these two trains were critical for Norfolk Southern. Knowing that we could manage the schedule daily, we elected to utilize this 10 hour period as our erection window. Crews successfully completed the erection of all girders without delay or impact to the Norfolk Southern system. We also combined the two phases of construction and accelerated construction of those phase from three months each to four weeks total. These final phases consisted of connecting two ramps across an existing detour road.

**Project Scope:**

- Four new bridges
- Retaining walls
- TMS and signage/installation
- Concrete crash walls
- Roadway lighting
- Precast concrete panels
- Traffic Control
- Guardrail
- Pedestrian sidewalk
- Utility relocation/installation
- Traffic detours

**Shirley’s Role:**

As the General Contractor, Shirley was responsible for management and oversight of all construction operations, project administration and construction management, and QA/QC. All construction work was performed on a heavily traveled roadway. Lane restrictions were coordinated by Shirley with VDOT to allow for public notifications of impacts to traffic. Shirley was the primary point of contact with the Owner in public relations and getting notices out to traveling motorists, businesses, home-owners and local politicians. Shirley was also responsible for creating and monitoring the schedule throughout design and construction.

**Verifiable Evidence of Good Performance:**

1. The rail lines were at high skews to traffic flows on both Route 29 and Route 55, which resulted in span lengths of the structures being reduced to lengths so that prestressed concrete girders could be utilized instead of steel girders. If the girders were placed parallel to traffic flowing over top of the railroad, the bridge span distance would have been increased over 10 times of that as designed and constructed. This would have created larger bridge structures that would have to be constructed and maintained. The use of prestressed concrete girders also resulted in lower maintenance costs and longer service life for the bridges. Since the bridge girders were on a large skew to traffic flowing over the new bridges, unusual construction techniques had to also be utilized in placing the bridge deck slabs due to the variations in bolsters over the beams so that a smooth uniform riding surface was constructed for traffic. Overall, this innovative approach to the bridge spans being constructed perpendicular to the rail lines resulted in significantly smaller spans, smaller overall structures, and reduced maintenance and increased service life.

2. The project received the 2015 National Asphalt Paving Association Award for Quality in Construction. Its phased construction required extensive coordination and detailed oversight of intricate construction elements to avoid issues as the phases of construction progressed all the while maintaining a high quality project.

3. The project has improved traffic flow with smooth riding courses, reduced congestion, improved both motorists and pedestrian safety, and is aesthetically appealing.

4. The Teams public outreach efforts included “pardon our dust” meetings with local community associations to provide updates on the Project and upcoming traffic impacts. Variable message signs were also used to give advance notification to the traveling public on traffic shifts and project milestones. The Team also communicated directly with the adjacent property owners and businesses about construction that would impact them as needed. They also coordinated outreach to county officials and supervisors on a quarterly basis and prior significant traffic switches.

**Warrenton Southern Interchange**

**Similarities To Warrenton Southern Interchange:**

- Road and Bridge Construction
- Signalization/Modifications
- Maintenance of Traffic
- Phased Construction
- Utility Relocations & Avoidance
- Transportation Management Plan
- Public Involvement and Outreach
- Third Party Stakeholder Communication & Coordination
- Temporary Detour Roadways
- Grade Separated Interchange

**Project Scope:**

- Four new bridges
- Retaining walls
- TMS and signage/installation
- Concrete crash walls
- Roadway lighting
- Precast concrete panels
- Traffic Control
- Guardrail
- Pedestrian sidewalk
- Utility relocation/installation
- Traffic detours

**Warrenton Southern Interchange**

**JACKSON COUNTY, VIRGINIA**

**A DESIGN-BUILD PROJECT**
<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design firm identified as the Lead Contractor for this project design.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairfax County Parkway, Phase III</td>
<td>Shirley Design-Build, LLC, with Shirley Contracting Company, LLC as the Lead Contractor and Dewberry Consultants LLC as the Lead Engineer, was selected by the Eastern Federal Lands Highway Division of the Federal Highway Administration (EFLHD FHWA) in September 2009 to design and construct the Fairfax County Parkway Phase III Project.</td>
</tr>
</tbody>
</table>

**PROJECT NARRATIVE:**

*Shirley Design-Build, LLC, with Shirley Contracting Company, LLC as the Lead Contractor and Dewberry Consultants LLC as the Lead Engineer, was selected by the Eastern Federal Lands Highway Division of the Federal Highway Administration (EFLHD FHWA) in September 2009 to design and construct the Fairfax County Parkway Phase III Project. The project included the modification of the southern half of the Fairfax County Parkway/Franconia Springfield Parkway/Rolling Road Interchange including widening the ramp carrying southbound Fairfax County Parkway to 2-lanes, constructing a loop ramp from southbound Fairfax County Parkway to Rolling Road, and reconstructing and realigning the ramp from northbound Fairfax County Parkway to Franconia Springfield Parkway. The Project also included the complete reconstruction and widening of 0.5-mile of Fairfax County Parkway from Franconia Springfield Parkway to the South, and the realignment of Hoos Road and Rolling Road including a new 2-span 220 foot long bridge over Fairfax County Parkway. During the proposal preparation phase, our team proposed an alternate design concept that included realignment of the ramps in the south east quadrant of the interchange and their connections to Rolling Road, Hoos Road and Barker's Court. The revised design concept eliminated a five legged intersection and provided an improved alignment and higher capacity for the ramp from northbound Fairfax County Parkway to Franconia Springfield Parkway, which carried the highest traffic volumes at the intersection. Other changes to the design concept included modifications to the proposed alignment of Fairfax County Parkway and Rolling Road that resulted in significantly reduced right-of-way impacts to Fort Belvoir. As a result of these design and construction changes, our team prepared and obtained approval of a revised environmental document. This process required a great deal of public outreach and coordination with permitting agencies, Fairfax County Board of Supervisors, VDOT, and FHWA. The revised environmental document was completed during the design phase with no delay to the construction allowing for the completion of all of the original contract scope ahead of the July 2012 original contract completion date. |

**SIMILARITIES TO WARRENTON SOUTHERN INTERCHANGE:**

- Design-Build Delivery
- Roadway Construction & Widening
- Structures and Bridges
- Environmental Permitting
- Geotechnical Challenges
- MOT Operations
- Quality Assurance & Quality Control
- Utility Relocations
- Public Involvement/Relations
- Pedestrian Accommodations
- Park & Ride Facility
- Temporary Signalization
- Worked with Lead Designer – Dewberry
- Proposed Key Personnel on this Project:
  - Joe Fragale

**PROJECT SCOPE:**

- Modification of existing interchange
- Roadway and ramp widening
- New 2-span 220′ long bridge over limited access facility
- Environmental mitigation
- 2 SWM Ponds
- 3 New Signals
- 3 Noise Barriers
- Sidewalk and shared use path
- 535 Space Park and Ride Lot
- Lighting
- Extensive landscaping

**SHIRLEY’S ROLE:**

As the Lead Contractor, Shirley was responsible for all aspects of the design and construction of the Project, including environmental permitting, utility relocations, right-of-way acquisitions, public relations and stakeholder coordination, construction, safety, and quality assurance and quality control.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:**

1. Our team held a public hearing and met individually with all adjacent home owners associations. The extensive public outreach completed during the design highlighted the intense public interest and set the stage for a detailed public relations effort. We also maintained a project website that provided monthly updates to the schedule, notices, and photos of ongoing construction activities. Additionally, we sent mailings of notices for meetings and traffic detours, and we held regular public meetings to keep the public informed of the project's status.

2. The Project also provided our team with the opportunity to gain experience with the local geology and existing conditions in the area of the Project. During the project, FHWA, VDOT and our team identified a concern with the original design concept that provided a single lane exit to southbound Fairfax County Parkway that then opened to 2-lanes on the ramp. Noting that the traffic volumes are higher for southbound Fairfax County Parkway movement, we recommended the design concept to the Fairfax County Parkway to Franconia Springfield Parkway through movement, the team agreed to modify the final signage and striping to provide a dual lane exit for Fairfax County Parkway. Our Team provided a plan revision that also included some construction modifications to the gore and additional overhead sign structures to accommodate innovative construction techniques such as improved alignment, and road safety features.

3. During the final year of the project, EFLHD FHWA and our team agreed on a change order to design and construct the Saratoga Park and Ride Facility at the Fairfax County Parkway/Barta Road Interchange. The change order extended the contract completion date for only the added scope of work. This scope included construction of a 235 space parking lot, bus loop with shelters, new signal at Barta Road, lighting, new ramp to Fairfax County Parkway, and modification of an existing SWM Pond. Our Team held a public hearing for the Park and Ride Facility and completed the design, environmental permitting, and construction of the facility in just 11 months.
**PROJECT NARRATIVE:**
Dewberry’s Fairfax, Virginia office completed the preliminary and final design for the Virginia Department of Transportation to complete the widening of I-66 between Manassas (Exit 47, Route 234 Business) and Gainesville (Exit 43, Route 29). Dewberry had a single design contract for the design of all elements of this project which was broken into five construction contracts based on funding availability. The project included the following elements:

- **Widening of I-66 for over 4-miles from 4 to 8-lanes, including one HOV lane in each direction;**
- **Ramp modifications at the Route 234 Business Interchange;**
- **Ramp modifications at the Route 234 Bypass Interchange;**
- **Complete reconstruction of the Route 29 Interchange in Gainesville; and**
- **Traffic analysis and modeling for additional improvements in Gainesville to improve the operation of I-66.**

As part of preliminary design for the I-66/Route 29 Interchange, traffic analysis, projections and modeling indicated that a new interchange was necessary at the Route 29 intersection with Linton Hall Road along with the need to eliminate at-grade railroad crossings on Route 29 and Gallerher Road. Additionally, the scope included a new local road connection (University Boulevard) between Route 29 and Wellington Road, including a new overpass of I-66 and Norfolk Southern Railroad. Dewberry completed final engineering services for both the University Boulevard and I-66/Route 29/Linton Hall Road Interchange, each of which was completed as a stand-alone construction contract.

Due to funding constraints, construction plans were separated into five plan packages and construction phases. The widening of I-66 was separated into two plan sets and advertised in stages, and the Route 29/Linton Hall Road Interchange, including University Boulevard, was advertised in three construction packages. Dewberry worked with VDOT to identify appropriate packaged elements so that phased improvements and added capacity could be completed as quickly as possible.

**PROJECT SCOPE:**
- **Field surveys**
- **Geotechnical investigations**
- **Environmental permit plate preparation**
- **Traffic and operational analysis and documentation (IJR)**
- **Wayway design, including more than 4 miles of interstate widening**
- **Structural design, including ten new interchange bridges**
- **Traffic management system (TMS)**
- **TMP and complex temporary traffic control plan design**
- **Lighting and electrical design and traffic signal design**
- **Public meeting preparation, attendance, and support**
- **Coordination with Norfolk Southern Railroad**

**SIMILARITIES TO WARRENTON SOUTHERN INTERCHANGE:**
- Field Survey and Base Mapping
- Environmental Permitting
- Roadway Design
- New Interchange on Route 29
- Improvements in close proximity to existing development and existing at-grade roadways
- Pedestrian and bicycle facilities
- Hydraulic Design
- Traffic Engineering Design
- Signing, Marking, Lighting, Multi-staged TTC
- Temporary traffic signals
- Temporary Diversion (Detour) Roadways
- Aesthetic enhancements (landscaping, architectural treatments)
- Public Involvement/Communication
- Quality Assurance/Quality Control
- Worked with Lead Contractor - Shirley

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:**
1. **Awarded the 2015-2016 ACEC of Metropolitan Washington Engineering Excellence Merit Award in Design for Phase IV of the project.**
2. **Each Phase of the project was delivered on-time with successful construction bids received below the Engineer’s estimate.**
3. **During construction, it became apparent that conditions of several bridges which were intended to be minimally rehabilitated (deck overlays and widenings) had deteriorated to the point that more significant improvements were required. Dewberry was issued a contract modification to complete designs for the complete reconstruction of the bridge decks (including structural steel) and replacement of all bridge pier. Plans were developed during construction and coordinated with the Shirley Team ensuring construction schedules were not impacted. Plans were issued as a construction revision, and reconstruction was able to be completed without delaying the project schedule.**

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

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate 66 Improvements</td>
<td>Ph. I General Excavation Ph. II Moore Brothers Ph. III Shirley Contracting Ph. IV General Excavation Ph. V Shirley Contracting</td>
</tr>
<tr>
<td>Location: Prince William County, VA</td>
<td>Name of Client: VDOT Northern Virginia District Office Project Manager: Amir Salahshoor, PE</td>
</tr>
<tr>
<td>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</td>
<td>Phone: 703-259-1957 Email: <a href="mailto:A.Salahshoor@vdot.virginia.gov">A.Salahshoor@vdot.virginia.gov</a></td>
</tr>
<tr>
<td>e. Construction Contract Completion Date (Actual or Estimated)</td>
<td>6/2004</td>
</tr>
<tr>
<td>f. Contract Value (in thousands)</td>
<td>$215,000 (Estimated)</td>
</tr>
<tr>
<td>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</td>
<td>$10,007</td>
</tr>
</tbody>
</table>

**PROJECT NARRATIVE:**
Dewberry’s Fairfax, Virginia office completed the preliminary and final design for the Virginia Department of Transportation to complete the widening of I-66 between Manassas (Exit 47, Route 234 Business) and Gainesville (Exit 43, Route 29). Dewberry had a single design contract for the design of all elements of this project which was broken into five construction contracts based on funding availability. The project included the following elements:

- **Widening of I-66 for over 4-miles from 4 to 8-lanes, including one HOV lane in each direction;**
- **Ramp modifications at the Route 234 Business Interchange;**
- **Ramp modifications at the Route 234 Bypass Interchange;**
- **Complete reconstruction of the Route 29 Interchange in Gainesville; and**
- **Traffic analysis and modeling for additional improvements in Gainesville to improve the operation of I-66.**

As part of preliminary design for the I-66/Route 29 Interchange, traffic analysis, projections and modeling indicated that a new interchange was necessary at the Route 29 intersection with Linton Hall Road along with the need to eliminate at-grade railroad crossings on Route 29 and Gallerher Road. Additionally, the scope included a new local road connection (University Boulevard) between Route 29 and Wellington Road, including a new overpass of I-66 and Norfolk Southern Railroad. Dewberry completed final engineering services for both the University Boulevard and I-66/Route 29/Linton Hall Road Interchange, each of which was completed as a stand-alone construction contract.

Due to funding constraints, construction plans were separated into five plan packages and construction phases. The widening of I-66 was separated into two plan sets and advertised in stages, and the Route 29/Linton Hall Road Interchange, including University Boulevard, was advertised in three construction packages. Dewberry worked with VDOT to identify appropriate packaged elements so that phased improvements and added capacity could be completed as quickly as possible.

**PROJECT SCOPE:**
- **Field surveys**
- **Geotechnical investigations**
- **Environmental permit plate preparation**
- **Traffic and operational analysis and documentation (IJR)**
- **Wayway design, including more than 4 miles of interstate widening**
- **Structural design, including ten new interchange bridges**
- **Traffic management system (TMS)**
- **TMP and complex temporary traffic control plan design**
- **Lighting and electrical design and traffic signal design**
- **Public meeting preparation, attendance, and support**
- **Coordination with Norfolk Southern Railroad**

**SIMILARITIES TO WARRENTON SOUTHERN INTERCHANGE:**
- Field Survey and Base Mapping
- Environmental Permitting
- Roadway Design
- New Interchange on Route 29
- Improvements in close proximity to existing development and existing at-grade roadways
- Pedestrian and bicycle facilities
- Hydraulic Design
- Traffic Engineering Design
- Signing, Marking, Lighting, Multi-staged TTC
- Temporary traffic signals
- Temporary Diversion (Detour) Roadways
- Aesthetic enhancements (landscaping, architectural treatments)
- Public Involvement/Communication
- Quality Assurance/Quality Control
- Worked with Lead Contractor - Shirley

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:**
1. **Awarded the 2015-2016 ACEC of Metropolitan Washington Engineering Excellence Merit Award in Design for Phase IV of the project.**
2. **Each Phase of the project was delivered on-time with successful construction bids received below the Engineer’s estimate.**
3. **During construction, it became apparent that conditions of several bridges which were intended to be minimally rehabilitated (deck overlays and widenings) had deteriorated to the point that more significant improvements were required. Dewberry was issued a contract modification to complete designs for the complete reconstruction of the bridge decks (including structural steel) and replacement of all bridge pier. Plans were developed during construction and coordinated with the Shirley Team ensuring construction schedules were not impacted. Plans were issued as a construction revision, and reconstruction was able to be completed without delaying the project schedule.**

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**WARRENTON SOUTHERN INTERCHANGE US 15/17/29 FAUQUIER COUNTY, VIRGINIA A DESIGN-BUILD PROJECT**
<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 7 Westbound Truck Climbing Lane Design-Build</td>
<td>Shirley Contracting Company, LLC</td>
<td>Virginia Department of Transportation</td>
<td>11/2013</td>
<td>12/2015</td>
<td>$27,984</td>
<td>$28,780*</td>
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<tr>
<td>Loudoun County, Virginia</td>
<td>Project Manager: Sanjeev Suri, PE, PMP</td>
<td>Phone: 703-259-2232</td>
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<td>$1,984</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:Sanjeev.suri@vdot.virginia.gov">Sanjeev.suri@vdot.virginia.gov</a></td>
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<td></td>
<td>Location:</td>
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</tbody>
</table>

**PROJECT NARRATIVE:**

In 2013, the Shirley-Dewberry design-build Team was awarded the contract to construct a truck climbing lane along westbound Route 7 between the West Market Street Interchange and the Route 9 Interchange. In addition to the truck climbing lane, median access and intersection locations were modified or closed in order to improve the safety of the corridor, and new local roads were completed adjacent to Route 7 to maintain access to local communities and residential properties. The Route 9 Interchange was reconfigured to eliminate stop-controlled interchange ramp intersections and replace them with single-and multi-lane roundabouts, and the existing West Market Street Interchange was modified to accommodate new turning movements.

To further improve safety and operations at the Route 9 Interchange, the Washington and Old Dominion (W&OD) Regional Trail was reconfigured to eliminate at-grade, unsignalized crossings and incorporate a free-flow grade separated facility which now passes beneath Route 9 and an interchange ramp. To provide this new trail alignment, a new single-span arch structure was completed beneath one of the interchange ramps, and architectural treatments and landscaping were incorporated to mimic adjacent trail features and structural elements.

**PROJECT SCOPE:**

- **Design-Build Delivery**
- Field Survey and Base Mapping
- Environmental Permitting
- Geotechnical Investigations
- Roadway Design
- Double roundabout interchange
- Pedestrian and bicycle facilities, including the W&OD Trail, through the roundabouts
- Hydraulic Design
- Traffic Engineering Design
- Roundabout signing, marking & lighting
- Multi-staged TTC plans
- Traffic signal modifications
- Utility Relocation Design
- Aesthetic enhancements (landscaping, architectural treatments)
- Public Involvement/Communication
- Quality Assurance/Quality Control
- Worked with Lead Contractor - Shirley

**SIMILARITIES TO WARRENTON SOUTHERN INTERCHANGE**

- Design-Build Delivery
- Field Survey and Base Mapping
- Environmental Permitting
- Geotechnical Investigations
- Roadway Design
- Double roundabout interchange
- Pedestrian and bicycle facilities, including the W&OD Trail, through the roundabouts
- Hydraulic Design
- Traffic Engineering Design
- Roundabout signing, marking & lighting
- Multi-staged TTC plans
- Traffic signal modifications
- Utility Relocation Design
- Aesthetic enhancements (landscaping, architectural treatments)
- Public Involvement/Communication
- Quality Assurance/Quality Control
- Worked with Lead Contractor - Shirley

**Dewberry’s Role:**

As the Lead Designer, Dewberry’s Fairfax, Virginia office was responsible for completion of all engineering services required by the scope of the project. Additional services completed by Dewberry’s Fairfax office included field surveys and all environmental permitting and documentation. Dewberry also oversaw sub-consultant services to complete updated project aerial mapping, utility designations and test pits, geotechnical investigations, and pipe condition inspections and analysis.

During construction, Dewberry continued to attend public outreach meetings with the local community and regular progress meetings with VDOT and Loudoun County. Dewberry also reviewed all construction submittals, responded to construction RFIs, and completed permit monitoring as required by the environmental permits.

**The configuration of the Route 9 Interchange is virtually identical to the proposed Warrenton Southern Interchange, including the double roundabout configuration and incorporation of pedestrian facilities.** Lessons learned during design and construction will be directly applied and incorporated into the Warrenton Southern Interchange to ensure proper design and seamless construction and implementation. During design, Dewberry worked with VDOT to complete additional analysis of the roundabouts, and developed alternate concepts for both single lane and two-lane operations. Original contract requirements were to open the roundabouts in a single lane configuration, but construct the facilities to accommodate future 2-lane roundabout operation in the event that traffic volumes required the added capacity. Based on continued public outreach and additional analysis of the roundabouts, our Team and VDOT recognized the need to immediately open the roundabouts to 2-lane operations. Dewberry worked to update the plans for the 2-lane configuration, which was completed without delay to the project or additional impacts to the traveling public.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:**

1. All design related work for the project was completed on-schedule, including additional scope elements to provide additional landscaping adjacent to private properties along Route 7 and modify the roundabouts to provide 2-lane operations.
a. Project Name & Location  
Name: Route 27/244 Interchange Modifications  
Location: Arlington County, Virginia

b. Name of the prime/ general contractor responsible for overall construction of the project.  
Name: Shirley Contracting Company, LLC

c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.  
Name of Client/Owner: Virginia Department of Transportation  
Project Manager: Christiana Briganti-Dunn, PE, CCM  
Phone: 703-259-2960  
Email: christiana.briganti@vdot.virginia.org

d. Construction Contract Start Date  
3/2012

e. Construction Contract Completion Date (Actual or Estimated)  
9/2015$31,400  
*Difference Due to Owner added scope

f. Contract Value (in thousands)  
Construction Contract Value (Actual or Estimated)  
$32,550  
*Difference Due to Owner added scope

$2,102

g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the 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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

PROJECT NARRATIVE:
In 2011, the Design-Build Team of Shirley Contracting and Dewberry was awarded the contract for the Route 27/244 Interchange Modifications in Arlington. The primary purpose of the project was to replace the existing concrete arch structure built in the 1940’s which carried Washington Boulevard (Route 27) over Columbia Pike (Route 244). As part of the bridge reconstruction, the interchange was reconfigured to remove back-to-back loop ramps, improve roadway and ramp geometry (both vertical and horizontal), and incorporate pedestrian facilities all in an effort to improve safety and operations while also accommodating future expansion on Columbia Pike. In addition to the bridge and interchange improvements, project elements included relocation of water and sewer facilities, drainage and stormwater management improvements, a new noise barrier, retaining walls, geotechnical ground improvements, three new or reconfigured traffic signals, removal of one traffic signal, overhead sign installation, roadway lighting, and shared use path and sidewalk facilities.

One of the most challenging aspects of the project was the existing 10’x7.5’ box culvert which conveyed Long Branch through the interchange and was in direct conflict with the proposed bridges. To meet hydraulic capacity requirements, a new double 10’x10’ box culvert was designed to pass below the new bridges while avoiding the existing and proposed bridge foundation elements. Our Team developed an alternate culvert alignment which reduced impacts to motorists and open cut installations within close proximity to numerous utilities, and also allowed for the reconfiguration and realignment of the outfall channel which helped to address existing flooding and erosion issues experienced by adjacent homeowners and residents.

PROJECT SCOPE:
- Bridge construction including decorative parapets and abutments  
- Memorial pylons at bridge corners and haunched girders with two-tone paint  
- Widening of Columbia Pike  
- Reconfiguration of interchange ramps  
- Signalization of three intersections  
- Overhead sign structures  
- Shared use path & sidewalk facilities  
- Retaining walls & noise barrier  
- Drainage improvements including double 10’x10’ box culvert  
- Storm Water Management  
- Utility relocations including communication, power, water & sewer facilities

Dewberry’s ROLE:
As the Lead Designer, Dewberry’s Fairfax, Virginia office was responsible for completion of all engineering services required by the scope of the project, as well as oversight of all design sub-consultants for completion of aerial mapping, utility designations and test pits, geotechnical investigations, and noise analysis. Dewberry also provided all environmental permitting and documentation services, and was responsible for all completion of all field surveys necessary for final design. During construction, Dewberry continued to attend public outreach meetings with the local community and regular progress meetings with VDOT and Arlington County. Dewberry reviewed all construction submittals, responded to construction RFIs, and completed permit monitoring as required by the environmental permit requirements.

As part of the RFP package, 7 design exceptions and 3 design waivers had been approved and an additional 34 waivers and exceptions were identified to be obtained by the design-builder. During preliminary and final design, Dewberry worked to implement design modifications to reduce the number of additional waivers and exceptions necessary while avoiding additional right-of-way acquisitions or environmental impacts. By incorporating minor geometric enhancements, we were able to eliminate all of the additional design waivers and exceptions and only five additional design waivers were required.

VERIFIABLE EVIDENCE OF GOOD PERFORMANCE:
1. This project has been awarded numerous awards including:  
   - 2016 DBIA National Award of Merit  
   - 2016 DBIA Mid-Atlantic Region Transportation  
   - 2016 DBIA Mid-Atlantic Excellence in Engineering  
   - 2015 HCCA Excellence in Infrastructure

2. During construction, Federal Highways provided additional comments to VDOT related to existing signing and marking and lane configurations on an I-395 ramp approach to Route 27 just outside of the project limits. Dewberry developed alternate marking and signing plans to address the FHWA comments and eliminate a difficult ramp merge. Modifications were incorporated into the construction plans without delays or extension to the project schedule.

3. Based on coordination with Arlington County and in response to concerns raised by adjacent property owners, the outfall of the box culvert which conveys Long Branch was adjusted and extended to address erosion concerns and channel degradation which occurred during final design of the project. By extending the box 40', additional steep channel slopes were eliminated and landscaping was added to further improve the aesthetics of the area immediately adjacent to the interchange.