

Original

January 26, 2023

Statement of Qualifications

I-64 GAP Segment A Widening

From: I-64 MM 204.9

To: I-64 MM 215.6

New Kent County, Virginia

State Project No.: 0064-063-623

Contract ID Number: C00122166DB119

lane 
in association with Rinker Design Associates, PC



14500 Avion Parkway, Suite 200
Chantilly, VA 20151

January 26, 2023

Commonwealth of Virginia
Department of Transportation (VDOT)
1401 E. Broad Street
Richmond, Virginia 23219

Attention: Suril R. Shah, P.E. DBIA (APD Division)

RE: I-64 GAP Segment A Widening From: I-64 MM 204.9 To: I-64 MM 215.6
State Project No.: 0064-063-623
Contract ID Number: C00122166DB119

Dear Mr. Shah:

The Lane Construction Corporation (Lane) is pleased to submit this Statement of Qualifications for the above referenced project to the Virginia Department of Transportation (VDOT).

Lane is the Offeror, the overall authority, and Lead Contractor on the I-64 GAP Segment A Widening MM 204.9 to MM 215.6 Design-Build (D-B) Project, referred to as “the I-64 Segment A Widening project”. We have teamed with **Rinker Design Associates, PC (RDA)** as the Lead Designer. RDA has provided transportation planning and engineering design services to VDOT for over 30 years. Together, the Lane Team provides VDOT with a reputable team that has completed projects of this size and scope on time and on budget as evidenced in our collective project experiences.

Our Team of professionals, featuring additional hand-selected design and construction specialty firms, who are well experienced with VDOT processes and procedures, will provide the design and construction for the Project. The Lane Team has assembled committed personnel with proven, successful delivery of VDOT contracts to meet the similar requirements of quality, safety, and schedule demands of this Project. We are confident in our Team’s structure and experience and have elaborated on our distinctive qualifications in the subsequent sections.

3.2.2 Offeror’s Point of Contact Information: Mr. Brian Hollinger, PE, is the authorized representative and Point of Contact for the Lane Team for all matters associated with this qualification’s submittal.

Brian Hollinger, PE, CCM | Design-Build Manager
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (703) 225-7575 Cell: (717) 587-2903 Fax: (703) 222-5960
Email: BAHollinger@laneconstruct.com

3.2.3 Offeror’s Principal Officer Information: Mr. Ignacio Botella is a Principal Officer of Lane.

Ignacio Botella, President & CEO (The Lane Construction Corporation)
90 Fieldstone Court
Cheshire, CT 06410
Tel: (203) 235-3351 Fax: (203) 237-4260
Email: IBotella@laneconstruct.com

3.2.4 Offeror's Corporate Structure: Lane was founded in 1890 and was incorporated in the State of Connecticut on April 5, 1902. Lane will undertake financial responsibility for the Project and has no known liability limitations. Lane's pre-qualification status/capabilities with VDOT are well in excess of the requirements of this Project. The co-sureties will furnish a single 100% performance bond and a single 100% payment bond.

3.2.5 Lead Contractor and Lead Designer: The full legal name of the Offeror is: The Lane Construction Corporation. Lane will serve as the prime/general contractor responsible for overall construction of the project and will serve as the legal entity who will execute the contract with VDOT. The full legal name of the Lead Designer is Rinker Design Associates, PC (RDA). RDA will serve as the lead design firm responsible for the overall design of this Project under contract to Lane.

3.2.6 Affiliated/Subsidiary Companies: A complete list of our respective companies' affiliates and subsidiary companies may be found in the Appendix.

3.2.7 Debarment Forms: Certifications for Debarment for both Primary and Lower Tier Covered Transactions have been completed and executed for the Offeror and all subconsultants, subcontractors, and other entities as identified as members of the Lane Team and may be found in the Appendix.

3.2.8 Offeror's VDOT Prequalification Evidence: Evidence of VDOT's Prequalification (L002/Active) is included in the Appendix and verifies that Lane is prequalified for this SOQ submission.

3.2.9 Letter of Surety: A single surety letter from the bonding companies is included in the Appendix, confirming their willingness to provide any and all bonds for this Project.

3.2.10 SCC/DPOR Information and Evidence: The matrix in the Appendix delineates the respective state registrations and licensures of the Lane Team. The Offeror and all team members are eligible at the time of the SOQ submittal, under the law and relevant regulations, to offer and to provide any services proposed or related to the project. Respective copies of licenses may be found in the Appendix.

3.2.11 DBE Statement: The Lane Team supports the Disadvantaged Business Enterprise (DBE) program and is committed to meeting the 10% goal for the design and construction of this project utilizing Virginia certified DBE companies.

As evidenced by our proven performance, our Team will deliver this project safely, on time, and within budget. We appreciate the opportunity to present our qualifications and look forward to working with VDOT on this important project.

Respectfully submitted,



David Rankin
Executive Vice President, Chief Operating Officer
The Lane Construction Corporation

● 3.3 Offeror's Team Structure

The **Lane Construction Corporation (Lane)** will serve as the Lead Contractor for the I-64 Segment A Widening project. Lane will be responsible for managing the D-B contract, overseeing design, permitting work, supervising construction, and self-performing major work elements. Lane brings over 130 years of construction and project management experience and has the right approach to successfully deliver the Project in partnership with VDOT. Lane maintains a proven track record in Virginia having completed numerous award-winning projects including 495 Express Lanes, 95 Express Lanes, 395 Express Lanes, I-66/Route 15 Interchange Reconstruction, I-66 Inside the Beltway, and Route 29 Solutions.

As evidenced by *Figure 1*, Lane and **Rinker Design Associates, PC (RDA)** have received numerous awards that demonstrate the benefits our Team brings to VDOT. Our collaborative and ongoing D-B experience reinforces our successful and productive working relationship together.

Figure 1. Lane and RDA Project Awards

Lane/RDA Projects	Awards
I-66 Inside the Beltway (VDOT)	<ul style="list-style-type: none"> • VTCA Transportation Engineering Award Overall Winner (2021) • America's Transportation Award (Quality of Life/Community Development) (2022)
I-66/Route 15 Interchange Reconstruction (VDOT)	<ul style="list-style-type: none"> • DBIA Design-Build Project of the Year (2018) • DBIA Design-Build National Award of Merit (2018) • DBIA Mid-Atlantic Region's Design-Build Project/Team Award (2018) • VTCA Transportation Engineering Award Design-Build Winner (2018) • HCCA Excellence in Infrastructure (2018)
Route 29 Solutions (VDOT) (RDA was one of 3 designers on this 3-project bundle and performed over 33% of the project's design)	<ul style="list-style-type: none"> • ACEC Pinnacle Award for Engineering Excellence (2018) • ACEC Grand Award for Engineering Excellence (2018) • Overall Winner for the VTCA's Engineering Awards (2017)

The Lane Team offers over 160 years of combined highway construction experience and has the right approach to successfully deliver this Project for VDOT, the local community, the traveling public, commerce, and other stakeholders. The Lane Team has the experience and local resources to self-perform all aspects of the roadway, bridges, retaining walls, noise barriers, survey, ITS, signage, maintenance of traffic (MOT), and utility relocations. Lane has carefully chosen a group of the most highly skilled team members, both firms and individuals, to create a team structure that advantageously utilizes the D-B process and capitalizes on the strongest attributes of each team member's respective capabilities. We have selected **RDA (a VDOT-certified SWaM firm)** to serve as our Team's Lead Designer and will oversee all design activities.

Additionally, to enhance our compliance with the Project's goals and objectives, we have added the following subconsultants to supplement our Team's depth of experience and resources:

- **CES Consulting, LLC (CES)** – Quality Assurance Manager; certified DBE
- **Froehling & Robertson, Inc. (F&R)** – AMRL Certified QA Lab
- **ECS Mid-Atlantic, LLC (ECS)** – Geotechnical Analysis and Design
- **Solstice Environmental, LLC (Solstice)** – Environmental Analysis and Permitting; certified DBE
- **Vanasse Hangen Brustlin, Inc. (VHB)** – Environmental and Design Support
- **Volkert, Inc. (Volkert)** – Design Support

Our Team members have worked together on numerous projects throughout the Commonwealth and have developed a dynamic synergy that will provide VDOT tremendous value on this Project.

3.3.1 Qualifications of Key Personnel

All proposed Key Personnel have noteworthy experience on transportation projects similar to the roles they will serve on this Project. Information regarding their experience can be found in Attachment 3.3.1 in the Appendix.

Key Personnel/Role	Yrs Exp.	D-B Exp.	VDOT Exp.	Interstate Widening	Complex MOT
Jeffrey Smith / Design-Build Project Manager (Lane)	45	★	★	★	★
Avtar Singh, PE, CCM, DBIA / Quality Assurance Manager (CES)	28	★	★	★	★
Darell Fischer, PE, DBIA / Design Manager (RDA)	37	★	★	★	★
Alex Gorski / Construction Manager (Lane)	15	★	★	★	★

Reporting Relationships of Key Personnel

Design-Build Project Manager (DBPM), Mr. Jeffrey (Jeff) Smith (Lane) will report to VDOT, serves as the Project's central point of contact, and will coordinate with Third Party Stakeholders as needed. He will be responsible for the overall Project design and construction, overseeing quality management, contract administration, and other services in compliance with the Contract Documents. He will facilitate communication, monitor design efforts to proactively eliminate potential constructability issues prior to breaking ground, and delegate resources to deliver the Project on time. Additionally, he is responsible for the coordination of public outreach and meetings, construction quality management, overseeing contract administration, and delivering the Project safely to VDOT's overall satisfaction.

Quality Assurance Manager (QAM), Mr. Avtar Singh, PE, CCM, DBIA (CES) will report directly to the DBPM on all quality issues and is from an independent firm with no contractual relationship or involvement with construction operations or QC section or testing. He will be responsible for the development and adherence to the D-B Quality Assurance/Quality Control (QA/QC) Plan as well as the QA of the work, inclusive of QA testing. Mr. Singh will keep VDOT informed on the status of quality of construction and issues/solutions through weekly reports and progress meetings. Any item of work failing to meet minimum standards will be rejected and corrected immediately. Construction personnel have no authority over QA inspection staff, and issues raised by construction personnel will be resolved by Mr. Singh and the DBPM. As QAM, Mr. Singh holds full authority to suspend work if quality issues warrant.

Mr. Singh will also oversee the activities of the **Bridges/Structures Quality Assurance Lead Inspector, Mr. Justin Milbourne (CES)** as well as the **Roadway Quality Assurance Lead Inspector, Mr. Lee Cornwell, DBIA, CMIT (CES)** both of whom will be on the Project full-time during construction of their respective elements. He will also oversee the activities of the **QA Project Records Manager, Mr. Jerry Gladwell**.

Design Manager (DM), Mr. Darell Fischer, PE, DBIA (RDA) will report directly to the DBPM and is responsible for the Project's overall design and conformance with the Contract Documents. Mr. Fischer is responsible for coordinating all design disciplines and ensuring the overall project design conforms to the RFP, design criteria, and specifications (i.e. contract documents). All design disciplines report directly to Mr. Fischer. He will provide VDOT with design plans for review and approval to confirm that the product is constructible and complies with the Contract Documents. Mr. Fischer is also responsible for the establishment and oversight of the design QA/QC program for each discipline of the Project. He will be assisted by **Mr. John Giometti, PE**, who is not involved with the design, will provide the design QA audit. Design QC will be performed by qualified independent RDA staff for each discipline as the design is being performed.

Added Value: Mr. Smith has 45 years of construction management. His experience managing projects with nearly identical scope and similar stakeholders significantly reduces the learning curve and minimizes risks. *Previously worked with RDA and CES on Lane's I-66 Inside the Beltway project.*

Added Value: Mr. Singh has worked 28 years in the transportation-construction industry. He has 5 years of VDOT experience having served in several different roles employed with VDOT including the Area Construction Engineer (ACE). *Additionally, he has served as a QAM on 6 VDOT D-B and P3 projects. He was QAM on Lane's Route 29 Solutions D-B project*

Added Value: Mr. Fischer has over 37 years of experience and has been the DM on 9 D-B projects over the last 10 years. Mr. Fischer is a certified DBIA Professional, Vice Chairman of the local DBIA chapter, and chairman of the VTCA D-B Committee. *RDA and Lane have successfully delivered 6 D-B projects and Darell played a leadership role on all 6 of the Lane/RDA projects.*

Construction Manager (CM), Mr. Alex Gorski (Lane) will report directly to the DBPM and will communicate regularly with the DM, QAM, and the Safety Manager. Mr. Gorski will be on-site full-time for the duration of the project and will be responsible for managing construction and QC activities. His daily duties include safety, coordination of all project personnel including subcontractors, and construction QC. He holds ultimate responsibility for managing the Project's construction schedule and will coordinate with the adjacent projects. He will hold routine meetings with the QAM and QA Inspectors to discuss all ongoing construction activities. He will also review all QC reports and lab results. Any item that is not conforming to the specifications will be addressed immediately with corrective actions mandated that same day. Mr. Gorski is currently working on the D-B Prince William Parkway Interchange at Realigned Balls Ford Road project (*a Lane/RDA project*) and will be available prior to the start of construction. Mr. Gorski will hold a Virginia DEQ Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) prior to the commencement of construction.

☑ **Added Value:** Mr. Gorski brings over 15 years of highway construction management. He has extensive experience on a wide variety of D-B interstate/highway projects. He has managed design coordination, constructability reviews, project management, utility relocation, stakeholder coordination, and subcontractor coordination. *Currently working with RDA on Lane's Prince William Parkway Interchange at Realigned Balls Ford Road project.*

Narrative of other Functional Relationships

The Lane Team also includes the following recognized valued added position whom we deem critical to this Project, albeit non-key personnel as defined by the RFQ; this individuals' qualifications are provide below.

Design-Build Coordinator, Mr. Alkouraishi (Lane) will report directly to the DBPM and coordinate with the Design Manager and Construction Manager. He brings over 25 years of design and construction experience. He will lead design development activities in cooperation with the design and construction teams, including coordinating submittals of drawings, overseeing preparation of early bid packages, coordinating preparation and approval of shop drawings, and conducting Owner and Team coordination meetings. Additionally, he will facilitate the integration of construction means and methods with the final design solution.

Recognizing our successful D-B project models on Lane's I-66/Route 15 Interchange Reconstruction, 495 NEXT, and I-66 Inside the Beltway projects with RDA, as the Lead Designer, we have strategically arranged our Team to mirror the same integrated organizational approach. Our Team structure has a straightforward chain of command, with individual tasks and functional responsibilities clearly established. Our organizational chart identifies key personnel and their primary functions to be performed for the successful management, design, and construction of the Project.

The Lane Team will be cohesive and fully integrated under the direction of our DBPM. RDA will manage all design activities and perform the majority of the design work in-house. ECS, Solstice, VHB, and Volkert will provide specific discipline support to RDA to strengthen the design capabilities and resources. Our DM will coordinate with each discipline and their design efforts, holding continual discussions so design direction and consistency is provided throughout the entire Project; a key success factor for our ability to meet the schedule. This group, along with carefully selected construction subcontractors (including DBEs and SWaMs), provides our Team with the sufficient resources to construct the Project on budget and in compliance with the RFP completion date.

Design and Construction Team Interaction

The Lane Team ascribes to the DBIA paradigm that "integrated development of the design and construction program is the cornerstone of D-B delivery. This methodology optimizes opportunities for collective excellence." Put into practice, all aspects of our team will interface throughout the life of the contract.

Our DBPM, Mr. Smith, will be involved in the project development and construction processes to confirm overall adherence to the contract, quality management, and to allocate appropriate resources to meet the project schedule. Furthermore, he will guide the Team in Public Outreach efforts that will be critical in mitigating citizen concerns on a project of this magnitude.

Based on our Team's extensive D-B experience, we know that weekly discipline coordination meetings/Technical Work Groups (TWGs) held throughout the development of the Project will be critical to ensuring a successful project. Therefore, our Team will utilize TWGs to coordinate the overall approach to various design and construction activities. The TWGs will be led by the specific discipline leads under the guidance of the DBPM and the DM. The meetings will be held during design and construction to define specific approaches, consider and address challenges, optimize design and coordinate work, discuss progress, streamline construction activities, and coordinate responses.

Through this approach, our Team will create strong relationships and truly integrate D-B functions that will set the foundation to interact and partner with VDOT and third-party stakeholders, streamline reviews, eliminate potential construction field issues, and safely deliver the Project as early as possible.

VDOT, as a partner within our 3-legged graphic (Figure 2) is an integral part of our Team dynamic. So that this integration is seamless, we propose to implement the following meetings/processes (Figure 3).

1. Over-the-Shoulder Reviews (OTSRs): To provide opportunities for input, OTSRs will be proactively scheduled during the design process so VDOT can observe the design development, ask questions, and express concerns as the design evolves. We will present design progress, discuss concerns, and collaboratively work through challenges.
2. Submittal Hand-Off Meetings: Prior to initial submittals, a meeting will be held to describe the package, its contents (with a list of inclusions and exclusions), and to establish expectations and the ultimate purpose of the submittal package.
3. Comment Hand-Back Meetings: Upon receipt of draft review comments and prior to addressing them, we will thoroughly review and discuss the comments to verify each comment is understood and the expectations are clear.
4. Comment Resolution Meetings: After the comments have been assessed and addressed, a meeting will be held to reach consensus prior to submitting plan changes.

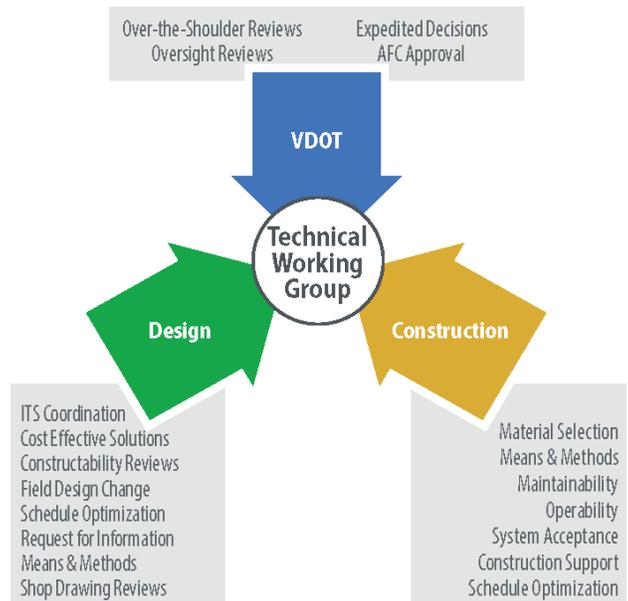


Figure 2 | TWG's, OTSRs and other meetings - Integrate the design, construction, and VDOT to provide a proactive approach for enhanced coordination, integration, and quality.

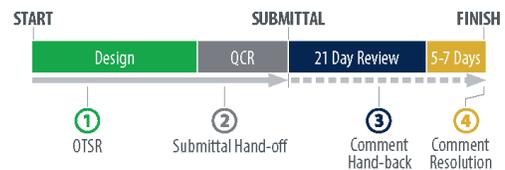


Figure 3 | Streamlined comment review/resolution process

3.3.2 Organizational Chart

The Organizational Chart on the following page depicts our Team, VDOT, third-party stakeholders, key personnel, and their respective reporting/coordination lines.



Third Parties/Stakeholders

Henrico County / New Kent County / Traveling Public / Local/State First Responders / Residential Communities / Local Business Groups / Local Schools and Hospitals / New Kent County Airport / Colonial Downs

Utilities

New Kent DPU / Dominion Energy / Verizon Virginia / Lumen / Lumos / Cox Communications / Virginia Natural Gas

Executive Committee

Charlie Kilpatrick, PE (L) / David Rankin (L)

Design-Build Project Manager

Key: Jeffrey Smith (L)

Public Relations Manager

Larry Moore (R)

Safety Manager

Garrett Green (L)

Quality Assurance Manager

Key: Avtar Singh, PE, CCM, DBIA (C)

QA Lead Inspector (Bridge)

Justin Milbourne (C)

QA Lead Inspector (Roadway)

Lee Cornwell DBIA, CMIT (C)

QA Inspector Project Records Manager

Jerry Gladwell (C)

AMRL Certified QA Lab

F&R

Design Manager

Key: Darell Fischer, PE, DBIA (R)

Design-Build Coordinator

Value Added Personnel: Ali Alkouraiishi (L)

Construction Manager

Key: Alex Gorski (L)

Design QA

John Giometti, PE (R)

Design QC

Independent Reviewers

Drainage/SWM/H&HA

Nikhil Deshpande, PE, CSM (R)
Andrew Knowlton, PE (R)
Adane Bobo, PE (V)

Geotechnical

Brian Wyatt, PE (E)

Traffic

William Wentzien, PE, PTOE (R)

Noise Analysis

Tony Dean (R)

Survey

Nick Kougoulis, LS (R)

Right of Way

Jimmy Street (R)

Fee Appraiser

VDOT Prequalified Individuals

Review Appraiser

VDOT Prequalified Individuals

Roadway

Brandon Shock, PE, DBIA (R)
Sohaib Qadir, PE (R)

TMP/MOT

Value Added Personnel: Aaron DeLong, PE (R)

Structures

Chris Adams, PE (R)
Brian Graham, PE (V)

Environmental

Claudette Lajoie (S)
Christopher Frye (VHB)

ITS Coordination

Connor Eggleston, PE (R)

Utility Coordination and Design

John Myers (R)
Josh Holt, PE (R)

Roadway Superintendent

Value Added Personnel: Michael Sinclair (L)

MOT Superintendent

Value Added Personnel: Daniel Cooke (L)

Structures Superintendent

Michael Foran (L)

Environmental Compliance

Chris Lund (L)

Utilities

Dianna Foran (L)

Project Engineer

Dan Kim (L)

QC Manager

Chris Beckett (L)

AMRL Certified QC Lab

Subcontractors

Subcontractors and DBE/SWaM Firms

LEGEND

- Reporting Lines
- - - Communication/Coordination Lines
- Key: Key Personnel
- + Value Added Personnel
- Key: Lane Personnel/Subcontractors
- Key: Design Personnel/Subcontractors
- Key: Independent QAM Personnel
- Key: TMP Task Force

L: Lane R: RDA* C: CES* E: ECS Mid-Atlantic F&R: Froehling & Roberston S: Solstice* VHB: Vanasse Hangen Brustlin, Inc. V: Volkert
*DBE and/or SWaM firm

● 3.4 Experience of Offeror's Team

The I-64 Segment A Widening project will benefit from a cohesive and experienced D-B Team with an integrated and collaborative work history. Lane and RDA are among Virginia's top-ranked firms in their respective disciplines. Teamed together, we have designed and constructed a sizable portion of the Commonwealth's most important infrastructure. Each firm has achieved a widely recognized level of success by paying specific attention to detail in controlling, managing, and executing their work. Together, we capitalize on our abilities to provide innovative design and construction techniques and solutions; cost-effective risk management tactics; accelerated schedule capabilities; design and construction quality; and safety for the public and workforce. Establishing this Project team unifies the abilities of each to perform in a complementary manner based on our past performance together. The Team, including our specialized subconsultants, was specifically selected due to previous experience, both individually and collectively, delivering projects of similar complexity, confirming our qualifications to successfully deliver all elements of the I-64 Segment A Widening project. The award-winning Lane Team provides to VDOT a known entity to deliver this critical infrastructure upgrade on time, on budget, and with high quality.

Award-Winning Experience Working Together

As evidenced by *Figure 4*, Lane and RDA have recently and are currently working together on complex D-B projects in the Mid-Atlantic region. The depth of our recent collaborative experience reinforces the benefit of capitalizing on firms that have already enjoyed a successful, productive working relationship with owners.

Figure 4: Recent/Relevant Lane and RDA Teaming Experience

	Project Value (M)	Year Completed	D-B	Roadway/Interstate Widening	Complex MOT	Bridges New/Rehab/ Widening
I-66 Inside the Beltway (VDOT)	\$89	2021	★	★	★	★
495 NEXT (Transurban)	\$441	2025	★	★	★	★
Route 29 Solutions (VDOT)	\$128	2017	★	★	★	★
Prince William Parkway Interchange at Realigned Balls Ford Road (VDOT/Prince William County)	\$80	2023	★	★	★	★
I-66/Route 15 Interchange Reconstruction (VDOT)	\$39	2017	★	★	★	★

As shown in *Figure 1*, in Section 3.3, Lane and RDA have received numerous commendations and awards for our D-B projects that further demonstrate the benefits our Team can provide VDOT.

3.4.1 Work History Forms

Work History Forms (Attachments 3.4.1(a) and (b)) as required for Lane (Lead Contractor) and RDA (Lead Designer) are included in the Appendix.

● 3.5 Project Risks

The Lane Team has carefully considered the critical elements of work for the I-64 Segment A Widening project to determine the three most relevant and critical project risks. During our evaluation, we considered numerous potential risks to the Project including geotechnical conditions, SWM/drainage, reinforced concrete pavement, maintenance of traffic (MOT), construction resources, and environmental (due to regulatory encumbrances). We concluded that **Maintaining Traffic Mobility, Environmental, and Existing Subsurface Conditions** are the three most critical risks that must be mitigated to successfully deliver the Project.

Risk No. 1 – Maintaining Traffic Mobility

Risk Identification/Why the Risk is Critical: I-64 is a critical east-west economic artery carrying local, commuter, commercial, and tourist traffic through the heart of Virginia connecting Hampton Roads to Central Virginia and beyond. I-64 within the Project limits carries a 2019 ADT of 59,790 to 69,850 vehicles per day, with approximately 10% of that being trucks, and increasingly higher traffic volumes on summertime weekends do to tourists and vacationers Available crash data shows that occurrences throughout the Project corridor had a mixture of types and causes. Within the Project limits, there were a total of nine fatality crashes between 2015 to 2021. Most of these crashes were roadway departures happening outside of the roadway footprint. The portion of I-64 between approximately MM 205 and MM 214 “has recurring congestion, including that resulting from incidents, and high crash frequency and severity” (quoted from RFQ provided Corridor Operational Analysis Report) which results in decreased traffic mobility. This section of I-64 will become increasingly more difficult to commute through if not properly managed by the D-B Team.

This project consists of more than 10 miles of roadway widening and bridge work which will require the temporary narrowing of the travel lanes, reduced shoulder widths, construction access, and temporary lane closures that will directly impact the traffic operations. This section of I-64 is rural with five to six miles between interchanges. Alternate routes along US Route 60 and Route 249/30 through New Kent County have limited wayfinding signs when severe congestion or incidents occur on the interstate. In addition, there is limited communication technology along these routes to monitor and support traffic mobility through the corridor. Traffic congestion is the most obvious result of an incident, but other non-recurring events including disabled vehicles, weather, work zones, and special events, cause more than half of all traffic congestion according to FHWA as shown in Figure 5. **The risk to the project will be maintaining traffic mobility safely through the work zone and still meet the project schedule.** The Lane Team understands the potential impacts and will appropriately manage this risk through a robust Transportation Management Plan (TMP).

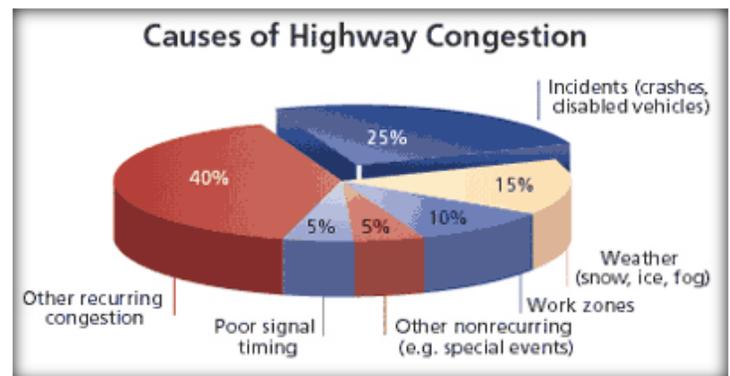


Figure 5 | This figure shows FHWA Publication Traffic Incident Management from Issue No: Vol. 68 No. 3 and Publication Number: FHWA-HRT-05-002

Impacts to the Project: The impacts of inadequately developing the TMP, anticipating congestion, and responding to incidents will have significant and severe consequences, including:

- Reduction of safety for both the traveling public and construction personnel
- Travel delays for commuters, tourists, and commercial traffic, as well as construction vehicles
- Additional traffic congestion on Route 249/30 and US Route 60 through New Kent County
- Delayed response time for emergency/first responder activities
- Increased congestion due to the frequency of crashes
- Negative perceptions from local communities, leading to frustration/work zone travel fatigue

- Difficulty with constructability (i.e., moving materials in and out of work zones)
- Delays to the project schedule and future segments of I-64 GAP
- Increased project costs

Risk Mitigation Strategy and Team Experience that will Ensure the Successful Delivery of the Project:

The TMP must anticipate mobility issues that exist and will occur during the Project's construction to provide a safe work zone and meet project schedules. The Lane Team has assembled industry professionals well versed in TMP development based on experience and lessons learned from previous interstate widening projects, such as I-64 Hampton Roads Bridge-Tunnel Expansion, I-66 Inside the Beltway, and I-64 Segment II Widening. The following mitigation strategies will be implemented to minimize the impacts to the mobility of traffic:

- **Incident Management Plan (IMP):** The Lane Team understands the importance of developing an IMP plan which includes on-scene operations, communication, and an agency coordination plan. Our Team will work with first responders, local, and State agencies to provide rapid response of resources to an incident. The quick clearance of such incidents is the primary focus of the IMP. The Team will directly communicate with first responders, the VDOT Traffic Operations Center (TOC), and the Construction Manager for any incident involved within the project limits. Our Team will coordinate and develop an aggressive incident monitoring strategy and will quickly react and report to first responders and other agencies. In coordination with VDOT and the TOC, it will contain pre-determined detour routes stand-by equipment (i.e. "pink" VWAPM signs for emergency use) will be available and on-site, existing equipment (i.e. PCMS, drums, etc.) will be re-used for full mobilization and implementation by dedicated crews trained for incident management. We will establish arrangements with towing and recovery companies with specialized equipment to clear incidents and open the roadway to normal operations. Clearing the incidents from the roadway quickly minimizes secondary impacts and congestion.

Goals of an Effective IMP

 - Reduce delays and impacts on travelers
 - Safety of first responders and the public
 - Reduce secondary incidents
 - Restore normal operations
- **TMP Task Force:** A TMP Task force will be utilized to develop and review our strategy for maintaining mobility, safety, and construction efficiency. The Lane Team will hold monthly Task Force meetings to collaborate on the safety and effectiveness of the MOT plan and review possible ways to make modifications/improvements. Reviews will also occur immediately following changes to the MOT patterns required for the construction phases. The Task Force will be led by Lane's CM and include the TMP/MOT design lead, project superintendents, and MOT foreman, as noted in the Organizational Chart in Section 3.3.2. VDOT will be invited to participate in the review and provide input. This fundamental interaction between construction, design, and VDOT will enable our team to verify the TMP program, safety strategies, expected construction impacts, delays, and upcoming traffic shifts are working as anticipated and/or to make modifications to be as effective as possible. The Lane Team has implemented this strategy on several D-B projects, I-66 Inside the Beltway and 495 NEXT for instance, successfully implementing strategies to improve effectiveness, safety and address stakeholder concerns. One such example dealt with the locations of construction entrances on the I-66 project. Although the entrance locations were approved, the location of several of them created traffic choke points being opposite from an on-ramp merge. Field observations were relayed to the TMP Task Force to see what could be done to address traffic congestion through the work area. The task force recommended moving the entrances back station from the merge points. As a result, mobility was improved and safety was enhanced.
- **Construction Access:** The Lane Team anticipates widening the median shoulders at construction access points to allow for proper acceleration/deceleration of our vehicles. We have identified several potential locations along the median with ideal locations at the project termini and between each interchange to provide adequate weave distance between construction access points and the interchange locations. We will also schedule construction deliveries (inflow and outflow) outside of peak hours as much as practical. Safe access points will be supported by appropriate notification, advanced warning signage,

and space to facilitate deceleration and acceleration for trucks entering or exiting a work zone. They will be strategically placed, highly visible, and located away from vertical or horizontal curved roadway segments.

- **Public Communication:** Our Team will develop a top-down plan with clear and concise directions to the general traveling public, the construction vehicles entering and exiting the work zones, and all construction personnel. Additional advanced warning and guide signs will be provided to clearly communicate where vehicles should/shouldn't be, especially with the high mix of non-local motorists that may be unfamiliar with the area.
- **Real-Time Traveler Information** - Information systems will be designed to provide drivers with current travel condition information prior to, and within the work zone, and also provide this on alternative routes in the corridor. One of the main goals of this application is to encourage diversion away from the work zone when congestion exists. During the summer months, travel can become very congested, and by using real-time travel data, users can decide if US Route 60 provides a suitable alternative to I-64.
- **Intelligent Transportation Systems (ITS) for Work Zones** – Use of mobile traffic monitoring and management applications for work zones to monitor traffic conditions, and advise motorists of stopped or slowed traffic ahead, delays, and alternate routes. Portable changeable message signs linked to queue detectors can display delay or speed information in advance of the work zone. By broadcasting this information to users ahead of the work zone, travelers will be able to take the necessary actions to slow down or choose alternative routes.
- **Proper Design and Installation of Temporary Traffic Control Devices** – Advance warning signs, proper taper lengths, device spacing, and other standards are designed to provide maximum safety and mobility for users. We will analyze the impacts that construction activities have on congestion to identify the need to exceed the MUTCD requirements by locating advance warning signs further upstream before the back of the queue.

Role of VDOT and Other Agencies: As a partner, VDOT's role will be important but minimal. We do not anticipate any additional requirements of VDOT beyond the normal roles and responsibilities. We understand and expect that VDOT will be a partner and collaborator in the process, involved with plan reviews and approval of all plan submissions and construction documents. Additionally, other than standard incident management assistance by first responders as needed, we anticipate no significant role from other agencies.

Risk No. 2 – Environmental

Risk Identification/Why the Risk is Critical: The principal risk related to environmental permits is how to accommodate their existing and new regulations to gain permission to begin construction. Simply put, the risk is critical due to the severe effect that the environmental process and requirements have on the Project schedule and cost.

The following issues are what make this risk critical.

- Based on conceptual design plans and preliminary field reviews as outlined in the categorical exclusion (CE) documentation, temporary and permanent impacts to jurisdictional Wetlands/Waters of the US are anticipated. Unavoidable impacts will be identified early in the design process so that a Joint Permit Application can be prepared and submitted as early as possible. Regulatory approvals, especially the U.S. Army Corps of Engineers, are currently taking much longer to obtain than they have in the past.

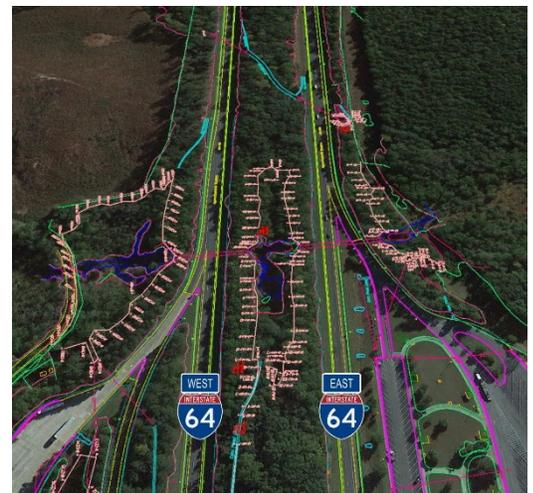


Figure 6 | I-64 Wetland Delineation

- Changes to the regulatory requirements for the northern long-eared bat (*Myotis septentrionalis*) (NLEB) and Rafinesque's eastern big-eared bat (*Corynorhinus rafinesquii macrotis*) have significantly restricted the time of year (TOY) tree clearing and bridge rehabilitation work is permitted. The consequences have the potential to impede the project schedule.

Impacts to the Project: An inadequate environmental permitting approach will have severe consequences, including:

- Project schedule delays
- Increased scrutiny by environmental reviewers creating additional questions by regulatory staff
- Potential work stoppages to address unknown environmental field conditions
- Potential increased mitigation requirements which lead to increased project costs
- Negative public perception
- Constructability challenges (i.e., TOY tree removal and bridge rehabilitation activities)

Risk Mitigation Strategy and Team Experience that will Ensure the Successful Delivery of the Project:

- At the Project onset, we plan to initiate an early coordination meeting with VDOT, USACE, and VDEQ to establish a specific plan and schedule to meet the Project requirements early in the design process. We will also coordinate with USFWS and VDWR at the Project onset to resolve any issues, including the time of year restrictions for protected species.
- The Lane Environmental Team will closely collaborate with its Design Team early and often so that design alternatives that could reduce impacts and explore avoidance and mitigative measures are considered and documented, wherever possible. The goal of this close internal coordination is to produce the most complete Joint Permit Application (JPA) and to limit additional information requests that can lead to permitting delays.
- Coordination with U.S. Fish & Wildlife Service (USFWS), and Virginia Department of Wildlife Resources (VDWR) will be conducted immediately following NTP to evaluate/verify all protected species in the region that require time of year restrictions that may cause schedule delays. We will then work with the agencies to determine the mitigation measures/testing to verify if the species are actually present and what can be done to alleviate the potential delays.
- The Lane Team will stay in close communication with the USFWS to understand upcoming guidance and policy decisions to be promulgated on January 30, 2023 affecting reclassification of the NLEB from federally threatened to federally endangered under the Endangered Species Act (ESA). We will immediately begin to coordinate with the Team to schedule work according to the restricted time requirements once they are finalized.
- Coordination will be initiated with VDOT, USFWS, VDEQ, and VDWR to determine if any regulatory requirements and/or additional survey reviews for the species or habitat would be required.
- The Lane Team has in-house, certified capabilities to complete acoustic or mist net surveys to document the probable presence/absence of NLEB within the Project area during the survey window (May 15 to



August 15). We will ensure the proper study requirements, agency review times, and potential commitments are programmed into the schedule accordingly for timely Project delivery.

- We will verify that existing wetlands/waters of the U.S. field surveys are jurisdictional to accurately determine unavoidable temporary and permanent impacts early in the design so that appropriate mitigation banking sites are available.
- We will identify and adhere to VDOT Section 106 coordination commitments and mitigation strategies with Virginia Department of Historic Resources (VDHR).

Our extensive environmental experience and approach for the processes we manage and control will alleviate concerns and facilitate on-time Project delivery. This Team's successes in permitting transportation projects and knowledge of the NEPA and regulatory requirements has prepared us for the many challenges that can occur and to stay actively engaged and proactive. We excel at adapting to project changes and addressing issues to maintain the schedule and ensuring all environmental commitments are met along the way.

Role of VDOT and Other Agencies: The Lane Team will coordinate with VDOT environmental staff so that the commitments, as stated in the NEPA documentation and subsequent efforts by VDOT, are followed and the appropriate documentation is provided.

- ✓ *Working locally in the project area for over 25 years*
- ✓ *Integrated design and environmental approach*
- ✓ *Strategic outreach activities*
- ✓ *Comprehensive NEPA experience*
- ✓ *Technical knowledge to evaluate bat conservation measures*
- ✓ *Long-standing agency relationships*
- ✓ *Full suite of environmental services*
- ✓ *Forward-thinking approach to evaluate all phases of construction to reduce potential impacts*
- ✓ *Certified in-house NLEB survey specialists*

Figure 7 | Benefits of our environmental capabilities

Risk No. 3 – Existing Subsurface Conditions

Risk Identification/Why the Risk is Critical: The Project is located in the Atlantic Coastal Plain Physiographic Province of Virginia. This is characterized by a series of south-easterly dipping layers of relatively consolidated sandy clay deposits, with lesser amounts of gravel. Specifically, the roadway alignment passes through geologic formations that primarily include alluvial and terrace deposits consisting of interbedded layers of Clayey Sand, Silty Sand, and Sandy Clay; plus, the alignment will also include near surface soils predominately consisting of documented and undocumented heterogenous fill soils associated with original interstate construction.

And, a Project-specific Geotechnical Data Report (GDR) has not been provided. However, we have reviewed the VDOT Geotechnical Database Management System (GDBMS) GIS which includes geology sheets from as-built bridge plans along the project alignment, as well as geotechnical data gathered by ECS in the immediate project vicinity from projects, including Exit 205 ramp data, the I-64 Widening from I-295 to VA-249 to the immediate west, and other projects adjacent to the Project alignment. The Team has also reviewed the as-built plans for indications of likely subsurface existing conditions and performed visual observations. Based on our reviews and experience in the vicinity, portions of the near surface soils (below topsoil layer) are generally anticipated to include existing Fill (typically CL, ML, CH, SM, and SC) to variable depths. Moreover, based on the 1956 and 1968 as-built plans (*see Figure 8 on the next page*), unsuitable soils encountered during construction were allowed to be placed as fill within the median or along embankment faces. Areas of potential unsuitable soils wasting are apparent along portions of the median based on visual conditions.

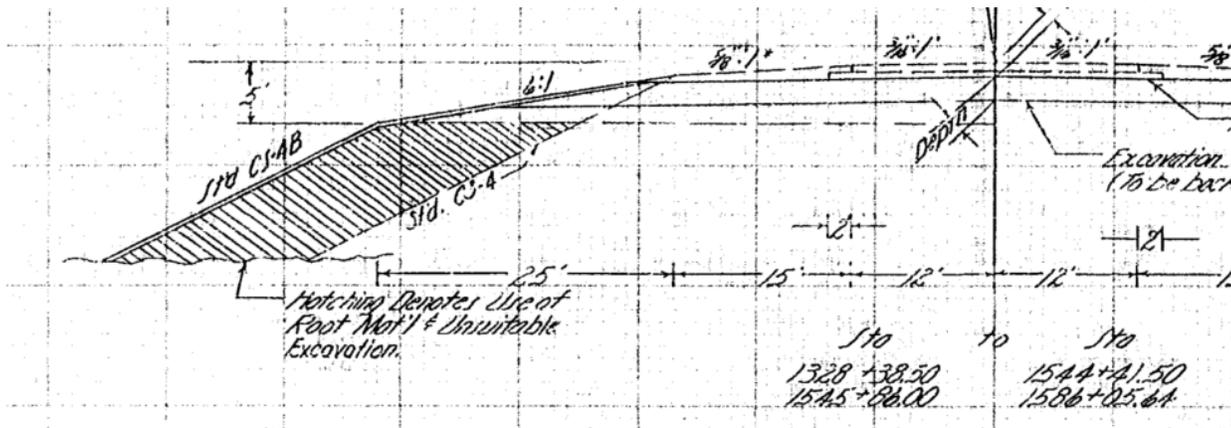


Figure 8 | As-built Unsuitable Median Fill Example

At existing subgrade, or beneath existing fill, soils are anticipated to transition to the recent alluvial and terrace deposit soils, with varying depths depending on proximity to existing streams, and Pliocene and Miocene deposits (SM, SC, and CL). The near surface alluvium may also contain thick deposits of soft, compressible, and high plasticity soils (CH, MH, and OH). Based on the as-built plans, portions of the existing box culverts required support on timber piles, indicating the presence of soft, compressible layers. Site observations and preliminary wetlands mapping identify wetlands within low-lying median areas near some culverts and ditches, indicating shallow, soft, and wet soils will be present in some areas. These soils are considered unsuitable and will need to be mitigated.

We recognize we take on the geotechnical risks as outlined in the RFP requirements. We believe the variable existing subsurface conditions, particularly within medians where widening primarily occurs, is a critical risk due to the potential impact to unsuitable subgrade soils supporting pavements and culverts, settlement of culverts and embankments, and stability of new fill placement on the project. We further recognize that soil conditions will vary between borings and may vary from the subsurface conditions observed to date.

Unsuitable soils per VDOT standards are typically identified by (a) classifying as highly plastic clays and silts (CH and MH), (b) low California Bearing Ratio (CBR) value as compared to minimum pavement design value, and (c) soft/loose relative density or wet soils exhibiting pumping/rutting under the weight of construction equipment. Subgrade soils that are unsuitable must be modified in-place or removed entirely. Each of these conditions may exist at the site, based on the data reviewed and our experience in the vicinity.

New embankment fills will primarily be constructed within the existing median along the corridor for new travel lanes and shoulder construction. Substantial fills, greater than five feet, will be required at isolated locations of deeper ravines. Existing soft soil layers are anticipated in some areas as noted earlier; therefore, settlement induced by new fill placement also impacts culverts and existing embankments/structures. Lastly, stability of wedge or “sliver” fills must be evaluated by the Team prior to construction to mitigate long-term shallow slope stability failures.

Impacts to the Project: The recognition and mitigation of these existing subsurface conditions will impact traffic, public safety, quality, schedule (including the critical path), and construction costs.

- **Traffic and Public Safety:** Removal and replacement of unsuitable materials would increase construction trucks entering and exiting the project site and present traffic and safety impacts for the traveling public.
- **Quality:** Where soft existing soils are present, the risk of fill induced settlement to embankment widenings and culvert extensions or local stability failures of wedge fills, if not addressed during construction, could potentially lead to post-construction settlement of new pavements, affecting the levelness and “rideability” of the new lanes and approaches, as well as joint separations in culverts. Unanticipated settlement could require additional fill material to maintain the roadway grade during construction and create future maintenance issues for the roadway at culverts and embankments.

- **Construction Duration and Costs:** Unsuitable subgrade and soft materials pose a risk to the Project due to the additional time required to delineate the extent of these soils, time required to modify or remove and replace these soils with suitable fill, time required to stabilize where applicable, and the uncertainty it creates with earthwork quantity estimation. Settlement monitoring of the deeper fill areas, if necessary due to underlying existing soft conditions, could impact the Project schedule if unaccounted for early in the construction process.

Risk Mitigation Strategy and Team Experience that will Ensure the Successful Delivery of the Project:

We will mitigate the geotechnical risk associated with the Project by confirming the extent of the potential impacts, selecting appropriate design and remediation strategies in coordination with VDOT's recommendations, and safely and efficiently managing construction operations to minimize cost and schedule impacts. We will confirm the extent of potential impacts by performing a thorough geotechnical investigation in accordance with VDOT Manual of Instructions Chapter 3 guidelines to supplement the subsurface information provided in the GDR and historical documents. Given a portion of the existing culverts to be extended may be supported by timber piles, the Team will coordinate to identify such potential locations for sufficient exploration. The mitigation strategies are presented in more detail below.

To mitigate the potential for unsuitable soils to negatively affect the project schedule, the Project Team will focus early phase geotechnical explorations around low-lying areas and portions of the alignment where unsuitable soils are anticipated based on data available at this time, and Standard Penetration Test (SPT) soil test boring logs included with GDR data. The early phase exploration will also focus on laboratory tests of the samples to include natural moisture contents, gradation, Atterberg Limits (VTM-7), Standard Proctor (VTM-1), and CBR (VTM-8) tests. The results of these tests will help delineate the lateral extent and depth of unsuitable soils to allow for proactive measures to be taken in early earthwork construction phases. Locations where unsuitable soils are anticipated to be encountered will be delineated on the Project drawings (both depth and lateral extent). A Soils Remediation Plan will be developed and approved by VDOT's geotechnical and materials engineers prior to the commencement of construction. The Soils Remediation Plan may include undercut/replacement, in-place drying/scarification, lime modification (moisture reduction), or lime/cement stabilization (altering the plasticity of the soil). Potential borrow sources will be identified and approved by VDOT prior to the start of construction to provide suitable fill material for the roadway fills and potential undercuts.

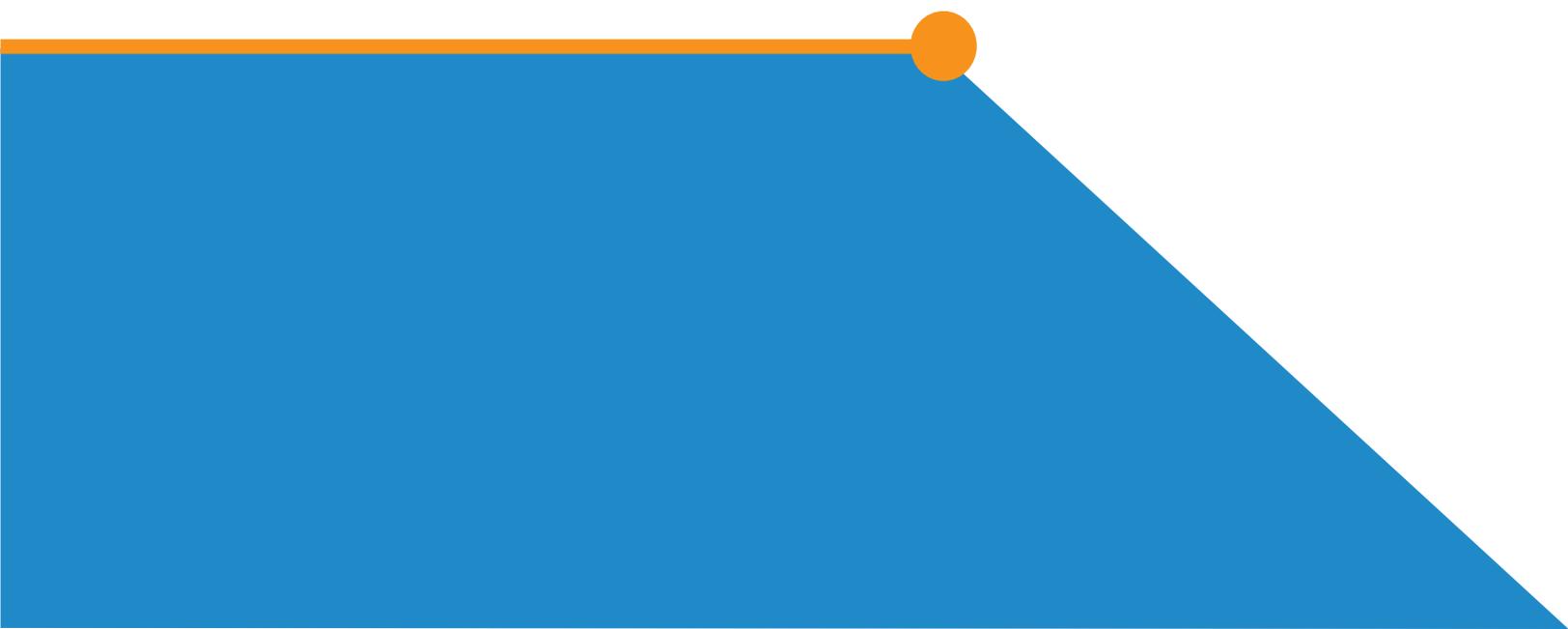
In-situ testing consisting of Cone Penetrometer Testing (CPT), including pore pressure dissipation testing, Dilatometer Testing (DMT), and/or Pressure Meter Testing (PMT), may be performed at select deep fill locations to complement traditional SPT and laboratory consolidation and shear strength testing. The test results will be used to determine settlement rates, magnitudes, and provide anticipated settlement monitoring durations for inclusion in the Project schedule. Test results will also be used to evaluate sufficient slope geometry, acceptable global stability factors of safety, and probability of failure. To mitigate against large, anticipated settlement values, long-term settlement behavior, and/or global stability failures alternative construction techniques may include (a) utilizing light weight fill material, (b) installing stabilization geosynthetic grids or fabrics, or (c) surcharging embankment fills that may or may not include vertical drains. These approaches will be evaluated by the Team and our approach finalized in alignment with VDOT requirements.

ECS has successfully implemented these risk mitigation strategies on multiple projects, including recent projects such as I-64 Hampton Roads Express Lanes Segment 4C, 495 NEXT, and the I-81 MM 136.6 to 141.8 Widening.

Role of VDOT and Other Agencies: None, other than providing existing and upcoming geotechnical data, review and acceptance of the design-phase geotechnical program, and the traditional review of the Team's geotechnical engineering reports.



Attachment 3.1.2
SOQ CHECKLIST



ATTACHMENT 3.1.2

Project: 0064-063-623

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	Appendix
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	2
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	2
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	2
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	2; Appendix
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	2; Appendix
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	2; Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	2; Appendix

ATTACHMENT 3.1.2

Project: 0064-063-623

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	2
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	N/A
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	2
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	4-5
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix
Organizational chart	NA	Section 3.3.2	yes	7
Organizational chart narrative	NA	Section 3.3.2	yes	6
Experience of Offeror's Team				

ATTACHMENT 3.1.2

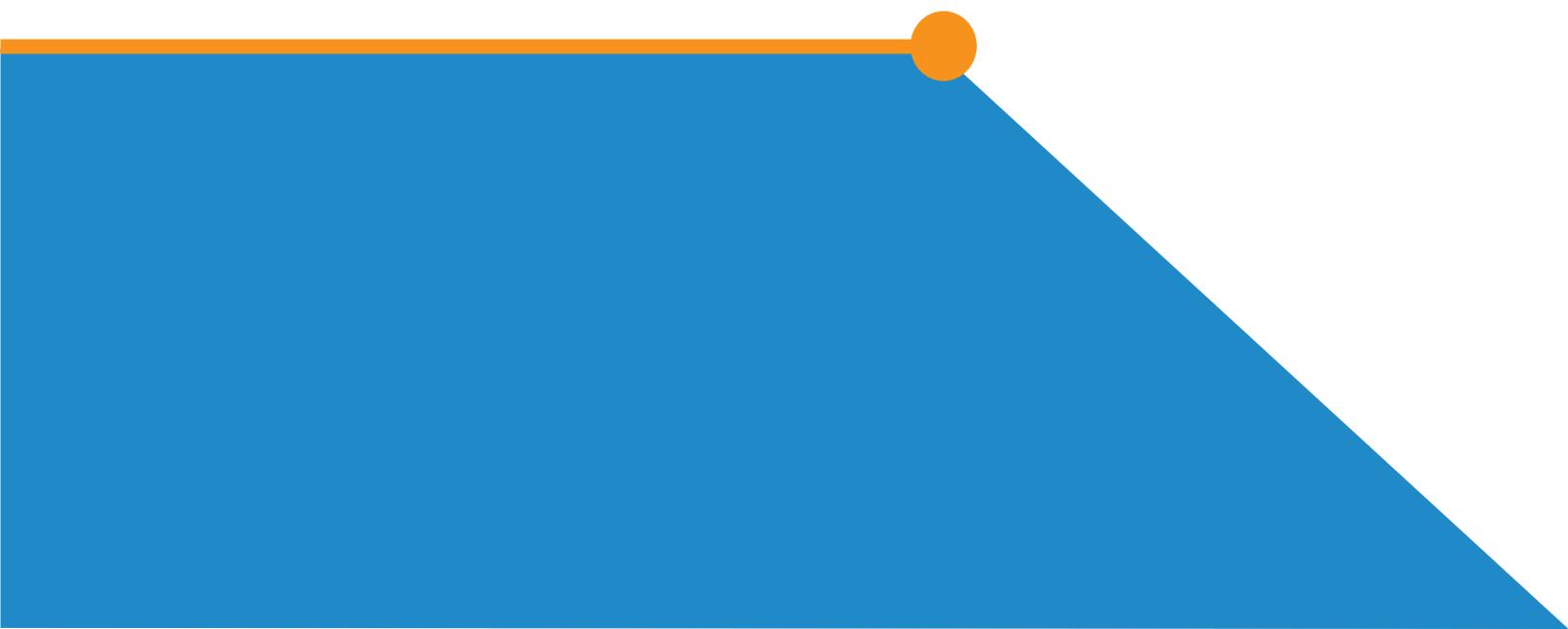
Project: 0064-063-623

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	9-15



Attachment 2.10 (Form C-78)
ACKNOWLEDGEMENT OF RFQ, REVISIONS,
AND/OR ADDENDA



ATTACHMENT 2.10

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00122166DB119
PROJECT NO.: 0064-063-623

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

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

- 1. Cover letter of RFQ – December 16, 2022
(Date)
- 2. Cover letter of RFQ Addendum #1 – December 27, 2022
(Date)
- 3. Cover letter of RFQ Addendum #2 – January 12, 2023
(Date)



SIGNATURE

January 16, 2023

DATE

David Rankin

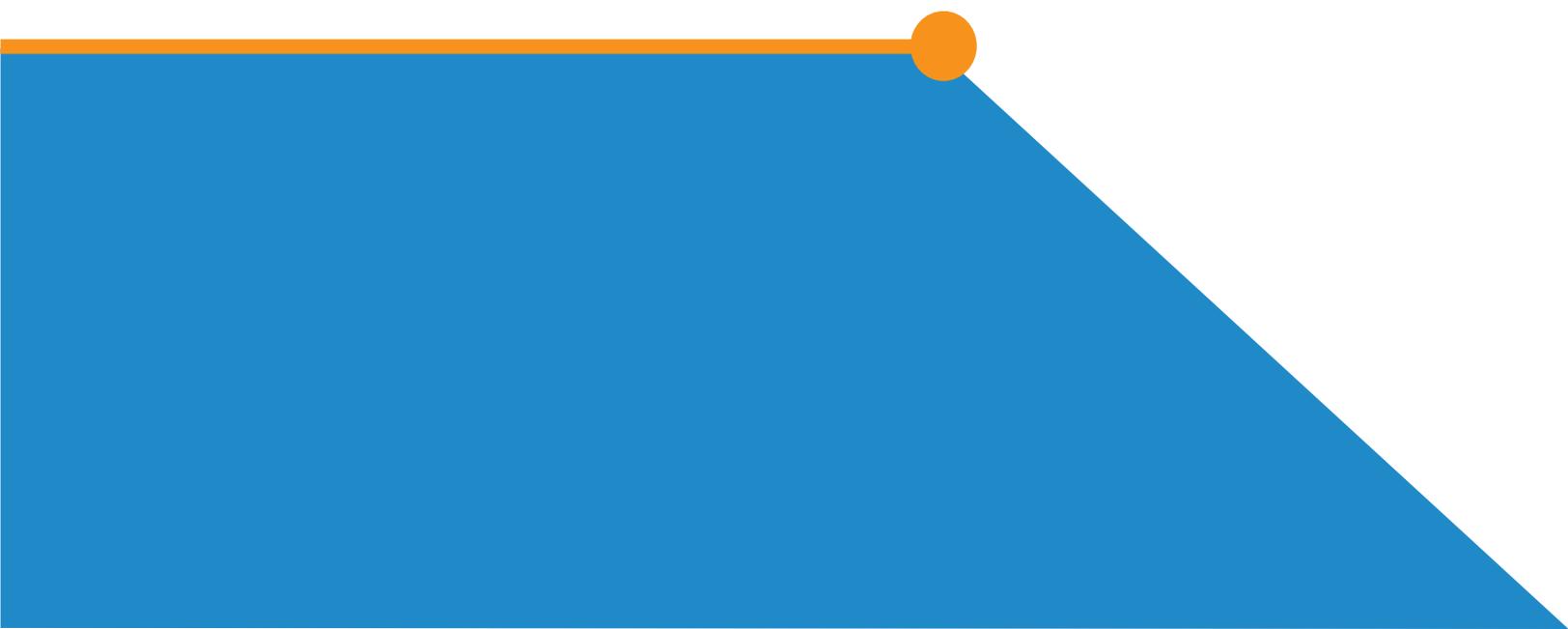
PRINTED NAME

EVP, Chief Operating Officer

TITLE



Attachment 3.2.6
LIST OF AFFILIATED & SUBSIDIARY COMPANIES



ATTACHMENT 3.2.6

State Project No. 0064-063-623

Affiliated and Subsidiary Companies of the Offeror

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Webuild, S.p.A.	Milano Fiori Business Center, Street 6, Building L Rozzano, Milan, Italy 20089
Affiliate	Webuild US Holdings, Inc.	2711 Centerville Road, Suite 400, Wilmington, DE 19808
Affiliate	Lane Industries Incorporated	90 Fieldstone Court, Cheshire, CT 06410-1212
Subsidiary	VSL Electrical, Signing, Lighting LLC	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	C43 Water Management Builders	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Lane-Security Paving Joint Venture	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Salini Impregilo Healy JV 3RPORT	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Salini Impregilo Healy JV NEBT	2600 Independence Avenue SE, Washington D.C. 20003
Affiliate – Joint Venture	The Lane-Blythe Construction JV	6125 Tyvola Center Drive, Charlotte, NC 28217
Affiliate – Joint Venture	LMH-Lane Cabot Yard JV	100 Hancock Street, Suite 901, Quincy, MA 02171
Affiliate – Joint Venture	Lane-Abrams Joint Venture	3001 Meacham Boulevard, Suite 215, Fort Worth, TX 76137
Affiliate – Joint Venture	Flatiron West, Inc. - The Lane Construction Corporation Joint Venture	1400 Talbot Road S, Suite 500, Renton, WA 98055
Affiliate – Joint Venture	Fluor-Lane South Carolina, LLC	100 Fluor Daniel Drive, Greenville, SC 29607
Affiliate – Joint Venture	Skanska-Granite-Lane Joint Venture / I-4 Leasing, LLC	1551 Sandspur Road, Suite 200 Maitland, FL, 32751
Affiliate – Joint Venture	Unionport Constructors JV	150 Meadowlands Parkway #3, Secaucus, NJ 07094

ATTACHMENT 3.2.6

State Project No. 0064-063-623

Affiliated and Subsidiary Companies of the Offeror

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate – Joint Venture	AGL Constructors	929 West Adams Street, Chicago, IL 60607
Affiliate – Joint Venture	Fluor-Lane 95, LLC	6700 Las Colinas Boulevard, Irving, TX 75039
Affiliate – Joint Venture	Purple Line Transit Constructors, LLC	100 Fluor Daniel Drive, Greenville, SC 29607-2762
DBA Name	Lanecon Corporation	90 Fieldstone Court, Cheshire, CT 06410-1212
DBA Name	S.A. Healy Company	90 Fieldstone Court, Cheshire, CT 06410-1212
DBA Name	Virginia Sign and Lighting Company <i>(Being phased out)</i>	90 Fieldstone Court, Cheshire, CT 06410-1212



Attachment 3.2.7(a)
DEBARMENT FORM
PRIMARY COVERED TRANSACTIONS



ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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

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

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

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

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

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

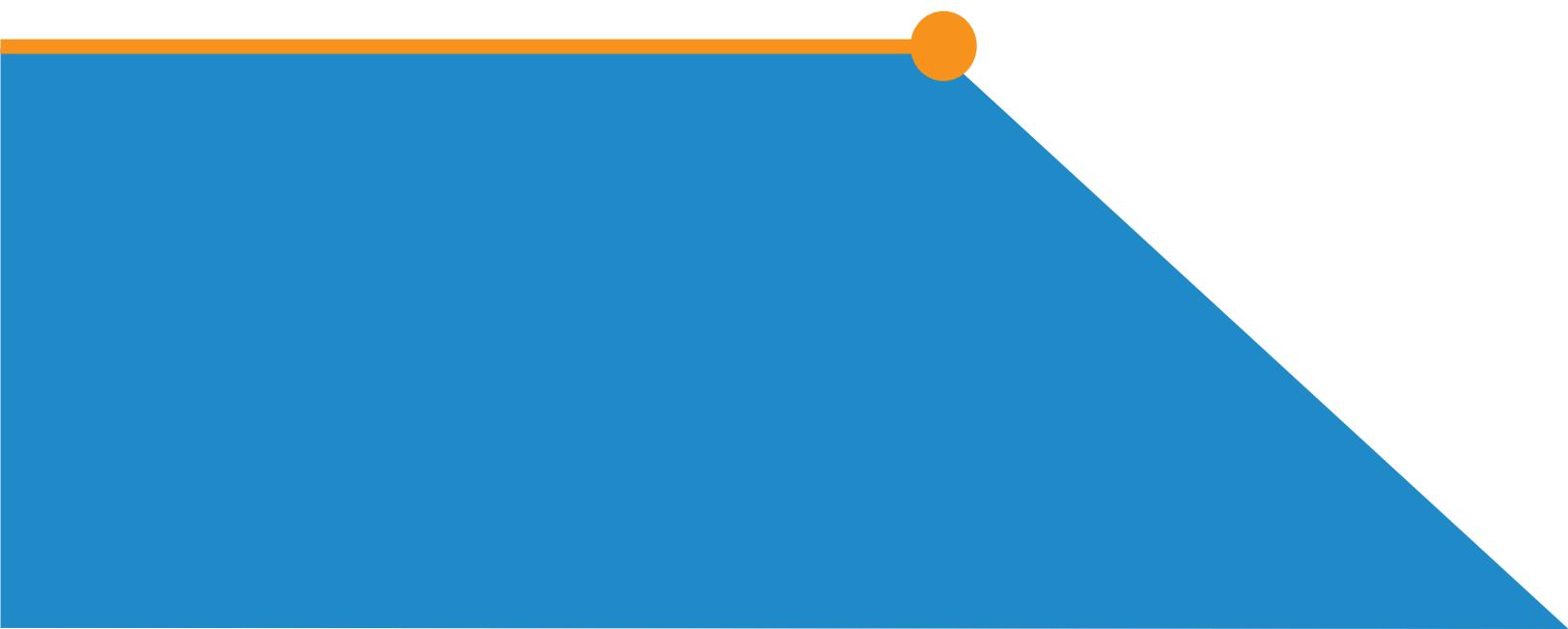
 _____	1/16/2023 _____	EVP, Chief Operating Officer _____
Signature	Date	Title

The Lane Construction Corporation

Name of Firm



Attachment 3.2.7(b)
DEBARMENT FORM
LOWER TIER COVERED TRANSACTION



ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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

	1.6.23	Chief Operations Officer / Director of Engineering
_____ Signature	_____ Date	_____ Title

Rinker Design Associates, PC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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

 _____ Signature	<u>1/26/2023</u> _____ Date	<u>President</u> _____ Title
---	-----------------------------------	------------------------------------

CES CONSULTING LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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



Signature

1/13/23

Date

Vice President

Title

ECS Mid-Atlantic, LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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

 _____ Signature	<u>1/20/23</u> _____ Date	<u>Brawett Manager</u> _____ Title
<u>FROEHLING + ROBERTSON, INC.</u> _____ Name of Firm		

ATTACHMENT 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0064-063-623

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

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

Claudia L. Kaye

January 3, 2023

President

Signature

Date

Title

Solstice Environmental. LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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



Signature

January 17, 2023

Date

Senior Vice President/Regional Manager

Title

Vanasse Hangen Brustlin, Inc. (VHB)

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-063-623

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

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



January 4, 2023

Senior Vice President

Signature

Date

Title

Volkert, Inc.

Name of Firm

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OFFEROR'S VDOT PREQUALIFICATION CERTIFICATE



**Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 7/27/2022**

- L -

Vendor ID: L002

Vendor Name: THE LANE CONSTRUCTION CORPORATION

Prequal Level: Prequalified

Prequal Exp: 06/30/2023

-- PREQ Address --

90 FIELDSTONE COURT
CHESHIRE, CT 06410-1212
Phone: (203)235-3351
Fax: (203)237-4260

Work Classes (Listed But Not Limited To)

002 - GRADING
003 - MAJOR STRUCTURES
004 - ASPHALT CONCRETE PAVING
006 - PORTLAND CEMENT CONCRETE PAVING
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES

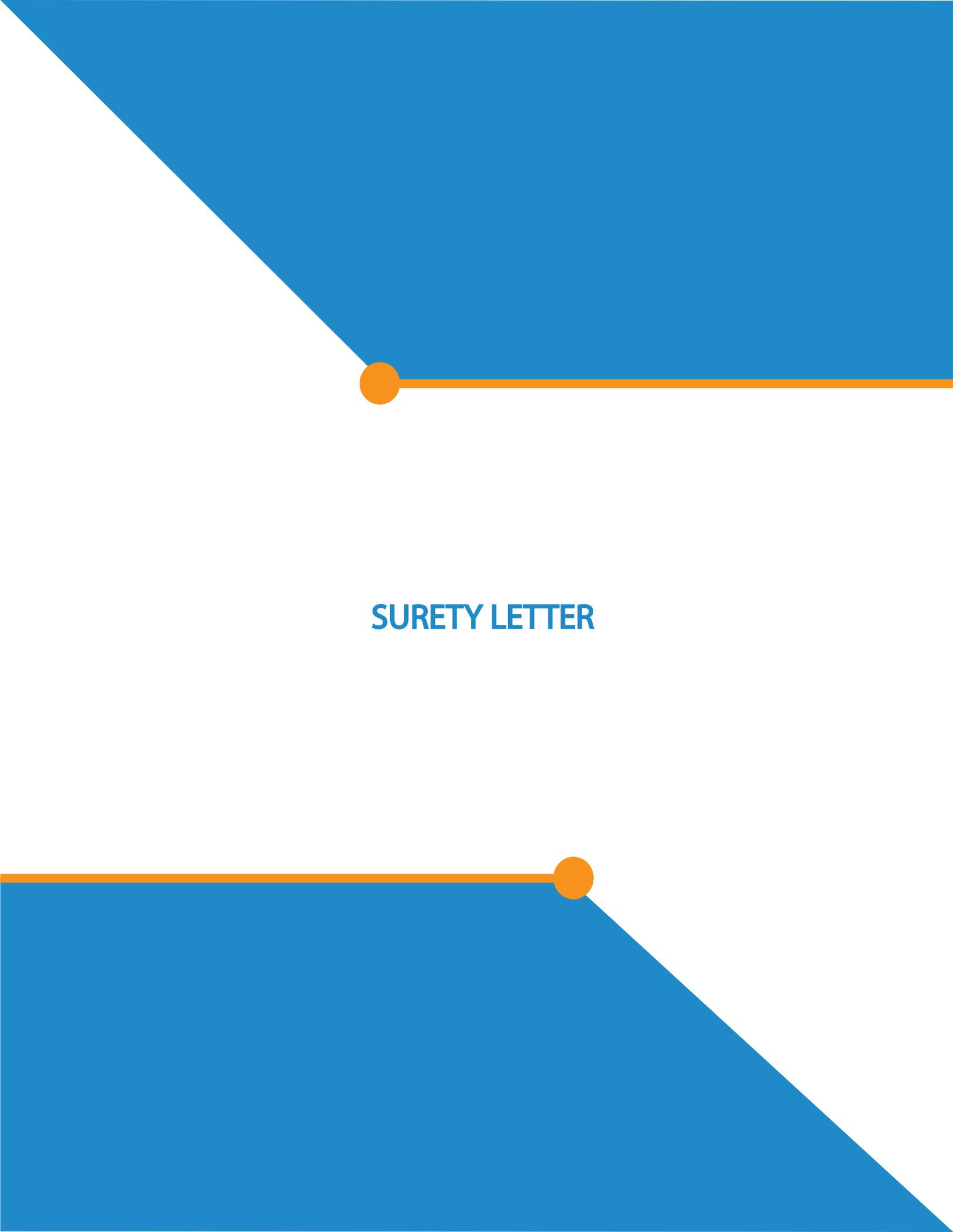
Bus. Contact: FIRMENDER, SETH TADDIA

Email: VAPREQUAL@LANECONSTRUCT.COM

-- DBE Information --

DBE Type: N/A

DBE Contact: N/A

The page features a white background with decorative blue and orange elements. At the top, a blue triangle points downwards from the top-left corner, meeting a horizontal orange line. At the bottom, a horizontal orange line meets a blue triangle pointing upwards from the bottom-right corner. The text 'SURETY LETTER' is centered in the white space between these two orange lines.

SURETY LETTER

LIBERTY MUTUAL INSURANCE COMPANY
UNITED STATES INSURANCE COMPANY
NATIONWIDE MUTUAL INSURANCE COMPANY

EVEREST REINSURANCE COMPANY
MARKEL INSURANCE COMPANY

January 25, 2023

Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: **The Lane Construction Corporation**
Request for Qualifications
A DESIGN-BUILD PROJECT - I-64 GAP Segment A Widening From: I-64 MM 204.9 To: I-64 MM 215.6
New Kent County, Virginia; State Project No.: 0064-063-623; Contract ID Number: C00122166DB119
Estimated Project Value: \$212,000,000

To Whom It May Concern:

This letter will serve to confirm that The Lane Construction Corporation is a highly regarded and valued client of the sureties, Liberty Mutual Insurance Company, United States Fire Insurance Company, Everest Reinsurance Company, Nationwide Mutual Insurance Company and Markel Insurance Company (the 'co-sureties'). Each surety company is licensed to conduct surety business in the Commonwealth of Virginia, and each surety company holds a Certificate of Authority as listed in the Department of the Treasury's Listing of Approved Sureties (Department Circular 570) dated July 1, 2022. Furthermore, each surety company is rated "A" or better by A.M. Best Company, all with Financial Size Category "XIII" or better.

As the sureties for The Lane Construction Corporation, we advise that The Lane Construction Corporation is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment based on the current estimated contract value referenced in Section 2.1, 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.

Naturally, as is customary within the surety industry, the issuance of any bonds is contingent upon a favorable underwriting review of project specifics including, but not limited to, the contract terms, conditions, documents, bond forms and confirmation of complete project financing by both The Lane Construction Corporation and its co-sureties, as well as such other underwriting criteria that may be applicable, at the time a request for bonds is made. We assume no liability to third parties or to you by issuance of this letter, should bid or final bonds not be issued.

Should you need additional assurance regarding the technical ability or bonding capacity of The Lane Construction Corporation, please do not hesitate to contact this office.

Sincerely,

Liberty Mutual Insurance Company
United States Fire Insurance Company
Everest Reinsurance Company
Nationwide Mutual Insurance Company
Markel Insurance Company



Theresan E. Rowedder
Attorney-in-Fact



Aon Risk Services
53 State Street
Suite 2201
Boston, MA 02109
860-830-1769



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

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8207846-012022

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Bryan Huft; Jane Gilson; Jean Correia; Nathaniel E. Jakaitis; Theresan E. Rowedder

all of the city of Boston state of MA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 20th day of April, 2022.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: [Signature]
David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquires, please call 610-832-8240 or email HOSUR@libertymutual.com.

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 20th day of April, 2022 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute 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 have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: [Signature]
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, 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 25th day of January, 2023.



By: [Signature]
Renee C. Llewellyn, Assistant Secretary

**POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY**

80844

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint:

Mark P. Herendeen, Theresan E. Rowedder, Jean Correia, Jane Gilson, Bryan Huft, Maria Chaves

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties: **Unlimited**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

- (a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
- (b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 28th day of September, 2021.

UNITED STATES FIRE INSURANCE COMPANY



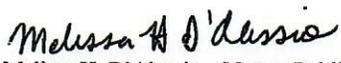


Matthew E. Lubin, President

State of New Jersey }
County of Morris }

On this 28th day of September, 2021, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.




Melissa H. D'Alessio (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 25th day of January 20 23

UNITED STATES FIRE INSURANCE COMPANY





Michael C. Fay, Senior Vice President



POWER OF ATTORNEY
EVEREST REINSURANCE COMPANY
DELAWARE

KNOW ALL PERSONS BY THESE PRESENTS: That Everest Reinsurance Company, a corporation of the State of Delaware ("Company") having its principal office located at 477 Martinsville Road, Liberty Corner, New Jersey 07938, do hereby nominate, constitute, and appoint:

Mark P. Herendeen, Jean Correia, Theresan E. Rowedder, Bryan Huft, Jane Gilson, Jennifer L. Jakaitis

its true and lawful Attorney(s)-in-fact to make, execute, attest, seal and deliver for and on its behalf, as surety, and as its act and deed, where required, any and all bonds and undertakings in the nature thereof, for the penal sum of no one of which is in any event to exceed UNLIMITED, reserving for itself the full power of substitution and revocation.

Such bonds and undertakings, when duly executed by the aforesaid Attorney(s)-in-fact shall be binding upon the Company as fully and to the same extent as if such bonds and undertakings were signed by the President and Secretary of the Company and sealed with its corporate seal.

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Board of Directors of Company ("Board") on the 28th day of July 2016:

RESOLVED, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby appointed by the Board as authorized to make, execute, seal and deliver for and on behalf of the Company, any and all bonds, undertakings, contracts or obligations in surety or co-surety with others and that the Secretary or any Assistant Secretary of the Company be and that each of them hereby is authorized to attest to the execution of any such bonds, undertakings, contracts or obligations in surety or co-surety and attach thereto the corporate seal of the Company.

RESOLVED, FURTHER, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby authorized to execute powers of attorney qualifying the attorney named in the given power of attorney to execute, on behalf of the Company, bonds and undertakings in surety or co-surety with others, and that the Secretary or any Assistant Secretary of the Company be, and that each of them is hereby authorized to attest the execution of any such power of attorney, and to attach thereto the corporate seal of the Company.

RESOLVED, FURTHER, that the signature of such officers named in the preceding resolutions and the corporate seal of the Company may be affixed to such powers of attorney or to any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be thereafter valid and binding upon the Company with respect to any bond, undertaking, contract or obligation in surety or co-surety with others to which it is attached.

IN WITNESS WHEREOF, Everest Reinsurance Company has caused their corporate seals to be affixed hereto, and these presents to be signed by their duly authorized officers this 28th day of July 2016.



Everest Reinsurance Company

Attest: Nicole Chase, Assistant Secretary

By: Anthony Romano, Vice President

On this 28th day of July 2016, before me personally came Anthony Romano, known to me, who, being duly sworn, did execute the above instrument; that he knows the seal of said Company; that the seal affixed to the aforesaid instrument is such corporate seal and was affixed thereto; and that he executed said instrument by like order.

LINDA ROBINS
Notary Public, State of New York
No 01R06239736
Qualified in Queens County
Term Expires April 25, 2023

Linda Robins, Notary Public

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company, at the Liberty Corner, this 25th day of January 2023.

Everest Reinsurance Company
461 5th Avenue – 4th Floor
New York, N.Y. 10017



EVEREST

SURETY BOND SEAL ADDENDUM EVEREST REINSURANCE COMPANY

Due to logistical issues associated with the use of traditional seals during the COVID-19 pandemic, Everest Reinsurance Company (“Everest”) has authorized its Attorney-in-Fact to affix Everest’s corporate seal to any bond executed on behalf of Everest by any such Attorney-in-Fact by attaching this Addendum to said bond.

To the extent this addendum is attached to a bond that is executed on behalf of Everest by its Attorney-in-Fact, Everest hereby agrees that the seal below shall be deemed affixed to said bond to the same extent as if its raised corporate seal was physically affixed to the face of the bond.

Dated this 7th day of April 2020.

EVEREST REINSURANCE COMPANY

By: _____
Anthony Romano – Vice President & Global Head of Surety



Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation

hereinafter referred to severally as the "Company" and collectively as "the Companies" does hereby make, constitute and appoint:

AKLIMA NOORHASSAN; ANNE POTTER; BEVERLY WOOLFORD; BRYAN HUFT; DEBRA A DEMING; FRANCES RODRIGUEZ; FRANCESCA KAZMIERCZAK; JANE GILSON; JEAN CORREIA; KEMAL BRKANOVIC; NATHANIEL JAKAITIS; PETER HEALY; SANDRA DIAZ; SUSAN A WELSH; THERESAN E ROWEDDER; VALORIE SPATES;

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

UNLIMITED

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the 20th day of August, 2021.

[Handwritten signature of Antonio C. Albanese]

Antonio C. Albanese, Vice President of Nationwide Mutual Insurance Company

ACKNOWLEDGMENT

STATE OF NEW YORK COUNTY OF NEW YORK: ss

On this 20th day of August, 2021, before me came the above-named officer for the Company aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Company aforesaid, that the seal affixed hereto is the corporate seal of said Company, and the said corporate seal and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Company.



Stephanie Rubino McArthur
Notary Public, State of New York
No. 02MC6270117
Qualified in New York County
Commission Expires October 19, 2024

[Handwritten signature of Stephanie Rubino McArthur]

Notary Public
My Commission Expires
October 19, 2024

CERTIFICATE

I, Laura B. Guy, Assistant Secretary of the Company, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Antonio C. Albanese was on the date of the execution of the foregoing power of attorney the duly elected officer of the Company, and the corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of said Company this 25th day of January 2023.

[Handwritten signature of Laura B. Guy]

Assistant Secretary

JOINT LIMITED POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That SureTec Insurance Company, a Corporation duly organized and existing under the laws of the State of Texas and having its principal office in the County of Harris, Texas and Markel Insurance Company (the "Company"), a corporation duly organized and existing under the laws of the state of Illinois, and having its principal administrative office in Glen Allen, Virginia, does by these presents make, constitute and appoint:

Theresan E. Rowedder

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

In Unlimited Amounts

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

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

IN WITNESS WHEREOF, Markel Insurance Company and SureTec Insurance Company have caused their official seal to be hereunto affixed and these presents to be signed by their duly authorized officers on the 29th day of June, 2021.

SureTec Insurance Company

By: [Signature]
Michael C. Keimig, President



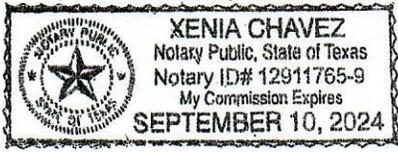
Markel Insurance Company

By: [Signature]
Lindsey Jennings, Vice President

State of Texas
County of Harris:

On this 29th day of June, 2021 A. D., before me, a Notary Public of the State of Texas, in and for the County of Harris, duly commissioned and qualified, came THE ABOVE OFFICERS OF THE COMPANIES, to me personally known to be the individuals and officers described in, who executed the preceding instrument, and they acknowledged the execution of same, and being by me duly sworn, disposed and said that they are the officers of the said companies aforesaid, and that the seals affixed to the proceeding instrument are the Corporate Seals of said Companies, and the said Corporate Seals and their signatures as officers were duly affixed and subscribed to the said instrument by the authority and direction of the said companies, and that Resolutions adopted by the Board of Directors of said Companies referred to in the preceding instrument is now in force.

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



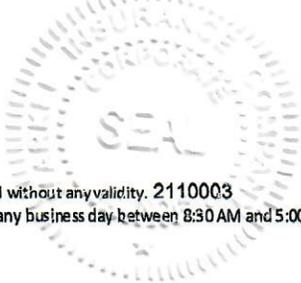
By: [Signature]
Xenia Chavez, Notary Public
My commission expires 9/10/2024

We, the undersigned Officers of SureTec Insurance Company and Markel Insurance Company do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, we have hereunto set our hands, and affixed the Seals of said Companies, on the 25th day of January, 2023.

SureTec Insurance Company

By: [Signature]
M. Brent Beaty, Assistant Secretary



Markel Insurance Company

By: [Signature]
Andrew Marquis, Assistant Secretary



Attachment 3.2.10
SCC and DPOR REGISTRATION DOCUMENTATION

ATTACHMENT 3.2.10

State Project No. 0064-063-623

SCC and DPOR Information

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

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
The Lane Construction Corporation	F0254476	Stock Corporation	Active	90 Fieldstone Court, Cheshire, CT 06410	Contractor Class A	2701011871	01-31-2024
				14500 Avion Pkwy, Suite 200, Chantilly, VA 20151	Business Entity Registration	0407002174	12-31-2023
Rinker Design Associates, PC	02270627	Stock Corporation	Active	11100 Endeavor Court, Suite 200, Manassas, VA 20109	Professional Corporation Registration	0405000502	12-31-2023
				4301 Dominion Boulevard, Suite 100, Glen Allen, VA 23060	Professional Corporation Branch Office Registration	0410000220	02-29-2024
				7655 Coppermine Drive, Manassas, VA 20109	Business Entity Branch Office Registration	0411001829	02-29-2024
				927 Maple Grove Drive, Suite 105, Fredericksburg, VA 22407	Professional Corporation Branch Office Registration	0410000156	02-29-2024

ATTACHMENT 3.2.10

State Project No. 0064-063-623

SCC and DPOR Information

				4500 Main Street, Suite 310, Virginia Beach, VA 23462	Professional Corporation Branch Office Registration	0410000312	02-29-2024
				11100 Endeavor Court, Suite 200, Manassas, VA 20109	Appraisal Business Registration	4008001684	02-28-2023
CES Consulting, LLC	S3416007	LLC	Active	5269 Greenwich Rd, Suite 101, Virginia Beach, VA 23462	Business Entity Branch Office Registration	0411001331	02-29-2024
ECS Mid-Atlantic, LLC	S1208216	LLC	Active	7670 Enon Dr., Suite 102, Roanoke, VA 24019	Business Entity Branch Office Registration	0411000381	02-29-2024
				2119 D North Hamilton St, Richmond, VA 23230	Business Entity Branch Office Registration	0411000384	02-29-2024
Froehling & Robertson, Inc.	00272112	Stock Corporation	Active	3015 Dumbarton Rd, Richmond, VA 23228	Business Entity Registration	0407000098	12-31-2023
Solstice Environmental, LLC	S2050849	LLC	Active	127 Peach Street, Cape Charles, VA 23310	N/A	N/A	N/A
Vanasse Hangen Brustlin, Inc.	F1170440	Stock Corporation	Active	351 McLaws Circle, Suite 3, Williamsburg, VA 23185	Business Entity Branch Office Registration	0411000235	02-29-2024

ATTACHMENT 3.2.10

State Project No. 0064-063-623

SCC and DPOR Information

				4500 Main Street, Suite 400, Virginia Beach, VA 23462	Business Entity Branch Office Registration	0411000348	02-29-2024
Volkert, Inc.	F1366592	Stock Corporation	Active	6225 Brandon Ave, Suite 540, Springfield, VA 22150	Business Entity Registration	0407002610	12-31-2023
				222 Central Park Ave, Suite 1330, Virginia Beach, VA 23462	Business Entity Branch Office Registration	0411001275	02-29-2024

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
Rinker Design Associates, PC	Darell Fischer, PE, DBIA	Glen Allen, VA	14101 Spring Gate Terrace, Midlothian, VA 23112	Professional Engineer	0402023296	06-30-2024
CES Consulting, LLC	Avtar Singh, PE, CCM, DBIA	Dulles, VA	12423 Henderson Rd., Clifton, VA 20124	Professional Engineer	0402035169	01-31-2025

The page features a white background with decorative blue and orange elements. At the top left, a blue triangle points towards the top-left corner. A horizontal orange line extends from the right side of this triangle across the top of the page, ending in a solid orange circle. At the bottom right, a blue triangle points towards the bottom-right corner. A horizontal orange line extends from the left side of this triangle across the bottom of the page, ending in a solid orange circle.

FULL SIZE COPIES OF SCC REGISTRATION

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: THE LANE CONSTRUCTION CORPORATION	Entity ID: F0254476
Entity Type: Stock Corporation	Entity Status: Active
Series LLC: N/A	Reason for Status: Active and In Good Standing
Formation Date: N/A	Status Date: 09/11/2019
VA Qualification Date: 07/24/1972	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: N/A
Jurisdiction: CT	Charter Fee: \$1000.00
Registration Fee Due Date: Not Required	

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: Rinker Design Associates, P.C.	Entity ID: 02270627
Entity Type: Stock Corporation	Entity Status: Active
Series LLC: N/A	Reason for Status: Active and In Good Standing
Formation Date: 02/24/1982	Status Date: 04/22/1991
VA Qualification Date: 02/24/1982	Period of Duration: Perpetual
Industry Code: 70 - Other DULY LICENSED PROFESSIONAL ENTITY not listed below as SPECIFIED in Section 13.1-543 of the Code of Virginia	Annual Report Due Date: 02/28/2023
Jurisdiction: VA	Charter Fee: \$0.00
Registration Fee Due Date: 02/28/2023	

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: CES Consulting, LLC	Entity ID: S3416007
Entity Type: Limited Liability Company	Entity Status: Active
Formation Date: 10/14/2010	Reason for Status: Active
VA Qualification Date: 10/14/2010	Status Date: 10/14/2010
Industry Code: 70 - Other Professional Companies	Period of Duration: Perpetual
Jurisdiction: VA	Annual Report Due Date: N/A
Registration Fee Due Date: Not Required	Charter Fee: N/A

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: ECS Mid-Atlantic, LLC	Entity ID: S1208216
Entity Type: Limited Liability Company	Entity Status: Active
Series LLC: No	Reason for Status: Active
Formation Date: 04/16/2004	Status Date: 04/16/2004
VA Qualification Date: 04/16/2004	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: N/A
Jurisdiction: VA	Charter Fee: N/A
Registration Fee Due Date: Not Required	

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: FROEHLING & ROBERTSON, INCORPORATED	Entity ID: 00272112
Entity Type: Stock Corporation	Entity Status: Active
Series LLC: N/A	Reason for Status: Active and In Good Standing
Formation Date: 10/11/1924	Status Date: 11/13/2009
VA Qualification Date: 10/11/1924	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: N/A
Jurisdiction: VA	Charter Fee: \$2480.00
Registration Fee Due Date: Not Required	

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: Solstice Environmental, LLC	Entity ID: S2050849
Entity Type: Limited Liability Company	Entity Status: Active
Series LLC: No	Reason for Status: Active
Formation Date: 11/20/2006	Status Date: 08/15/2018
VA Qualification Date: 11/20/2006	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: N/A
Jurisdiction: VA	Charter Fee: N/A
Registration Fee Due Date: Not Required	

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: Vanasse Hangen Brustlin, Inc.	Entity ID: F1170440
Entity Type: Stock Corporation	Entity Status: Active
Series LLC: N/A	Reason for Status: Active and In Good Standing
Formation Date: N/A	Status Date: 04/16/2001
VA Qualification Date: 03/18/1994	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: 03/31/2023
Jurisdiction: MA	Charter Fee: \$2500.00
Registration Fee Due Date: 03/31/2023	

State Corporation Commission Clerk's Information System

Entity Information

Entity Information

Entity Name: Volkert, Inc.	Entity ID: F1366592
Entity Type: Stock Corporation	Entity Status: Active
Series LLC: N/A	Reason for Status: Active and In Good Standing
Formation Date: N/A	Status Date: 02/28/2020
VA Qualification Date: 01/21/1999	Period of Duration: Perpetual
Industry Code: 0 - General	Annual Report Due Date: 01/31/2023
Jurisdiction: AL	Charter Fee: \$50.00
Registration Fee Due Date: 01/31/2023	

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**FULL SIZE COPIES OF DPOR REGISTRATION
(OFFICES)**

DPOR License Lookup License Number 2701011871

License Details

Name	THE LANE CONSTRUCTION CORPORATION
DBA Name	VA SIGN AND LIGHTING COMPANY
License Number	2701011871
License Description	Contractor
Firm Type	Corporation
Rank ¹	Class A
Address	90 FIELDSTONE CT, CHESHIRE, CT 06410
Specialties²	Highway / Heavy (H/H)
Initial Certification Date	1972-10-12
Expiration Date	2024-01-31

DPOR License Lookup License Number 0407002174

License Details

Name	THE LANE CONSTRUCTION CORPORATION
License Number	0407002174
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	14500 AVION PARKWAY STE 200, CHANTILLY, VA 20151
Initial Certification Date	1985-09-30
Expiration Date	2023-12-31

DPOR License Lookup License Number 0405000502

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0405000502
License Description	Professional Corporation Registration
Firm Type	Corporation
Rank	Professional Corporation
Address	11100 ENDEAVOR CT STE 200, MANASSAS, VA 20109
Initial Certification Date	1986-07-16
Expiration Date	2023-12-31

DPOR License Lookup License Number 0410000220

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0410000220
License Description	Professional Corporation Branch Office Registration
Firm Type	Corporation
Rank	Professional Corporation Branch Office
Address	4301 DOMINION BOULEVARD STE 100, GLEN ALLEN, VA 23060
Initial Certification Date	2011-03-17
Expiration Date	2024-02-29

DPOR License Lookup License Number 0411001829

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0411001829
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	7655 COPPERMINE DR, MANASSAS, VA 20109
Initial Certification Date	2022-09-21
Expiration Date	2024-02-29

DPOR License Lookup License Number 0410000156

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0410000156
License Description	Professional Corporation Branch Office Registration
Firm Type	Corporation
Rank	Professional Corporation Branch Office
Address	927 MAPLE DR STE 105, FREDERICKSBURG, VA 22407
Initial Certification Date	2005-12-27
Expiration Date	2024-02-29

DPOR License Lookup License Number 0410000312

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0410000312
License Description	Professional Corporation Branch Office Registration
Firm Type	Corporation
Rank	Professional Corporation Branch Office
Address	4500 MAIN ST STE 310, VIRGINIA BEACH, VA 23462
Initial Certification Date	2019-01-31
Expiration Date	2024-02-29

DPOR License Lookup License Number 4008001684

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	4008001684
License Description	Appraisal Business Registration
Firm Type	Corporation
Rank	Business Entity
Address	11100 ENDEAVOR CT STE 200, MANASSAS, VA 20109
Initial Certification Date	2011-02-10
Expiration Date	2023-02-28

DPOR License Lookup License Number 0411001331

License Details

Name	CES CONSULTING LLC
License Number	0411001331
License Description	Business Entity Branch Office Registration
Business Type	LLC - Limited Liability Company
Rank	Business Entity Branch Office
Address	5269 GREENWICH RD SUITE 101, VIRGINIA BEACH, VA 23462
Initial Certification Date	2016-12-06
Expiration Date	2024-02-29

DPOR License Lookup License Number 0411000381

License Details

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

DPOR License Lookup License Number 0411000384

License Details

Name	ECS MID-ATLANTIC LLC
License Number	0411000384
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	2119-D NORTH HAMILTON ST, RICHMOND, VA 23230
Initial Certification Date	2004-12-10
Expiration Date	2024-02-29

Froehling & Robertson, Inc.

DPOR License Lookup License Number 0407000098

License Details

Name	FROEHLING & ROBERTSON INC
License Number	0407000098
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	3015 DUMBARTON RD, RICHMOND, VA 23228
Initial Certification Date	1982-08-05
Expiration Date	2023-12-31

Solstice Environmental, LLC

N/A

Vanasse Hangen Brustlin, Inc. (VHB)

DPOR License Lookup License Number 0411000235

License Details

Name	VANASSE HANGEN BRUSTLIN INC
License Number	0411000235
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	351 MCLAWS CIRCLE STE 3, WILLIAMSBURG, VA 23185-6316
Initial Certification Date	2000-04-12
Expiration Date	2024-02-29

DPOR License Lookup License Number 0411000348

License Details

Name	VANASSE HANGEN BRUSTLIN INC
License Number	0411000348
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	4500 MAIN ST STE 400, VIRGINIA BEACH, VA 23462
Initial Certification Date	2004-02-18
Expiration Date	2024-02-29

DPOR License Lookup License Number 0407002610

License Details

Name	VOLKERT INC
License Number	0407002610
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	6225 BRANDON AVE STE 540, SPRINGFIELD, VA 22150
Initial Certification Date	1983-07-29
Expiration Date	2023-12-31

DPOR License Lookup License Number 0411001275

License Details

Name	VOLKERT INC
License Number	0411001275
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	222 CENTRAL PARK AVE STE 1330, VIRGINIA BEACH, VA 23462
Initial Certification Date	2016-05-19
Expiration Date	2024-02-29

The page features a white background with blue geometric shapes in the top-left and bottom-right corners. Two horizontal orange lines cross the page, each ending in a solid orange circle. The top line starts from the left edge and ends with a circle at the point where the blue shape meets the white background. The bottom line starts from the left edge and ends with a circle at the point where the white background meets the blue shape.

**FULL SIZE COPIES OF DPOR REGISTRATION
(KEY PERSONNEL)**

DPOR INFORMATION FOR INDIVIDUALS – KEY PERSONNEL:

Darell Fischer, PE, DBIA (RDA)

DPOR License Lookup License Number 0402023296

License Details

Name	FISCHER, DARELL LEE
License Number	0402023296
License Description	Professional Engineer License
Rank	Professional Engineer
Address	MIDLOTHIAN, VA 23112
Initial Certification Date	1992-06-25
Expiration Date	2024-06-30

Avtar Singh, PE, CCM, DBIA (CES)

DPOR License Lookup License Number 0402035169

License Details

Name	SINGH, AVTAR
License Number	0402035169
License Description	Professional Engineer License
Rank	Professional Engineer
Address	CLIFTON, VA 20124
Initial Certification Date	2001-01-18
Expiration Date	2025-01-31



Attachment 3.3.1
KEY PERSONNEL RESUME FORMS



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: JEFFREY P. SMITH / PROJECT DIRECTOR/ PROJECT EXECUTIVE	
b. Project Assignment: DESIGN-BUILD PROJECT MANAGER	
c. Name of the Firm with which you are employed at the time of submitting SOQ.: THE LANE CONSTRUCTION CORPORATION	
<p>d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>40</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p>Mr. Smith has over 40 years of experience in the construction industry on large-scale transportation and FHWA projects across the United States and internationally. He has extensive experience in project management, construction management, and alternative delivery methods D-B and P3, with a solid grasp of stakeholder and customer relations, health and safety, environmental, quality processes, and scheduling.</p> <p><u>The Lane Construction Corporation, 2017 – Present:</u> Mr. Smith is a Project Director/Project Executive, responsible for executive and operational efforts on projects, to include safety and budgets, and support of bidding pursuits in Lane’s Mid-Atlantic and Southeast regions.</p> <p><u>OHL USA/Community Asphalt Corp., 2013 – 2017:</u> As the General Manager of special projects, Mr. Smith’s responsibilities included executive and operational project management; coordination with other corporate divisions and entities; contract negotiations; budget preparations; oversight of safety, schedule, cost, and project controls; DBE and OJT compliance; hiring, training, and development of key personnel; and specifying and procuring equipment and forming systems. Mr. Smith actively prepared and oversaw the firm’s D-B and P3 efforts primarily in Florida and the SE US, which encompassed all aspects of DOT heavy civil work with an emphasis on complex roadway and bridge projects. His duties included chairing public presentations and meetings with local City and County elected officials and staff, stakeholder civic groups/businesses, DBE outreaches, and DOT district and central staff.</p> <p><u>Baker Concrete Construction, Inc., 2011 – 2013:</u> As the Heavy Civil Director, Mr. Smith’s executive and operational project management responsibilities included coordination with other corporate divisions and entities, budget preparations, oversight of take-offs and estimates, and the development of partnerships for project acquisition. Mr. Smith oversaw safety, quality, schedule, cost, and project controls; hiring, training, and development of key personnel; and engagement with various local, state, and federal clients and agencies within several states. He was responsible for the oversight of the firm’s efforts on heavy civil projects with various DOTs, Air and Sea Ports, USACE, and FHWA.</p> <p><u>Munilla Construction Management, LLC, 2009 – 2011:</u> Mr. Smith’s employment within the company ranged from General Superintendent to General Manager/Chief Civil Estimator. He oversaw construction and estimating for multiple heavy civil DOT projects concurrently, averaging yearly contract revenue volumes of approximately \$300 million. Projects encompassed all aspects of heavy-highway civil-related DOT, FHWA, and USACE work, including rail, marine, airport, and building related foundation work scopes. Coordinated and attended public outreach and DBE forum events and meetings with owners, environmental and permitting agencies, subcontractors, and vendors.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Kentucky, Lexington, KY/B.S./1981/Civil Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
VDOT, I-66 Eastbound Inside the Beltway, Fairfax and Arlington Counties, VA (DESIGN-BUILD)	
Name of Firm: The Lane Construction Corporation	Project Role: DBPM/ Project Director
Beginning Date: 9/2020	End Date: 10/2021
<p><i>Specific Responsibilities:</i> Design-Build Project Manager, Mr. Smith was responsible for the final phase for operational project management, safety, budgets, coordination between the design and construction team members, supervision of all construction activities, and coordination with the client and their project representatives. He ensured all contract obligations were met, led change management procedures and resolved disputes, coordinated on behalf of the team public outreach and stakeholder meetings, maintained adherence by the team to all environmental and permit conditions,</p>	

monitored QA, QC, and NCR reporting and corrective measures, and coordinated the final closing process for completing the project.

Project Relevance: This \$89M+ D-B project included adding a through lane along four miles of heavily traveled and congested eastbound I-66 between the Dulles Connector Road (Route 267) and Fairfax Drive (Route 237) in the Washington DC area. Also included ramp modifications at Exits 69 and 71, interstate corridor sound walls, extensive existing bridge rehabilitations and/or repairs including jacking for bearing replacement while under traffic, widening existing bridges, and constructing a new grade separated crossing of the Washington & Old Dominion Trail at Lee Highway with a 700 LF “signature” pedestrian/biking bridge. Additionally constructed new public parking and accessway, and local roadway lighting, signalization, and signage improvements. Similar to the proposed project, the scope of work included: roadway; survey; structures and bridges; environmental; geotechnical; hydraulics; traffic control devices; transportation management plan; right of way; utilities; public involvement/ relations; quality assurance and quality control; Intelligent Transportation Systems; signage and lighting; soundwalls; construction engineering and inspection; and overall project management. **Mr. Smith worked on this project with RDA.**

SCDOT, Port Access Road, Charleston, SC (DESIGN-BUILD)

Name of Firm: The Lane Construction Corporation	Project Role: Project Executive
Beginning Date: 11/2017	End Date: 6/2021

Specific Responsibilities: Project Executive, Mr. Smith oversaw the operations of the Port Access Road project. He was responsible for joint venture coordination, contract administration, addressing project issues, communicating design progress to owners, and assessing adherence to schedules. He supervised design and construction work; oversight of safety; quality management; environmental compliance; schedule, cost, and project controls; timely procurement of materials; equipment, services, and labor; and hiring, training, and development of key personnel. Key duties also included community relations, change management, and dispute resolution. He was responsible for over 150 personnel.

Project Relevance: This \$255M D-B project includes interstate improvements, interchange realignment and construction, a new viaduct connecting I-26 to the Hugh K. Leatherman Sr. Terminal, and surface street and bridge reconstruction. The project has over 1.2 million SF of new bridge deck, including 9.8 million pounds of structural steel, and accompanying new substructure, over 100,000 LF of multiple types of pile and shafts, bridge construction and existing bridge demolition over railroads, I-26, and environmentally sensitive land and a HAZMAT site. Similar to the proposed project, the scope of work included: design and construction of improvements to existing roadway and bridges, MOT under interstate and local traffic conditions, paving, bridge structures, environmental; QA/QC; survey; utility construction and relocation, erosion control, demolition, retaining walls, signage, lighting, guardrail/barrier, improvement of transportation operations, overall project management, and safety throughout the project corridor.

VDOT, I-264 and Witchduck Road Interchange, Norfolk, VA (BID-BUILD)

Name of Firm: The Lane Construction Corporation	Project Role: Project Director
Beginning Date: 6/2021	End Date: 11/2022

Specific Responsibilities: Project Director, Mr. Smith was responsible in the final phase for operational project management, supervision of all construction activities to include safety and budgeting, and coordination with the client and their project representatives. Mr. Smith was also responsible for providing technical, operational, financial, and managerial leadership for successful implementation of project activities. Provided oversight of project management and administration, including reporting, budget development and monitoring, financial reporting, execution of project plans, and project performance. Oversaw the selection and training of qualified project staff, assigned clear roles and responsibilities, provided effective supervision, and managed performance to ensure efficient operations. Conducted monthly reviews to ensure accountability of all project activities as well as the accurate and timely reporting of project deliverables. Ensured that the project progresses in accordance with its contractual obligations.

Project Relevance: This \$113M project is located within Norfolk and Virginia Beach, VA entailed building a new collector-distributor road, widening mainline I-264, and extensive reconfiguring of the south side of the interchanges at Newtown and Witchduck Roads; it also included the construction of five new wet SWM facilities, constructed with the use of cofferdams multiple new outfall structures on existing lakes, the construction of miles of new storm, water, sanitary, and electrical conduit utility systems, and upgrading two miles of local roadways. The project also includes new construction of an 800 LF “signature” flyover bridge over I- 264 decorated with precast aesthetical features and complex “feature” lighting, as well as constructing two additional bridge structures and the rehabilitation inclusive of jacking for bearing repairs/replacement under traffic of an existing bridge on I-264. Similar to the proposed project, the scope of work included: interstate, roadway, structure and bridge, survey, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, public involvement relations, quality assurance and quality control, Intelligent Transportation Systems, signage and lighting, construction engineering and inspection, and overall project management.

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: AVTAR SINGH, PE, CCM, DBIA / PRESIDENT AND QAM	
b. Project Assignment: QUALITY ASSURANCE MANAGER	
c. Name of the Firm with which you are employed at the time of submitting SOQ.: CES Consulting, LLC	
<p>d. Employment History: With this Firm <u>12</u> Years With Other Firms <u>16</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p>Avtar Singh has 28 years of construction management and project controls experience focused on transportation infrastructure. Mr. Singh has provided technical guidance and oversight of QA, QC, and OIA (owner's independent assurance) management services of 20+ D-B and P3 projects including projects on high-volume, high-speed urban interstates. Due to Avtar's leadership and expertise, VDOT has rated his QAM services as 'Exceeds Expectations' and has earned excellent CQIP scores for QAM services ranging up to 100%. Avtar understands the complexities of managing large construction projects on congested interstates and has proven ability to develop QA/QC plans; mitigate risks; and resolve design and field issues. He is a former Area Construction Engineer for VDOT's NOVA District, where he was responsible for more than 28 projects with a cumulative construction value of more than \$230M. He has extensive experience ensuring that project startup, execution and closeout processes comply with VDOT and FHWA standards.</p> <p>CES Consulting, LLC, President/QAM, 2010 – Present: Mr. Singh serves as President of CES and frequently fills a QAM role as a hands-on manager who actively manages QA and QC services for D-B and P3 projects. He develops and updates QA/QC plans and monitors compliance; conducts QA audits of the design QA/QC plan; manages QA inspection and testing to confirm correct frequency and accuracy of QC inspection and testing; approves materials testing reports; identifies and resolves non-compliant work and testing results; certifies compliance to contract requirements; leads preparatory inspection meetings; coordinates witness and hold points; prepares QA reports and NCRs; maintains the non-conformance log, deficiency log, and project testing /frequencies Materials Notebook; and generates the punch list and verifies completion.</p> <p>VDOT NOVA District, Area Engineer, 2009 – 2010: Area Construction Engineer, Mr. Singh managed VDOT DBB projects and provided oversight of locally administered projects in Prince William and Loudoun counties. He was responsible for constructability and biddability reviews prior to advertisement, project startup and execution, pay application certifications, and contract closeouts. He resolved contractual issues with the District and central offices and field issues; reviewed and negotiated work orders; and resolved construction and schedule claims.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: GWU, Washington, DC Master's Certificate 2007 Project Management; Queens University Kingston, Ontario in Canada MSc 1994 Civil Engineering; Queens University Kingston, Ontario in Canada BSc 1992 Civil Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2001 P.E. VA #0402035169	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
VDOT, I-95 Express Lanes Fredericksburg Extension, Stafford and Spotsylvania Counties, VA (DESIGN-BUILD)	
Name of Firm: CES Consulting, LLC	Project Role: QAM
Beginning Date: 6/2018	End Date: 11/2023
<p>Specific Responsibilities: As the QAM, Mr. Singh manages QA inspection services for the 10-mile extension of the I-95 Express Lanes from south of Route 610 to Route 17 creating a continuous 50-mile express lane corridor from Fredericksburg to the DC line. The project includes 2 reversible HOT lanes, 2 new access points, 7 new interstate bridges, extensive ITS infrastructure, retaining/sound walls, geotextile reinforced slopes/embankments, drainage and box culverts and excavation. Avtar drafted the Construction Quality Management Plan and the overall Quality Management System Plan and is responsible for implementing the QMSP/CQMP in the field. He manages the QA inspection team to ensure all construction activities are inspected, tested, and documented properly and coordinates OIA/IV testing with VDOT. He leads preparatory inspection meetings; participates in design and executive meetings and QA audits of the design team's deliverables to confirm compliance with the Design Quality Management Plan. Avtar confirms compliance with the DEQ and USACE environmental permits and MOT plans and recommends solutions to non-compliant work and design and field issues such as the presence of unsuitable soil conditions, extensive MOT and logistical coordination</p>	

with adjacent projects, and multiple stream crossings with environmental permit constraints. The team uses PlanGrid, Procore, Aconex and other construction management software in the field to ensure seamless and digital interface with the concessionaire, VDOT, DB, QA, and QC teams.

Project Relevance: This \$402M D-B/P3 project includes 10-mile extension of the I-95 Express Lanes from Route 610 to Route 17. The project includes multiple bridge and roadway tie-ins to I-95, spot widening of I-95, 2 reversible HOT lanes, 2 new access points, 7 new interstate bridges, extensive ITS, retaining/sound walls, geotextile reinforced slopes/embankments, drainage and box culverts and large cut-to-fill operations. Similar project scope includes: D-B, interstate roadway, permitting, hydraulics, geotechnical, ROW acquisition, utility relocation, wet utility new construction, storm drainage, SWM facilities, roadway demolition and reconstruction, mass excavation and grading, CTA, structure demo and reconstruction, pile driving, structural precast members, multi-phased MOT with temporary pavement, barrier walls, noise walls, drilled shafts, roadway lighting, signs and sign structures, ITS tolling, signals and signal foundations, landscaping, aggressive schedule, high profile project with an emphasis on public relations.

VDOT, Route 29 Solutions, Albemarle County and Charlottesville, VA (DESIGN-BUILD)

Name of Firm: CES Consulting, LLC	Project Role: QAM
Beginning Date: 2/2015	End Date: 10/2017

Specific Responsibilities: As the QAM, Mr. Singh managed QA inspection and testing services for the construction of three project segments bundled under the Route 29 Solutions Contract: (1) accelerated bridge construction (ABC) of a grade-separated intersection at Route 29 and Rio Road; (2) widening of a 3-mile segment of Route 29 from 4 to 6 lanes; (3) a 2.3-mile extension of Berkmar Drive including a new 715-foot-long bridge crossing over the Rivanna River, a bike lane, sidewalk and shared use path. Avtar prepared the QA/QC plan ensuring testing and sampling procedures met or exceeded the minimum requirements and oversaw QA inspections in compliance with the QA/QC Plan. He was responsible for QA staffing; reviewing and confirming inspection frequencies and reporting; conducting and participating in preconstruction and weekly meetings; reviewing and approving RFIs; and auditing ESC inspections. Avtar recommended procedural improvements that reduced rework and overall construction costs. He recommended solutions to project challenges such as meeting a fast track schedule to avoid extensive monetary disincentives and 24-hour-a-day-work operations requiring long QA/QC works hours and staffing coordination. Also, Avtar recommended solutions that involved maintaining heavy traffic volumes and safety for many pedestrians; wet and dry utility relocations with numerous latent conflicts and tight urban workspaces; and maintaining access and minimizing impacts to businesses. **Mr. Singh coordinated and worked together with the Lane Construction Team on this project.**

Project Relevance: This \$128 D-B project included simultaneous construction of three projects along the Route 29 corridor: (1) accelerated bridge construction (ABC) of a grade-separated interchange at Route 29 and Rio Road; (2) widening of a 3-mile segment of Route 29 from 4 to 6 lanes; (3) a 2.3-mile extension of Berkmar Drive including a new 715-foot-long bridge crossing over the Rivanna River. Similar project scope includes: Design-Build, permitting, hydraulics, geotechnical, ROW acquisition, dry/wet utility relocation, storm drainage, SWM facilities, roadway widening, excavation and grading, CTA, structure demolition/reconstruction, pile driving, structural precast members, multi-phased MOT with temp. pavement, barrier/noise walls, drilled shafts, roadway lighting, signs/sign structures, signals/signal foundations, landscaping, aggressive schedule, high profile project with an emphasis on public relations.

VDOT, Warrenton Southern Interchange, Fauquier County, VA (DESIGN-BUILD)

Name of Firm: CES Consulting, LLC	Project Role: QAM
Beginning Date: 2/2018	End Date: 10/2020

Specific Responsibilities: Avtar managed QA services for the construction of an innovative interchange (using a modified barbell interchange Concept) with 2 roundabouts at each end of the precast-concrete bridge to replace a signalized intersection. The single-lane roundabouts can handle tractor-trailers up to 69 feet long. The project also features a 2,000-foot-long pedestrian path across the bridge. Avtar drafted the Construction Quality Management Plan; managed QA inspection, testing, and documentation to ensure all construction activities were inspected, tested and documented properly; reviewed and certified pay applications; coordinated OIA/IV testing with VDOT; and coordinated with the FHWA Area Engineer. Avtar recommended solutions to field challenges such as safety concerns due to extensive work in heavy traffic, limited staff to inspect day and night operations, and multiple MOT patterns to allow construction of the multiple ramps coming off the roundabouts, coordination. In a 2020 VDOT performance evaluation, Avtar's QA/QC plan as well as the QA materials testing and QA inspection services received an **'Exceeds Expectations' rating**. Due to Avtar's leadership and attention to detail, the QA team received a **CQIP score of 100%**.

Project Relevance: This \$19.6M D-B project involved constructing a grade-separated interchange where U.S. Route 15/17/29 intersects Business U.S. Route 15/17/29 to the west and Lord Fairfax Drive (Route 808) to the east. The limits of the project are from approximately 0.7 miles south of US 15/17/29 Business to approximately 0.8 miles north of the intersection, for a total length of approximately 1.5 miles. The proposed interchange will remove the existing traffic signal on the Eastern Bypass, allowing free flow of through traffic. *Construction was completed one month ahead of schedule.* Similar project scope includes: roadway; survey; structure and/ or bridge; environmental; geotechnical; hydraulics; transportation management plan; right-of-way; utilities; public involvement/ relations; quality assurance and quality control; construction engineering and inspection; and overall Project management.

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: DARELL FISCHER, PE, DBIA / CHIEF BUSINESS OFFICER	
b. Project Assignment: DESIGN MANAGER	
c. Name of the Firm with which you are employed at the time of submitting SOQ.: RINKER DESIGN ASSOCIATES, PC	
<p>d. Employment History: With this Firm <u>16</u> Years With Other Firms <u>21</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p>Mr. Darell Fischer, PE, DBIA brings substantial design/design-build expertise to the team with 37 years of experience in the management of all technical and disciplinary aspects of roadway design. His experience includes serving as Design Manager on 11 Design Build (D-B) projects, seven with VDOT, four with other agencies plus numerous local jurisdiction designs. In these roles he has been responsible for coordinating all design disciplines including managing the QA/QC process and ensuring conformance to project requirements and specifications.</p> <p><u>Rinker Design Associates, PC, 2018–Present:</u> Chief Business Officer: Mr. Fischer’s responsibilities include directing RDA’s business development and marketing efforts, in addition to all duties from his previous position which were carried over to this newly created position at RDA. He also oversees the opening and development of new offices.</p> <p><u>Rinker Design Associates, PC, 2016–2018:</u> Director of Design-Build Services: Mr. Fischer’s responsibilities included pursuing and overseeing all D-B projects. He was responsible for allocating, overseeing, and managing all designs and subconsultant work performed on D-B/P3 projects. His duties included development and implementation of the design QA/QC program for D-B projects. Mr. Fischer was responsible for staffing projects, hiring subconsultants, negotiating contracts, and project scheduling to ensure on-time/on-budget performance. Actively involved in DBIA and with VTCA’s Design-Build Committee.</p> <p><u>Rinker Design Associates, PC, 2009–2016:</u> Director of Transportation/Principal: Mr. Fischer’s responsibilities included allocating, overseeing, and managing all designs performed in RDA’s Richmond office. His duties included the development and implementation of the design QA/QC program for D-B projects.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute and State University, Blacksburg, VA / B.S. / 1986 / Civil Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1992 / Professional Engineer / VA Registration #0402023296	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
VDOT, I-64 Capacity Improvements, Segment II, City of Newport News, VA	
DESIGN-BUILD	
Name of Firm: Rinker Design Associates, PC	Project Role: Design Manager
Beginning Date: 1/2016	End Date: 5/2019
<p><i>Specific Responsibilities:</i> Design Manager: Mr. Fischer’s responsibilities included all design elements and disciplines for this project that widened/reconstructed 7.5 miles of I-64 from four to six lanes. Responsibilities included overall design team management to include subconsultant oversight (geotechnical analysis, structural support, environmental evaluations, and landscaping), roadway design, drainage design, structure and bridge design, signing and pavement marking plans, ITS design, complex MOT/TMP development, and management of the design QA/QC program. He led weekly design coordination meetings with the design-builder. Participated in monthly team meetings with the design-builder, QA, QC, VDOT, and stakeholders to update the design status and facilitate resolution of design issues as they arose to avoid construction concerns. Mr. Fischer attended Comment Resolution Meetings where design direction was explained to provide a solution acceptable to VDOT/design-builder. After production began, he led addressing Requests for Information (RFIs), reviewing shop drawings, and working with the design-builder to resolve field issues and design change requests. This project included inside and outside interstate widening and reconstruction, widening and</p>	

rehabilitating nine bridge structures, 19 ramps associated with three existing interchanges, six box culvert extensions, retaining walls, a sound wall, and over 30 new SWM features.

Project Relevance: This \$141.3M D-B project included Roadway; Survey; Structures/Bridges; Environmental; Geotechnical; Drainage, Erosion & Sediment Control; SWM; Traffic Control Devices; TMP; Soundwalls; ROW; Utilities; Public Involvement/Relations; Signage; Lighting; QA/QC; Construction Engineering/Inspection; Safety; and Project Management.

Transurban/VDOT, 495 NEXT, Fairfax County, VA DESIGN-BUILD

Name of Firm: Rinker Design Associates, PC **Project Role:** Design Manager

Beginning Date: 7/2021 **End Date:** Ongoing (est. end date 12/2025)

Specific Responsibilities: Design Manager: Mr. Fischer manages and coordinates the design of the I-495 Express Lanes Northern Extension Project (495 NEXT). This P3 between the Commonwealth of Virginia and Transurban extends the 495 Express Lanes north approximately 2.5 miles from the Dulles Toll Road to the George Washington Memorial Parkway (GWMP) interchange. Improvements include mainline widening of northbound/southbound I-495; interchange ramp improvements at the Dulles Toll Road, Georgetown Pike, and GWMP interchanges; and widening and/or replacing 13 bridge structures, including one over the environmentally sensitive area Scott’s Run. He leads weekly design coordination meetings between roadway, structures, hydraulics, traffic/ITS, utilities, and ROW disciplines, as well as facilitates comment resolution meetings, over-the-shoulder reviews, and hand-off/hand-back meetings with VDOT/Transurban. Mr. Fischer oversees coordination of all design disciplines to ensure the design conforms with the contract requirements, and coordinates with RDA’s Design QAM to ensure the QA/QC Program was properly staffed and implemented for design submittal deliverables. He develops, monitors, and updates the design schedule weekly, prepares monthly invoices, incorporating sub vouchers and expenses, as well as monthly design reports to identify past, current, and future work efforts by discipline and submittal package. Mr. Fischer attends weekly meetings with VDOT, Transurban, and design-builder to discuss priority issues for resolution or action. He leads daily design management meetings with the team to review progress, identify priorities and allocate resources.

Project Relevance: This \$430M D-B project includes Roadway; Survey; Structure/Bridges; Environmental; Geotechnical; Drainage, Erosion & Sediment Control, SWM; Traffic Control Devices; TMP; Soundwalls; ROW; Utilities; Public Involvement/Relations; Signage; Lighting; VMS; Cameras; ITS; QA/QC; Construction Engineering/Inspection; Safety; and Project Management. **Mr. Fischer is currently working as part of the project team with Lane, CES, and ECS. (Design will be complete in June 2023)**

VDOT, Hampton Roads Bridge Tunnel Expansion, City of Norfolk, VA DESIGN-BUILD

Name of Firm: Rinker Design Associates, PC **Project Role:** Executive Design Manager

Beginning Date: 8/2019 **End Date:** 5/2021

Specific Responsibilities: Executive Design Manager (supporting the lead designer): Mr. Fischer’s responsibilities included overseeing the management and design for the development of roadway, drainage, and SWM for the 4.1-mile portion of the HRBT project through the City of Norfolk. Also, provided project-wide MOT and water/sewer relocations for the entire 10 miles of the project. The design was completed in 2021 and is currently under construction. Design services included roadway design; maintaining existing cross slopes and profile grades; retaining and noise walls; drainage/SWM; Design Exceptions; developing 3D OpenRoads models for roadway, bridges, and drainage features; MOT/TMP design; and water/sewer relocations. He oversaw coordination of multiple design disciplines to ensure the design conformed with the contract requirements. Mr. Fischer managed RDA’s allocation of resources, monitored the project schedule, and developed/reviewed owner-requested change orders. He oversaw the execution of RDA’s QA/QC Program for pertinent disciplines involved in the preparation of design submittal packages and review of shop drawings. Mr. Fischer attended key design meetings with the Concessionaire, VDOT, and major stakeholders (i.e., US Navy, City of Norfolk, etc.), and met quarterly with executives on the project to discuss quality, schedule, and challenges.

Project Relevance: This \$3.8B D-B project included Roadway; Survey; Structures/Bridges; Environmental; Geotechnical; Drainage, Erosion & Sediment Control, SWM; Traffic Control Devices; TMP; Soundwalls; ROW; Utilities; Signage, Lighting, VMS, Cameras; QA/QC; Construction Engineering/Inspection; and Project Management.

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: ALEX GORSKI / PROJECT MANAGER	
b. Project Assignment: CONSTRUCTION MANAGER	
c. Name of the Firm with which you are employed at the time of submitting SOQ.: THE LANE CONSTRUCTION CORPORATION	
<p>d. Employment History: With this Firm <1 Years With Other Firms <u>15</u> Years</p> <p>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p>Mr. Gorski is a result-oriented project and construction manager, experienced in leading design staff, construction engineers, and field crews. He has over 15 years of experience successfully delivering large, complex, and fast-paced heavy civil, Design-Build, construction projects in the Mid-Atlantic. Mr. Gorski has experience working and coordinating closely with VDOT and local Counties in Virginia.</p> <p><u>The Lane Construction Corporation, 2022-Present:</u> Mr. Gorski serves as construction manager for Prince William Co's \$80M+ Balls Ford Road Design-Build project, a Local Administered Project, operating under VDOT oversight, Specifications and processes. His responsibilities include close coordination between VDOT, the client, railroads, adjacent businesses, and utilities. Mr. Gorski manages all construction safety, crews, quality control activities, scheduling, progress reports, and subcontractor coordination, among some of his main duties. He participates in constructability review meetings, and ensures all work meets approved construction plans and specifications.</p> <p><u>Ferrovia-Allan Myers JV, 2019-2022:</u> Mr. Gorski, served as Senior Project Manager for Segment 3, the \$275M+ Nutley Street section, of the I-66 Express Lanes Design-Build P3, a contract valued at over \$3.7B. Additionally, acted as the Washington Metropolitan Area Transit Authority Project Liaison.</p> <p><u>Tutor Perini Corporation/ Cherry Hill Construction, Construction Manager/ Project Manager (2010-2019):</u> Mr. Gorski held positions of increasing responsibility while working for Tutor Perini (Cherry Hill) as follows: Engineer, Project Engineer, Project Manager, and concluding as Construction Manager. He led design staff, construction engineers and field crews. Delivered large, complex, fast-paced heavy civil construction projects in Mid-Atlantic.</p> <p><u>Parsons Corporation, Project Engineer (2009-2010):</u> As Project Engineer, Mr. Gorski managed the design for upgrades to standby generators at Noman Cole Pollution Control Plant for the Fairfax County Department of Public Works. He managed project engineers, discipline engineers, and subcontractors resulting in excellent client relations.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Tech, Blacksburg, VA / Bachelor of Science / 2007 / Civil Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
PWC, Prince William Parkway Interchange at Realigned Balls Ford Road, Prince William County, VA (DESIGN-BUILD)	
Name of Firm: The Lane Construction Corporation	Project Role: Construction Manager
Beginning Date: 9/2022	End Date: Ongoing (est. completion 7/2023)
<p><i>Specific Responsibilities:</i> As the Construction Manager on the Prince William Parkway Interchange at Realigned Balls Ford Road D-B project, Mr. Gorski serves as the project's central point of contact. He facilitates communication with Prince William County, partners, and adjacent projects. His responsibilities include monitoring design efforts and proactively eliminating potential constructability issues and delegating resources to ensure the successful completion and delivery of the project. He ensures the design complies with the owner's specifications and RFP requirements. Mr. Gorski's management from design through construction includes weekly design and construction meetings, coordinating with Prince William County and other stakeholders, supervising the subcontractors' work, and ensuring</p>	

safety program and milestones are met. He is also responsible for construction quality management, contract administration, and coordination of public outreach.

Project Relevance: This \$80M+ D-B project consists of the realignment of existing Balls Ford Road creating a diverging diamond interchange (DDI) with Prince William Parkway (Route 234). The realignment of Balls Ford Road extends from Devlin Road in the west to Doane Drive in the east (approximate length 1.85 miles) and includes a bridge over Norfolk Southern Railroad. Similar to the proposed project this project scope includes: roadway; survey; two bridge; environmental; geotechnical; hydraulics; MOT; TMP; right of way; utilities; public involvement/ relations; QA/QC; ITS; construction engineering and inspection; and overall Project management. This project is being administered by PWCDOT under the VDOT LAP process, using the DB procurement method in accordance with VDOT standards, guidelines, and requirements. **Mr. Gorski is currently working with RDA on this project.**

VDOT, Transform 66 Outside the Beltway, Gainesville, VA (DESIGN-BUILD/P3)

Name of Firm: Ferroviaal-Allan Myers JV	Project Role: Senior Project Manager
Beginning Date: 8/2019	End Date: 9/2022

Specific Responsibilities: As the Senior Project Manager on Segment 3 of the \$3.7B Transform 66 Outside the Beltway D-B project, Mr. Gorski was responsible for executing the project plan for Nutley Interchange, six phased interchanges, two bridges and approximately 2.5 miles of five-lane highway construction, building relocation, bridge rehabilitation, and 14-way ITS duct bank relocation. Mr. Gorski worked closely and reported directly to the project’s construction manager. He managed the subcontractors for earthwork, drainage, ductbank, piling, drilled shaft foundations, retaining wall construction, and asphalt paving. Scope quantities under Mr. Gorski’s management included approximately 500,000 CY of excavation/embankment; 275,000 Tons of asphalt paving; 130,000 SF of MSE wall construction; 85,000 LF of ITS ductbank; and 30,000 LF of storm drain installation.

He provided constructability reviews during design phases, take-off, and estimates, and led a team of engineers, superintendents, subcontractors, and construction support personnel. He provided input as a part of a large, diverse, project team through coordination with QC, project controls, design, construction technical office, environmental, and executive management. Mr. Gorski coordinated/collaborated with the developer, VDOT, Fairfax County, Fairfax County Public Schools, the Town of Vienna, Washington Metropolitan Area Transit Authority, adjacent projects, and numerous public and private utility agencies. Close collaboration with VDOT included multiple weekly meetings with VDOT’s Mega Projects Project Manager, VDOT’s consultants, and discipline leads. He was responsible for redesigning MOT plans and negotiating a one-phase bridge construction plan vs. a three-phase *saving 1 year on the bridge schedule*; navigated COVID-19 challenges and capitalized project acceleration, savings, and changes.

Project Relevance: This \$275M segment is part of the \$3.7B D-B “Transform 66 Outside the Beltway Project” that will transform Northern Virginia’s Interstate 66 into a multimodal corridor that moves more people, provides reliable trips and offers Express Lane options. The project is a public-private partnership between VDOT, the Department of Rail and Public Transportation (DRPT), and private partner - I-66 Express Mobility Partners, delivering \$3.7 billion of transportation improvements in the I-66 corridor. Similar scope included: roadway; survey; structure and/or bridge; environmental; geotechnical; hydraulics; MOT; TMP; ROW; utilities; public involvement/relations; QA/QC; ITS; soundwalls; construction engineering and inspection; and overall Project management.

EFLHD, I-564 Intermodal Connector, Norfolk, VA (DESIGN-BUILD)

Name of Firm: Tutor Perini Corporation/Cherry Hill	Project Role: Construction Manager
Beginning Date: 1/2014	End Date: 1/2018

Specific Responsibilities: As the Construction Manager, Mr. Gorski, was responsible for the successful execution of the \$116M D-B contract for the I-564 Intermodal Connector in Norfolk, VA for Eastern Federal Lands Highway Division (EFLHD). He managed a team including project engineers, procurement/change manager, general superintendent, safety manager, QC manager, QA manager and office manager. Construction scope under Mr. Gorski’s management included 400,000 CY of embankment; 50,000 SF of MSE wall construction; 1.5M LF of wick drain installation; and four bridges. He managed a self-perform team of over 100 craft personnel and 15 professionals. Mr. Gorski provided overall leadership of the project team executing the Project Management Plan. He directed and supervised work of project administration, project superintendents and engineers to establish operation priorities and maintain satisfactory relationships. He promoted client, vendor and subcontractor relationships while resolving complex contract issues from the Federal Acquisition Regulations, VDOT Specifications and Unified Facilities Guide Specifications. The project was accelerated to \$90M of construction in 15 months. He coordinated and collaborated with EFLHD, VDOT, City of Norfolk, Norfolk Southern Railroad, Naval Facilities Command, adjacent projects, and public/private utilities.

Project Relevance: This \$116M D-B project consisted of a new I-564 Intermodal Connector, a reconfigured Commercial Vehicle Inspection Station for Naval Station Norfolk (NSN), a relocated NSN Gate 6 (entry control point), and relocation of Patrol Road and Ingersol Road. The new Intermodal Connector extends from the existing I-564 in the area of Terminal Boulevard on the east to the NSN Gate 6 and NIT on the west, representing approximately 2.82 miles of four-lane limited access highway. Similar project scope included: roadway; survey; structure and/or bridge; environmental; geotechnical; hydraulics; MOT; TMP; ROW; utilities; public involvement/relations; QA/QC; ITS; construction engineering and inspection; and overall project management.

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. **Prince William Parkway Interchange at Realigned Balls Ford Road Project, CM, Completion 7/30/2023.**

The page features a white background with blue geometric shapes in the top-left and bottom-right corners. A horizontal orange line runs across the page, with a solid orange circle at its left end in the top section and another solid orange circle at its right end in the bottom section.

Attachment 3.4.1(a)
LEAD CONTRACTOR WORK HISTORY FORMS

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: 95 Express Lanes Location: Fairfax, Prince William & Stafford Counties, VA (DESIGN-BUILD/P3)	Name: HNTB/HDR	Name of Client./ Owner: VDOT Phone: 571.483.2651 Project Manager: Charlie Warraich, PE Phone: 571.273.8229 Email: H.S.Warraich@virginia.gov	12/2014	12/2014*	\$691,147	\$734,636**	\$326,850

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

Similar Scope of Work: <ul style="list-style-type: none"> • Design-Build • Roadway • Survey • Structure and/or Bridge • Environmental • Geotechnical • Hydraulics • Traffic Control Devices • Transportation Management Plan • Right-of-way • Utilities • Public Involvement/ Relations • QA/QC • Intelligent Transportation Systems • Soundwalls • Construction Engineering & Inspection • Overall Project Management 	PROJECT SCOPE Lane, as a Construction Joint Venture (CJV) member, shared responsibility for the design and construction of the \$726 million 95 Express Lanes project. The project created approximately 29 miles of Express Lanes on I-95 from Route 648, Alexandria, VA at the northern terminus to Route 610, Stafford, VA at the southern terminus. The scope of work included reconstructing and converting 20 miles of the existing 2 lane HOV lanes to 3 lane express lanes and constructing a new 9-mile roadway extension beginning at the southern end of the existing HOV lanes at Route 234, Dumfries, VA. The reconstruction and extension consisted of major clearing and earthwork, an extensive ITS and signing system, sound walls, asphalt mill and overlay, shoulder reconstruction, and additionally, structural bridge work (29 bridges and rehabilitated flyovers including 9 new structures). As a 35% Fluor-Lane 95, LLC CJV member, Lane provided nearly all of the project supervision and workforce for the CJV. Additionally Lane's asphalt, sign and wall division subcontracted with the JV to perform all of the asphalt paving, soundwall construction and some roadway signage. Actually, Lane self-performed over 50% of the work on the Project.	
Proposed Personnel on Project: Ali Alkourashi (Lane)	RELEVANT PROJECT ELEMENTS TO I-64 GAP SEGMENT A WIDENING FROM MM 204.9 TO MM 215.6 -On Time or Early Completion Date: The project was completed one month ahead of schedule, and on budget. The team had 1,009 days to design and construct this fast track D-B project. The team received NTP on March 27, 2012 and it was imperative that construction start in the first season in order to finish by the December 31, 2014 completion date. Release for Construction design plans typically take at least one year to develop, review, and approve prior to construction commencing. To mitigate any design resource limitations and meet this fast track schedule, the team decided to employ two design firms to expeditiously deliver 123 design packages to start construction early. Over 100 design professionals were co-located at the project office facility to collaborate and fast track the design deliverables. The team received construction plans and started appreciable construction activities only 4 months after NTP. The Team mobilized a workforce of approximately 1,500 workers plus multiple subcontractors to construct this segmented, multi-phased project. Crews worked day and night, 7 days per week to meet schedule milestones. <i>The Team completed the project early - 29 miles in 29 months</i> -Innovative Design Solutions and Construction Techniques: The team established an electronic survey control network for Robotic Controlled Paving to provide high quality pavements. This process utilized 3D models installed in a computer module for the asphalt paver. Several Trimble robotic total survey stations were set up on control stations at approximate 500' intervals along the paving sections. Throughout the paving process the total stations continuously connect wirelessly with a prism target that is mounted on the screed of the paving machine. The horizontal and vertical positions are continuously controlled by the computer module and sent to the paver via a radio connection. The computer module processes this data and makes adjustments to the paver screed based on its location within the project. This innovative process provided a high quality (+/-0.25") and consistent final paving product while assuring quantity yields are very close to design volumes. - Limiting Impacts/Commitments to Minimize Congestion: The project presented numerous work zone ingress/egress challenges and very tight work areas due to the heavy traffic and median work zone conditions. The I-95 project corridor carries an ADT of nearly 250,000 vehicles per day. The team mitigated this challenge by working with construction and engineering personnel to devise the best MOT schemes; over 1,000 MOT plan sheets were developed and approved. The need for an innovative work zone traffic control and access plan was particularly critical on this project due to the severe deterioration of some of the mainline and surrounding road pavements. Unimpeded access to the existing median was necessary to improve safety, minimize impacts to traffic, reduce stress on existing infrastructure, and accelerate the project schedule. Lane/RDA Partnership: RDA was a design team subcontractor on the project providing all of the TMP/MOT as a sub to HNTB and HDR (the full 29 miles). They also provided utility coordination/relocation and ROW support services. Bridge and Structures: Nine new bridges were constructed along the project corridor. The new bridges include two each with steel curved girders, two each two span flyovers near Garrisonville Road and Joplin Road, three single span bridges with steel girders over Aquia and Chopawamsic Creeks and Russell Road, one two-span concrete girder bridge over Joplin Road and replacement of the existing Telegraph Road bridge across I-95 with a new two-span steel girder bridge. DBE: Over \$193M was committed to and performed by more than 131 DBE/SWaM firms. Additionally, the team surpassed the On the Job Training Program goal of 24 trainees set by VDOT (31 trainees graduated the program). Environmental: The D-B Team led the efforts to restore Swan's Creek—a tributary to the Potomac River and Chesapeake Bay by installing erosion and sediment controls, placing stone along the creek bed, and micro-grading to allow for habitats and improvements to the overall water quality. In addition, nearly 7,500 new trees and shrubs were planted near Swan's Creek as part of the stream restoration effort. Project leaders worked with Prince William County to determine the highest stream improvement priority, resulting in its successful restoration. ITS/TMS: The project involved sign design and construction support for ITS CCTV traffic surveillance cameras; DMS signs; microwave traffic detectors; video-based automatic incident detection cameras; emergency gate telemetry; express lane access gates; EZ-pass toll equipment; fiber optic communications; power distribution; and emergency back-up power system. QA/QC: The team utilized a 'just-in-time' inspection protocol (which was developed on the 495 Express Lanes) such that acceptance inspections occurred over the last 18 months of the project instead of the last month. This helped the team achieve substantial completion ahead of schedule, with confidence the work had been properly inspected by the contractor's QA/QC team and VDOT. Utilities: Extensive utility relocation efforts included identification and data gathering, review of design concepts against existing utility locations (pavement, structures, and signs), determination of mitigation measures, and ongoing coordination with numerous utility companies for both aerial and underground facilities took place during the first year of the project. Public Involvement/ Relations: A dynamic public information program was implemented which provided advanced notifications to VDOT and the public. This was facilitated through public meetings, the project website, email blasts, flyers, and door to door calls promoting awareness of construction operations and lane closures in order to provide better travel planning through the corridor. The team held over 415 public meetings. Additionally, the team coordinated with over 14 other active contracts during construction.	
EVIDENCE OF PERFORMANCE The project also received the following awards: "Construction Management Association of America 2013 Project Achievement Award"; "ENR's 2015 Project of the Year in the Mid-Atlantic"; "ARTBA's 2015 Safest Project of the Year"; "Excellence in Virginia Government Public Private Partnership Award"; "P3 Highway Project of the Year finalist"; "VDOT and Transportation DBE Advisory Committee 2014 Prime Contractor of the Year"; "ARTBA and Transportation Builders Association Transportation Development Foundation 2014" for substantial completion two weeks ahead of schedule.		

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: I-85 Widening Location: Cabarrus County, NC (DESIGN-BUILD)	Name: HDR	Name of Client./ Owner: NCDOT Phone: 919.707.2400 Project Manager: Boyd Tharrington, PE Phone: 919.707.2400 Email: btharrington@ncdot.gov	10/2014	10/2014	\$125,000	\$149,000*	\$149,000

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

Similar Scope of Work: <ul style="list-style-type: none"> • Design-Build • Roadway • Survey • Structure and/or Bridge • Environmental • Geotechnical • Hydraulics • Traffic Control Devices • Transportation Management Plan • Right-of-way • Utilities • Public Involvement/ Relations • QA/QC • Intelligent Transportation Systems • Soundwalls • Construction Engineering & Inspection • Overall Project Management 	PROJECT SCOPE The widening of the heavily traveled I-85 was needed to accommodate additional traffic and reduce congestion. This \$149 million D-B project included the widening & reconstruction of approximately seven miles of I-85 from four to eight lanes starting south of Bruton Smith Boulevard/Concord Mills Boulevard to north of NC 73. Lane (as Lead Contractor) removed the existing deteriorated pavement and replaced it with eight lanes of new concrete pavement. Improvements to area roads and interchanges were also performed, including two diverging diamond intersections and a "superstreet". This I-85 project included many tourist attractions including the popular Charlotte Motor Speedway and Concord Mills Mall (North Carolina's No. 1 visitor attraction) which are both accessed by this route. Specific project related elements included: major interstate corridor widening in the median of existing high traffic volumes, shoulder strengthening, structures, MOT, drainage/hydraulics/SWM, geotechnical (poor soils mitigations), earthwork, permitting, demolition, noise walls and pavement markings/signage.	
RELEVANT PROJECT ELEMENTS TO I-64 GAP SEGMENT A WIDENING FROM MM 204.9 TO MM 215.6 -On Time or Early Completion Date: Lane successfully obtained a project completion date 11 months earlier than the required final completion and a bid price \$8.5 million below the engineers' estimate. <i>Lane was able to accelerate the schedule during the proposal phase by 11 months ahead of the owner's schedule.</i> -Innovative Design Solutions and Construction Techniques: The Team's ability to collaborate with NCDOT, stakeholders, businesses and the public, and devise innovations was exemplified on this project. The majority of the new roadway capacity was constructed within the existing 70-foot median, which had the potential to create difficult access for construction equipment and personnel. The need for an innovative work zone traffic control and access plan was particularly critical due to the severe state of deterioration of existing facilities and a high Average Daily Traffic count of 118,000 vehicles. Unimpeded access to the existing median was critical to improve safety, minimize impacts to traffic, reduce stress on existing infrastructure, accelerate the project schedule, and save costs. Lane staff determined that the construction of a temporary bridge with direct median access would solve their needs for unimpeded access. This concept was developed by Lane on previous D-B projects utilizing an existing bridge and a temporary access ramp – Lane used a temporary ramp off an existing bridge for direct median access on the I-95 Widening at Dumfries, VA for VDOT that greatly increased safety, schedule and other impacts. The I-85 temporary bridge was the first time a dedicated temporary bridge was constructed along with temporary access ramps. The safety improvements resulting from this concept were significant. The need to haul 40,000 loads of material across interstate traffic into the median was completely eliminated. Thousands of trips by construction and NCDOT inspection staff were also made safely and without entering I-85 traffic. -Limiting Impacts/Commitments to Minimize Congestion: Lane coordinated with several stakeholders including two (2) municipalities, over 60 business owners, six (6) utility owners, and multiple local residential communities, and participated in Chamber of Commerce and other public meetings with the client. This was one of the largest D-B projects in the region and involved interstate maintenance of traffic plans, as well as concrete paving, which Lane self-performed. Roadway: The project included the widening & reconstruction of approximately seven miles of I-85 from four to eight lanes. The project also included the improvement of several miles of cross streets and an innovative a superstreet arrangement. Bridge and Structures: Six existing bridges were replaced with new structures, two major interchanges were replaced with DDIs, and another major interchange was improved. Safety: The safety improvements resulting from the temporary access ramps in the median was significant. Eliminating the interface between the public to haul 40,000 loads of material across interstate traffic into the median, including thousands of trips by construction and NCDOT inspection staff was a tremendous safety improvement on the project. Environmental: There were extensive environmental permit modifications on this project which involved 2,000 feet of stream and wetland impacts, as well as, bridge construction over a major river and creek. The project also required the acquisition of an individual USACE 404 permit modification and a NC Division of Water Quality (DWQ) 401 certification. All design and applications were completed and approved by NCDOT in seven months. QA/QC: The use of the temporary median access bridge and ramps provided a significant quality improvement for not only the temporary traffic control measures, but also for the new concrete pavement. This concept allowed the concrete pavement to be placed continuously, without the need for "breaks" in the paving lanes to accommodate median ingress/egress points. The result was superior concrete pavement quality and ride smoothness. Utilities: The Lane Team's responsibilities included coordinating the relocation of multiple major utilities. These included power distribution (two separate owners), natural gas transmission and distribution, water, sanitary sewer, and extensive communication utilities. To successfully resolve the utility conflicts, the Team assigned a Lane engineer to that task exclusively as well as a utility coordination subconsultant. Public Involvement/ Relations: Lane coordinated with several stakeholders including two (2) municipalities, over 60 business owners, six (6) utility owners, and multiple local residential communities. An example of this coordination was that Lane took into account events at the Charlotte Motor Speedway, one of the busiest sport venues in the country, and scheduled construction activities around highly popular NASCAR events. Due to number of events held at the venue each month, it was impractical to schedule work around every event. In preparation for larger events, Lane worked with speedway staff and NCDOT to prepare public information messaging. Dynamic message boards were used to alert the traveling public to higher than normal traffic on the interstate and local roads due to significant events.		
EVIDENCE OF PERFORMANCE This project won the 2012 "TransOvation" Award and "Roadway Work Zone Safety Awareness" award from the American Road & Transportation Builders Association (ARTBA). Lane also received an award for "Asphalt Operations Safety Innovation" in 2012 from The National Asphalt Pavement Association (NAPA); in addition to the "Top Ten Project" award given by the Roads and Bridges Magazine in 2014.		

*Reason for contract value variance: Owner requested incorporation of alternative design concepts – change order for widening ramps

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: 395 Express Lanes Location: Fairfax & Arlington County, City of Alexandria, VA (DESIGN-BUILD)	Name: AECOM	Name of Client./ Owner: Transurban USA Phone: 703.244.6685 Project Manager: Jeff Taylor Phone: 703.244.6685 Email: JeffTaylor@transurban.com	05/2020	12/2020 (substantial completion) 06/2020 (final)	\$336,303	\$350,883 (Additional work awarded & change orders issued by the Owner)	\$350,883

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

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> • Design-Build • Roadway • Survey • Structure and/or Bridge • Environmental • Geotechnical • Traffic Control Devices • Transportation Management Plan • Right-of-way • Utilities • Public Involvement/ Relations • QA/QC • Intelligent Transportation Systems • Sound walls • Construction Engineering & Inspection • Overall Project Management 	RELEVANT PROJECT ELEMENTS TO I-64 GAP SEGMENT A WIDENING FROM MM 204.9 TO MM 215.6	
Proposed Personnel on Project:	<p>The 395 Express Lanes project is an 8-mile extension of the existing 95 Express Lanes in Fairfax County, the City of Alexandria, and Arlington County, Virginia. The 395 Express Lanes extends from the current northern terminus of the 95 Express Lanes at Turkeycock Run, near Route 236 (Duke Street) in the south, to the vicinity of Eads Street near the Pentagon in the north. The primary objective of the 395 Project was to convert the two existing HOV lanes on I-395 to three High Occupancy Toll (HOT) lanes, which are used by HOV 3+ vehicles for free, and by other permitted vehicles for a fee (toll). The completed 395 Express Lanes ties into the existing 95 Express Lanes and now operate as a single, fully-integrated Express Lanes facility. The Express Lanes were built largely within VDOT's ROW and the pre-existing footprint of the I-395 HOV lanes; additional scope of work includes installation of signage, toll systems, and an active traffic management system. Work also included the design and construction of three groupings of sound barriers, these include 78,260 square feet of sound barriers associated with the Duke-Edsall Widening scope of work, 69,125 SF. of sound barriers associated with the Seminary Road HOV Ramp Sound Barriers scope of work; and 827,906 SF. of sound barriers associated with the 395 Express Lanes scope of work; as well as roadway, traffic signal, and parking lot improvements on the Pentagon reservation.</p> <p>-On Time or Early Completion Date: The project schedule and delivery targets were met in a timely manner and the base contract of this project was delivered on budget.</p> <p>-Innovative Design Solutions and Construction Techniques: The 395 Express Lanes will serve as a community enhancement by reducing congestion, mitigating noise, reducing local "cut-thru" traffic and improving travel times in the corridor. During the design of the sound walls, the team focused on limiting the amount of clearing required for installation near residential areas. Additional survey in these has been performed so that sound wall alignment can minimize impacts to existing vegetation; this minimizes the amount of vegetation lost during the construction thus allowing the landscaping component of the Project to be used for landscape enhancements elsewhere in the corridor. Lane's Hot Mix Asphalt Plant runs at a low emission threshold and incorporates recycled materials. By operating in this manner and under Lane's HMA Plant Guide for Efficient and Environmentally Sound Operation our plant personnel are informed and capable of minimizing emissions and maximizing fuel efficiency. Due to these sustainable benefits and considering the short haul distance from the Plant to the 395 Express Project, this is just one example how multiple elements of sustainability have been realized by the Project and provide enhancements to the community.</p> <p>- Limiting Impacts/Commitments to Minimize Congestion: Lane, supported by proposed designer RDA, established and managed the MOT which provided a safe work zone to construction personnel and the traveling public, minimized commuter disruption, and maximized productivity during allowable work shifts. TMP and MOT plans addressed procedures required when directional change was made. MOT/sequencing of construction, included coordination of phased work. The TMP and MOT plan eased congestion and allowed smooth and safe travel through the work zone minimizing weaving; placing linear approach and barrier patterns; minimizing impacts to GP lanes during HOV/Express Lanes construction; and maintaining maximum safe speeds through the corridor. Roadway: The widening of local roads, Edsall Road and Duke Street, that intersect with I-395, were part of the DEW scope. In both instances, the Project was constructed in two (2) phases. During Phase 1, the Lane Team constructed temporary median lanes, installed temporary barrier walls on the outside lanes and shifted traffic towards the median, then constructed the roadway widening. For Phase 2, the Lane Team shifted the outside temporary barrier walls on westbound outside lanes, removed temporary barrier walls on eastbound outside lane and installed barrier walls on both sides of the median. The team then completed the remaining west bound lane widening, and the median. The team utilized the RFP proposed phasing (Stage 1 and 2 only) for this widening. Phase 1 included construction of new roadway adjacent to existing roadway. Phase 2, included roadway widening, switching the ramp traffic into the new alignment, demolishing existing ramps, and constructing SWM ponds; and Phase 3 included, roadway widening, and switch ramp traffic into new alignment, then demolish existing ramps. Bridge/ Structures: Bridge repair and deck reconstruction, there were two main categories of bridge work in the Project scope, underdeck and deck work; both categories of work were performed concurrently with proper planning and coordination. This project also included a unique element, the incorporation of the rehabilitation of the existing Department general purpose bridges on or over I-395. Lane Team's QMP included a special section designated for the work on the GP bridges and set the protocol for the material certifications and associated QC for all aspects of type of structural repair. The project also included ITS Structures, four gantries, and modification and repair of 18 bridges. Safety: The D-B team held weekly safety meetings, developed various management plans, TMP, PIP and coordinated with VDOT, Transurban and Stakeholders ensuring that procedures were in place to carry the safety requirements through all aspects of the Project. The "Orange Cones. No Phones" Program was implemented. Safety orientation course was mandatory and provided to all project employees, and daily pre-shift meetings prior to starting work. Safety Assurance program was also implemented for safety supervisors, this program involved segment safety managers and staff using internally developed Lane computer software on a handheld device to conduct periodic safety audits, any deficiencies were noted and corrected. Geotechnical: The Lane Team utilized the Early Works Program to maximize time gain on the 395 Project Critical Path, geotechnical investigation was part of the Early Works. Geotechnical investigation included, field investigations, borings, laboratory testing and preparation of geotechnical recommendations and reports. Geotechnical investigations verified Express Lanes and DEW general purpose widening pavement designs as well as verification of structural sound barrier requirements. Public Involvement/ Relations: Lane was responsible for coordination with the affected public and private entities (third parties) and local jurisdictions, including but not limited to, VDOT, Arlington County, City of Alexandria, Fairfax County, District of Columbia Department of Transportation, FHWA, Department of Defense (Pentagon Reservation), NPS, WMATA and utility owners. RDA/Lane Partnership: RDA provided MOT support during construction to resolve design issues and better align to Lane's approach to the work.</p>	

EVIDENCE OF PERFORMANCE

"This corridor is the economic backbone of Virginia, and this project will significantly reduce congestion in it; sitting in traffic hurts our economy, and it keeps people away from the ones they love." – said VA Governor, Ralph Northam

"This is the latest example of Virginia's commitment to provide transportation solutions that work for everyone. We have forged partnerships and designed projects that can deliver options for commuters. Virginia carpoolers and buses get the free-flowing travel they deserve, a single commuter can choose to pay for a more reliable trip, and the communities along the 395 Corridor will see consistent, year-over-year investment in transit paid for by toll revenue." – said Secretary of Transportation, Shannon Valentine



Attachment 3.4.1(b)
LEAD DESIGNER WORK HISTORY FORMS



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Original Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-64 Capacity Improvements – Segment II Location: City of Newport News and York and James City Counties, VA (DESIGN-BUILD)	Name: Allan Myers	Name of Client: VDOT Phone: 703.259.2734 Project Manager: Mike Davis Phone: 757.925.2680 Email: mike.davis@vdot.virginia.gov	01/2016	05/2019	\$138,747 (Original)	\$141,370 <i>(increases due to additional landscaping and bridge repairs)</i>	\$9,237

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

Similar Scope of Work:	PROJECT SCOPE
<ul style="list-style-type: none"> • Design-Build • Roadway • Survey • Bridges and Structure • Environmental • Geotechnical • Hydraulics • Traffic Control Devices • Transportation Management Plan • Right-of-way • Utilities • Public Involvement/ Relations • QA/QC • Intelligent Transportation Systems • Soundwalls • Construction Engineering & Inspection • Overall Project Management 	<p>RDA was the Lead Designer on the I-64 Capacity Improvements - Segment II Project and managed the design from their Glen Allen office with assistance from the Manassas and Fredericksburg offices. The design was completed in 2017 and included: design and subconsultant management, roadway design, traffic engineering, ITS design, drainage and SWM design, structures design, MOT/TMP design, and community involvement. The project consisted of reconstruction/widening for approximately 7.5 miles of I-64 in both EB and WB directions. The western portion of the project had a wide, depressed median from the western terminus through to approximately Jefferson Ave./Rte. 143 Interchange. The eastern portion of the project had a narrow/raised median which required barrier wall separation filled with landscape stone. Design elements included open ditches, closed storm drainage, detailed H&HA, extensive SWM, roadway reconstruction/widening, nine bridge widenings, box culvert extensions, guardrail, and multiple retaining walls. ITS was replaced/upgraded along with overhead sign structures.</p> <p>RELEVANT PROJECT ELEMENTS TO I-64 GAP SEGMENT A WIDENING FROM MM 204.9 TO MM 215.6</p> <p>-On Time or Early Completion Date: The project was delivered ahead of schedule and received an early completion bonus despite redesign associated with a Value Engineering submission to convert the project from Part IIB SWM requirements to Part IIC SWM requirements.</p> <p>-Innovative Design Solutions and Construction Techniques: To create more green space and to reduce significant median barrier construction, our design optimized the widening from the RFP design to provide outside widening along the westbound lanes from east of the Busch Gardens interchange to the bridges over Jefferson Ave. at Exit 147. This design change also addressed concerns from the Yorktown Naval Weapons Station property which allowed the Navy's security detail better visibility to potential encroachments from the interstate. Innovations involving the bridge clearances over Jefferson Ave., where the proposed widening would have reduced the clearance due to cross slopes and the existing roadway grades. As a result, there would have been inadequate clearance if the same size girders were used to widen the structure. To solve the problem, our Team designed dissimilar beams to shallow up the depth and achieve adequate clearance. Additionally, several large culverts were required to be extended using construction techniques in the median to maintain run-off through the existing culverts which included coffer dams and pumps to bypass base flows through the existing culvert. The coffer dams were designed to allow larger storm events to pass through existing culverts and not adversely impact surrounding properties or the construction work area. Construction areas within the median and in the vicinity of the culvert extensions were fully protected for erosion control and work vehicles elevated out of any storm inundation.</p> <p>-Limiting Impacts/Commitments to Minimize Congestion: I-64 Segment II project interfaced with the I-64 Segment I. As such, several phases of MOT required RDA to relocate or change the signage on the adjacent project. Additionally, the design required adjustments to accommodate the final design features of Segment I including the relocation of an emergency crossover.</p> <p>Roadway: This project reconstructed/widened the interstate from four to six lanes for approximately 7.5 miles. The majority of the widening was to the median and included the reconstruction of the existing lanes using FDR (Full Depth Reclamation).</p> <p>Bridge and Structures: The project widened nine bridges; four twin sets of bridges over local roadways and an additional solo bridge EB over an underpass ramp in an interchange. The bridge widenings to the median created constricted work zones so they were designed and constructed in unison to provide better access and efficiency. Additionally, RDA designed box culvert extensions, numerous retaining walls, and a special design barrier wall raised median throughout the eastern end of the project.</p> <p>Safety: Safety was a primary focus as the design developed for each design element and its implementation. MOT plan sheets focused on exceeding the requirements to provide protection for the traveling public and the construction team. Consideration was given to each permanent feature, including guardrail, to ensure that it met the requirements, but also provide a safe and functional roadway for the public, future needs, and maintenance requirements. Soundwalls: Soundwalls were provided to protect the Williamsburg Country Club golf course as determined by our Team's noise analysis and design. Red brick architectural treatment was used at the request of the City. ROW: RDA self-performed the ROW acquisitions including appraisals, negotiations, and closings. Environmental: The design and construction teams maintained continual communication through each work phase to implement interim E&S controls and address unexpected conditions and needed modifications. As implementation progressed, there were several non-sequential requests by the construction team that required the redesign of E&S plans to accommodate modifications to the construction means/methods and to maintain progress. QA/QC: The design fully complied with the approved QA/QC Manual developed for the project which complied with VDOT's QA/QC guidelines as required by the RFP. Furthermore, the project's QMP evolved with the project, it was a "living" document. An important tool that was implemented during the design process to improve QA/QC was the use of Bluebeam Review sessions to perform QC comments, track their disposition, and document their implementation. This tool became especially useful when our Team changed the SWM design from Part IIB to Part IIC, which significantly altered the number of facilities and their types. Ultimately, this reduced future maintenance costs for VDOT. TMP: A TMP Type C, Category V plan was developed to comply with IIM-LD-241. Key elements included the Public Information and Communications Plan, a Traffic Operations Plan, and the MOT Plan. Utilities: The utility impacts were significantly minimized and mitigated by our design. However, it did require close coordination with the City of Newport News to protect their 42-inch raw water intake line that draws water from their adjacent reservoir. Additionally, we coordinated with the US Navy to protect and encapsulate an asbestos waterline that crossed I-64 in close proximity to our storm drainage systems. Public Involvement/ Relations: Although RDA's design reduced the overall footprint of the project and minimized the amount of ROW required, coordination with the public was still an important factor. The RDA Team worked with the City of Newport News, York County, and the City of Williamsburg to ensure that the needs of each were accommodated when feasible. Extensive communication occurred via media sources, social media, and signage to provide notice of traffic patterns and switches.</p>
Proposed Personnel on Project:	<p>Darell Fischer, P.E., DBIA (RDA) Brandon Shock, P.E. DBIA (RDA) John Giometti, P.E. (RDA) Nikhil Deshpande, P.E. (RDA) Andrew Knowlton, P.E. (RDA) Aaron DeLong, P.E. (RDA) Connor Eggleston, P.E. (RDA) John Myers (RDA), Jimmy Street (RDA), Tony Dean (RDA)</p>
EVIDENCE OF PERFORMANCE	
Construction for the project was initially behind schedule, but the implementation of the SWM VE allowed our team to create a more construction friendly design that finished on schedule and allowed the contractor to achieve early substantial completion and receive associated incentives.	



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Original Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: 495 NEXT Location: Fairfax County, VA (DESIGN-BUILD)	Name: The Lane Construction Company	Name of Client: Transurban Phone: 703.244.6685 Project Manager: Victoria Jones Phone: 571.279.4431 Email: vjones@transurban.com	07/2021	December 2025 (Estimated)	\$441,700	\$441,700	\$33,828

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

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> • Design-Build • Roadway • Survey • Structure and/or Bridge • Environmental • Geotechnical • Hydraulics • Traffic Control Devices • Transportation Management Plan • Right-of-way • Utilities • Public Involvement / Relations • QA/QC • Intelligent Transportation Systems • Soundwalls • Construction Engineering & Inspection • Overall Project Management 	RELEVANT PROJECT ELEMENTS TO I-64 GAP SEGMENT A WIDENING FROM MM 204.9 TO MM 215.6	
Proposed Personnel on Project:	<p>Rinker Design Associates is the Lead Designer for Lane Construction on the 495 NEXT Project. This project includes the design associated with the I-495 Express Lanes Northern Extension (495 NEXT). This P3 partnership between the Commonwealth of Virginia and Transurban (TU) extends the 495 Express Lanes north by 2.5 miles from the Dulles Toll Road to the George Washington Memorial Parkway (GWMP) interchange. Improvements include mainline widening (4 additional lanes) and reconstruction of the existing 8 lanes for NB and SB I-495; interchange ramp improvements at the Dulles Toll Road, Georgetown Pike, and GWMP interchanges; and widening or replacing 13 bridge structures, including one over the environmentally sensitive Scott's Run. Design services include environmental permitting, roadway design; maintaining existing cross slopes and profile grades; retaining and noise walls; drainage/SWM; Design Exceptions; developing 3D OpenRoads models for roadway, bridges, and drainage features; MOT/TMP design; water/sewer relocations; and ITS for tolling and traffic monitoring.</p> <p>-On Time or Early Completion Date: Design services are approximately 90% complete and on schedule. Construction has begun and is on schedule.</p> <p>-Innovative Design Solutions and Construction Techniques: The RDA team proposed several enhancements to the RFP concept plan to expedite the project schedule and reduce cost. From a TMP/SOC perspective, RDA implemented a simplified two-phase construction approach, minimizing multiple, temporary shifts in roadway alignments to maximize off-line construction, added temporary walls and pavement to allow for single-phase bridge construction at a ramp connection and overpass. In addition, permanent ITS equipment has been designed and will be installed early on to service the temporary and final conditions. The RDA SWM and drainage design allowed for the elimination of 16 SWM facilities shown in the RFP plans, saving \$2 million in ROW impacts. The SWM design eliminated a 72-inch pipe run down to the Potomac River that was located in the right shoulder of I-495 north and involved significant MOT and rock excavation, saving significant environmental exposures and over \$1 million in project cost.</p> <p>-Limiting Impacts/Commitments to Minimize Congestion: The TMP/SOC (MOT) design for 495 NEXT required early and frequent coordination with the Contractor and TU/VDOT to maintain continuous operations along I-495 and connecting roadways due to the proposed improvements to the mainline as well as to the side road connections. The RDA MOT design incorporated a simplified two-phase construction sequencing to reduced overall construction time and reduced the RFP anticipated temporary lane shifts providing enhanced safety and clarity to the traveling public.</p> <p>Roadway: The project involves the widening and reconstruction of 2.5 miles of I-495 providing two new tolled Express Lanes in each direction from Old Dominion Drive to George Washington Memorial Parkway and a new auxiliary lane between the Dulles Toll Road and Georgetown Pike. The project also constructs an additional 15,000 LF of sidewalk and shared-use paths. RDA was responsible for several design enhancements to the RFP plans that led to enhanced safety, reduced cost, a substantial reduction in utility conflicts, and an approximately \$2 million reduction in ROW impacts to adjacent property owners. Bridge and Structures: 495 NEXT includes extensive bridge work. RDA is responsible for overseeing the design of a total of 13 bridges. The proposed work varied greatly and featured several widening and repairs to existing bridges, bridge replacements and new Express Lane flyover bridges. In coordination with VDOT and FHWA, RDA prepared several design waivers and exceptions along the project in select locations to provide an economical design. The project also includes approximately 20,900 LF of retaining walls (MSE, post/panel, and soil nail throughout). Soundwalls: The project included the design of approximately 21,000 LF of combined new soundwalls including ground, retaining wall, and bridge mounted soundwalls. RDA is responsible for and oversaw the design and plan development of all proposed soundwalls as well as performed QA/QC and validation of all noise modeling and NADR documentation for the entire project. ROW: RDA's in-house ROW team provided the comprehensive ROW negotiations/acquisition for the entire project corridor.</p> <p>Environmental: The RDA Team evaluated the impacts identified on the project in the RFP and was able to avoid significant impacts to wetlands, thereby saving over \$1M in mitigation. Additionally, the team revamped the approach to SWM to eliminate over 15 facilities which contributed to the reduction in wetlands, streams and tree impacts. Utilities: RDA provided utility coordination to ensure that the widening of I-495 and associated improvements did not adversely impact utilities and to relocate them when impacts were unavoidable. RDA provided several enhancements to the RFP plans to reduce various impacts to underground utilities and avoid the relocation of two Dominion Transmission towers, a savings of 1.5 years and over \$3 million in cost to the project. QA/QC: The Lane/RDA Team developed and implemented a QA/QC program to meet both VDOT and Transurban Technical Requirements. As the project progressed, we performed audits to assess the effectiveness of our program and made adjustments to ensure that quality was maintained. The program, led by Mr. Darell Fischer, has been implemented to review over 100 design packages in order to validate compliance with design standards and criteria. An important tool that our QA/QC program uses is Bluebeam Review sessions to perform QC comments, track their disposition, and document their implementation. Public Involvement/ Relations: The RDA Team is supporting the designated Public Relations consultant to provide graphics and content to address public concerns as well as attend formal public and informal stakeholder meetings during design and construction of the project.</p>	
EVIDENCE OF PERFORMANCE		
The design of the project is nearing completion and construction is underway. Therefore, no awards or quotes are available at this time.		

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-66 Eastbound Widening Inside the Beltway Location: Arlington & Fairfax Counties, VA (DESIGN-BUILD)	Name: The Lane Construction Corporation	Name of Client: VDOT Phone: 703.259.2734 Project Manager: Mark Gibney, P.E. Phone: 703.259.2734 Email: mark.gibney@vdot.virginia.gov	06/2018	9/24/2021	\$85,655	\$89,522 <i>(increased value due to approved work orders)</i>	\$7,059

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

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The project upgraded several sections of the W&OD Trail and a new W&OD Trail bridge over Route 29 which was challenged by high tension power lines overhead and large underground utility duct banks. The project also interfaced with two regional parks and provided protections/enhancements to their trails that run just outside the sound/retaining walls. The unique design of a shared-use path roundabout mitigated sight distance and safety problems at the Custis Trail's intersection with the I-66 overpass bridge at Bon Air Park. The project provided direct access from EB I-66 to the West Falls Church Metro station by constructing a new ramp connection between two existing ramps (EB I-66 to Route 7 and the EB I-66 CD road adjacent to the station's parking garage) along with widening of an existing bridge. Originally, vehicles exited from I-66 onto Route 7 south, turned left at Haycock Road, and then left again onto Falls Church Drive. These movements had operational and safety issues especially during morning and evening peak periods. Our direct access design saves motorists bound for the Metro station time and reduces traffic on the already congested Route 7.</p> <p style="background-color: #0070c0; color: white; text-align: center;">RELEVANT PROJECT ELEMENTS TO I-64 GAP SEGMENT A WIDENING FROM MM 204.9 TO MM 215.6</p> <p>-On Time or Early Completion Date: The design was completed 2-months ahead of approved CPM schedule which put the project on track for an early completion/incentive award. However, numerous VDOT requested work orders pushed the completion date beyond the accepted RFP date but was still accepted as on-time completion.</p> <p>-Innovative Design Solutions and Construction Techniques: Innovation on the project focused on several unique and constrained elements of the project. In one situation, our Team worked with Dominion Energy to revamp their policy on clearance from our proposed Ped bridge fencing to their high-tension power lines. Through detailed discussions, they accepted 3D illustration perspectives which allowed for the use of standard architectural fencing and avoided non-conductive specialty fencing. The design also addressed/eliminated major utility conflicts with bridge foundations by utilizing caissons vs. steel pile. Within Bon Air Park, the SUP (Custis Trail) splits to cross from the southside of I-66 to provide a parallel trail along the northside as well. The trail "T" connection was a safety concern and sight distance issue. Our team implemented a roundabout design at this intersection to ensure safe passage of bicycle and walking pedestrians.</p> <p>-Limiting Impacts/Commitments to Minimize Congestion: Our Team worked with the Department to modify the allowable in-road work hours, facilitating the construction schedule, with no increased impacts on the traveling public. Furthermore, we increased the amount of anticipated nightwork to minimize congestion along the corridor. The development/implementation of advanced MOT/TMP concepts allowed our Team to eliminate the reconstruction of significant retaining wall structures. The initial phase of MOT provided shoulder strengthening along the outside to allow a preliminary shift of traffic to facilitate future phases of construction. Innovative MOT means/methods addressed the challenge to ensure that previously constructed (by others) ITS/Tolling facilities were unaffected by our construction.</p> <p>Roadway: The project required widening to add a third lane in the eastbound direction for capacity and tolling purposes. Widening required shoulder strengthening to the outside for MOT in order to shift traffic and construct to the median. The widening was tightly constrained by the WMATA tracks down the median of I-66 and retaining and soundwalls on the outside that protected several regional parks and private property. Bridges and Structures: The project contained ten bridges – five inside/outside widening/reconstruction, three outside widening for sound walls, one relocation of a pier, and one new bridge. Four of the five widening/reconstruction bridges abut to the WMATA commuter rail tracks and structures carrying rail over the same side roads as the VDOT structures. The clearance of the WMATA bridge structures to the widened I-66 bridges was on average six feet, the closest was 1.5 feet. Soundwalls: The project replaced approx.. 4,300 feet of dilapidated noise walls along eastbound I-66. In addition, another 5,100 feet of new noise walls along the EB and WB roadway were provided based on our Team's noise analysis and design. ROW: The design approach minimized ROW impacts. However, where unavoidable, RDA self-performed the acquisition management, appraisals, negotiations, and closings associated with those takes, which included takes from the Bon Air Park. Environmental: Minimization was the biggest and most effective strategy as the design progressed and was especially true as it pertained to several public parks. RDA redesigned the trail through the parks to eliminate numerous ROW/easement impacts as well as many mature trees. The redesign included a trail roundabout to accommodate a trail spur that went under I-66. QA/QC: The Lane/RDA Team developed and implemented a QA/QC program tailored to the project features and evolved the program as the design progressed. Led by Mr. Darell Fischer, his depth of D-B experience allowed him to see beyond the normal criteria and use the QA/QC process to also innovate the design. Reviews were performed to validate compliance with all design standards and criteria, ensure efficiency, cost effectiveness, and plan appearance. TMP: A TMP Type C, Category V was developed for the project in accordance with IIM-LD-241 (IIM-TE-351). Incident management was a significant piece of the program to integrate the large number of stakeholders along the corridor. Utilities: Avoidance, minimization, and mitigation were major elements of the utility coordination efforts. As noted under Innovation, we avoided impacts to the high tension power lines by altering how the owner evaluated the intrusion of the project. Additionally, there was a major ductbank in conflict with our pedestrian bridge foundation. To avoid the conflict, we changed our foundation type to drilled shafts. This allowed us to place shafts either side of the utility and avoid significant impacts, time delays and cost. Public Involvement/ Relations: The public outreach on the project was critical due to the adjacent active communities and the W&OD Regional Parks Trail that paralleled the project corridor. As part of project, a new 600-foot long(signature) bridge was designed and built to carry the W&OD Trail over Route 29. Design options relied heavily on unique "V" shaped piers and matching railings were presented to the public for final acceptance.</p>	
Proposed Personnel on Project:	EVIDENCE OF PERFORMANCE	
<p>Darell Fischer, PE, DBIA (RDA) Brandon Shock, PE, DBIA (RDA) Sohaib Qadir, PE (RDA) Nikhil Deshpande, PE (RDA) Connor Eggleston, PE (RDA) Tony Dean (RDA) John Myers (RDA) Jimmy Street (RDA) Jeffrey Smith (Lane) Dan Kim (Lane)</p>	<p>No delays due to utility coordination/relocation; design was completed early – utility coordination completed ahead of schedule to remove utilities from the critical path. Project Awards: 2021 Overall Winner for the VTCA Transportation Engineering Awards Program; 2022 America's Transportation Award (Quality of Life / Community Development)</p>	