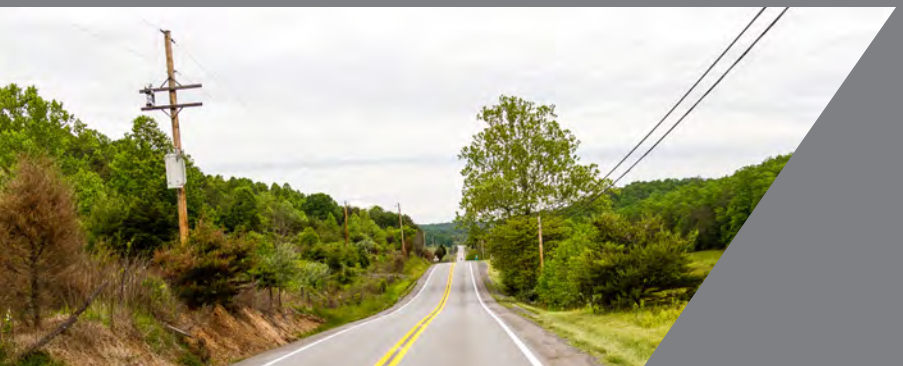
ORIGINAL

STATEMENT OF QUALIFICATIONS FOR

ROUTE 220 CORRIDOR SAFETY IMPROVEMENTS

State Project No.: 0220-011-786 and 0220-011-788 | Federal Project No.: NH-5128(326) and STP-5128(340)
Contract ID Number: C00105543DB88



Submitted by

FAULCONER
CONSTRUCTION COMPANY

with ch2m.

FAULCONER
740
FAULCONER
CAT
374D

FAULCONER
CONSTRUCTION COMPANY

June 8, 2016

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

RE: State Project No.: 0220-011-786 and 0220-011-788; Federal Project No.: NH-5128 (236) and STP-5128 (340): Contract ID Number C00105543DB88

Dear Mr. Clarke,

Faulconer Construction is pleased to submit one (1) original paper version with full supporting documentation, one (1) CD-ROM containing the entire Statement of Qualifications in a single cohesive Adobe PDF file, and ten (10) abbreviated copies of our Statement of Qualifications per the RFQ to provide Design-Build services for the Route 220 Corridor Safety Improvements project. As requested in Section 3.2 of the RFQ, the Faulconer Team offers the following information:

Section 3.2.2 Offeror's Point of Contact

Faulconer Construction's official representative and point of contact relative to this Qualifications Submittal is:

Mr. Edwin F. Stelter, LEED AP, DBIA, Director of Innovative Pursuits, Faulconer Construction Company, Inc.
Mailing Address: PO Box 7706, Charlottesville, VA 22906
Physical Address: 2496 Old Ivy Road, Charlottesville, VA 22906
Phone: 434.295.0033 Fax: 434.295.0508 Email: estelter@faulconerconstruction.com

Section 3.2.3 Principal Officer Information

The Design-Build contract with VDOT would be written to Faulconer Construction Company, Inc. The principal officers of Faulconer Construction Company, Inc. are all located at the physical address shown above. They are:
Jack W. Sanford, Jr. – *President and Treasurer*
Francis A. Burke – *Executive Vice President*
C. Frederick Stump, II – *Secretary*

Section 3.2.4 Corporate Structure

Faulconer Construction is incorporated. Faulconer Construction has the sole financial responsibility for the Project and will hold all bonds required for the project.

Section 3.2.5 Legal Names

The full legal name of the Lead Contractor is Faulconer Construction Company, Inc. The full name of the Lead Designer is CH2M HILL, Inc. (herein referred to as CH2M).

Section 3.2.6 Affiliates and Subsidiaries

Faulconer Construction has no affiliated or subsidiary companies as shown on Attachment 3.2.6.

Section 3.2.7 Debarment Status

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

Section 3.2.8 VDOT Prequalification

Faulconer Construction's VDOT prequalification certificate is located in Appendix E of this Statement of Qualifications. Faulconer Construction is currently in good standing, has the bonding ability, and is prequalified to do business with VDOT. Faulconer Construction's vendor number is F006.

Section 3.2.9 Evidence of Obtaining Bonding

Faulconer Construction obtains its bonding from Thomas Rutherford, Inc. Evidence from the surety indicating Faulconer Construction's ability to obtain and performance and payment bond based on the current estimated contract value is enclosed in Appendix F of this Statement of Qualifications.

Section 3.2.10 Professional Services Documentation

A completed Attachment 3.2.10 and evidence of our team's registrations and licensure is enclosed in Appendix G. Each team member is in compliance with the requirements set forth in Section 3.2.10.

Section 3.2.11 Disadvantaged Business Enterprises

Faulconer Construction is fully committed to meeting or exceeding a seven percent (7%) DBE participation goal during the design and construction of the project.

The Faulconer Construction Team is also committed to safely delivering a high quality project to the Department that is on-time and on-budget, while maintaining quality and environmental excellence and open lines of communication between all parties. If you have any questions regarding this Statement of Qualifications, please contact me at your convenience. We look forward to the next stage of project procurement and continuing to share our experiences with the Department's selection panel.

Respectively Submitted,

Faulconer Construction Company, Inc.

Jack W. Sanford, Jr.
President

FAULCONER
740
FAULCONER
CAT
374D

SECTION 3.3

Offeror's Team Structure

For the Route 220 Corridor Safety Improvements Project (Route 220 Project), VDOT needs a Design-Build team that can manage all risks under the fast pace of Design-Build delivery. The team must have the ability to:

- Handle heavy earthwork activities efficiently and quickly allocate resources to meet time-sensitive challenges
- Understand how to obtain all necessary permits under a Design-Build schedule and protect the District by maintaining compliance throughout construction
- Provide fully-integrated geotechnical resources with proven ability to work with the District to address the complex soil conditions within the project area, including acid producing materials
- Manage complex maintenance of traffic (MOT) with VDOT's Traffic Operations Center "TOC" located in Salem
- Provide team organization and management sensitive to public needs

All of these key factors to the Route 220 Project's success must be implemented while delivering the quality project that VDOT requires. The team must have a proven, independent (QAM) who will ensure that VDOT's highest standards are met in all aspects of the project. Faulconer Construction (Faulconer) has assembled a team, with CH2M, that has proven success in all of these areas on similar Design-Build widening work, including within the Salem District.

Experienced, fully-integrated Design-Build partnership ensures risks will be mitigated and a quality project will be delivered on time and on budget.

Faulconer and CH2M will be a fully-integrated Design-Build partnership in the delivery of this project. Based on our previous work on I-81 Project and other Design-Build project experience, Faulconer intends to partner both with our Designer, CH2M, and also with VDOT's Salem District. Our team's previous experience working on Salem District projects demonstrates the value of working hand-in-hand with our District counterparts. This partnership provides greater efficiencies, better control and mitigation of risks, the highest quality and maximum total value for VDOT, and increases opportunities for accelerating schedule

Faulconer has performed in excess of $650 million of construction in the past 10 years, of which 80 percent was self-performed. As Faulconer continues to grow, Design-Build projects have become the major focus of Faulconer's strategy and increasingly they account for a greater proportion of the Faulconer portfolio of projects. Faulconer currently is working on, has played a key role, or has led more than 20 design-build projects with a cumulative contract values in excess of $115 million. Faulconer brings to the Route 220 Project its **experience as a fully-integrated partner in the delivery of the I-81 Corridor Safety Improvements Project (Truck Climbing Lane), herein referred to as the I-81 Project, for which Faulconer performed 35 percent of the overall contract value and 50 percent of the construction value.** Faulconer moved 1 million cubic yards of rock, constructed all drainage facilities, conducted fine grading, aggregate base, MOT, and provided oversight for asphalt and guardrail installation. CH2M held responsibility for tasks largely related to design, environmental permitting, structures, and geotechnical work. Faulconer and CH2M worked hand-in-hand to manage the subcontractors on the project coordinating all activities. Fran Burke, our proposed Design-Build Project Manager, served as Faulconer's executive committee member for the I-81 Project partnership with CH2M and also served as Faulconer's principal-in-charge, responsible for management of risk and oversight and allocation of all Faulconer resources throughout the project.

For the Route 220 Project, Fran Burke will serve as Design-Build Project Manager. Fran is highly respected in the Virginia Construction industry and has full authority from Faulconer's owner, Jack Sanford, to make all decisions in the field ensuring the Route 220 Project will not be delayed when major decisions need to be made. Fran has worked closely with Jack and CH2M to hand-pick our Route 220 Project delivery team to meet VDOT's needs for this project. Highlights of those hand-picked key personnel are provided below, followed by our team organization chart and a narrative describing the functional relationships and communication among participants.

3.3.1

We fully commit that job duties and responsibilities of Key Personnel will not be delegated to others for the duration of the Design-Build Contract. The team that we propose here will deliver this project. Below, we provide brief biographies for these Key Personnel. Their Key Personnel Resume Forms with their relevant experience are provided in Key Personnel Resume Forms as Attachment 3.3.1.

Design-Build Project Manager – Fran Burke

Fran Burke will serve as our Design-Build Project Manager. In this role, he will hold responsibility for meeting the Design-Builder's obligations under the contract. Fran's project management and delivery style is direct and proactive, as demonstrated on projects such as the I-81 Project and the Route 603 - Elliston/Ironto Connector (Route 603 Project). **Under Fran's leadership, Faulconer has delivered $650 million of construction in the past 10 years, of which 80 percent was self-performed. Having performed or currently performing in more than 20 Design-Build projects with a cumulative contract values in excess $115 million, Fran has successfully championed efforts to increase Faulconer's Design-Build project portfolio.**

Faulconer's fleet of heavy equipment is tailored for efficient construction in mountainous terrain.

Under Fran's leadership, Faulconer has built a fleet of equipment tailored to the type of earth moving activities that will be required on the Route 220 Project. Faulconer has one of Virginia's best maintained fleets of earth moving equipment with over 200 pieces of heavy equipment available for this project.

In his roles as Faulconer's Executive Committee Member and Principal-in-Charge for the I-81 Project, Fran oversaw Faulconer's activities, including the specialized handling of rock and difficult soils. On the I-81 Project, Fran worked directly with CH2M's Design-Build Project Manager, Steve Tyler, to make decisions related to scheduling and mobilization of Faulconer resources. He worked daily with Construction Manager, Josh Williamson, on the deployment of men and equipment to keep the project moving quickly and efficiently. **Over the course of the I-81 Project, Fran worked closely with nearly all of the key personnel proposed for this project as well as our proposed Senior Advisors**. Fran's impact and involvement on the I-81 Project is exemplified by the leadership he displayed during a challenging cut caused by poor rock quality. In his role as Faulconer's Principal-In-Charge, Fran worked with project manager, Steve Tyler, and construction manager, Josh Williamson, to mobilize the resources needed to complete the remediation of the slope in short order, allowing the team to finish the project on time.

As Faulconer's Principal-in-Charge, Fran was integral on the Route 603 Project. When issues with right-of-way and residences arose, Fran's involvement to mitigate and resolve potential schedule delays and costly conflicts was critical. During the drilling and blasting effort, a resident, along the project area, refused to move from the property and brought forth litigation against the state. To avoid a lawsuit, VDOT suggested the project team use mechanical means for the work in that area of the project. Although a viable solution, Fran, and his team, knew the use of mechanical means could cost the District an additional $1.5 to 3 million and slow progress. Working with VDOT's Area Constrution Engineer Duane Mann (Salem District) Fran proposed a successful alternative thereby assuaging the resident's concerns while saving the District money and keeping the project on schedule.

These examples demonstrate Fran's direct and proactive leadership style that he will bring to the Route 220 Project as Project Manager.

Quality Assurance Manager (QAM) – Joe Hamed, PE

Joe Hamed of NXL will serve as our QAM, bringing experience from the I-81 Project and numerous other VDOT Design-Build projects on which he served as QAM. Joe has previously worked for VDOT and intimately understands the standards VDOT sets for quality on their projects. As an independent QAM Joe addresses any quality issue he encounters. With his background in the QAM position, Joe has proven he is able to ensure quality while keeping Design-Build projects moving. If Joe sees an issue, he raises it. If the contractor is able to address the issue to the highest level of VDOT quality standards, he documents the issue and solution and allows the project to proceed. However, if Joe is not satisfied with the contractor's solution, he will write up an NCR and take it through the process to resolution. Joe was an integral part of the I-81 team representing VDOT. The team responded to Joe's quality leadership to deliver the highest quality demanded by VDOT.

When Joe puts his name on the line that the work is acceptable, VDOT can be assured that the work has been completed to their satisfaction.

Design Manager – Stephanie Hart, PE

Design Manager Stephanie Hart has more than 29 years of experience in transportation engineering and has successfully managed multiple Design-Build transportation infrastructure projects in Virginia.

Design Manager, Stephanie Hart, has worked almost her entire career on VDOT roadway design projects and has extensive experience in fast-track Design-Build delivery.

A former VDOT Project Manager, Stephanie Hart has a proven record of managing multidiscipline design teams and subconsultants to execute complex projects on a fast-track schedule. She served as the lead designer and Design Manager on the I-81 Project for VDOT's Salem District and on the Sudley Manor Drive/Linton Hall Road Design-Build Projects. She has been the design manager developing RFP Design-Build plans for VDOT on the I-64 project in Hampton Roads and the Route 29 Solutions project in Charlottesville.

On the I-81 Project, Stephanie coordinated early with Brian Becker in the Salem District Location & Design Division to establish a design review action plan for each design milestone submittal. The action plan included a CH2M submission presentation to VDOT, consisting of a meeting held on the scheduled submission date where CH2M reviewed the evolution of the design and any design changes from previous submissions. CH2M reviewed contract requirements related to the submittal.

Stephanie managed all of the I-81 Project design Quality Assurance (QA)/Quality Control (QC) functions to ensuring the team completed plan preparation and independent reviews prior to VDOT milestone submittals. The quality review process checked the plan sheets for accuracy, completeness, and resolved conflicts prior to submitting the design packages to VDOT for review and approval.

During the plan development, Stephanie conducted weekly team meetings managing interdisciplinary coordination and ensuring the team met the fast-track schedule. She participated in design optimization reviews and constructability reviews with the construction staff. Stephanie also coordinated with all VDOT discipline leads throughout the design process. **Stephanie delivered the final construction work packages to VDOT for approval on a fast-track schedule. She led the environmental documentation and permitting, interstate design, design of 3 bridges (including railroad coordination completed 120 days ahead of schedule), development of pioneering low impact development measures for stormwater management, and detailed construction phasing and traffic control plans**. The project had complex geotechnical challenges, and the environmental permitting needed to account for waste areas during construction. She led the coordination of **utility relocations**, which was **achieved 90 days ahead of schedule**, and the acquisition of right of way. **Stephanie led an aggressive 6-month design schedule and gained approval to begin construction on time and on budget**.

Stephanie is familiar with working with the Salem District. For example, to avoid impacts to an adjacent stream on the I-81 project, Stephanie coordinated directly with Brian Becker and Bobby Phlegar to shepherd the proposed alignment shift through the approval process. Stephanie, in partnership with the Salem District and CH2M in-house geotechnical expert Emad Farouz, developed, obtained approval, and constructed a quick and cost effective solution for a box culvert lacking in the structural capacity necessary to accept the load placed on it during fill placement for the proposed widening to the outside. While this structural inefficiency could have resulted in a claim and delayed the project, Stephanie's proactive response and her partnership with VDOT kept the project on schedule.

Construction Manager – Josh Williamson

Josh Williamson manages many of Faulconer's highest profile projects throughout Virginia for multiple clients, including VDOT. His responsibilities include managing construction crews, monitoring project costs, developing and monitoring project schedules and milestones (using Primavera), preparation of work packages, regulatory compliance, developing risk management and mitigation plans, subcontractor/vendor management, quality control, overseeing environmental compliance, employee site training and safety training. Josh will obtain his RLD and ESCCC certification prior to commencement of work. Josh, like Fran, has a direct and pro-active approach to managing construction.

For example, on the I-81 Project Josh led mandatory morning crew meetings where he would put up the day's activities and direct crews on work to be completed. Josh led pre-blast meetings during which he walked the team through the days activities and timelines. During these meetings Jose used a simple yet very effective visual aid of drawing the cuts on which blasting would be performed, interchanges, staging areas, and film crew locations on a white board so it

was easy for all involved to see what the days activities entailed. As the Construction Manager, Josh himself completed the drive-throughs prior to the blasting, called the shot, and when the work was completed, directed activities for post blast cleanup and reopening the road. Josh developed contingency plans such as having extra barrier staged in a yard for quick replacement of damaged barrier to get traffic back on the road. **Josh will use this same boots on the ground approach and implement this same engaging leadership style during the construction work for the Route 220 Project.**

Construction Manager, Josh Williamson, takes ownership of all construction activities.

As Construction Manager for the I-81 Project, Josh took ownership of all activities related to earthwork, grading, paving, barrier installation, MOT, and blasting. Josh had a simple and direct approach – staying in constant communication with his entire team while working out on the construction site every day.

Lead Geotechnical Engineer – Emad Farouz, PE

Emad Farouz is well-known to the Salem District and has worked directly with Salem District's Materials Engineer, David Lee. For the I-81 Project, David and Emad worked collaboratively, identifying the critical issues that affected project cost and schedule. Due to the complex geology of the project, David and Emad identified blasting as critically important. It had to be powerful enough to break the rock but not so powerful as to undermine the karst features beneath the project site. The early identification of this critical issue allowed the project team time to add Calvin Konya, the foremost blasting expert in the U.S. and Radford University's Dr. Skip Watts, an expert on the project area's geology. With these additions, the team was able to develop a successful blasting plan while avoiding compromising the underlying karsts. In the one location where additional stabilization was required, David, Emad, Dr. Watts, and other team members worked with VDOT to collaboratively develop a cost effective solution that met the project schedule.

Our Lead Geotechnical Engineer and Acid Producing Soils Specialist worked together recently on a VDOT project with acid soils issues.

Our in-house geotechnical group provides unmatched efficiency and reduces contingency risks and eliminates added contingency due to subcontracting.

Emad worked with Dr. Lee Daniels at Virginia Polytechnic Institute and State University (Virginia Tech) to test and evaluate the acid soils for the I-95/630 interchange project in Stafford County, Virginia. For the Route 220 Project, Dr. Daniels is part of our team and will be leading the evaluation and assessment of acidic soils within the Project and propose remediation solutions to address them.

Emad directs CH2M's in-house geotechnical group on a local and national basis. This fully integrated, comprehensive in-house resource is efficient and provides designers with a nationally recognized geotechnical expert and support at their fingertips. Emad's group also reduces contingency risks by not having a lower tier subconsultant for geotechnical work. For example, while working with our construction team. Emad developed an in-situ testing procedure to test the resistivity stone produced on site from the excavation. The test enabled the team to prove that the materials produced met VDOT specification. This innovative testing procedure allowed for a more sustainable project, lower cost for VDOT and a more efficient schedule for the project. Innovative approaches such as these and others will be used on the Route 220 Project to mitigate geotechnical risks.

Emad's expertise as a fully-integrated partner on Design-Build projects will be key to addressing the geotechnical challenges encountered on the Route 220 project. His 25-year career in Virginia has made him an expert in all of the most difficult rock and soil conditions in the Commonwealth. His expertise in specifications, soil, rock, shallow and deep foundations, stability, and settlement analyses makes him one of CH2M's lead geotechnical experts. His involvement on many of CH2M's projects in Virginia, including the I-81 Project, Sudley Manor Drive/Linton Hall Road– PPTA Design-Build Projects, and Route 288 - PPTA Design-Build Project, gives him the **right mix of local knowledge and expertise in Design-Build delivery to successfully lead the geotechnical engineering for the Route 220 Project. Emad and his team have worked closely with Faulconer, giving them the ability to address any geotechnical issues that may arise with quick, appropriate action.**

Acid-Producing Materials Specialist – W. Lee Daniels, PhD

Since the mid 1990's, Dr. Daniels focused his studies on the recognition and remediation of acid-forming materials

W. Lee Daniels is the Thomas B. Hutcheson Professor of Environmental Soil Science at Virginia Tech in Blacksburg, Virginia. He is also the owner and president of TerraScience LLC, through which he conducts university approved consulting activities. Dr. Daniels's areas of specialization include stabilization and restoration of disturbed lands including areas disturbed by mining, road building, waste disposal, urbanization and erosion. In particular, he has focused his research and consulting experience in mine reclamation, wetland impact mitigation and soil-waste management systems. **Since the mid 1990's, he's focused his studies on the recognition and remediation of acid-forming materials** in mining and active construction environments. He is an expert in soil geomorphology and landscape analysis with particular emphasis on the relationships among surficial geology, hydrology, soil patterns and long term landscape evolution processes. Major awards include the Reclamation Researcher of the Year by the American Society for Surface Mining and Reclamation (ASMR) in 1993, U.S. EPA's National Biosolids Utilization Research Award in 2000 and the Lifetime Achievement in Research Award by ASMR in 2012.

3.3.2 Organization Chart

Our organization chart on the following page presents the "chain of command" of companies, including individuals responsible for pertinent disciplines, proposed on the Offeror's team. This organizational chart shows a clear separation and independence between the QA and QC Programs for construction activities. This includes separation between QA and QC inspection and field/ laboratory testing in accordance with VDOT's Minimum Requirements for Quality Assurance and Quality Control on Design-Build and P3 Projects, January 2012. For this project, Faulconer will be the Prime Contractor and CH2M will be the lead designer. NXL will provide the QAM and serve as the independent firm responsible for the Quality Assurance inspection and testing. This organization is similar to the organization of the I-81 Project's organization and will function similarly as a fully-integrated team.

Faulconer offers a fully-integrated team led by our Design-Build Project Manager, Fran Burke, who will serve as a single point of contact and accountability. The organization effectively integrates design and construction staff to assure active constructor involvement in design, and designer involvement in construction, resulting in a solution that is, cost-effective, meets VDOT's design requirements, and delivers the quality VDOT requires. The integration enables both Design Manager and Construction Manager to assign resources quickly. Fran's direct approach resolves any issues early so that they do not become disputes. This approach ensures quality delivery and aggressive schedule can both be attained on the project.

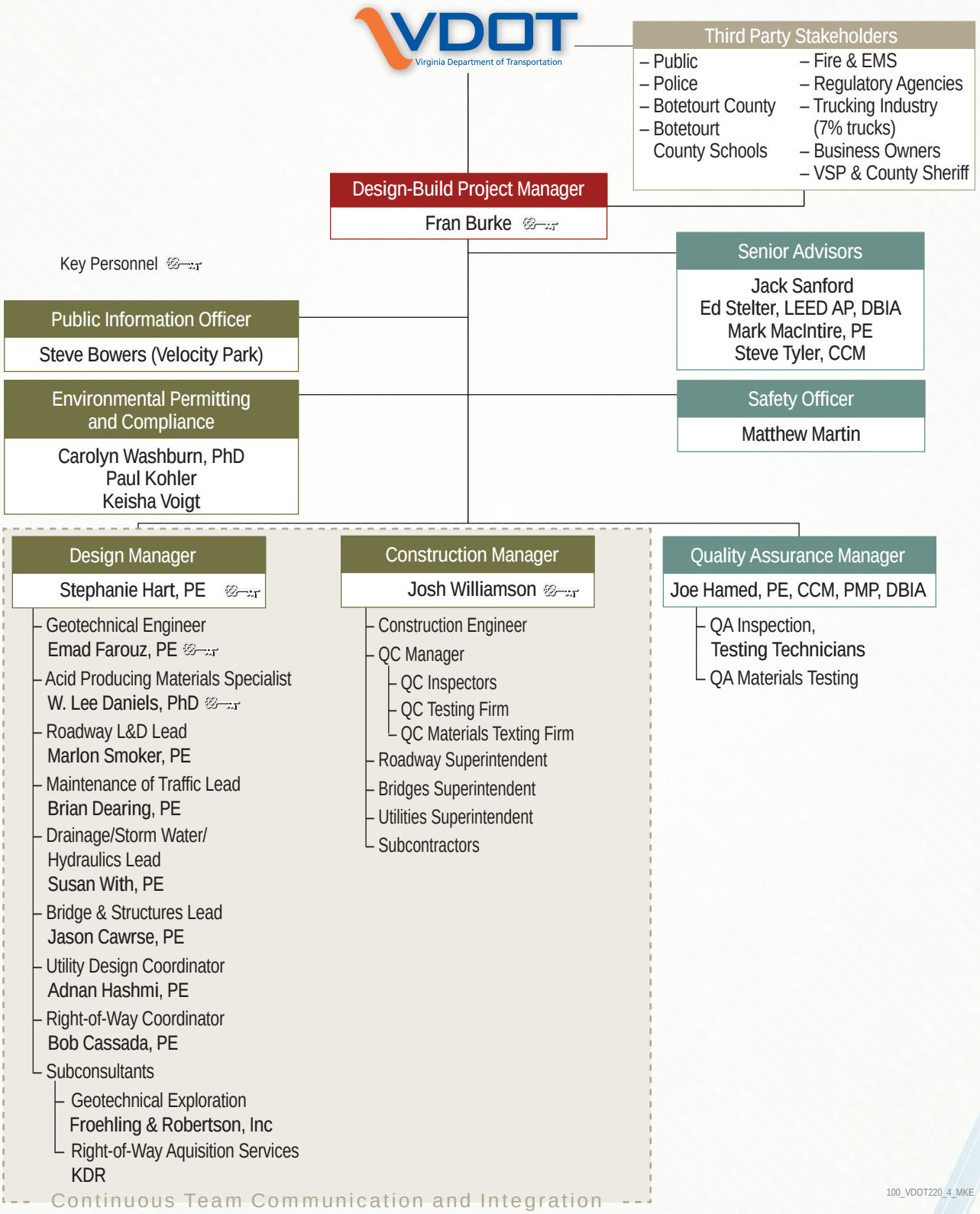
Fran Burke, serving as the Design-Build Project Manager, will direct and oversee all design and construction activities. The Design Manager, Stephanie Hart, and Construction Manager, Josh Williamson, will report directly to Fran. Stephanie will manage the design disciplines and be responsible for all design related tasks and Josh Williamson will oversee and manage the construction disciplines and delivery of construction activities.

Because of the significant importance of QA, Safety, Public Relations, Environmental permitting and compliance, and project scheduling, these functions will also report directly to Fran. **Joe Hamed, our team's QAM** will report directly to Fran.

Other features of our Organization:

- A team that has in excess of well over 100 years of collective experience delivering Design-Build projects in Virginia.
- Senior advisors with deep Design-Build expertise from I-81 team able to make instant impacts for the team in key situations during design and construction.
- Direct Third Party stakeholder access to PM with proven expertise dealing with the public and external agencies for VDOT.
- A Design Manager and Construction Manager with proven success together on similar Salem District Design-Build project.
- A Design Manager and Lead Geotechnical Engineer with over 15 years working together on Design-Build projects in Virginia.

- A Lead Design Firm with all disciplines required in-house including geotechnical and environmental, so work is not dependent on lower tier subconsultant.
- Virginia DBIA leader, Ed Stelter of Faulconer, who serves as a senior advisor on the team and provides the latest in VDOT's Design-Build delivery process for VDOT from his leadership as the Chairman of the VTCA Design-Build Committee and his leadership on the VTCA Contractor Leadership Committee (CLC).



100_VDOT220_4_MKE

FAULCONER
740
FAULCONER
CAT
374D

Experience of Offeror's Team

Faulconer Construction (Faulconer) brings to the Route 220 Project specialized experience delivering Design-Build road widening in mountainous terrain in the Salem District. Faulconer knows how to handle rock and difficult soils, having direct experience on similarly complex mountainous conditions of the I-81 Corridor Safety Improvements Project (Truck Climbing Lane), herein referred to as the I-81 Project. Faulconer's fleet of equipment for earth moving and rock handling is one of the best in the state, and highly suited to tackle the earth moving tasks on the Route 220 Project.

Faulconer has performed in excess of $650 million of construction in the past 10 years, of which 80 percent was self-performed. As Faulconer continues to grow, Design-Build projects have become the major focus of Faulconer's strategy and increasingly they account for a greater proportion of the Faulconer portfolio of projects. Faulconer currently is working on, has played a key role, or has led more than 20 design-build projects with a cumulative contract values in excess of $115 million.

3.4.1

For the Route 220 Project, Faulconer will serve as the lead contractor with CH2M as its lead designer. Faulconer and CH2M have experience as fully-integrated Design-Build partners from the I-81 Project, highlighted in Section 3.3.

Lead Contractor

Since 1946, Faulconer has been a mainstay in the central Virginia construction industry. We bring the highest value to our customers, performing over 80 percent of the value of our contracts in-house.

FAULCONER CONSTRUCTION COMPANY

> ***"I appreciate Falconers' continuing efforts to keep the traveling public safe and utilizing good preparation and planning for your work areas in this congested area as you work in and out of traffic. Please pass this along to your other sub-contractors and other employees that help make this possible every day."***
>
> –Dennis L. Seale,
> VDOT Permit and Subdivision Specialist Sr.

Faulconer is an established and growing Design-Build contractor in Virginia, having worked on the Route 288 - PPTA Design-Build Project in Richmond, Virginia to the most recent $41 million James River Water Project in Louisa County, Virginia. Faulconer has a comfortable and keen understanding of the Design-Build project delivery method. As a fully-integrated partner with CH2M on the I-81 Project for which Faulconer performed 35 percent of the overall contract value and 50 percent of the construction value, Faulconer and CH2M performed design and geotechnical, environmental and structures work. Faulconer and CH2M worked hand-in-hand to manage the subcontractors on the project, coordinating all activities. Route 220 Project team members that Faulconer's Fran Burke and Josh Williamson worked with on the I-81 Project include Mark MacIntire, Steve Tyler, Stephanie Hart, Brian Dearing and many other personnel featured on our organization chart for the Route 220 Project. Other projects, such as our latest work on the Route 603 Project and Meadow Creek Parkway further attest to our commitment to quality and providing VDOT with the maximum value for their investment.

The three projects provided in the Lead Contractor Work History Form 3.4.1(a) are I-81 Corridor Safety Improvements (Trucking Climbing Lane), Route 603 Elliston/Ironto Connector, and Meadow Creek Parkway. All of these projects involved major earthwork in areas of rock and unsuitable soils, environmental permitting and compliance issues, complex MOT, and commitment to minimizing impacts to the public.

Lead Designer

With over 400 transportation professionals in Virginia, 26 years of experience working in the Commonwealth, CH2M understands the quality VDOT requires in the delivery of its projects of this type. CH2M partners with clients and contractors across the U.S. to create smart design and delivery solutions that meet investment goals and enhance safety and accessibility. The assigned staff have worked together on over 15 Design-Build delivery highway projects in Virginia since 2000.

CH2M partnered with Faulconer on the I-81 Project, which added a 5-mile-long, 12-foot-wide continuous truck climbing lane to southbound Interstate 81. CH2M's design team, which included many of the same team members proposed in our organization chart, developed the design, acquired environmental permits and approvals, acquired right-of-way, and provided quality assurance and quality control for design and construction. CH2M also led design of a 17.5-mile segment

of Virginia Route 288 near Richmond on the Virginia Route 288 PPTA Design-Build Project (Route 288 Project). For two of the primary arterials in one of the fastest growing areas of Prince William County (Sudley Manor Drive/Linton Hall Road), CH2M provided numerous innovative design solutions that ensured the project was completed on schedule.

"The impact of this road opening has affected more people, the most I have ever seen one road do in a short period of time."

W. S. Covington III (R-Brentsville) on the opening of Sudley Manor Drive ahead of schedule and under budget. From a Wahington Post article.

The three projects provided in the Lead Designer Work History Form 3.4.1(b) are I-81 Corridor Safety Improvements (Truck Climbing Lane), Sudley Manor Drive/Linton Hall Road– PPTA Design Build Project, and Virginia Route 288 PPTA Design-Build Project. All of these Design-Build projects involved major earthwork, environmental and geotechnical challenges, complex MOT , and were delivered by the assigned staff.

QAM

Providing Independent Quality Assurance Management as part of the Faulconer Team, is NXL –a company founded on the principle of providing excellence in everything they do. Joe Hamed, NXL's QAM for the Route 220 Project, will insist on the highest quality standards that VDOT expects. NXL provided similar services to the Faulconer/CH2M team on the I-81 Project. Headquartered in Richmond, Virginia, with 2 additional locations across the state, NXL has a dedicated staff of engineers, construction inspectors, land surveyors and technicians who are experienced, knowledgeable, and responsive who can assist Joe, and the rest of the Faulconer Team in ensuring quality and addressing quality related issues with an eye toward keeping the project moving.

Right-of-Way

KDR Real Estate Services will provide right-of-way services for the Route 220 Project. Primarily operating as a real estate appraisal and consulting company until 1995, the principals decided to broaden the scope of services to include right-of-way and easement acquisition following their collective completion of appraisal assignments for the Virginia Department of Transportation (VDOT), Dominion Virginia Power, and Richmond MSA localities for over two decades prior. KDR's entry into right-of-way services included hiring several former VDOT employees with extensive experience in project management and negotiation procedures, and know the importance of construction schedules and deadlines.

Since 1995, KDR has completed over 100 right-of-way and/or easement acquisition projects with estimated contract costs over $10.5 million, involving in excess of 3,800 parcels, and many directly for or involving VDOT. KDR was also a member of the Faulconer/CH2M team for the I-81 Project. KDR has the ability to mobilize right -of-way agents, title researchers, appraisers, and attorneys to accommodate any right-of-way needs during the Route 220 Project.

Geotechnical Exploration Services

Froehling & Robertson, Inc. (F&R) will provide Geotechnical Exploration Services for the Route 220 Project. Faulconer regularly works with F&R on a variety of projects in the region. With over 60 years of geotechnical experience, an in-house laboratory, and an advanced suite of software, their engineers can thoroughly analyze soil properties throughout the project. F&R also has complete in-house drilling capabilities, making it easier to coordinate needed site explorations and keep the Route 220 Project on schedule.

Public Involvement

Steve Bowers of Velocity Park will provide Public Involvement support for the project. Velocity Park Public Affairs excels in public involvement support for major roadway projects in Virginia. They're based in Charlottesville, have deep familiarity with the region, and have worked with Faulconer on previous projects.

Projects

The projects provided in Attachments 3.4.1a and 3.4.1b, demonstrate that our team provides the proven experience in handling rock and difficult soils, expertise in environmental permitting and compliance, nationally and locally-recognized in-house geotechnical experts, and MOT expertise to deliver a high quality Route 220 Project safely, on-schedule, and with the maximum value to VDOT.

FAULCONER
740
FAULCONER
CAT
374D

Project Risks

The Faulconer Construction (Faulconer) Team has studied the Route 220 Project and made a preliminary assessment of three distinct, unique and potentially significant risks to the successful delivery of this project and have considered potential mitigation measures to prevent their affecting the Route 220 Project's delivery schedule. Our team has established a Risk Task Force which includes experts from each design discipline including roadway, structures, drainage, environmental, geotechnical, traffic engineering, and public involvement, as well as members from the project's field delivery team who are experts at working in the topography this project encompasses. Our task force is already working on creative and innovative solutions to the risks we expect to encounter. We intend to combine our team's Design-Build integrated delivery approach with VDOT's concurrent engineering process to effectively and efficiently manage risk throughout both design and construction.

RISK 1 – Maintenance of Traffic Risk

The traveling public, who use Route 220, experience serious safety challenges on a daily basis. Roadway users have described the roadway as "treacherous and outdated" and a "two-lane cow path". A section of road has earned the label "dead man's curve." Many of the connections like Route 622 and Route 722 have steep approaches or poor site distance. Serious accidents, including accidents with fatalities, occur on a regular basis. Substandard geometric features in this area of Route 220 create significant safety issues. Adding a workzone can exacerbate the safety issues along this already dangerous roadway, increasing the safety risk level for the traveling public and the project delivery team.

Significance of the Risk

Since 2010, in excess of 70 accidents have occurred on this roadway. Two of the three most common types of accidents, off-road fixed object impacts and rear end crashes are directly attributed to the current facility's lack of shoulders, fixed objects within the clear zone, substandard horizontal and vertical curve alignment, narrow lanes, lack of turn lanes and misaligned intersections with substandard sight distance. The safety and wellbeing of the traveling public and the project delivery team must be protected during construction.

Additionally the current design reflects adjusting the vertical grade, sometimes by four feet or more in areas close to the existing facility. The constructability challenges associated with constructing new alignment at different elevations directly adjacent to the existing facility will require the use of shoring, temporary barrier service, and additional construction phasing/traffic configurations.

Mitigation

A well-designed Maintenance of Traffic Plan (MOT Plan) must be developed and implemented to properly minimize the risk and provide safe traveling through the project corridor during construction. Impacts that result from an improperly developed MOT Plan may include unnecessary delays to the traveling public, creation of additional hazards, and schedule delays. Planning the workzone will have to give special attention to maximizing available site

Team exceeds FHWA Standards To Deliver Greater Safety On Design-Build Project in Salem District

On the I-81 Project FHWA expressed concerns over the length of emergency pull-offs as well as the distance in between the pull-offs, even though they met the Standards. Our team agreed with the concerns expressed and adjusted our design to both lengthen the pull-offs as well as place them closer together. This meant shorter work areas for our delivery team, but provided the public with safer passage through the project corridor. On Route 220, our team will make similar adjustments as needed to ensure both the safe passage of the traveling public through the Project as well as the safety of our workers. Whether it is shorter work areas to reduce the sense of a constricted corridor, or adjustments to resolve vertical or horizontal deficiencies in a single stage, our team has the experience and expertise this project demands to deliver this Project safely and efficiently

distance to address areas like Route 622 and Route 722 that have steep approaches or poor site distance. In these types of cases, we will provide additional clearing and early grading activities to maximize and improve site distance prior to implementation of the workzone to will help create a safer workzone during construction.

The Faulconer Team will effectively manage this risk by developing a comprehensive Traffic Management Plan (TMP) that balances safe and timely passage through the Route 220 Project with the project's delivery needs. Safety will be our highest priority. Our team will use a communicative approach to MOT. For example our lead designer, CH2M, took a communicative approach and won accolades on a recent VDOT project, Section I of I-64 widening in Hampton Roads. Through a tabletop exercise which created a taskforce consisting of affected parties, a member of our team led the group through the proposed construction phasing, so the taskforce could discuss their operations while observing various phases of MOT. The taskforce comments were incorporated into the MOT. Taskforce participants were very pleased with the opportunity to be involved upfront regarding how they would operate through the construction, including responding to incidents that occurred in the construction zone. This early effort established relationships between the team and first responders and opened the doors of communication so that everyone works collaboratively to manage access and safe passage of law enforcement and emergency vehicles throughout construction.

Our Maintenance of Traffic (MOT) plans will establish work zones that minimize potential delays while maximizing the delivery of work. Maintenance of Traffic will be an iterative process following design approval of MOT plans; initiation of implementation, constant monitoring, and adjustments as determined by field conditions, and removal of barrier as soon as it is no longer needed. Any and all changes in traffic patterns will be coordinated through the Traffic Operations Center (TOC). The team will hold open, town hall style meetings on a regular basis to inform citizens of upcoming changes in MOT, adjustments in traffic patterns, to answer questions and to gather feedback from those impacted most by these work zones. The Faulconer Team will promptly respond as necessary to address any concerns that may be raised.

Role of VDOT or other agencies

The Faulconer team will proactively and effectively manage the risk associated with the Maintenance of Traffic. Other than the review and approval process of the TMP and MOT plans and the potential issuance of traffic messaging through the TOC, no active participation by VDOT is required. On behalf of VDOT, the Faulconer team anticipates actively engaging County government, especially Emergency Services, and Local and State Police to identify concerns prior to beginning construction such that access issues can be identified and mitigated.

RISK 2 – Environmental Risk

This Route 220 Project presents a number of environmental challenges. The specific environmental risk is obtaining all the required permits and maintaining compliance under the fast-pace Design-Build delivery. Any misstep in obtaining permits and maintaining compliance can result in significant schedule delays. Trusted relationships with regulators and expertise in permitting requirements, full understanding of mitigation requirements, experience in hazardous materials investigation, and proven cultural resource investigation will be needed to obtain permits and maintain compliance on the Route 220 Project. Maintaining compliance will require protecting the many environmental resources along the alignment. For example, Mud Run is a parallel stream that meanders along a major portion of the alignment. It will need to be delineated and protected during construction. There are also a significant number of wells and septic fields that are less than 25 feet from construction areas and cannot be disturbed. These will also have to be delineated and protected as part of avoidance of these sensitive features.

Significance of the Risk

The Faulconer Team will need to re-evaluate acres of wetland and linear feet of stream impacts based on our team's approach to the final design. Additionally, it is anticipated that the presence of pyritic rock and the disturbance of the material will influence permit conditions. A determination on the availability of wetland and stream credits within the impacted watershed will need to be made.

Following the jurisdictional determination and impacts to resources based on the advancement of our design, we will request an updated permit determination from VDOT. This coordination will determine if the Project may be authorized under a USACE Section 404 Nationwide 14 (NWP 14), or whether an individual permit will be required. If the Project qualifies for the NWP 14, then a joint permit application will be submitted to USACE. Concurrently, we will coordinate with the Virginia Department of Environmental Quality (VDEQ) for the acquisition of the Virginia Water Protection Permit, and we will determine the final mitigation requirements during the permitting process. As our design advances, we will submit a Virginia Stormwater Management Program Permit application to control Stormwater discharge from our construction activities and we will prepare and implement a Project specific Stormwater Pollution Prevention Plan (SWPPP) that will include an erosion and sediment control plan and Stormwater Management Plan as components of the SWPPP.

Our team will be responsible for obtaining all permits, as well as any permit modifications necessary to support any design changes proposed after permits are issued.

The Indiana bat is currently listed as an endangered species and the Northern long-eared bat is currently listed as a threatened species. Though the U.S. Fish and Wildlife Service (FWS) concurred with VDOT's "not likely to adversely affect" conclusion with regards to the bats, FWS requested an April 15 to September 15 time of year restriction for tree clearing or perform a bat survey and consult further with FWS. VDOT is scheduling a bat survey to take place this summer, the results of which will result in the Faulconer Team accommodating a time of year restriction in our project delivery schedule or our team's consultation with FWS to obtain concurrence based on the results of the bat survey that a time of year restriction is not warranted.

Updated searches may be warranted for both Phase I and Phase II, but in particular in relation to Kelly's Market and the Columbia Gas properties.

It appears that Section 106 activities for both archeological and historic properties are incomplete. There are several pre-contact period Native American sites which warrant further investigation to determine eligibility for the National Register of Historic Places. In addition, under the terms of the executed Programmatic Agreement, further evaluative testing is warranted on several historic properties if the project has an adverse effect on the properties.

Proactive Environmental Approach Gains Necessary Permits To Begin Construction 3 Months After NTP

Early coordination, transparent communication, and "right the first time" permit applications allowed our team to acquire the necessary permits quickly and efficiently

CH2M led the environmental documentation and permitting for the I-81 project, which included complex geotechnical issues that required the team to account for waste and borrow areas during construction. The team also led an aggressive 8-month design schedule and gained approval to begin construction on time. CH2M obtained approvals and gained necessary environmental permits to begin initial construction activities 3 months after NTP and full construction activities 7 months after NTP. As an example of our pro-active, design-build approach, our environmental team sought and received permission from VDOT to conduct a needed endangered species survey for the Juniper Sedge and the Smooth Coneflower prior to final award of the Project in order that the survey could be performed during the peak time of year period. Taking this proactive, at-risk approach ensured the team and VDOT that a construction season would not be missed due to the survey having to be performed the following year. On our I-81 Project, our team acquired environmental credits based on VDOT's anticipated impact calculations while we continued to advance our design looking for ways to reduce impacts. Our team in fact did reduce overall impacts which resulted in our being able to provide excess wetland bank credits to VDOT which could be used for other projects. Early coordination, transparent communication, and "right the first time" permit applications allowed our team to acquire the necessary permits quickly and efficiently.

Mitigation

Our team has the in-house environmental experts combined with specialty subconsultants who are already working with our design team to develop the permitting and compliance plan. Our in-house experts will include those who worked on I-81 and successfully obtained permits and maintained compliance throughout that project.

The team will utilize innovative stormwater management practices, consider drainage alternatives, and alignment efficiencies in order to reduce stream and wetland impacts. Josh Williamson and the Superintendents will maintain tight control over all construction operations to meet VDOT drainage and environmental requirements and commitments to provide an environmentally sound project. Our team will work with the regulatory agencies as project partners in a transparent manner achieving delineation and impact concurrence for permitting, coordinating with FWS on potential time of year restrictions, performing hazmat, archeological and historic investigations as determined to be necessary, beginning with initial contact all the way through to final project acceptance.

Role of VDOT or other agencies

VDOT's role will be one of oversight, permit application review to confirm NEPA requirements are being met, and attendance at meetings with regulators, if so desired. We would request that VDOT provide the "attached correspondence" noted in the 2016 Re-evaluation, the Programmatic Agreement signed and executed March 31, 2016, the October 21, 2002 Final Environmental Assessment (FEA), results of the protected bat species survey once it is completed.

RISK 3 – Geotechnical/Geophysical Conditions

The geotechnical bore logs provided with the RFQ suggest a variety of unsuitable soils and materials will be encountered on the Route 220 Project. The Faulconer Team expects fat clay, lean clay, silt, sandy elastic silt, silty sand, shale, highly weathered rock and mud seams. The materials also range from very soft and wet to very dense. Compounding this risk is the presence of pyritic, sulfide-bearing shale. The alignment of roadway improvements will play a large role in the overall impacts the geotechnical conditions will have on the Route 220 Project.

Significance of the Risk

High variability in materials and the potential to encounter materials not suitable for the construction of fills, has a number of impacts to the Project which include; cut material needing to be wasted rather than used as fill, the need to "cherry pick" cut material to take advantage of seams of suitable materials, being selective about drying and using materials which, except for being wet, would otherwise be acceptable fill material, and establishing waste areas for the disposal of unsuitable material.

Cooperative Partnership with VDOT Avoided a Potentially Costly Change Order

During the scope validation process for the I-81 project, our team determined that an existing box culvert did not have the structural capacity needed to accept the loading which would be placed on it during fill placement for the proposed widening to the outside. Our lead geotechnical engineer Emad Farouz, project manager, Steve Tyler, and design lead, Stephanie Hart, developed a viable and cost effective solutions to present to VDOT to address this challenge. Fran Burke and Josh Williamson were also engaged, providing valuable constructability input. Our team proposed a two-part solution to resolve this issue. First, the alignment was shifted towards the median and since simply shifting the alignment would not entirely solve the problem, Stephanie and Emad developed a slope stabilization design utilizing in part, a retaining wall to minimize the amount of load which would be added to the existing box culvert. Stephanie and Emad coordinated closely with VDOT to gain approval for this design modification. By truly partnering with the Salem District, the team was able to develop, obtain approval for, and construct a concept which proved to be the most cost effective and quickest solution to address the challenge allowing the budget and the schedule to be maintained.

The presence of pyritic materials may require the use of a variety of options to mitigate the encounters appropriately. These could include avoidance, treatment in place, encapsulation, or removal to a disposal facility.

Mitigation

The Faulconer Team will use a comprehensive geotechnical and geophysical design approach including additional borings and lab testing to better determine the limits of potentially unsuitable materials. The team will utilize the additional information to advance an efficient design which maximizes the acquisition of suitable materials while minimizing the encounters with unsuitable materials.

The combination of our in-house lead geotechnical engineer, supporting engineers, and our acidic soils specialist provides VDOT the needed expertise to address and mitigate risks related to these unsuitable materials and their potential to cause delays. The Faulconer Team will adjust our design to avoid pyritic materials to the greatest extent possible, treat these materials in place as conditions allow, and properly and legally remediate as necessary. Our team will address pyritic conditions in the most practical manner possible that meets all project requirements and meets the project's aggressive schedule.

Role of VDOT or other agencies

The Faulconer Team expects to accept this risk as stipulated in the RFP. Other than VDOT's review of plans and requested adjustments in alignment to avoid pyritic conditions, we do not anticipate additional efforts from VDOT or other agencies.

Risk Summary

The Faulconer Team understands the risks discussed in this section along with other risks that are inherent to the Design-Build project delivery process. Our team has the experience and expertise to properly mitigate these risks as required by the RFQ and pending RFP.

FAULCONER
740
FAULCONER
CAT
374D

ATTACHMENT 3.1.2

Project Nos.: 0220-011-786 & 022-011-788, Contract ID#: C00105543DB88
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 A 1-3
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix B 1
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	1
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
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix D 1-7
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix E 1-2
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix F 1

ATTACHMENT 3.1.2

Project Nos.: 0220-011-786 & 022-011-788, Contract ID#: C00105543DB88
STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix G 1-2
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix G 3-10
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix G 11-15
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix G 16-17
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	Appendix G 18
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	3-7
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix H 1-2
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix H 3-4
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix H 5-6

ATTACHMENT 3.1.2

Project Nos.: 0220-011-786 & 022-011-788, Contract ID#: C00105543DB88
STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix H 7-8
Key Personnel Resume – Lead Geotechnical Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Appendix H 9-10
Key Personnel Resume – Acid-Producing Materials Specialist	Attachment 3.3.1	Section 3.3.1.6	no	Appendix H 11-12
Organizational chart	NA	Section 3.3.2	yes	8
Organizational chart narrative	NA	Section 3.3.2	yes	7-8
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix I 1-3
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix I 4-6
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	11-15

FAULCONER
740
FAULCONER
CAT
374D

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00105543DB88

PROJECT NO.: 0220-011-786 & 0220-011-786

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

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

1. Cover letter of RFQ – April 25, 2016 (Date)
2. Cover letter of _____ (Date)
3. Cover letter of _____ (Date)

_____ 6-1-16
SIGNATURE DATE

JACK W. SANFORD JR CEO
PRINTED NAME TITLE

FAULCONER
740
FAULCONER
CAT
374D

ATTACHMENT 3.2.6

State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

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.

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

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

Appendix D

ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

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

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

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

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

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

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

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

Signature	6-1-16 Date	CEO Title

FALCONER CONSTRUCTION COMPANY, INC.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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

MLSAff 6/6/16 VICE PRESIDENT
Signature Date Title

CH2M-HILL
Name of Firm

ATTACHMENT NO. 3.2.7(b)

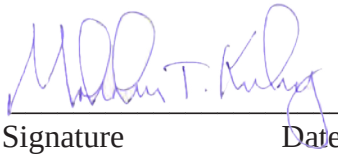
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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



Signature	June 1, 2016	President
	Date	Title

NXL Construction Services, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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

M. McInnis 6/2/16 OWNER

Signature Date Title

TERRASCIENCE LLC

Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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

Signature	June 2, 2016 Date	CEO Title

Froehling & Robertson, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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

Signature	Date	Title
	6/1/16	PRESIDENT

KDR REAL ESTATE SERVICES
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project Nos.: 0220-011-786 & 0220-011-788
Contract ID: C00105543DB88

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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

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

Signature	Date	Title
	6-4-15	PRESIDENT

Name of Firm

Appendix E

COMMONWEALTH OF VIRGINIA

VDOT
Virginia Department of Transportation

CERTIFICATE OF QUALIFICATION

FAULCONER CONSTRUCTION COMPANY, INCORPORATED

Vendor Number: **F006**

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

PREQUALIFIED

Your firm specializes in the noted Classification(s):

GRADING; DRAINAGE STRUCTURES; UNDERGROUND UTILITIES

Issue Date: May 31, 2015

This Rating and Classification will Expire: May 31, 2016

Suzanne FR Lucas, State Prequalification Officer

Don E. Silies, Director of Contracts

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.

Vendor ID: F986
Vendor Name: FALLON UTILITY CONSTRUCTION, INC.
Prequal Exp: 05/31/2017

-- PREQ Address --
PO BOX 19058
ASHVILLE, NC 28815
Phone: (828)712-7401
Fax: (828)676-1562

Work Classes (Listed But Not Limited To)
011 - CLEARING AND GRUBBING
033 - ROADSIDE DEVELOPMENT
036 - SOIL STABILIZATION
045 - UNDERGROUND UTILITIES

Bus. Contact: FALLON, JAMES LAWSON
Email: JFALLON@FALLONUTILITY.COM

-- DBE Information --

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

Vendor ID: F006
Vendor Name: FAULCONER CONSTRUCTION COMPANY, INCORPORATED
Prequal Exp: 06/30/2016

-- PREQ Address --
P. O. BOX 7706
CHARLOTTESVILLE, VA 22906-7706
Phone: 434-295-0033
Fax: 434-295-0508

Work Classes (Listed But Not Limited To)
002 - GRADING
005 - DRAINAGE STRUCTURES
045 - UNDERGROUND UTILITIES

Bus. Contact: STELTER, ED
Email: ESTELTER@FAULCONERCONSTRUCTION.COM

-- DBE Information --

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

Appendix F

RUTHERFOORD
A Marsh & McLennan Agency LLC Company

Rutherfoord
One South Jefferson Street
Roanoke, VA 24011
Main +1 540 982 3511
Fax +1 540 342 9747
www.rutherfoord.com

May 26, 2016

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

Re: Faulconer Construction Company, Inc., Charlottesville, Virginia
Project: Route 220 Corridor Safety Improvements, Botetourt County
VDOT's Estimated Contract Value: $48,000,000

To whom it may concern:

Rutherfoord, A Marsh & McLennan Agency LLC Company has provided performance and payment bonds for Faulconer Construction Co., Inc. for over thirty years. We bond them with the Hanover Insurance Company. Hanover has an A.M Best Financial Strength Rating of "A" and Financial Size Category of "XV".

We would favorably consider a request from Faulconer Construction to provide a 100% performance and 100% payment bond to you in the amount of the anticipated cost of construction, and said bonds will cover the project and any warranty periods as provided for in the contract documents. As always, the Hanover Insurance Company reserves the right to perform normal underwriting at the time of any bond request, including, without limitation, prior review and approval of relevant contract documents, bond forms, and project financing.

Please be advised that this letter is not an assumption of liability, nor is it a bid bond or a performance bond. It is issued only as a bonding reference requested from us by our client.

Faulconer Construction Company, Inc. is well known for their professionalism and expertise in the construction industry. You would be well served to use them.

Sincerely yours,

Cynthia Ellinwood
Senior Surety Account Manager

/cae

FAULCONER
740
FAULCONER
CAT
374D

ATTACHMENT 3.2.10

State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

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
FAULCONER CONSTRUCTION COMPANY, INCORPORATED	00706333	Corporation	**Active**	**PO Box 7706 Charlottesville, VA 22906**	**Class A Contractor**	**2701003330**	**5-31-2018**
CH2M HILL, Inc.	F0227217	Foreign Corporation	**Active**	**9191 S. Jamaica St. Englewood, CO 80112**	**Business Entity**	**0411000603**	**2-28-2018**
CH2M HILL, Inc.	F0227217	Foreign Corporation	**Active**	**9191 S. Jamaica St. Englewood, CO 80112**	**Business Entity**	**0411000555**	**2-28-2018**
NXL Construction Company, Inc.	03497427	Corporation	**Active**	**110 Wenn Drive Christiansburg, VA 24073**	**Business Entity**	**0411001067**	**2-28-2018**
NXL Construction Company, Inc.	03497427	Corporation	**Active**	**114 E Cary St. Suite 200 Richmond, VA 23219**	**Business Entity**	**0407003031**	**12-31-2017**
FROEHLING & ROBERTSON, INCORPORATED	00272112	Corporation	**Active**	**3015 Dumbarton Road Richmond, VA 23228**	**Business Entity**	**0407000098**	**12-31-2017**
KDR Real Estate Services, Inc.	05712104	Corporation	**Active**	**2500 Grenoble Road Richmond, VA 23294**	**Real Estate**	**0226007129**	**12-31-2016**
TerraScience LLC	S1709551	Limited Liability Company	**Active**	**N/A**	**N/A**	**N/A**	**N/A**
Velocity Park LLC	S2917666	Limited Liability Company	**Active**	**N/A**	**N/A**	**N/A**	**N/A**

ATTACHMENT 3.2.10

State Project Nos. 0220-011-786 & 0220-011-788, Contract ID#: C00105543DB88

SCC and DPOR Information

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**
CH2M HILL, Inc.	**Stephanie Dawn Hart**	**Richmond, VA**	**3224 Ludgate Rd. Chester, VA 23831**	**Professional Engineer License**	**0402029309**	**07-31-2017**
CH2M HILL, Inc.	**Emad E Farouz**	**Herndon, VA**	**20655 Cutwater Place Potomac Falls, VA 20165**	**Professional Engineer License**	**0402034480**	**09-30-2017**
NXL Construction Company, Inc.	**Joseph Roy Hamed**	**Richmond, VA**	**110 Wenn Drive Christiansburg, VA 24073**	**Professional Engineer License**	**0402039327**	**02-28-2018**
TerraScience LLC	**Walter Lee Daniels**	**Blacksburg, VA**	**909 Allendale Court Blacksburg, VA 24060**	**Professional Soil Scientist License**	**3401000378**	**12-31-2016**

VIRGINIA STATE CORPORATION COMMISSION CERTIFICATION EVIDENCE

FAULCONER CONSTRUCTION COMPANY, INCORPORATED

Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That FAULCONER CONSTRUCTION COMPANY, INCORPORATED is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is December 8, 1954;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
July 29, 2014

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1407295615

Commonwealth of Virginia

State Corporation Commission

I Certify the Following from the Records of the Commission:

CH2M HILL, INC., a corporation existing under the laws of FLORIDA, holds a certificate of authority to transact business in Virginia, and is in good standing.

The certificate was issued on June 09, 1970.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
August 11, 2009

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CIS0505

NXL

Commonwealth of Virginia

State Corporation Commission

I Certify the Following from the Records of the Commission:

NXL Construction Co., Inc. is a corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is November 17, 1989.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
July 10, 2007

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CIS0448

Commonwealth of Virginia

State Corporation Commission

I Certify the Following from the Records of the Commission:

A duly attested copy of a certificate setting forth that NXL Construction Co., Inc. conducts business in Virginia under the assumed or fictitious name of NXL CONSTRUCTION SERVICES, INC. was filed in the Clerk's Office of the Commission on September 16, 1992.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
July 29, 2009

Joel H. Peck

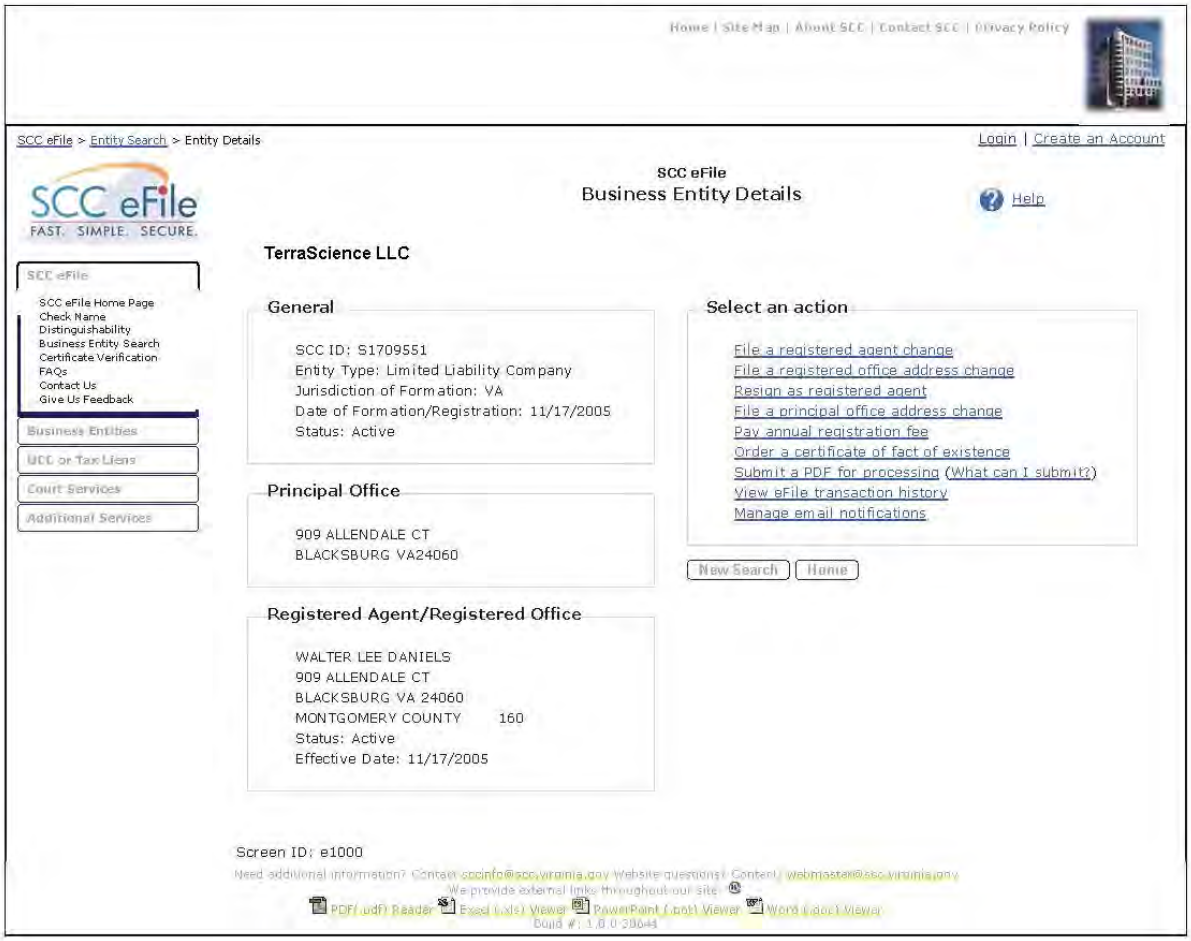
Joel H. Peck, Clerk of the Commission

CIS0357

TerraScience LLC

Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

SCC eFile will be unable to accept transactions requiring payment beginning Friday, June 3, at 11:59 p.m., through Saturday morning, June 4, 2016, at 3:00 a.m., due to payment vendor site maintenance.



Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That FROEHLING & ROBERTSON, INCORPORATED is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is October 11, 1924;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
March 22, 2016

Joel H. Peck

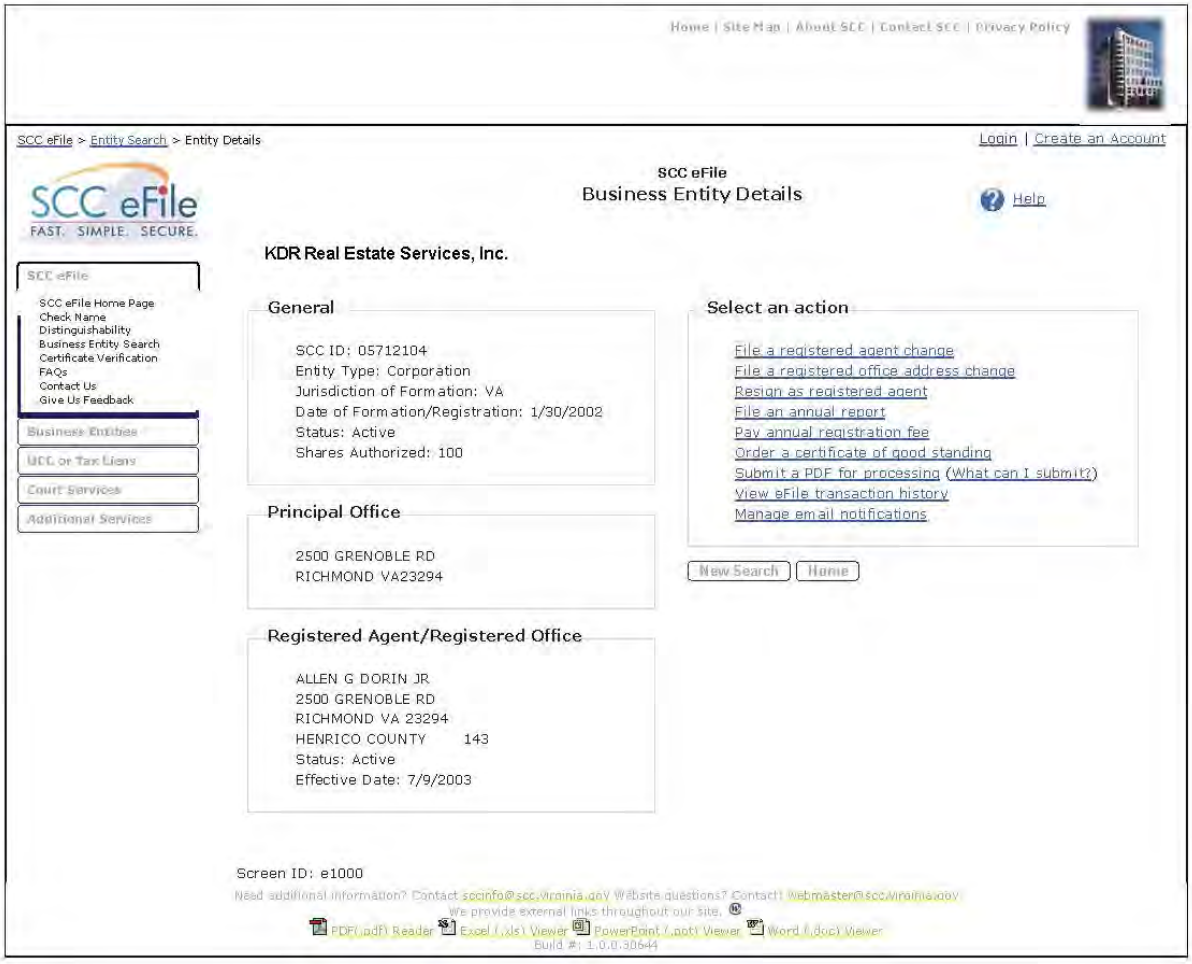
Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1603226181

KDR Real Estate Services, Inc.

Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

SCC eFile will be unable to accept transactions requiring payment beginning Friday, June 3, at 11:59 p.m., through Saturday morning, June 4, 2016, at 3:00 a.m., due to payment vendor site maintenance.



Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, May 8, 2009

This is to certify that the certificate of organization of

Velocity Park LLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: May 8, 2009

State Corporation Commission
Attest:

Joel H. Peck
Clerk of the Commission

CIS0339

VIRGINIA DPOR REGISTRATION EVIDENCE (Offices)

FAULCONER CONSTRUCTION COMPANY, INCORPORATED

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
05-31-2018

NUMBER
2701003330

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H

FAULCONER CONSTRUCTION COMPANY,
INCORPORATED
PO BOX 7706
CHARLOTTESVILLE, VA 22906-7706

DPOR

Jay W. DeBoer Director

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

CH2M HILL, Inc.

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2018

NUMBER
0411000603

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

PROFESSIONS: ENG

CH2M HILL, INC
9191 S JAMAICA ST
ATTN: SALLY HILL
ENGLEWOOD, CO 80112

DPOR

Jay W. DeBoer, Director

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

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2018

NUMBER
0411000555

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

PROFESSIONS: ENG

CH2M HILL INC
9191 S JAMAICA ST
ATTN: SALLY HILL
ENGLEWOOD, CO 80112

DPOR

Jay W. DeBoer, Director

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

NXL

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2018

NUMBER
0411001067

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

PROFESSIONS: ENG

NXL CONSTRUCTION COMPANY INC
110 WENN DRIVE
CHRISTIANSBURG, VA 24073

DPOR

Jay W. DeBoer, Director

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

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2018

NUMBER
0411001067

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

PROFESSIONS: ENG

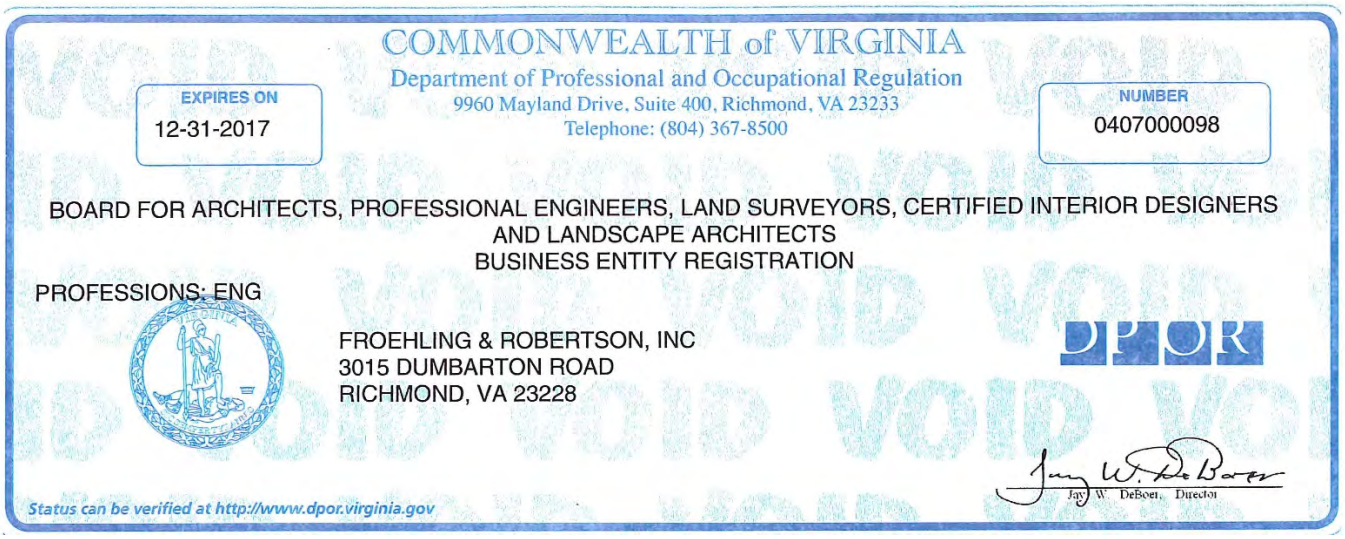
NXL CONSTRUCTION COMPANY INC
110 WENN DRIVE
CHRISTIANSBURG, VA 24073

DPOR

Jay W. DeBoer, Director

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

FROEHLING & ROBERTSON, INC.



COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
12-31-2017

NUMBER
0407000098

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

PROFESSIONS: ENG

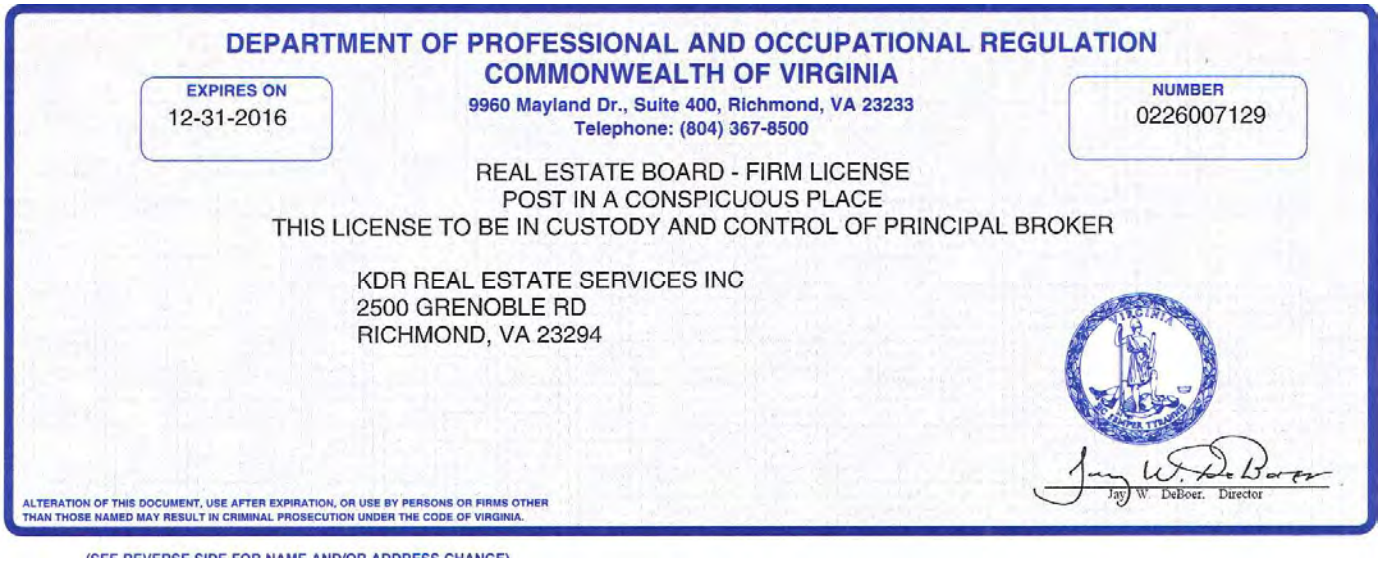
FROEHLING & ROBERTSON, INC
3015 DUMBARTON ROAD
RICHMOND, VA 23228

DPOR

Jay W. DeBoer, Director

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

KDR Real Estate Services, Inc.



DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
12-31-2016

NUMBER
0226007129

REAL ESTATE BOARD - FIRM LICENSE
POST IN A CONSPICUOUS PLACE
THIS LICENSE TO BE IN CUSTODY AND CONTROL OF PRINCIPAL BROKER

KDR REAL ESTATE SERVICES INC
2500 GRENOBLE RD
RICHMOND, VA 23294

Jay W. DeBoer, Director

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

VIRGINIA DPOR REGISTRATION EVIDENCE (Key Personnel)

CH2M HILL, Inc.

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
07-31-2017

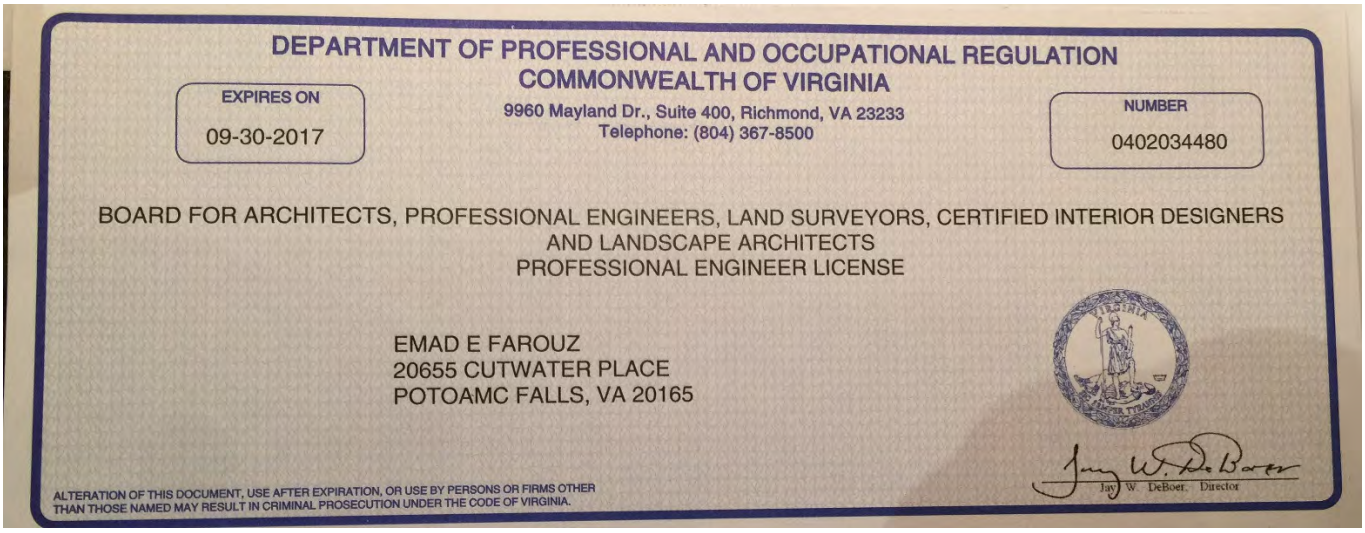
NUMBER
0402029309

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

STEPHANIE DAWN HART
3225 LUDGATE RD
CHESTER, VA 23831

Jay W. DeBoer, Director

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.



DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
09-30-2017

NUMBER
0402034480

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

EMAD E FAROUZ
20655 CUTWATER PLACE
POTOAMC FALLS, VA 20165

Jay W. DeBoer, Director

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

NXL

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2018

NUMBER
0402039327

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

JOSEPH ROY HAMED
110 WENN DRIVE
CHRISTIANSBURG, VA 24073

DPOR

Jay W. DeBoer, Director

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

VIRGINIA DPOR REGISTRATION EVIDENCE (Non-APELSCIDLA)

TerraScience LLC

6/2/2016 DPOR : License Lookup & Disciplinary Actions

Skip to Content (#skipPoint)
(http://www.virginia.gov)
Agencies (http://www.virginia.gov/government/state-employees/agency-directory) | Governor (https://governor.virginia.gov)
Search Virginia.Gov (http://www.virginia.gov/search)

(/applicants)

(/licensees)

Home() > License Lookup (/LicenseLookup/) > License Lookup & Disciplinary Actions

Enter Keyword Search

License Lookup (/LicenseLookup/)

Online Renewal & Services (/OnlineServices/)

Boards (/Boards/)

Professions & Occupations (/ProfessionsAndOccupations/)

Forms & Applications (/FormsAndApplications/)

Fair Housing Office (/FairHousing/)

Community Associations (/CIC-Ombudsman/)

File a Complaint (/File-Complaint)

Records & Documents (/RecordsandDocuments/)

News & Information (/News/)

About DPOR (/About/)

Contact (/Contact/)

(http://www.facebook.com/VirginiaDPOR)

License Details

Name	DANIELS, WALTER LEE
License Number	3401000378
License Description	Professional Soil Scientist License
Rank	Soil Scientist License
Address	BLACKSBURG, VA 24060
Initial Certification Date	2014-01-23
Expiration Date	2016-12-31

The license information in this application was last updated at Thu Jun 02 02:50:18 EDT.

License Lookup legal disclaimer

Select Language ▼ (javascript:void(0))

IF YOU HAVE PROBLEMS OPENING INTERACTIVE PDFs, HERE ARE TIPS (/FormsAndApplications/) ON VIEWING OR DOWNLOADING DPOR APPLICATIONS AND FORMS

If you have difficulty accessing any material on this site because of a disability, please contact us (/text/) in writing or via telephone and we will work with you to make the information available.

Questions or comments about this WEB SITE: Contact WebCoordinator@dpor.virginia.gov (mailto:WebCoordinator@dpor.virginia.gov).
WAI Level Compliant (http://www.w3.org/WAI/WCAG1A-Conformance) | Web Policy (/WebPolicy/) | Logo Use Guidelines (/UploadedFiles/MainSite/Content/About/DPOR Logo Use Guidelines.pdf)
Copyright © 2000-2012 Virginia Department of Professional and Occupational Regulation

http://www.dpor.virginia.gov/licenselookup/ 1/2

FAULCONER
740
FAULCONER
CAT
374D

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Fran Burke – Executive Vice President

b. Project Assignment: Design-Build Project Manager

c. Name of Firm with which you are now associated: Faulconer Construction Company, Inc.

d. Employment History: With this Firm 12 Years With Other Firms 26 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):

Faulconer Construction Company, Inc., Executive Vice President, 2004 – Present. Manages and leads the Faulconer team through the life cycle of the construction process, from business development and estimating, to project close out and final completion. Fran's project management and delivery style is direct and proactive, as demonstrated on projects such as the I-81 Project and the Route 603 - Elliston/Ironto Connector (Route 603 Project). Under Fran's leadership, Faulconer Construction has built a fleet of equipment tailored to the type of earth moving activities that will be required on Route 220 Project.

Burke Enterprises, Inc., Self Employed, 2002 – 2004. Started a construction management and construction claims consulting business leveraging his strengths and deep understanding of not only the operational aspects of the business, but the legal and procedural side as well.

Nello L. Teer Company, Project Manager, 1993 – 2002. Led several business units and was responsible for the overall performance for those divisions.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

Executive Degree, University of Notre Dame / Mendoza College of Business, Indiana, 2011
M.S., Kings University, Construction Management, 2000/2001
B.A., Business Administration, Kennedy International University, 1993
Doane College, Nebraska, Business Administration, 1978

f. Active Registration: Year First Registered/ Discipline/VA Registration #:

Nuclear OCA (Owner Controlled Access) Facility Security Clearance, Unescorted Access

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

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Executive Vice President/Principal-In-Charge, Route 603 - Elliston/Ironto Connector, Faulconer Construction, Virginia Department of Transportation, Montgomery County, Virginia, 2014 – 2016 (Expected). Faulconer Construction is leading the reconstruction of two miles of Route 603 to improve the road's safety and traffic flow, while providing a better connection between Route 11/460 and Interstate 81. The project development requires 4 primary Phases of construction with several intermediate stages. Development of the new alignment and site features requires daily implementation of traffic management and local resident coordination's to mitigate impacts to vehicular traffic. Design implementation focused on maximizing, safety and efficiency, across the phases has been a primary focus for the build schedule. Fran's been involved at both a high level as Faulconer Construction's Executive Vice President and, when issues with right-of-way and residences on the project arose, Fran engaged them directly. For example, when a resident along the project area refused to move from the property and brought forth litigation to the state during the drilling and blasting effort, VDOT suggested the project team use mechanical means for the work in that area of the project. Although this solution would solve the issue, Fran and his team knew it would potentially cost the District an additional $1.5 to 3 million and slow construction progress. Not wanting to delay the project or add additional costs, Fran called VDOT's Area Construction Engineer, Duane Mann of the Salem District, and proposed an alternate solution that he was able to negotiate with the land owner that

saved the Department money and resolved the issue with the resident, allowing construction to continue as planned. Additional aspects of the project include bringing the existing two-lane roadway up to current design standards by widening the travel lanes from nine feet to 12 feet with five-foot paved shoulders, improving vertical and horizontal alignment, replacing drainage structures, and adding a right turn lane from Route 603 onto Route 11/460.

Executive Committee Member/Principal-In-Charge, I-81 Corridor Safety Improvements (Truck Climbing Lane), Faulconer Construction, Virginia Department of Transportation, Montgomery County, Virginia, 2011 – 2014. Oversaw all Faulconer Construction activities for the I-81 project, which included a truck climbing lane in the southbound direction of I-81 for approximately five miles, including necessary transitions, tapers, and drainage improvements, replacement of three bridges located at Route 641 (Den Hill Road), Route 636 (Friendship Lane), and Route 636 (Seneca Hollow Road), improvement of the existing I-81 southbound left and right shoulders, upgrading all guardrails, guardrail transitions, and end treatments to meet current standards, as needed retaining walls, and widening and improvements at connections to bridges in the project area. Also oversaw the specialized handling of rock and difficult soils. Worked directly with the construction team to coordinate scheduling and to mobilize men and equipment to keep the project moving quickly and efficiently. For example, when a cut failed because of poor quality of rock right at the end of the job, the issue required immediate attention in order to not face a delay in schedule. In his role as Faulconer Construction's Principal-In-Charge, mobilized the resources needed to complete the remediation of the slope in a short timeframe so that the team could still finish the project on time. As part of the I-81 executive committee, served as a key leader in the development of the design of I-81 project. Attended all critical design meetings, from the earliest teaming and design meetings and then over the course of the project, providing expertise in the development and constructability of the designer's design.

Executive Vice President/Principal-In-Charge, Meadow Creek Parkway, Faulconer Construction, Virginia Department of Transportation, Charlottesville, Virginia, 2009 – 2011. Oversight at a high level of Faulconer Construction's activities on the construction of a connection between Rte. 250 Bypass to East Rio Road by means of a two-lane parkway. Phase I includes approximately 1.4 miles of road and three bridges. The project also includes over 77,000 CY's of mass rock and earth, 52,000 CY's of borrow material, 9,600 LF of storm sewer pipe and associated drainage structures, box culvert, 40,000 TNS of stone and asphalt, 14,000 LF of concrete curb, 5,800 LF of utilities, signalization and landscaping Due to the high level of public interest and concern about the project, Faulconer Construction successfully, expeditiously and cooperatively dealt with topics and issues outside normal contractual obligations and requirements. Specifically, Fran mitigated potential project issues related to rock removal and discrepancies in the technical information, saving the project from having to submit a claim. The technical information provided on the project didn't fully describe the size of the rock needing removal and the project team faced a much larger quantity of rock than expected. However, because of Fran's good relationship with Kenneth Shirley, Culpeper District Construction Engineer, he was able to develop a solution and negotiate terms that kept the project moving without a claim.

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

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Joseph Hamed, PE, CCM, PMP, DBIA – Project Manager | Quality Assurance Manager

b. Project Assignment: Quality Assurance Manager

c. Name of Firm with which you are now associated: NXL Construction Company, Inc.

d. Employment History: With this Firm 5 Years With Other Firms 27 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):

NXL Construction Company, Inc., Quality Assurance Manager, May 2011 – Present. Responsibilities include Independent Quality Assurance for joint Design-Build projects, ensuring compliance with all contract requirements and specifications in accordance with *VDOT's Minimum Requirements for Quality Assurance and Quality Control on Design-Build and P3 Projects January 2012*.In this role, Joe and his staff provide oversight assuring all QA/QC processes are functioning in accordance with the Department's requirements; each element of the project is constructed in accordance with applicable plans, specifications, and standards; all non-conforming work is either replaced or properly addressed through the non-conformance process; contractor generated invoices accurately reflect work completed; all permanent building materials are documented to be in accordance with project specifications. Also provides daily QA reviews of ongoing work including Maintenance of Traffic, Erosion and Sediment Controls, Structures and Bridges, grading, drainage, paving, lighting, retaining walls, sound walls, signals, miscellaneous concrete, etc.

Virginia Department of Transportation, Area Construction Engineer, May 2005– October 2006; January 2011-May 2011. Managed delivery of Salem District Southern and Northern Construction Areas' Construction Programs to deliver projects on time, under budget, and with quality. Responsibilities included: providing Responsible Charge oversight to ensure each project was constructed in conformance with plans, specifications and standards; assuring each project was properly staffed with qualified Inspectors and Construction Managers; identifying and communicating with stakeholders; identifying need for extra work; reviewing and negotiating work order prices; properly documenting any Notices of Intent to File Claim; and reviewing and responding to project correspondence. He also provided claims review, analysis, and recommendations for resolution.

Virginia Department of Transportation, Program Delivery Engineer, October 2006 – January 2011. Provided oversight of all SW Regional Operations project delivery in all project phases, including planning, programming, project development and construction. Identified funding sources for chosen projects, requested funding transfers, and initiated projects in the Department's system. Also provided oversight of the PE process to ensure projects were developed in accordance with VDOT processes.

Virginia Department of Transportation, Project Manager, August 2004 – May 2005. Provided constructability, E&S and safety reviews for several projects in various phases including design and construction. Also provided project management and engineering analysis on a variety of projects.

HNTB Corporation, Resident Engineer, March 2004 – July 2004. The Route 58 Project at Meadows of Dan Design- Build Project provided a new four lane highway around Meadows of Dan. As Resident Engineer, Joe's duties included providing inspection to assure the project was constructed in accordance with applicable plans, specifications, and standards; providing all required QC testing; documenting progress; providing reports to various stakeholders, including VDOT, the prime contractor, and the design office of HNTB; performing E&S inspections; recommending E&S preventive measures; coordinating permits with DEQ, Corps of Engineers, and VDOT; and also collected and forwarded water quality data required by DEQ and Corps of Engineers.

Louis Berger Group, Project Manager / Project Engineer, April 1999 – January 2004. He was responsible for documenting the project was constructed in accordance with applicable plans, specifications and standards; monitoring contractor activities with respect to schedule, cost and quality; testing in accordance with VDOT requirements; recommending solutions to problems and corrections for deficiencies encountered; recommendations of acceptance or rejection of work; managing approved changes and added work; preparation of monthly project progress reports for Owner; preparation of monthly pay vouchers.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
B.S., University of Idaho, Idaho, 1990, Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2004, Professional Engineer, Virginia, #039327

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Quality Assurance Manager, I-581 & Valley View Boulevard Interchange, NXL, Virginia Department of Transportation, Roanoke, Virginia, 2012 – 2016 (Expected). Serving as Quality Assurance Manager for this $38.5M project to complete an existing interchange serving a major shopping center. The project's innovative approach provides a diverging diamond interchange which reduces right-of-way acquisition and environmental impacts. Joe and his team provide QA services over the design-build team's design, right-of-way services, environmental permitting, and construction activities to assure the project is constructed in accordance with applicable plans, specifications, and standards. Joe and his staff provide oversight assuring all QA/QC processes are functioning in accordance with the Department's requirements; each element of the project is constructed in accordance with applicable plans, specifications, and standards; all non-conforming work is either replaced or properly addressed through the non-conformance process; contractor generated invoices accurately reflect work completed; all permanent building materials are documented to be in accordance with project specifications. He also provides daily QA reviews of ongoing work including Maintenance of Traffic, Erosion and Sediment Controls, Structures and Bridges, grading, drainage, paving, lighting, retaining walls, sound walls, signals, miscellaneous concrete, etc. He verifies the Engineer of Record's QA processes are functioning properly. He facilitates Preparatory Inspection Meetings for each type of work to identify and communicate contract requirements for performance, testing, and documentation of work.

Quality Assurance Manager, I-81 Corridor Safety Improvements (Truck Climbing Lane), NXL, Virginia Department of Transportation, Montgomery County, Virginia, 2011 – 2014. As part of the design-build team for this $75M project to provide over five miles of truck climbing lane, provided independent quality assurance in accordance with the Department's design-build specifications. Joe and his staff provided oversight assuring all QA/QC processes were functioning in accordance with the Department's requirements; each element of the project was constructed in accordance with applicable plans, specifications, and standards; all non-conforming work was either replaced or properly addressed through the non-conformance process; that contractor generated invoices accurately reflected work completed; all permanent building materials were documented to be in accordance with project specifications. He also provided daily QA reviews of ongoing work including Maintenance of Traffic, Erosion and Sediment Controls, Structures and Bridges, demolition of structure, grading, drainage, paving, lighting, retaining walls, miscellaneous concrete, etc. He provided assurance that the Engineer of Record's QA processes are functioning properly. He facilitated Preparatory Inspection Meetings for each type of work to identify and communicate contract requirements for performance, testing, and documentation of work.

Quality Assurance Manager, Multiple Bridge Rehabilitation, NXL, Virginia Department of Transportation, Staunton, Culpeper, and NOVA Districts, Virginia, 2011 – 2012. Provided QA services in for superstructure replacements and substructure repairs for 24 bridges in three Districts. He and the QA staff provided oversight of construction and QC processes to assure compliance with contract provisions for the design-build team's scope of work which included design; environmental permitting; grading, paving, and drainage. The superstructure replacements included a variety of beam materials including cast-in-place concrete, pre-cast concrete, and steel.

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

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Stephanie Hart, PE – Senior Project Manager

b. Project Assignment: Design Manager

c. Name of Firm with which you are now associated: CH2M

d. Employment History: With this Firm 14.5 Years With Other Firms 15 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):

CH2M, Design Manager/Roadway Design Manager, 2001-Present. Leads design for Virginia design-build projects. Manages multidiscipline design teams and subconsultants, while providing oversight of designs for a variety of roadway and bridge improvement projects. Project experience include interstates, rural and urban roadway widening, new locations, bridge replacements and rural and urban intersection improvements. Implements and monitors the design quality assurance and quality control process.

L. Robert Kimball & Associates, Project Manager, 1994-2001. Responsible for managing performance of all design tasks on assigned transportation projects. Duties included supervision of project teams, coordination of roadway and bridge design efforts, and client, agency, and utility coordination. Performed various engineering design tasks for highway construction projects.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
B.S., University of Pittsburgh at Johnstown, Pennsylvania, 1986, Mechanical Engineering Technology

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1997, Professional Engineer Civil Engineering, Virginia, #0402 029309

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

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Design Manager, I-81 Corridor Safety and Operational Improvements (Truck Climbing Lane), CH2M, Virginia Department of Transportation, Montgomery County, Virginia, 2010 – 2013. Managed the design and design services during construction of the truck climbing lane in the southbound direction of I-81 for approximately 5 miles. Coordinated all disciplines and a team of subconsultants. Turned in a complete plan set on an accelerated schedule. Managed design services during construction which included prompt responses to requests for information. The project included the design and construction of necessary drainage and SWM improvements; improvements of existing southbound I-81 shoulders; upgrading all guardrail to meet current standards; retaining walls as needed, replacement of three bridges; and widening at connections to the two new overpass bridges. After the field inspection/right of way submission was completed for the entire I-81 project, our team split the project into 3 construction packages rather than a single package for the entire 5 miles. Stephanie led the design related to the 3 construction packages. This allowed the project team to begin construction activities on the segments included in one design package while design on the other packages was being finalized and design approvals obtained from VDOT. During the development of construction package 2 (segments 2 and 3), the Project team identified an opportunity to avoid environmental impacts to a jurisdictional stream. By shifting the alignment to the median Stephanie and the team were able to eliminate impacting the stream. Coordinated directly with Brian Becker and Bobby Phlegar to shepherd the proposed alignment shift through the approval process. The alignment shift and subsequent grade change allowed for a reduction in the amount of fill required for the widening. This design change provided several significant benefits to the Project including, a reduction in total environmental impacts which resulted in the Project having excess mitigation credits that the Project turned over to VDOT for use on other projects and a reduction in the time needed for construction. This reduced workers exposure to safety challenges on the Project. During

the scope validation process, the team determined that an existing box culvert did not have the structural capacity needed to accept the loading that would be placed on it during fill placement for the proposed widening to the outside. Stephanie engaged our project team and lead geotechnical engineer Emad Farouz to come up with viable and cost effective solutions to present to VDOT to address this challenge. Our team proposed a two-part solution to resolve this issue. First, the alignment was shifted towards the median and since simply shifting the alignment would not entirely solve the problem, Stephanie and Emad developed a slope stabilization design utilizing in part, a retaining wall to minimize the amount of load which would be added to the existing box culvert. Stephanie and Emad coordinated closely with the Salem District to gain approval for this design modification. By truly partnering with the Salem District, the team was able develop, obtain approval and construct a concept which proved to be the most cost effective and quickest solution to address the challenge allowing the budget and the schedule to be maintained. The I-81 Corridor Safety and Operation Improvements project marks the first use of both Low-Impact Development (LID) for stormwater management and Minimum Standard 19 (MS-19) Control on an Interstate project in Virginia. Stephanie led our team of stormwater engineers who used LID Best Management Practices such as bio-swales, bio-filters, construction wetlands, and extended detention basins. The design met the requirements for the future 2012 stormwater management regulations and provided treatment of 100% of the roadway impervious area.

Design Manager, Sudley Manor Drive/Linton Hall Road (one contract)– PPTA Design-Build Project, CH2M, Virginia Department of Transportation, Prince William County, Virginia, 2004 – 2009. The Sudley Manor Drive portion of this project included design and construction of 3.5 miles of four-lane divided roadway, including three traffic signals, one box culvert, and a bridge with mechanically stabilized earth walls over the Norfolk Southern Railway. As Design Manager, oversaw the signal design, bridge design, traffic engineering, drainage, SWM, erosion and sediment control, geotechnical work, and conformance of contract documents. Managed Maintenance of Traffic (MOT) Plan preparation and approval with VDOT to ensure the highest level of safety. Managed signing and pavement marking plan preparation and approval. Implemented design innovations identified in the planning stage to reduce costs. A large grade change made to the original design concept reduced the height of fill near the bridge crossing the Norfolk Southern railroad and significantly lowered the amount of borrow purchased. Conducted weekly team meetings and participated in design requests for information from the construction staff and resolved final VDOT comments. The Linton Hall Road portion of the project involved design and construction of 1.4 miles of roadway. The team reconstructed the road from two lanes to a four-lane divided roadway and modifications to two traffic signals. Worked directly with VDOT project manager to obtain design acceptance. Led coordination for road design, drainage, SWM and erosion and sediment control design, signal design, MOT, signing and stripping, right-of-way, utility relocations, structural design, constructability reviews, geotechnical, and environmental. Coordinated with VDOT through design approval process to ensure that the project footprint remained unchanged as presented in environmental documentation. Conducted weekly design meetings to ensure coordination of all disciplines. Reviewed plans and designs to ensure accuracy and completeness of information. Determined high-priority right-of-way to obtain timely rights of entry and keep to the aggressive project schedule. Participated in weekly optimization reviews and constructability reviews. Managed design quality assurance and quality control to ensure accuracy and completeness of information.

Design Manager and Task Leader, Route 288 - PPTA Design-Build Project, CH2M, Virginia Department of Transportation, Chesterfield, Powhatan, and Goochland Counties, Virginia, 2001 – 2004. Duties included design-build integration during construction and project work featured design completion of more than 17 miles of interstate standard roadway and eight interchanges. Managed the preparation of signing, pavement marking, and delineator plans for the Chesterfield and Powhatan portion of the project and worked with the contractor to improve the engineering design and achieve construction cost savings. Led design-build integration during critical construction phase of project. Construction managers relied on the immediate response to required design changes to meet schedule requirements and improve quality.

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

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Josh Williamson - Design-Build Project Manager/Regional Manager

b. Project Assignment: Construction Manager

c. Name of Firm with which you are now associated: Faulconer Construction Company, Inc.

d. Employment History: With this Firm 12 Years With Other Firms 4 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):

Faulconer Construction Company, Inc., Design-Build Project Manager/Regional Manager, 2004 – Present. Effectively manages many of Faulconer Construction's higher profile projects throughout Virginia earning many accolades from key clients. Management and executive roles on projects throughout the region, including managing approximately 50 personnel, monitoring project costs, developing and monitoring project schedules and milestones (using Primavera), preparation of work packages, regulatory compliance, developing risk management and mitigation plans, subcontractor/vendor management, quality control, overseeing environmental compliance, employee site training and safety training. Provides guidance to entire project team for self-performed work, as well as working with subcontractors and vendors.

Branch & Associates, Inc., Project Engineer, 2001-2004. Responsible for project teams assignments, project budget, schedule, change management, estimating, contract administration, and providing direction to subcontractors and vendors.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

B.A., Virginia Tech, Virginia, 2001, Building Construction

f. Active Registration: Year First Registered/ Discipline/VA Registration #:

Josh will obtain his RLD and ESCCC certification prior to commencement of work.
ATSSA Traffic Control Technician, Cert. # 0975301
OSHA 30-Hour Cert. # 600046393

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Construction Manager, I-81 Corridor Safety Improvements (Truck Climbing Lane), Faulconer Construction, Virginia Department of Transportation, Montgomery County, Virginia, 2011 – 2014. As Construction Manager for the I-81 Project, took ownership of all activities related to earthwork, grading, paving, barrier installation, MOT, and blasting. Managed the construction of a truck climbing lane in the southbound direction of I-81 for approximately 5 miles, replacement of three bridges located at Route 641 (Den Hill Road), Route 636 (Friendship Lane), and Route 636 (Seneca Hollow Road), improvement of the existing I-81 southbound left and right shoulders, upgrading all guardrails, guardrail transitions, and end treatments to meet current standards, as needed retaining walls, and widening and improvements at connections to bridges in the project area. Managed and coordinated work activities for self-performed work as well as subcontractors. Worked closely with QC/QA team to ensure project performance adhered to our quality control program. Lead point of contact for all MOT associated with blasting operations, involved communication and coordination with VDOT, state police, contractors, subcontractors, and VDOT Traffic Operations Center. Development and implementation of short term and overall project schedule.

Area Manager, VDOT D74 Route 603 – Elliston/Ironto Connector, Faulconer Construction, Virginia Department of Transportation, Montgomery County, Virginia, 2014 – 2016. As Area Manager for the Route 603 Improvements Project, responsible for all activities related to earthwork, grading, paving, barrier installation, MOT, utilities, and blasting. Managed the construction of improving 2 miles of Route 603 (North Fork Road) between I-81 and Route 460. Project entails bringing the existing two-lane roadway to current design standards by widening the travel lanes and shoulders, improving vertical and horizontal alignment, and replacing/upgrading utilities, and upgrading all guardrails to current standards. Responsible for management of self-performed work & subcontractors, responsible for development and implementation of project schedule. Coordinated resources & crews required for project.

Project Manager, Route 29 Improvements at Hollymead Town Center, Faulconer Construction, Regency Centers, LLC, Albemarle County, Virginia, 2004 – 2005. As Project Manager for the Route 29 Improvements north of Charlottesville, responsible for all activities including earthwork, grading, paving, barrier relocation, utility upgrades, and MOT. Project entails changing the vertical alignment and addition of a new third lane for both Southbound and Northbound lanes on Route 29 for 0.65 miles. Proper maintenance of the traffic control measures within this heavily traveled and highly congested section of Route 29 was of critical importance.

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

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

Project Manager, VA Tech Classroom Project, Expected Completion August 2016. Faulconer Construction is contracted with WM Jordan to perform the civil site work on the proposed Va Tech Academic Classroom Project including erosion control, demolition, earthwork, utilities, paving, and hardscapes.

Project Manager, VA Tech Upper Quad Project, Expected Completion February 2017. Faulconer Construction is contracted with Barton Malow Company to perform the civil site work on the proposed Va Tech Upper Quad Residential Hall including erosion control, demolition, earthwork, utilities, paving and site amenities.

Area Manager, VDOT D74 Route 603 Project, Expected Completion July 2017. Faulconer Construction is contracted with the Virginia Department of Transportation to construct the Route 603 Improvements to 2 miles of road between I-81 and Route 460 in Elliston.

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Emad Farouz, PE – Senior Principal Geotechnical Engineer

b. Project Assignment: Lead Geotechnical Engineer

c. Name of Firm with which you are now associated: CH2M

d. Employment History: With this Firm 16 Years With Other Firms 10 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):

CH2M, Geotechnical Engineer, 2000 – Present. Manages engineering aspects of projects involving geotechnical features; work includes soil, rock, shallow and deep foundations, stability, and settlement analyses.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

M.S., Stevens Institute of Technology, New Jersey, 1991, Civil Engineering,
B.S., Cairo University, Egypt, 1987, Civil Engineering
Graduate Studies at Drexel University, Pennsylvania, 1992 – 1993, Geotechnical Engineering and Engineering Geology
Graduate Studies at Colorado School of Mines, Colorado,1995, Mechanical Tunneling
Graduate Studies at University of Wisconsin, Wisconsin, 1999, Ground Treatment, Improvement, and Support
Graduate Studies at Colorado School of Mines, Colorado, 2001, Microtunneling

f. Active Registration: Year First Registered/ Discipline/VA Registration #:

2000, Professional Engineer, #23768

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

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Geotechnical Engineer, I-81 Corridor Safety Improvements (Truck Climbing Lane), CH2M, Virginia Department of Transportation, Montgomery County, Virginia, 2011 – 2014. Managing a team of four engineers to develop an extensive subsurface investigation program, including borings and geophysical testing such as electromagnetic resistivity to evaluate the presence of karst features. The roadway includes rock cuts, and performing rock stability analysis, as well as rock fall analysis to ensure the slopes meet the project design criteria. Work also included design and construction of mechanically stabilized earth (MSE) walls and soil/rock nailing walls. Led the pavement design. The project is located in a karst terrain with known thrust faults, which imposes the risk of encountering voids, weak gauges, rock pinnacles, and soil infills within rock and potential soils under the Pulaski Thrust Fault hanging rock wall. To minimize these risks, led a comprehensive subsurface exploration and laboratory testing program including 236 soil/rock borings, geophysical survey, acoustic (optical) televiewer imaging of boreholes, geological mapping was carried out. Geophysical survey (electric resistivity imaging) was performed at the bridge foundation locations and the rock cut slopes to identify potential voids and soil infill zones. Televiewer imaging of boreholes provided additional set of data on rock joint information in addition to the geological mapping data. Undrained consolidated triaxial tests and direct shear tests were performed on both undisturbed samples and remolded fill samples to provide most realistic and reliable soil design parameters for the soil slope, retaining walls, and other geotechnical design. In addition to traditional deterministic Load Resistance Factor Design (LRFD) design approach, novel reliability based analysis using Monte Carlo simulation was performed for slope and retaining wall global stability to make sure less than 1 percent of failure probability. Statistical design soil/rock parameters were developed based on project-wise subsurface exploration results. Duties of Emad and his team also included developing construction specifications and evaluating the results of pile integrity testing and cross hole sonic logging. Work also included inspection of rock cut slopes. Emad and his

team prepared the geotechnical report and design specifications. In response to the drastic variations in Montgomery County's difficult, mountainous terrain, employed innovative technical design methods to model the project. Emad and his in-house geotechnical team worked on design the pavement section. Due to the very complex geology of the project, Emad and the geotechnical team identified blasting as of critical importance to be strong enough to break the rock efficiently but not too strong to cause instability of the karst features that underlie the project site. Emad's team effort included detailed review of the blasting design and plan and collaboration with Dr. Calvin Konya who is the foremost expert in blasting in the US and the author of FHWA manual for controlled blasting and Dr. Skip Watts of Radford University. The team developed a blasting plan that was successful in minimizing stability challenges or need for additional stabilization. There was only one location that required additional stabilization due to the blasting. At this location the team along with VDOT central worked collaboratively to develop cost effective solution that met the project schedule. The work during construction included supervision of field engineers to assess the rock stability after excavation and the needs to take additional stability measures needed to ensure stable slopes.

Geotechnical Lead, Subsurface Investigation Program, Sudley Manor Drive/Linton Hall Road– PPTA Design-Build Project, CH2M, Virginia Department of Transportation, Prince William County, Virginia, 2004 – 2009. Led a team of in-house geotechnical engineers that developed a subsurface investigation program for 2 miles of roadway. The work included development of soil parameters, subsurface profiles, and laboratory testing. The work consisted of slope stability analyses for the cut and fill sections of embankment. Additionally, the work included global and external stability analyses for the MSE wall and abutment wall. The team performed pavement design following VDOT and American Association of State Highway and Transportation Officials (AASHTO) standards. One of the most difficult geotechnical challenges faced by the construction crews was the presence of very shallow rock in many parts of the Sudley Manor Drive/Linton Hall Rd zones. Led additional subsurface exploration to clearly identify the depth and limits of the rock profile, allowing the design to be tailored to avoid extensive and expensive excavation when possible. The project included areas that were predicted to be comprised of unsuitable material, thus requiring considerable undercut and select backfill. Emad and his geotechnical engineers and contractors worked together in the field to identify the true limits of the unsuitable material, resulting in a reduction of the amount of undercut and backfill from original suppositions.

Geotechnical Task Manager, Route 288 - PPTA Design-Build Project, CH2M, Virginia Department of Transportation, Chesterfield, Powhatan, and Goochland Counties, Virginia, 2001 – 2004. Design and analysis responsibilities included managing a team of four engineers to develop an extensive subsurface investigation program. Employed an aggressive geotechnical subsurface investigation to understand geological conditions in deep excavation areas near the James River that could influence earthwork and soil amendments. This approach reduced the interval for enhanced subsurface mapping. Initial geotechnical information, based on limited subsurface area exploration provided by others, indicated a significant number of areas with unsuitable material in the roadway prism that would have required substantial undercut and select backfill. Instead of undercutting the areas to their limits, The team exposed the areas during construction and determined the actual limits of unsuitable material. The amount of unsuitable material was far less than initially predicted. Emad directed the geotechnical team to work on site alongside contractors so that they could work together to see the actual conditions. The engineers then were able to direct the contractors and inform them of the exact limits of the unsuitable material. This direct manifestation of Emad's geotechnical team's design-build process cut in half the amount of unsuitable material to be excavated. Because of the high-fill areas, settlement plans were developed and integrated into the schedule to allow proper development of the subgrade for the roadway. During construction, the area received record rainfall followed by a record drought. The cycle of extreme saturation and shrinkage created unstable slopes in deep-cut areas. Emad and his team used a combination of techniques to stabilize slopes that were at risk or showed signs of failure. These included laying back slopes and using geotextiles and variable-grade rip-rap. Additional geotechnical measures included developing large-scale mechanically stabilized earth walls for the project. Oversaw the use of nondestructive testing on drill shafts that did not meet initial specifications. The tests allowed us to develop corrective strategies to preserve instead of reconstruct the poured drilled shafts. Supervised a team of engineers to perform group analysis using the FLORIDA PIER computer program, lateral capacity analysis using LPILE computer program, and axial capacity analysis using DRIVEN& GRLWEAP computer program for piles and the SHAFT drilled shaft computer programs.

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

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

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: W. Lee Daniels – Owner and President (TerraScience), Endowed Professor of Soil Environmental Sciences (Virginia Polytechnic Institute and State University)

b. Project Assignment: Acid-Producing Materials Specialist

c. Name of Firm with which you are now associated: TerraScience, LLC and Virginia Polytechnic Institute and State University

d. Employment History: With this Firm 10 Years With Other Firms 35 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):

Owner and President, TerraScience, LLC, 2006 – Present. Conducts university approved consulting activities focusing on mine reclamation, wetland impact mitigation and soil-waste management systems. In the last decade, focused primarily on the recognition and remediation of acid-forming materials in mining and active construction environments.

Endowed Professor of Soil Environmental Sciences, Virginia Polytechnic Institute and State University, 1998 – Present. Teaches courses and programs with a focus on soil geomorphology and landscape analysis with particular emphasis on the relationships among surficial geology, hydrology, soil patterns and long term landscape evolution processes.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

Ph.D., Virginia Polytechnic Institute and State University, Virginia,1985, Agronomy - Soil Mineralogy & Geomorphology
M.S., Virginia Polytechnic Institute and State University, Virginia, 1980, Agronomy - Soil Genesis
B.S., Virginia Polytechnic Institute and State University, Virginia,1978, Forestry

f. Active Registration: Year First Registered/ Discipline/VA Registration #:

Licensed Professional Soil Scientist, 1996, Virginia, # 3401000378

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

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

Principal Investigator, Stafford Airport Acid Sulfate Soil Remediation Program, Virginia Tech/TerraScience LLC, Virginia, 2002 – 2016. Supervised sampling and characterization of 500 acre acid-sulfate sediment construction site that had generated large areas of pH 3.0 soils and associated acid runoff. Interpreted entire soil x geologic sequence on site and developed site-specific remediation protocols for 42 separate material placement cells. Developed specific revegetation and sediment control protocols for the site and for similar sites in nearby Stafford County. Also conducted follow-up work as a consultant as TerraScience LLC. Interacted with local citizens and delivered multiple workshops to local citizens and regulators about acid-forming materials.

Principal Investigator, Statewide Study of Acid Sulfate Soils, Virginia Tech, Virginia Department of Transportation, Virginia, 1997 – 2002. Lead scientist for VDOT funded research program that identified and sampled all known acid-forming strata and materials in Virginia and related them to geologic origin, projected weathering status and potential site impacts to soil and water quality. Sampling included Devonian shales that outcrop in Route 220 project area. Developed revegetation and sediment control protocols for VDOT for acid-forming materials. Worked cooperatively with VDOT to develop and apply specific remediation + stabilization practices at multiple sites. Developed suite of short courses and public outreach

publications to inform agencies and citizens about hazards.

Principal Investigator for Virginia Tech + Weanack Land LLLP Dredge Spoil Screening and Testing Programs, Charles City County, Virginia, 2001 – 2016. In charge of development and application of DEQ approved protocols routine and detailed screening for acid forming materials. Duties include review of geologic core records and data, direction of actual project dredge sampling, lab characterization, and development of treatments or remediation protocols when needed. To date, has evaluated over 25 potential dredge materials and been responsible for placement of over 750,000 cubic yards of suitable dredge to be converted to agricultural lands.

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

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

FAULCONER
740
FAULCONER
CAT
374D

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	
I-81 Corridor Safety Improvements (Truck Climbing Lane), Montgomery County, VA	Name: CH2M	Name of Client/Owner: Virginia Department of Transportation Phone: 804-786-4798 Project Manager: Bobby Phlegar, PE Phone: 540- 378-5083 Email: R.Phlegar@VDOT.Virginia.gov	09/2013	09/2013	$75,370	$76,100	$14,404

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

The key relevant features of this project include: ● Design-Build ● Complex geotechnical ● Environmental Permitting and Compliance ● Traffic Management● Utilities ● Public Involvement

This Federal Oversight project is located in Montgomery County, Virginia facilitates the addition of a Truck Climbing Lane in the southbound direction of Interstate 81. The total project length is approximately 5 miles including necessary tapers and transitions. The project includes the construction of: (a) a truck climbing lane including all drainage improvements; (b) replacement of three bridges located at route 641, route 641, and route 636; (c) improvements of existing I-81 southbound left and right shoulders; (d) upgrading all guardrails, transitions and end treatments; (e) retaining walls as needed and (f) widening and improvements at bridge connections.

Through an Executed "Teaming Agreement" Faulconer Construction's Charlottesville, VA office partnered as a dedicated equity partner with the Design-Builder CH2M. Faulconer Construction has been engaged and has worked on this project since before the Statement of Qualification was submitted by CH2M. Faulconer Construction has worked with the team's designers to validate the proposed design, identify concerns, and established the construction sequencing. Through an understanding of local conditions and experience with blasting and excavation and drainage work, Faulconer Construction has provided the lead in moving over 1,055,000 cubic yards of mass rock and earth; 19,000 linear feet of utilities; over 200,000 tons of stone and select material; performed erosion and sediment control, under drain, landscaping and maintenance of traffic services.

Due to the nature of the project and its proximity/impact on the traveling public, Faulconer Construction has worked to establish a safe construction process. Through a concerted team project management effort, Faulconer Construction has worked with the design team, in conjunction with the Owner, to provide an integrated construction process to deliver the project with the least impact to interstate traffic/commerce.

Through Faulconer Construction's leadership, commitment and understanding of the project and the design-build process, the CH2M/Faulconer Construction management committee ultimately selected Faulconer Construction's Josh Williamson as the project's Construction Manager. He has continued to prove his leadership abilities and deep understanding of the importance of team collaboration.

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	
Route 603 - Elliston/Ironto Connector, Montgomery County, VA	Name: Whitman, Requardt & Associates, LLP	Name of Client/Owner: Virginia Department of Transportation Phone: 540-381-7200 Project Manager: Duane Mann Phone: 540-381-7195 Email: m.mann@vdot.virginia.gov	07/2016	TBD	$9,768,374.70	$10,192,965.49	TBD

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

The key relevant features of this project include: ● Design-Build ● Geotechnical ● Traffic Management/Safety ● Aggressive Project Schedule

Faulconer is the prime contractor constructing two miles of Route 603 (North Fork Road) in Montgomery County. The primary purpose of the project is to reconstruct North Fork Road to improve safety and traffic flow and provide a better connection between Route 11/460 and Interstate 81 at exit 128 (Ironto). The project entails bringing the existing two-lane roadway up to current design standards by widening the travel lanes from nine feet to 12 feet with five-foot paved shoulders, improving vertical and horizontal alignment, replacing drainage structures, and adding a right turn lane from Route 603 onto Route 11/460.

The project development requires 4 primary Phases of construction with several intermediate stages. Development of the new alignment and site features requires daily implementation of traffic management and local resident coordination's to mitigate impacts to vehicular traffic. Design implementation focused on maximizing, safety and efficiency, across the phases has been a primary focus for the build schedule. In particular coordination and management of road closures and traffic shifts requires extensive pre-planning and precise implementation.

Site development of new drainage, water services and sanitary feature networks and adjustments to existing within each phase drives the construction of the new roadway. Development and implementation of schedule impacts on the work process are monitored daily to insure efficiency and mitigate impacts to the local residences. Also, major earthwork operations requiring the use of explosive blasting have been coordinated daily with a public use website for notifications. Consistent implementation of plan design, development of work flow processes and coordination of the work with residences drives the safety and efficiency of the project.

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client 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	
Meadow Creek Parkway, Charlottesville, VA	Name: Virginia Department of Transportation	Name of Client/Owner: Virginia Department of Transportation Phone: Maurice Mackenzie, PE Project Manager: Phone: 434-951-6430 Email: Maurice.Mackenzie@ VDOT.Virginia.gov	10/2011	10/2011	$11,8 00	$14,880	$6,808

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

The key relevant features of this project include: ● Environmental ●Geotechnical ● Public Involvement

Faulconer Construction was awarded the $11.8 million dollar Phase I portion of the new Meadow Creek Parkway in late 2008 and started the project in 2009. Meadowcreek Parkway ultimately connected to the Rte. 250 Bypass from East Rio Road by means of a two-lane parkway. Phase I included approximately 1.4 miles of road and three bridges. As the new roadway would ultimately bisect new parkland, Faulconer had to maintain strict control of clearing and grubbing and grading operations to avoid the accidental damage or removal of older growth, mature trees.

The project also included over 77,000 CY's of mass rock and earth, 52,000 CY's of borrow material, 9,600 LF of storm sewer pipe with associated drainage structures, box culvert, 40,000 TNS of stone and asphalt, 14,000 LF of concrete curb, 5,800 LF of major in-plan utilities, two new signalized intersections and extensive landscaping. In addition, construction for the project included 5 BMP facilities consisting of both bio-filtration and conventional facilities.

Due to the high level of public interest and concern about the project, Faulconer Construction has successfully, expeditiously and cooperatively dealt with topics and issues outside normal contractual obligations and requirements. Advance planning and notification of potential impacts to the public minimized any major disruptions to the advancement of the work or to the community. Faulconer Construction engrained spirit of cooperation and commitment to doing what is right kept the project on track. VDOT Culpeper District Construction Engineer, Kenneth Shirley praised the team saying, "The professionalism of the project management staff was without compare to any Contractor I have worked with in 16 years."

The project was successfully constructed on schedule and allowed for enhanced safety for motorists using the road as well as those entering and leaving an adjoining regional vocational high school, two churches, several businesses and neighborhoods.

As part of the contract, Faulconer Construction engaged in the new implemented formal partnering process (Culpeper District's first application), with VDOT subcontractors and other stakeholders in the project. This formal partnering promoted communication and cooperation in order to achieve a successful project. Through the initial partnering meeting several goals were established by the project team. These were safety, quality, on time and on budget completion. VDOT later commented that Faulconer Construction personnel's "commitment to meet the established goals from the formal partnering kick-off meeting was exemplified each and every day of the project."

The overall guiding principles of the CQIP program are to assess process integrity, aligned quality performance goals and to advise and communicate constructively. With hundreds of items evaluated for compliance with the contract requirements, only in one instance did the team not meet the targeted score missing the goal by less than one percent. The remaining targeted scores for compliance and quality improvement on the project were met and or exceeded . This effort would not have been successful without the team maintaining their professionalism by having a positive, team focused, and service oriented attitude while remaining transparent through open and honest communication. As Robert N. Marshall, the CQIP Regional Engineer stated, "I would like to recognize the professionalism exempted by the Project Management Staff from Faulconer, Fairfield, and VDOT; it was a pleasure to work with the entire project team during the recent CQIP study."

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)	
I-81 Corridor Safety Improvements (Truck Climbing Lane), Montgomery County, VA	Name: Faulconer Construction Company, Inc.	Name of Client: Virginia Department of Transportation Phone: 804-786-4798 Project Manager: Bobby Phlegar, PE Phone: 540- 378-5083 Email: R.Phlegar@VDOT.Virginia.gov	07/2010	09/2013	$75,370	$76,100	$7,000,000

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

The key relevant features of this project include: ● Design-Build ● Complex geotechnical ● Environmental Permitting and Compliance ● Traffic Management● Utilities ● Public Involvement

CH2M was the designer for the integrated CH2M/Faulconer design-build team for the widening of a truck climbing lane in the southbound direction of I-81 for five files, which included heavy earthwork in mountainous terrain, transitions, tapers, drainage improvements, shoulder improvements, guardrail upgrades, retaining walls, replacement of three bridges, and widening and improvements at bridge connections within the project area. CH2M's design concepts accommodated for future expansion by including widened bridge decks, longer bridge spans and retaining walls, and a longer bridge to accommodate additional railroad tracks under the I-81. Major project achievements included significant construction cost reductions. Additionally, parallel design efforts reduced the design schedule by 50 percent.

CH2M's team, which included many of the same team members proposed in our organization chart, developed the design, acquired environmental permits and approvals, acquired right-of-way, performed roadway construction, performed bridge construction, and provided quality assurance and quality control for design and construction. The following two examples highlight the benefits of how CH2M and Faulconer worked in partnership with VDOT to find solutions and keep the project on schedule. One example of how CH2M and Faulconer worked in partnership with VDOT to find solutions and keep the project on schedule involved packaging the project for construction. After the field inspection/right of way submission was completed for the entire I-81 project, our design-build team split the project into 3 construction packages rather than a single package for the entire 5 miles. This allowed the project team to begin construction activities on the segments included in one design package while design on the other packages was being finalized and design approvals obtained from VDOT. During the development of construction package 2 (segments 2 and 3), the Project team identified an opportunity to avoid environmental impacts to a jurisdictional stream. By shifting the alignment to the median we were able to eliminate impacting the stream. Additionally, the alignment shift and subsequent grade change allowed for a reduction in the amount of fill required for the widening. This design change provided several significant benefits to the Project including, a reduction in total environmental impacts which resulted in the Project having excess mitigation credits that the Project turned over to VDOT for use on other projects and a reduction in the time needed for construction which in turn meant a reduction in workers exposure to safety challenges on the Project. Our team coordinated with Brian Becker and Bobby Phlegar to shepherd the proposed alignment shift through the approval process. Another example of the benefits of this cooperative partnership with VDOT avoided a potentially costly change order. During the scope validation process for I-81, our team determined that an existing box culvert did not have the structural capacity needed to accept the loading which would be placed on it during fill placement for the proposed widening to the outside. Our project manager, Steve Tyler, and Design Lead, Stephanie Hart, engaged our project team and lead geotechnical engineer Emad Farouz to come up with viable and cost effective solutions to present to VDOT to address this challenge. Fran Burke and Josh Williamson were also engaged, providing valuable constructability input. Our team proposed a two-part solution to resolve this issue. First, the alignment was shifted towards the median and since simply shifting the alignment would not entirely solve the problem, Stephanie and Emad developed a slope stabilization design utilizing in part, a retaining wall to minimize the amount of load which would be added to the existing box culvert. Stephanie and Emad coordinated closely with VDOT to gain approval for this design modification. By truly partnering with the Salem District, the team was able develop, obtain approval and construct a concept which proved to be the most cost effective and quickest solution to address the challenge allowing the budget and the schedule to be maintained. The project included complex rock excavation in mountainous and karst terrain. CH2M provided unique performance based details for handling soil in-fill areas and innovative investigative techniques to assess planar characteristics of the rock for stability determination. The karst terrain also included known thrust faults, which imposed the risk of voids, weak gauges, rock pinnacles, and soil infills. To minimize these risks, the team carried out a comprehensive subsurface exploration and laboratory testing program including 236 soil/rock borings, geophysical survey, acoustic televiewer imaging of boreholes, and geological mapping. CH2M also performed electric resistivity imaging at the bridge foundation locations and the rock cut slopes to identify potential voids and soil infill zones. The team executed novel reliability based analysis using Monte Carlo simulation w for slope and retaining wall global stability to make sure less than 1 percent of failure probability.

CH2M utilized drainage elements that are low-impact and mostly non-structural in nature. Vegetated swale was installed parallel to the highway to treat the water coming off the road. The team implemented bio-filters, specific areas of porous bio-retention soil media, to filter out pollutants and placed constructed wetlands in low and flat areas to treat stormwater and reduce the impacts of runoff and potential for flooding. CH2M also encountered significant challenges due to the karst geology, which has a tendency to create sinkholes. To prevent over-saturation, the team factored karst into absorption equations. To comply with MS-19 of the Virginia Erosion and Sediment Control Law, CH2M ensured the protection of all properties and receiving waterways downstream from erosion and stormwater damages.

CH2M led the environmental documentation and permitting, which included complex geotechnical issues that required the team to account for waste and borrow areas during construction. The team also led an aggressive 8-month design schedule and gained approval to begin construction on time. CH2M obtained approvals and gained necessary environmental permits to begin initial construction activities 3 months after NTP and full construction activities 7 months after NTP. As an example of our pro-active, design-build approach, our environmental team sought and received permission from VDOT to conduct a needed endangered species survey for the Juniper Sedge and the Smooth Coneflower prior to final award of the Project in order that the survey could be performed during the peak time of year period. Taking this proactive, at-risk approach ensured the team and VDOT that a construction season would not be missed due to the survey having to be performed the following year. On our I-81 Project, our team acquired environmental credits based on VDOT's anticipated impact calculations while we continued to advance our design looking for ways to reduce impacts. Our team in fact did reduce overall impacts which resulted in our being able to provide excess wetland bank credits to VDOT which could be used for other projects. Early coordination, transparent communication, and "right the first time" permit applications allowed our team to acquire the necessary permits quickly and efficiently.

CH2M worked throughout the project to achieve the primary MOT goal of maintaining capacity and normal traffic speed throughout construction. During peak hours, two southbound lanes were always kept open, focusing on maintaining safety for commuters and area residents. The high amount of blasting and rock-moving required some daytime closures. During bridge construction, the team maintained east/west connectivity both over and under I-81 for bridge replacements, and retained all access to private drives throughout construction.

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)	
Route 288 - PPTA Design-Build Project, Chesterfield, Powhatan, and Goochland Counties, VA	Name: CH2M	Name of Client: Virginia Department of Transportation Phone: 800-367-7623 Project Manager: Jim Fariss, Jr., PE Phone: 804-786-2998 Email: James.Fariss@VDOT.Virginia.gov	11/2000	07/2009	$236,000	$236,000	$20,000,000

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

The key relevant features of this project include: ● Design-Build ● Environmental ●Geotechnical ● Complex Traffic Management ● Aggressive Project Schedule ● Utilities ● Public Involvement

VDOT awarded the CH2M design team a $236 million design-build-warranty contract for a 17.5-mile segment of Virginia Route 288 (VA 288) near Richmond, one of the largest projects awarded under the Commonwealth's Public-Private Transportation Act (PPTA). CH2M provided the design for the project, which consisted of 10.5 miles of new 4-lane freeway and expansion of seven miles of two-lane highway from the Powhite Parkway (Route 76) in Chesterfield County to I-64 in Goochland County, including six new interchanges, to Interstate standards and proposed a design-build approach that offered the lowest price and fastest schedule. Virginia Commissioner Chip Nottingham commended the project, stating that it was **"another fine example of government and business working together to provide a major public works project in a way that saves taxpayer dollars and takes much less time to complete than we've come to normally expect."**

The project involved considerable environmental compliance, including in-stream work such as six 2.4-meter-diameter drilled shaft foundations, with adherence to restrictions on the work due to fish spawning cycles. The team placed a real-time camera on the bank of the river to continuously monitor the river conditions for potential contamination from construction activities and transmitted the data directly to the Virginia Department of Environmental Conservation Website. Throughout the entire construction process, zero spills or contaminants were released into the river CH2M also provided sampling and base lining before construction to assess preservation sites. At Broad Branch Drive, the team provided wetland delineation and functional assessment, and also obtained VPDES and VSWMP permits for the corridor. VDOT performed all the EIS, EA, and archeological studies, while CH2M also provided construction management and inspection services to the team, including quality assurance/quality control (QA/QC) services during construction. *The Route 288 project won the Globe Award from the American Road Transportation Builders Association for APAC's procedures for environmental improvements and restoration.*

CH2M employed an aggressive geotechnical subsurface investigation to understand geological conditions in deep excavation areas near the James River that could influence earthwork and soil amendments. This approach reduced the interval for enhanced subsurface mapping. Initial geotechnical information, based on limited subsurface area exploration provided by others, indicated a significant number of areas with unsuitable material in the roadway prism that would have required substantial undercut and select backfill. Instead of undercutting the areas to their limits, CH2M exposed the areas during construction and determined the actual limits of unsuitable material. The amount of unsuitable material was far less than initially predicted. CH2M accomplished this by sending engineers to the site alongside contractors so that they could work together to see the actual conditions. The engineers then were able to direct the contractors and inform them of the exact limits of the unsuitable material. This direct manifestation of the CH2M design-build process cut in half the amount of unsuitable material to be excavated. Because of the high-fill areas, settlement plans were developed and integrated into the schedule to allow proper development of the subgrade for the roadway. During construction, the area received record rainfall followed by a record drought. The cycle of extreme saturation and shrinkage created unstable slopes in deep-cut areas. CH2M used a combination of techniques to stabilize slopes that were at risk or showed signs of failure. These included laying back slopes and using geotextiles and variable-grade rip-rap. Additional geotechnical measures included developing large-scale mechanically stabilized earth walls for the project. CH2M used nondestructive testing on drill shafts that did not meet initial specifications. The tests allowed us to develop corrective strategies to preserve instead of reconstruct the poured drilled shafts.

The team conducted significant traffic analysis a. CH2M implemented five new signal designs to provide safe flow of traffic and operational analysis for proposed construction zones on Capital One Boulevard. During construction, CH2M provided value engineering of the study work and maintenance of traffic plan previously completed by VDOT consultants. Value engineering optimized the plans and reduced the project schedule. An example of the benefits realized through value engineering is the reconfiguring of advance signage and typical section design at the Old Hundred Road and Lucks Lane interchanges that improved safety and lane balance. Additionally, CH2M monitored numerous construction phases with complex work zones for safety.

A large and beneficial aspect of the project was placing experienced designers in the field alongside inspectors to solve construction issues. Initial subsurface exploration predicted many areas of unsuitable material within the construction zone, but the pairing of engineers and contractors in the field determined with remarkable promptness that areas of unsuitable material were far fewer than originally anticipated. Another key area in which the teamwork of engineers and contractors benefitted the project enormously was guard-rail placement, for the teams were able to observe actual field conditions, form the design, and coordinate with VDOT and FHWA to gain approval. The designers worked with the construction surveyors to provide detailed spot elevations and cutsheets for layout, especially in complex gore areas. Detailed spot elevations were provided for overlay depths in areas of milling and overlays. CH2M provided review of shop drawings, quality assurance of materials, standard inspection and materials testing, density tests, and soil tests.

VDOT had obtained the preponderance of right-of-way for the project before construction began, thus enabling a smooth construction process. CH2M coordinated with property owners to meet VDOT commitments during construction and to keep them apprised of activities that could affect their properties. We provided design for all the electrical utilities, signs, signals, and associated equipment throughout the corridor, including coordination of power drop locations. We coordinated with such utilities as Dominion Virginia Power, Verizon, and Comcast. CH2M provided utility relocation coordination and design in the West Park development area where CH2M removed and reset all existing lighting including redesign of the conduit systems, and relocation of communication and power on West Creek Parkway, Broad Branch Drive, and Tuckahoe Creek Parkway.

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)	
Sudley Manor Drive/Linton Hall Road– PPTA Design Build Project, Prince William County, VA	Name: CH2M	Name of Client: Prince William County Phone: 703-792-7193 Project Manager: Mohammad Ayyoubi, PE Phone: 703-792-7193 Email: mayyoubi@pwcgov.org	04/2004	07/2009	$73,000	$73,000	$6,000,000

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

The key relevant features of this project include: ● Design-Build ● Environmental Permitting and Management ● Geotechnical ● Traffic Management/Safety ● Aggressive Project Schedule

CH2M utilized a combination of innovative design approaches along with comprehensive coordination with the regulatory agencies to reduce the Project's overall environmental footprint, which in turn reduced the Project's mitigation needs. The project team had a comprehensive understanding of permitting requirements and a plan to mitigate factors that could result in delays or increase expenses. Our environmental staff, designers, and Project delivery team met face-to-face with regulators on the Project site to review delineation, discuss agency concerns and questions, and create a partnering atmosphere. The Project team also coordinated with appropriate agencies with regards to a Heron rookery which was adjacent to the Project to ensure the proper steps were taken to avoid negatively impacting the rookery. Given the environmental sensitivity of the Project with regards to a stream of significant importance to Prince William County as a water source, and other significant work directly adjacent to environmentally sensitive areas, our Project Manager would meet face-to-face with the DEQ staff on a bi-weekly basis to keep them informed of planned activities for the following two weeks. The regulators appreciated the transparency of the delineation and impact determination process.CH2M and regulators agreed on most delineations and impacts before submittal, which sped the approval process. This Project, which included a forty-eight inch gravity sewer relocation directly adjacent to Broad Run Creek, was environmentally compliant for the duration of the Project. To avoid losing an entire construction season, the team worked proactively with the County to develop a phased contracting approach that allowed the environmental team to complete its field work concurrently with development and negotiation of the remainder of the contract. Performing the preliminary engineering tasks under a phased contract advanced the permitting schedule by 3 months. The team knew that to keep the project on schedule, they'd need to involve regulators early.

The team then tailored the alignment to fit within the right-of way shown in the plan. However, several developments along the corridor still in the planning and design process required close coordination and sometimes negotiating change with developers. The team achieved and maintained good working relationships with the developers through communication and by being flexible yet decisive in our designs. For example, the team discovered that a stormwater pond within the right-of-way would affect one developer's proposed buildings. Rather than perform a costly redesign to move the pond, CH2M designed it in an irregular shape that would clear the building's footprint. The team worked with the developer to provide access points and to coordinate utility relocations.

One of the most difficult geotechnical challenges faced by the construction crews was the presence of very shallow rock in many parts of the Sudley Manor Drive/Linton Hall Rd zones. CH2M engaged in additional subsurface exploration to clearly identify the depth and limits of the rock profile, allowing the design to be tailored to avoid extensive and expensive excavation when possible. Another situation involved areas that were predicted to be comprised of unsuitable material, thus requiring considerable undercut and select backfill. CH2M's engineers and contractors worked together in the field to identify the true limits of the unsuitable material, resulting in a reduction of the amount of undercut and backfill from original suppositions

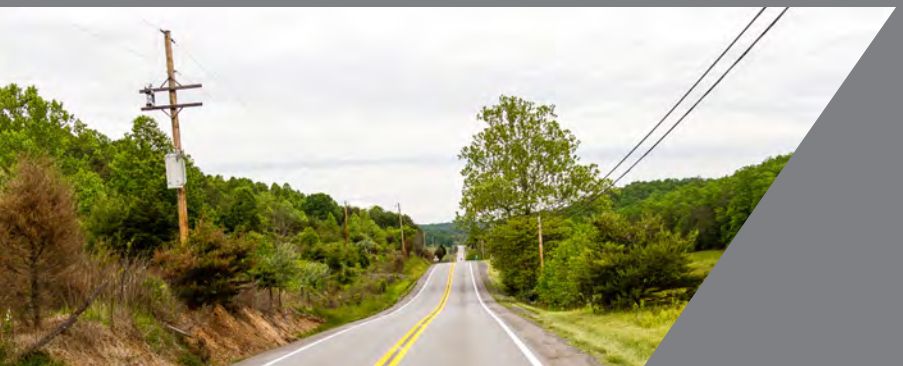
The project crossed several existing roadways that required new turn lanes, median work, mill and overlay and one road that required 500 feet of reconstruction due to a grade change. The team implemented a number of traffic management strategies, including portable message signs, adequate lane widths, proper traffic control devices and temporary pavement, to keep the traveling public safe and aware of the changing traffic patterns. Linton Hall Road had numerous residential areas along the corridor.
CH2M worked closely with utility owners, coordinating and discussing conflicts with Dominion Virginia Power, Northern Virginia Electric, Washington Gas, Colonial Pipeline, Transcontinental Gas Pipeline Corporation, Verizon, Comcast Cable, and Prince William Water and Sewer Authority. The team shared their design plans with utility companies, then reviewed and addressed each utility's comments, working collaboratively to avoid utilities when possible or to relocate if that proved more cost-effective.
CH2M team provided an innovative culvert entrance design for a tributary of Broad Run that eliminated excessive rip-rap protection, lowering the cost and amount of rock needed in the original design. We designed weir walls, which were more economical and provided better fish protection in that the width of the channel through which they pass was maintained to its normal width.

In total, CH2M designed seven signalized intersections for the project and supported the Prince William County community and provided graphics and handouts at public meetings with the board of supervisors. The team met with residents individually and at homeowner meetings to review details of the project, and solicit feedback about new concerns. CH2M worked with property owners for such purposes as analyzing roadway impacts, negotiating for land dedication and replacing trees, and made efforts to ensure adequate entrances and other access management concerns for properties during construction.

For additional information, please contact

Fran Burke
Executive Vice President

2496 Old Ivy Road
Charlottesville, VA 22903
Office: 434-295-0033
Mobile: 434-906-5390
fburke@faulconerconstruction.com



FAULCONER
CONSTRUCTION COMPANY

ch2m