Statement of Qualifications | June 27, 2013

Gloucester Parkway Extension
From Loudoun County Parkway To Pacific Boulevard

State Project No.: 2150-053-052 | UPC No.: 104418 | Contract ID Number: C00104418DB68

Submitted to:

Virginia Department of Transportation
Central Office Mail Center
Loading Dock Entrance | 1401 E. Broad Street
Richmond, Virginia 23219

Submitted by:

Cherry Hill Construction Inc.
8211 Washington Boulevard
Jessup, Maryland 20794

Stantec
June 27, 2013

Mr. Kevin C. Reichert, PE  
Alternate Project Delivery Office  
Virginia Department of Transportation  
1221 East Broad Street/ Main Building, 4th Floor  
Richmond, Virginia 23219

RE: STATEMENT OF QUALIFICATIONS  
A Design-Build Project, Gloucester Parkway Extension,  
CID No.: C00104418DB68  State Project No: 2150-053-052  UPC No.: 104418

Dear Mr. Reichert:

Cherry Hill Construction, Inc. is pleased to submit our Statement of Qualifications (SOQ) to the Virginia Department of Transportation (VDOT) for providing Design-Build (D-B) services for the Gloucester Parkway Extension from the Loudoun County Parkway to Pacific Boulevard located in Loudoun County, Virginia. As requested, we have submitted one (1) original paper version, one (1) CD ROM containing the entire SOQ and ten (10) abbreviated copies for this project.

Our Team, comprised of Cherry Hill Construction, Inc. (CHC) and Stantec Consulting Services Inc. (Stantec), parent company of Greenhorne & O’Mara, brings the following:
- A D-B Contractor who has been working on several D-B projects over the last several years including Fairfax County Parkway, 9th Street Bridge Replacement and Mark Center Short and Mid-Term Improvements.
- A D-B Project Manager with a unique understanding of the D-B project delivery method.
- Team D-B Experience.
- Full service architectural/engineering firms that cover the complete range of scope.
- Independent Design/Construction QA and QC programs.
- A primary emphasis on safety.
- CHC’s proven track record providing design and construction services “on-time” and within budget.

Our knowledge of this project will enable our Team to respond to your needs immediately at Notice of Award, specifically when it involves meeting very aggressive schedules. Mr. Andricos, our D-B Project Manager, and Mr. Simon Simon, our Designer-of-Record, are prepared to immediately mobilize for this project and initiate our services. It is critical that we assign staff to tasks on the critical path immediately to ensure early delivery. Our staff understands the higher risk elements of the work that could cause delays in schedule or increases in cost. Additionally, we are focused on the construction logistics and will address and avoid the risks associated with this project.

3.2 LETTER OF SUBMITTAL

INTRODUCTION TO CHERRY HILL CONSTRUCTION

If you choose Cherry Hill Construction, Inc. (CHC) as your design-builder for Gloucester Parkway Extension project, we will deliver a quality project to you on-time and within budget – a project that all parties will be proud of. With the CHC Team you will get:
- A proven heavy-highway contractor with over four decades of relevant construction experience.
- A proven partner that excels in design-build project delivery with several recent and pertinent successes to our credit including large bridge structures.
- A proven design-builder that recognizes and welcomes stakeholder involvement.
- A design-build project manager with the organizational authority to back our commitment to you.
Cherry Hill Construction, Inc. will be the design-builder responsible for design and construction of this project. CHC is a wholly owned subsidiary of the Tutor Perini Corporation (currently ranked No. 12 of Engineering News Record’s list of the Top 400 Contractors, No. 33 on ENR’s Top 100 Design-Build Firms, and No. 5 ENR’s Top Green Contractors) and has the support and diversified resources of one of the nation’s most experienced civil contractors. Founded in 1968, CHC is one of the largest constructors in Washington Metropolitan area, having delivered over $179 million design-build projects in Maryland, Washington, and Virginia over the past six years. CHC recently completed an award winning $112M design-build project in Fairfax County, Northern Virginia, for VDOT as administered by FHWA – EFLHD.

Stantec Consulting Services Inc., our lead designer for this project, is currently the Lead Designer for the Route 1 widening design-build in Prince William County, VA and was the Lead Joint Venture firm for the design of I-95 Section 100, Segment 1 and worked in partnership with CHC during construction of this project to bring it to a successful completion including receipt of a MDQI award for Partnering. Leading the CHC Team at the Senior Management Level is Gregory Andriou, PE, a Vice President of CHC, serving as the design-build project manager.

INTRODUCTION TO THE CHERRY HILL TEAM
For delivery of this project, CHC has assembled a Team that includes member firms and professional staff, nearly all of which are based in the Northern Virginia District. The graphics below depict our Team composition and responsibilities.

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<tr>
<th>Client</th>
<th>Primary Contractor – Lead Builder</th>
<th>Lead Designer</th>
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<tr>
<td>VDOT</td>
<td>CHERRY HILL</td>
<td>Stantec</td>
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<td>• Negotiate &amp; Execute Contract</td>
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<td>• Geotechnical</td>
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Stantec Consulting Services Inc. - Lead Designer | Design Management
Stantec is a global, full-service, multidisciplinary consulting engineering firm with offices in Chantilly, Leesburg, Richmond and Chesapeake, Virginia. They have been providing engineering services in the Washington Metropolitan area, including for Commonwealth of Virginia, since 1950s and have been consistently ranked as one of the top engineering design firms in the U.S. Stanatec has over 4500 employees within the Eastern United States with a large, diverse staff of more than 400 local professionals that offer a broad spectrum of expertise. Over the past ten years, Stanatec has been involved, either as a Lead Designer or a sub-consultant, on just about every design-build and 3P project in Virginia. They are currently serving as the Lead Designer on the Route 1 Widening Design-build project for Prince William County, VA and have served in that capacity for the Britton Road and Bridge 3P project working directly with FD/MK, LLC in Henrico County VA. To date, Stanatec has served as CHC’s Lead Designer on four design-build projects in Maryland and has partnered with us on several other large complex design-bid-build projects.
Rinker Design Associates, P.C. - Designer | Roadway Engineering, Environmental and Surveying
Rinker Design Associates, P.C. (RDA) is a Virginia-based firm with 103 employees on staff, and locations in Manassas (main office), Fredericksburg, and Richmond, Virginia. RDA is a Virginia-Certified Small Business (DMBE Certification #652784), and a leading provider of professional civil engineering, transportation engineering, traffic engineering, environmental, surveying, land planning, litigation support, and permitting services to both the public and private sector.

Quinn Consulting Services Inc.
Designer | Quality Assurance
Quinn Consulting Service, Inc. (QCS) is a quality oriented, 100 percent woman owned small business enterprise. QCS offers construction engineering and inspection services to commercial companies as well as to federal, state, and municipal governments and authorities. They specialize in management, inspection and engineering support for transportation, marine, and facility projects.

ECS Mid-Atlantic, LLC
Designer | Geotechnical
Founded in 1988, Engineering Consulting Services ECS) is a leader in geotechnical, environmental, construction materials, and facilities engineering. Their company success spans multiple industry sectors and their steady growth comes from a deep belief in developing the people, systems, and expertise required to focus on client needs.

DMY Engineering Consultants, LLC
Designer | Construction QC and QC Lab
DMY Engineering Consultants, LLC (DMY), founded in 2009, specializes in geotechnical engineering, drilling, soils and concrete laboratory testing, and CEI (QA/QC) services. They currently have five professional engineers registered in Virginia with 12 to 20 years of local and regional experiences as well as a team of support staff. They have worked on major local transportation projects such as the I-495 Express Lanes, I-495/I-395/I-95 Express Lanes at Springfield Interchange, I-495/DTR/DAAR Interchange along I-267, U.S. Route 221 Bridge over Pine Creek, and U.S. Route 687 Bridge over Maggodee Creek.

3.2.1 AUTHORIZED REPRESENTATIVE’S SIGNATURE
This submittal is signed in ink by an authorized representative of Cherry Hill Construction Company, Inc.

3.2.2 POINT OF CONTACT
The primary point of contact for CHC will be our Design-Build Project Manager (DBPM), Mr. Gregory Andricos; PE. Mr. Andricos has over 20 years of design and construction experience on similar projects in this region. He is the Design-Build Project Manager for the Mark Center Short and Mid-Term Improvements D-B Project. He has previously held the identical title as DBPM on three recent D-B projects: Fairfax County Parkway, Phases I/II and IV, Springfield, VA; 9th Street Bridge Replacement and Taylor Street Bridge Replacement in Washington, DC. Mr. Andricos’ contact information is provided below:

Gregory Andricos, PE
Vice President/General Manager (CHC)
8211 Washington Blvd, Jessup, MD 20794
(p) 301.799.2377  (e) gandricos@chconstr.com
(f) 410.799.2381

3.2.3 PRINCIPAL OFFICER
The Principal Officer is Mr. James Laing, President of CHC. Mr. Laing’s contact information is provided below:

James Laing, President, (CHC)
Senior Vice President, Tutor Perini Corp.
8211 Washington Blvd, Jessup, MD 20794
(p) 301.799.1908  (e) jlaing@perini.com
(f) 410.799.2381
3.2.4 CORPORATE STRUCTURE, PERSON(S) FINANCIALLY RESPONSIBLE FOR THE CONTRACT
The Offeror is CHC, a C-Corporation incorporated in the State of Maryland, Federal Tax ID #52-0890004. CHC will be the signatory to the VDOT contract and have financial responsibility for the contract. As noted in the enclosed Surety Commitment letter, CHC has more than sufficient bonding capacity. There are no liability limitations.

3.2.5 FULL LEGAL NAME OF LEAD CONTRACTOR & LEAD DESIGNER
Lead Contractor: Cherry Hill Construction, Inc.
Prime/general contractor responsible for overall construction and will serve as the legal entity who will execute the Contract with VDOT.
Lead Designer: Stantec Consulting Services Inc.
Will be responsible for the overall design of this Project.

3.2.6 AFFILIATES AND SUBSIDIARIES
CHC is a wholly owned subsidiary of the Tutor Perini Corporation. CHC has listed on Attachment 3.2.6 located in Appendix C, only affiliates of our parent company Tutor Perini Corporation that share officers or directorships with CHC.

3.2.7 DEBARMENT CERTIFICATIONS
CHC has executed Attachment 3.2.7(a) – Certification Regarding Debarment Form Primary Covered Transactions form. All subcontractors identified in the Team’s organization chart have executed Attachment 3.2.7 (b) - Certification Regarding Debarment Form Lower Tier Covered Transactions. All debarment forms are in the Appendix of this SOQ. This information is provided in Appendix D.

3.2.8 OFFEROR'S VDOT PREQUAL NUMBER/STATUS
CHC’s prequalification status (No. C090) is Active and in good standing to bid on this Project as outlined in VDOT’s Rules Governing Prequalification Privileges. Evidence of CHC’s prequalification with VDOT and good standing with the Commonwealth’s State Corporation Commission is included in the Appendix E.

3.2.9 LETTER OF SURETY / INSURANCE
CHC will provide performance and payment bonds based on the current estimated contract value referenced in Section 2.1 and these bonds will cover the Project and any warranty periods. The bond will be underwritten by Travelers Casualty and Surety Company of America, Federal Insurance Company, Fidelity and Deposit Company of MD, and Safeco Insurance Company of America (as cosurety) for the full amount of the contract. The co-surety companies have an A.M. Best’s Rating of “A” or better, and each with a Financial Size Rating of “XV” or better (See surety letter in the Appendix F).

3.2.10 SCC DPOR TABLE
Attachment 3.2.10, found in Appendix G, provides evidence and certifies that the CHC/Stantec Team complies with the requirements set forth in Section 3.2.10 and subsections .1 through .4, where applicable and that all businesses and individuals listed are active and in good standing with the Commonwealth of Virginia and VDOT. Full size copies of DPOR licenses (Office(s), Key Personnel and Non-APELSCIDLA) and SCC registrations follow Attachment 3.2.10.

3.2.11 DBE COMMITMENT
The CHC/Stantec Team is committed to achieving the 6 percent DBE participation goal during the design and construction of the Gloucester Parkway Extension. Additionally, our Team’s formal subcontracting program will ensure maximum use of SWaM firms as required by the Governor’s Executive Order No. 33.

We have assembled the information requested in the Request for Qualifications and appreciate the opportunity to submit our response for the Gloucester Parkway extension project. We appreciate the consideration of our Team and look forward to the opportunity of working together on this exciting project. If you have any questions or concerns, please contact me at 410-799-2377 or gandricos@chconstr.com.

Very truly yours,

CHERRY HILL CONSTRUCTION, INC

Bernard P. Beauchemin, Vice President of Estimating
3.3 TEAM STRUCTURE

TEAM EXPERIENCE

Over the years, CHC has been exceedingly successful with our approach to design-build teaming, and we commit that we will be equally successful on the Gloucester Parkway Extension project. Our teaming approach and structure centers on three important factors:

1. CHC selects a local Lead Design firm that is capable, productive, and familiar with the client technical requirements. These factors help ensure responsiveness to both the needs of the project owner and of CHC. CHC proposes Stantec as the Lead Designer for these same reasons. We have a 15-year working relationship with Greenhorne & O’Mara (now Stantec); they are a local, capable, and responsive service provider that is thoroughly familiar with VDOT project execution procedures and guidelines.

2. CHC selects a quality assurance management team that is familiar with the operational approaches of CHC and our client, and completely comprehends the culture of “turn-key” quality product delivery. We have selected Quinn Consulting Service, Inc. (QCS) based on their capabilities and because of the confidence and partnership QCS has built within VDOT over the past decade.

3. CHC selects other team members consistent with our meaningful corporate commitment to the federal disadvantaged business enterprise program. Additionally, some of our clients, such as VDOT, have similar state based programs. CHC understands and shares VDOT’s commitment to the SWaM / DBE programs. Our teaming structure reaches out to those potential services providers and as such, CHC is has selected the following DBE or SWaM providers for this project: Rinker Design Associates, PC (SWaM); Quinn Consulting Services, Inc. (DBE/SWaM); and DMY Engineering Consultants, LLC (MBE/SWaM). All three firms are local in Virginia, and are known services providers to VDOT.

3.3.1 KEY PERSONNEL

The CHC Team has assembled a highly qualified management team with demonstrated organizational capabilities. With more than a century of collective experience, our management personnel have the technical expertise in construction and design as well as the leadership skills necessary to deliver superior results. The personnel assigned to the Gloucester Parkway Extension project indicate the level of commitment of these member firms. Completed attachments 3.3.1 for the Design-Build Project Manager (DBPM), Quality Assurance Manager (QAM), Design Manager (DM), and Construction Manager (CM) detail their relevant experience and how their skills relate to your project needs. A brief introduction to these key individuals is shown below. Key personnel qualifications are detailed further in the resumes in Appendix H.

- Gregory Andricos, PE | Design-Build Project Manager (CHC)
  
  Since graduating from VMI in 1992 (BS civil engineering), Mr. Andricos has held progressively responsible positions within CHC over a period of 20 years and is now Vice President and General Manager. He is a registered PE in Virginia, is a DCR certified Responsible Land Disturber, and holds VDOT ESCC Certificate. He has successfully managed roadway/bridge design-build projects as well as traditional construction projects for CHC clients including: VDOT, FHWA Eastern Federal Lands, Maryland Department of Transportation, U.S. Army, and DDOT. As noted in his attached Key Personnel Resume, his work on award winning FHWA –EFLHD Fairfax County Phase I, II & IV design-build project demonstrates his excellent DBPM experience, while the I-95 Section 100 design-bid-build project demonstrates his personal experience with complex highway and interchange reconstruction projects.

- Kaushik Vyas, PE | Quality Assurance Manager (QCS)
  
  Mr. Vyas is a Virginia-registered Professional Engineer with 27 years of experience. He has a proven track record of overseeing roadways, bridges, and other physical construction operations. As a quality assurance manager he has worked exclusively on VDOT Design-Build projects in lead Quality Assurance and Quality Control roles. His project experience includes work on the Sycolin Road Overpass Design-Build, I-495 HOT Lanes Design-Build, Route 15 Widening Design-Build, Linton Hall Road Widening Design-Build, and the Spriggs Road Improvement project.

- Simon Simon, PE | Design Manager (Stantec)
  
  Mr. Simon is a Virginia-Registered Professional Engineer with expertise in project management of transportation related design and construction projects. He has 34 years dedicated to design and management of transportation projects, particularly large, complex highway and bridge facilities involving the design-build and 3P method of project delivery including those involving on
accelerated basis. Over the past 15 years, Mr. Simon has closely worked with CHC on a variety of design-build and design-bid-build projects. He currently serves as Stantec’s project principal for the Route 1 Widening and Improvements design-build/PPTA project in Prince William County, VA. He served as the JV project manager on the I-95 Express Toll Lanes, Section 100, Segment 1 project totaling $230M in construction value (CHC constructed), and recently completed the I-595 Express Toll Lanes, Zone 6 (over 3 miles) 3P project in Ft. Lauderdale, FL.

■ Roger Lant | Construction Manager (CHC)

We have assigned one of our most experienced construction managers to your project. Mr. Lant is a 19-year veteran of the construction industry and has significant experience as construction manager with specific expertise in highway and interchange projects, particularly those with compressed schedules, complex MOT phasing, stringent environmental regulations, and significant structural elements. Mr. Lant has been with CHC for 11 years, is a Virginia-Registered Land Disturber and holds a VA ESCC certification. As construction manager, he recently completed the $112 million “Award Winning” Fairfax County Parkway, Phase I, II, and IV Design-Build project for FHWA-ELHD. Similar to the Gloucester Parkway Extension project, the Fairfax County Parkway project included significant structures complex phasing and MOT.

■ Maurice DeBeary, PE | Lead Structural Engineer (Stantec)

Mr. DeBeary is a Virginia-Registered Professional Engineer with 27 years of experience specializing in the design management as well as hands-on design of transportation structures. His broad experience encompasses the design and management of structural projects involving design-build/3P methods of project delivery. In recent years he has served in such roles for major highway and bridge projects for VDOT, DDOT, Maryland SHA, Maryland Transportation Authority, and other Metro-Washington governmental jurisdictions. He is thoroughly familiar with VDOT, AASHTO and FHWA design and construction policies, procedures and guidelines. Maurice has served as structural manager for the I-895 Pocahontas Parkway 3P project in Richmond and Route 125 Bridge over Nansemond River in Suffolk Co., VA.

QUALIFICATIONS IN BRIEF FOR NON-KEY PERSONNEL

Several personnel listed on the CHC Team Organization Chart contribute to team expertise and resource availability. A detailed resume form 3.3.1 is not included as per solicitation requirements. However, certain individual qualifications are briefly outlined below and serve demonstrate that our personnel planning for your project has already begun.

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<th>Staff</th>
<th>Qualifications</th>
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<tr>
<td>Elizabeth Estes&lt;br&gt;Public Involvement (Stantec)</td>
<td>More than 18 years of experience developing public outreach programs</td>
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<td>Michael Chamberland, PE&lt;br&gt;Design Document Control Manager (Stantec)</td>
<td>Professional Engineer with 12 years of experience</td>
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<td>Dave Malinowski, PE&lt;br&gt;Permitting/Utilities (Stantec)</td>
<td>Virginia-Registered Professional Engineer with 33 years of experience</td>
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<td>John Christman, PE&lt;br&gt;Traffic Engineering &amp; MOT (Stantec)</td>
<td>Virginia-Registered Professional Engineer with more than 40 years of experience</td>
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<td>Tim Copeland&lt;br&gt;Right-of-Way Specialist (Stantec)</td>
<td>Virginia Certified General Appraiser with 10 years of experience</td>
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<td>Mo Kim, PE, DBIA&lt;br&gt;Roadway Transportation (RDA)</td>
<td>Virginia-Registered Professional Engineer with 19 years of experience</td>
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<tr>
<td>Stephen Seay, LS&lt;br&gt;Surveying &amp; ROW Plats (RDA)</td>
<td>Virginia Certified Professional Land Surveyor with 27 years of experience</td>
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### Support Personnel

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<th>Staff</th>
<th>Qualifications</th>
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| **Nikhil Deshpande, PE**  
H&H/Drainage/SWM (RDA)  
**J. Christopher Giese, PE**  
Geotechnical, Materials & Pavement Design (ECS)  
**Janet O’Neil, PWS, PWD**  
Environmental (RDA)  
**Bruce Beavers, PE**  
Utility Designations & Test Holes (Stantec)  
**Chris Danko**  
Construction Superintendent (CHC)  
**Timothy Garrison**  
Traffic Manager (CHC)  
**Jerry Whitlock, PE**  
Scheduler (CHC)  
**Craig Cole**  
Survey Party Chief (CHC)  
**Darell Fischer, PE, DBIA**  
Design QA (RDA) | • Virginia-Registered Professional Engineer with 11 years of experience.  
• Extensive expertise in performing H&H analyses, storm water management, and water resource analyses.  
• Virginia-Registered Professional Engineer with 39 years of experience.  
• Notable experience with geologic conditions at the project site.  
• Geotechnical consultant for numerous major Design-Build and PPTA projects in Virginia.  
• Geotechnical consultant for over 350 bridges in VA.  
• Virginia Certified Professional Wetland Delineator with 37 years of experience in wetland regulatory compliance and NEPA compliance.  
• Managed and prepared NEPA documents addressing a wide range of project types.  
• Conducted numerous wetland/waterway delineations, prepared pre-construction notifications and federal and state wetland permit applications, and developed mitigation plans for projects throughout VA.  
• Licensed Professional Surveyor with 24 years of experience.  
• Has provided utility designations and test holes on numerous transportation projects, including Design-Build projects.  
• Manages Cherry Hill’s work force and subcontractors including coordinate trades, scheduling, and equipment utilization for the entire project.  
• Responsible for jobsite quality control, maintenance of traffic, safety compliance (OSHA) and coordination with Owner Representatives.  
• 25 years of experience.  
• Experience with VDOT and Virginia “Mega” Projects traffic control coordination.  
• Holds VDOT certifications for TCM, ESCCC and a certified flagger.  
• 13 years of experience related to heavy civil construction on both the military and the civilian side including engineering, material testing, QA/QC, project management, and research.  
• Served in the same roles on three Design-Build projects with EFLHD; Mark Center. Short and Mid-Term Improvements, Fairfax County Parkway, Phases I/II and IV and the 9th Street Bridge Replacement projects.  
• Survey Supervisor with experience on several Design / Build Projects.  
• Knowledge of Design process to assure existing conditions are properly portrayed in design drawings and that as built are current and accurate.  
• Virginia-Registered Professional Engineer with over 27 years of experience.  
• Extensive experience in Design-Build projects (Design Manger for 5 projects and QA Manger for 1 project). |

### 3.3.2 FUNCTIONAL RELATIONSHIPS AND TEAM COMMUNICATION

The CHC Team organization chart on page 9 depicts the requisite personnel and reporting structure of our team. The functional relationships and communication string for this project is briefly described below.

Mr. Andricos, as the Design-Build Project Manager (DBPM), will be the primary point of contact for VDOT and responsible for all project delivery management activities. He will interact extensively with the VDOT project manager and manage all contractual obligations between VDOT and the CHC Team.

All design disciplines and related activities, including subconsultants, shown on the organization chart under “Design Team” will report to Design Manager (DM), Mr. Simon. Contractually, all design related services, including right-of-way acquisition services, will be the responsibility of Stantec. Stantec will in turn be contractually obligated to CHC and Mr. Simon will report to Mr. Andricos. Construction operations, QC, and quality control testing all report directly to the Construction Manager (CM), Mr. Lant. In addition, CHC will subcontract QC inspection to DMY, LLC, and these efforts will be led by Wamiq Hamid. The QC lab is currently unidentified, but the selected lab will have no project relationship with the independent QAM lab. The design-build operations will hinge on effective and frequent communications between Roger Lant (CM) and Simon Simon, PE (DM), as depicted in the design-build coordination box.

The Quality Assurance Manager (QAM) will be Kaushik Vyas, PE. He is from an independent firm (QCS) and will have no involvement in the construction operations for the project. Mr. Vyas will have no direct reporting obligations to the DBPM or CM, nor will QCS have any reporting or contractual obligations to the DM. An independent
company will serve as the QA for Materials for QCS.

Public involvement efforts extend from concept through construction completion, and will be led by Elizabeth Estes, with Stantec. Ms. Estes will report directly to the DBPM as their duties extend across all phases of project development.

Effective communication depends not only on enforcing the reporting relationships identified, but the practical communication of these relationships. The CHC Team, if shortlisted, will implement Bentley ProjectWise Software. This tool promotes organized structure of communications and of all electronic data including, but not limited to: MicroStation files, GEOPAK files, MS Office data, scheduling, PDFs, submittals, etc. Similar to VDOT’s Falcon system, this software allows for real-time collaboration of design files and Microstation data, complete with version management tools. ProjectWise will be implemented during the RFP stage, and, if selected, the CHC Team will continue its use through final construction. We have implemented a similar file structure on recent design-build as well as conventional design projects, wherein we have used it to store and control owner data, designs, estimates, schedules, reports and transfer files.

We will also implement a project communication plan which documents several aspects of our internal communications having these key features:

- Complete contact information for the project team, including external stakeholders;
- Chain of command reporting; and
- Roles and responsibilities matrix; and general milestone project calendar, complete with delivery dates, review deadlines, and internal deliverable dates. This portion of the communications plan will be a living document.

A complete CPM schedule in granular format will be developed and maintained for the project from inception until completion. This schedule will be maintained via scheduling software and “published” to project participants in PDF format at no less than a monthly basis.

External communication with project stakeholders will be crucial to a successful project perception and enhance project safety. Leading these external efforts will be Elizabeth Estes with Stantec.

**ORGANIZATIONAL CHART**

The organizational chart provided shows the “chain of command” while identifying major functions to be performed by the CHC/Stantec Team. The organizational chart also shows the reporting relationships of Key Personnel responsible for the management of design, construction, and QA/QC activities. The CHC/Stantec Team has clearly defined roles and relationships. The team organization is optimized to present clear, logical, reporting relationships to manage the design and construction of the Gloucester Parkway Extension project, while maintaining distinct responsibilities and project controls.

The CHC/Stantec Team strives to consistently employ standard project management methods that have evolved for nearly 40 years of successful design and construction projects, satisfied customers, and trustful business relationships. In collaboration with VDOT, the D-B Team will develop a full Quality Assurance and Quality Control (QA/QC) Program, including a Design QA/QC Plan and Construction QA/QC Plan, for review and approval by VDOT. QA/QC testing during construction will be performed in accordance with Minimum QA/QC Requirements for Design-Build. A complementary benefit of the program will be to establish a system of controls and guidelines that will support and encourage open and continuous communication and cooperation between VDOT, the D-B Team and third-party QA/QC inspection firms, permitting agencies and affected utility owners.

The Design QA Manager (DQAM) will develop a Design QA/QC Plan (DQP) specifically for the project that will ensure the design is performed and construction documents are prepared in accordance with good, prudent and generally accepted design and engineering practice. This plan will be prepared in accordance the RFP and submitted for VDOT review and approval shortly after Notice to Proceed is received. The DQAM will provide a review of the design work and written certification along with drawings, specifications and computations, confirming that each submittal has been prepared in full accordance.

In addition to the DQAM internal reviews, the Design-Build Project Manager, Construction Manager and Project Superintendent will review the plans prior to submission for constructability, compatibility of materials, and adherence to the project specifications and objectives. These reviews will focus on the following items:

- Familiarization with plans and contract documents, following the project step by step, to verify logic and practicality, existing and proposed features, etc.
- Check of the special provisions for any issues or restrictions peculiar to the project.
- Check of the accuracy of plan details and
Evaluation Criteria

- Check of adherence to standards and specifications called for in the plans or special provisions.
- Review of the maintenance of traffic and sediment and erosion control plans for conformance with the construction sequence.
- Verification that there are no electric, telephones, cable, gas, water, sanitary sewer or other utility conflicts, and if there are, that they are addressed on the plans.
- Verification that the sequence of construction and schedule are compatible with the contract completion time.
- Check of coordination of structural, civil, electrical and landscape plans.

Our team will ensure that field and design staffs have the training and experience necessary to plan and execute all facets of the QA/QC Plan.

The D-B Team will develop a written Construction QA/QC Plan specifically for the project, with the QA Plan remaining separate and distinct from the QC Plan. The Construction QA/QC Plan will establish appropriate “hold points”, detail how the Design-Build Team will provide QA and QC for the construction elements of the project including sampling, testing, inspection, management control, change management, document control, communication requirements, and non-compliant work corrective action plans. The Construction QA/QC Plan will also identify the QA/QC organization and the roles, responsibilities, and relationships between QA, QC, and VDOT.

**Construction QA/QC Organization**

- **Construction Manager (CM).** The CM will have daily operational responsibility for executing the construction quality control plan and ensuring its performance for the duration of the project, and will work closely with the QCM for daily management of QC operations. The QC staff reports directly to the CM, thus ensuring objective information is presented concerning the quality performance of the construction staff.
- **Quality Assurance Manager (QAM).** The QAM will oversee all construction-related QA functions and personnel. The Construction QA function will remain separate and distinct from all other design and construction activities and the QAM will report exclusively to VDOT.

**Construction QA and QC Process**

As part of the QA/QC effort, a series of on-site operation-specific pre-task conferences will be scheduled prior to critical construction stages. CHC will request participation from VDOT and other stakeholder representatives as applicable to the work. The D-B Team will submit work plans for all critical operations in advance for review before the conferences and before work is scheduled.

Typical critical construction stages will include:
- Sediment control set-up and phase changes
- Mobilization and night/weekend operations
- Concrete placement or girder erection
- MOT implementation and phase changes
- Utility operations, relocations, or outages
- Operations adjacent to private property

An effective inspection and testing program is also the hallmark of a design-build project. As part of the QA/QC effort, inspection and testing will be thoroughly incorporated into all operations and stages. Inspection and tests will be formally planned, scheduled, and executed in accordance with the approved QA/QC Plan. QA and QC managers will oversee separate inspections and tests to give VDOT confidence in both the quality of the method or material being tested, but also in the test procedures themselves. Construction inspection and testing will be conducted in a minimum of four phases:

- **Preparatory Inspections** - prior to starting each new phase, type of work or after other approved change.
- **Intermediate Inspections** - conducted during operations, focusing on specific stages and practices.
- **Completion Inspections** - upon verification of all supporting documents by VDOT.
- **Punchout Inspections** - conducted by CHC, reviewed and approved by VDOT prior to final acceptance.

The QA plan will delegate authority and assign responsibilities for the construction activities to specific individuals on the D-B Team and will address the role of VDOT in the construction and design QA/QC process. The QAM and staff will inspect, sample, test and provide document control to ensure all work conforms to the Contract requirements. The QAM will oversee and direct a staff of certified engineering technicians and inspectors. The QAM and staff will ensure continuous quality management and facilitate clear communication with construction field supervisors.
3.4 TEAM EXPERIENCE

3.4.1 PROJECT EXPERIENCE OF LEAD CONTRACTOR AND LEAD DESIGNER

Our key team members have extensive experience with design-build and roadway widening projects, particularly those requiring multi-disciplinary services under strict budget and schedule requirements. Relevant project experience is provided on the Work History Forms in Appendix I.

In addition, we have provided examples of our work quality straight from the source - our clients--as depicted below. Additional key project highlights and evidence of our team members’ experience working together on similar contracts are noted in the table below.

CHERRY HILL TEAM COLLABORATION EXPERIENCE

<table>
<thead>
<tr>
<th>Project Name, Location &amp; Description</th>
<th>Similarities</th>
<th>Client (Project Type)</th>
<th>Contactor / Designer</th>
<th>Const. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Award Winning” Fairfax County Parkway Phases I, II, and IV Design Build, Fairfax County, VA</td>
<td><strong>Similarities:</strong> Reconstruction of roadways, interchanges and ramps, survey and mapping, significant bridge structures including top-down walls, formal TMP, environmental permitting and compliance, formal public information and partnering programs, blasting, Contactor QA/QC Programs, coordination with adjacent contracts.</td>
<td>VDOT (Administered by FHWA-ELFHD)</td>
<td>CHC - Design-Build Contractor</td>
<td>$112 M</td>
</tr>
<tr>
<td>“Award Winning” I-895 Express Toll Lanes, Section 100, Segment 1, Baltimore City/County, MD</td>
<td><strong>Similarities:</strong> Competitively bid project; 3.6 miles of roadway reconstruction and widening, reconstruction of interchange and ramps, modifications to existing bridges including soil nail walls, multi-phase MOT, formal partnering program, coordination with adjacent contracts, and complete management of the project.</td>
<td>Maryland Transportation Authority</td>
<td>CHC - prime contractor Stantec - lead designer</td>
<td>$151.5 M</td>
</tr>
<tr>
<td>“Award Winning” I-66 Improvements (200-93A &amp; 201-93A)</td>
<td><strong>Similarities:</strong> Competitively bid project for 7.52 miles of roadway widening of I-66 constructing two new travel lanes in each direction. Involved reconstruction of interchanges, multiphase MOT coordinated with Regional TMP, and coordination with adjacent contracts.</td>
<td>VDOT</td>
<td>CHC - prime contractor</td>
<td>$27.6 M (#200-93A) and $39.3M (#201-93A)</td>
</tr>
<tr>
<td>I-495 Capital Beltway HOT/HOV Lanes 3P project; Fairfax County, VA</td>
<td><strong>Similarities:</strong> Widening and reconstruction of interstate facility; ROW, surveying, and utility relocations design and coordination services.</td>
<td>VDOT</td>
<td>Stantec – Lead ROW and utility engineer</td>
<td>$900 million</td>
</tr>
<tr>
<td>Route 288 Reconstruction 3P Project, Richmond, VA</td>
<td><strong>Similarities:</strong> Roadway and bridge reconstruction and associated independent QA services.</td>
<td>VDOT</td>
<td>Stantec – consultant to VDOT &amp; QA Manager</td>
<td>$212 million</td>
</tr>
<tr>
<td>Project Name, Location &amp; Description</td>
<td>Similarities</td>
<td>Client (Project Type)</td>
<td>Contactor / Designer</td>
<td>Const. Cost</td>
</tr>
<tr>
<td>-------------------------------------</td>
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</tr>
<tr>
<td>“Award-Winning” MD 32 / Airfield Road Interchange Design-Build, Ann Arundel County, MD</td>
<td><strong>Similarities:</strong> Interchange project, roadway and bridge reconstruction, roundabouts, surveying, utility relocation design and coordination services; construction phase services.</td>
<td>Maryland State Highway Administration</td>
<td>CHC – Design-builder, Stantec – Lead Designer</td>
<td>$10 million</td>
</tr>
<tr>
<td>Route 895, Pocahontas Parkway 3P, Chesterfield and Henrico Counties, VA</td>
<td><strong>Similarities:</strong> New roadway design, new bridge design (for Britton Road and Bridge); utility relocation design and coordination, utility tunnel design (entire corridor).</td>
<td>VDOT</td>
<td>Stantec – Lead Designer (Britton Road/Bridge &amp; Utility relocation coordination &amp; design)</td>
<td>$30 million (Stantec’s portion), $320M (entire Project)</td>
</tr>
<tr>
<td>I-81 Truck Climbing Lane, PPTA Rockbridge County, VA</td>
<td><strong>Similarities:</strong> Roadway reconstruction, to implement a program of safety improvements to I-81, including construction of truck climbing lanes.</td>
<td>VDOT Staunton District</td>
<td>Stantec – provided Utility relocation coordination &amp; design; ROW Services</td>
<td>$74 million</td>
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<tr>
<td>FDA Campus Consolidation White Oak Alternative Alignment, Study, Design and Environmental Services for New Access Road Bridge, Montgomery County, MD</td>
<td><strong>Similarities:</strong> Access road design, bridge / structural design, stormwater management.</td>
<td>General Services Administration</td>
<td>Stantec – provided environmental, permitting, traffic engineering, roadway/structural engineering, civil/site engineering, and public involvement services.</td>
<td>$20.1M</td>
</tr>
<tr>
<td>Rollins Ford Road, Phase IV Prince William County, VA</td>
<td><strong>Similarities:</strong> New alignment roadway and bridge construction, stream crossing/floodplain analysis and design.</td>
<td>Prince William County Department of Transportation</td>
<td>Rinker Design Associates – Engineer of Record providing Roadway Design; Utility relocation coordination; Surveying; ROW Services</td>
<td>$15.1 million</td>
</tr>
<tr>
<td>Sudley Manor Drive PPTA Prince William County, VA</td>
<td><strong>Similarities:</strong> New alignment roadway and bridge construction, stream crossing/floodplain analysis and design.</td>
<td>Prince William County Department of Transportation</td>
<td>Rinker Design Associates – Provided Roadway Design; Utility coordination; Surveying/Platting; Floodplain Analysis</td>
<td>$37.4 million</td>
</tr>
<tr>
<td>Middle Ground Boulevard Extension Design-Build City of Newport News, VA</td>
<td><strong>Similarities:</strong> New alignment roadway and bridge construction, major connecting roads at either terminal.</td>
<td>VDOT Hampton Roads District</td>
<td>Rinker Design Associates – Prime Designer providing Roadway Design; Utility relocation coordination; ROW Services</td>
<td>$32.6 million</td>
</tr>
</tbody>
</table>
3.5 PROJECT RISKS

3.5.1 CRITICAL PROJECT RISKS

Critical Risk Element 1 | Bridge Design

Risk Description. The length of the bridge will be largely determined by the channel hydraulics and hydrology. The project has been put on a priority schedule, so VDOT has not had a chance to do the preliminary hydrology & hydraulics analysis and geotechnical investigations. This situation will be partially addressed by the time the RFP is issued.

Based on our review of databases and GIS we know that the Broad Run floodplain to the Pacific Blvd roadway embankment. A significantly longer bridge may be required to provide an adequate waterway area with no rise in water surface elevation upstream or downstream of the bridge. Any encroachment other than bridge piers within the floodplain may contract stream flow and increase the flow velocity which in turn increases the potential for scour and stream instability. The type of foundation for the proposed bridge will largely depend on the degree and depth of scour.

Utilities. The proposed Gloucester Parkway Extension crosses over existing major sanitary sewer and water lines. The water line crossing is located near Pacific Blvd. and the sanitary sewer crossing is located to the west of the water line. The proposed bridge structure and approach roadway embankment must be designed to avoid any adverse impact to these utility crossings. The bridge profile and span arrangement must be designed to provide the required clearance to the utility lines. Pile driving near the existing utilities may cause damage to the utilities. A protective liner over the existing utilities may be required. Also, special clearance requirements may be necessary for their maintenance and protection.

Constructability / Construction Access. To minimize the construction footprint in the environmentally sensitive areas, an innovative top down construction approach could be utilized. This approach results in minimal impact to sensitive areas and accelerated construction schedule when compared to conventional construction techniques.

Mitigation. The piers will be designed to minimize flow disruption and scour potential. No pier will be located in the main channel. Piers will be properly oriented with the direction of flow so as not to increase the water-surface profile. Shallow superstructure will be considered to maximize the waterway area. For stream crossings, the desired level of hydraulic performance up to an acceptable risk level and mitigation of impacts on the stream environment will be considered. CHC was successful in getting approval from the DNR for a low profile steam crossing on the D-B FFX Parkway. Adequate scour protection will be provided at bridge abutments and approach roadway embankment.

Utilities. Deep foundations will be considered for the east abutment and piers adjacent to the existing utilities to avoid any additional overburden on the utilities. The bridge span will be configured to provide maximum clearance to the utilities from the substructure units. Pile driving adjacent to the existing underground utility lines will be avoided.

Critical Risk Element 2 | Geotechnical

Risk Description. The general soil profile, including existing fill, is expected to include random mixtures of sandy silts and clays ranging in thickness from less than 5 feet to about 15 feet. For the section of the roadway expansion that lies within the alluvial environment of the Broad Run bridge crossing, a deeper soil profile of alluvial silt that is underlain by sandstone bedrock is expected. Groundwater will likely be encountered at shallow depths within the Broad Run floodplain. Perched water tables are not uncommon in higher areas during cold, wet seasonal periods. As a result of the geologic conditions there are several design/construction elements which combine to make geotechnical conditions a risk.
3.2 Letter of Submittal

Bridge over Broad Run Foundations. A new bridge, approximately 1,400 feet long, is planned over Broad Run. It may be possible to support the abutments as well as the piers with shallow foundations bearing on bedrock as relatively shallow siltstone bedrock is common in the area. However, deep foundations consisting of driven or predrilled steel H-piles might be required depending on depth to bedrock, thickness of the alluvial soils, quality of the bedrock, and resistance to scour.

Settlement Roadway Extension and Bridge Approaches. The proposed at-grade roadway sections and bridge approaches will require construction of fill embankments which may settle over time due to the potential for compressive soils.

Potentially Unsuitable Soils. Potentially unsuitable soils include soils that have high plasticity characteristics and low CBR values. Low-lying areas, floodplains, and the Broad Run area may have accumulations of loose soil, organic accumulations, and saturated conditions due to high water tables. The risk to the project is that these soil conditions are not identified and located.

Excavatability of Existing Soils/Rock. Although deep cuts are not expected along the alignment, the ability to excavate the ground is of concern as shallow rock is not uncommon in the area. The alignment lies within the Culpeper Fault Basin, which generally consists of sedimentary shale, sandstone, and/or siltstone of the Mesozoic Era. The sedimentary rock is typically encountered between 5 and 10 feet below existing grades and has an overlying highly weathered rock and residuum soil profile, which typically consists of silty sands and sandy silts. The highly weathered rock is expected to be able to be excavated by heavy equipment; however, the bedrock is expected to be difficult to excavate in confined excavations such as utility trenches. Furthermore, although diabase rock is not mapped as being the underlying parent rock at the site, it is present nearby and can pop up as random intrusions. Diabase rock is hard and difficult to excavate.

Bridge Foundation Scour. Unknown geologic conditions mean unknown scour potential which affects foundation types and depths.

Impact. Each of these elements has an impact to both cost and schedule. Unknown conditions in design-build breeds conservatism which further affects cost and schedule. In combination, the unknown and the potential for impacts causes even more concern.

Mitigation. As a whole, our approach to mitigating these elements is to perform extensive geotechnical investigations. These investigations will fully mitigate the “unknown” and only leave those risk elements which pose real concern. Each geotechnical risk element has different and specific mitigation strategies. These strategies are described in the table below.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Mitigation Methodology</th>
</tr>
</thead>
</table>
| Broad Run Bridge Foundations        | - Establish an adequate frequency of borings per substructure element  
                                       - Perform rock coring in borings  
                                       - Conduct hydraulic scour analyses  
                                       - Evaluate foundation alternatives |
| Potentially Unsuitable Soils         | - Develop a well panned geotechnical exploration  
                                       - Increase frequency of exploration in low-lying areas  
                                       - Perform additional laboratory index testing  
                                       - Delineate potential problem soils areas  
                                       - Develop a comprehensive earthwork management plan  
                                       - Establish an effective construction QA/QC plan |
| Excavability of Soils and Rock      | - Perform additional boring in cut areas  
                                       - Conduct test pits with large hydraulic backhoes  
                                       - Conduct seismic refraction surveys  
                                       - Delineate potential difficult excavation locations in the comprehensive earthwork management plan |
| Global Slope Stability              | - Identify problem soils areas  
                                       - Develop ground improvement methods  
                                       - Conduct various laboratory shear strength tests  
                                       - Conduct CPT or DMT tests where appropriate  
                                       - Analyze critical sections |
| Bride Foundation Scour              | - Perform borings with rock coring at substructure locations  
                                       - Perform laboratory grain size tests  
                                       - Conduct hydraulic scour analyses  
                                       - Select foundation types and elevations with consideration given to scour  
                                       - Armor piers and abutments as needed |
3.2 Letter of Submittal

**Critical Risk Element 3 | Environmental Constraints**

**Risk Description.** There is inherent risk associated with estimating the level of effort for environmental compliance. For this project, there is no federal funding, and it has been put on a priority schedule, so VDOT has not had a chance to do the preliminary environmental investigations that usually accompany its RFQs. There is very little information at this time on the project design or potential environmental impacts.

This situation will be at least partially addressed by the time the RFP is issued. VDOT is conducting the State Environmental Review Process (SERP) and will provide a Preliminary Environmental Inventory (PEI) when the RFP is issued. The PEI will highlight what additional studies will be needed to support the environmental process when it is time to develop a price proposal.

Based on our own review of databases and GIS, we know a substantial effort will be required to obtain water quality permits. The Loudoun GIS wetlands model indicates that, in addition to Broad Run, there are a number of smaller streams and wetlands within the project area that could be impacted. We may even need to obtain individual (rather than general) permits from the US Army Corps of Engineers and/or the Virginia Department of Environmental Quality. A permit from the Virginia Marine Resources Commission will also be needed. The time for processing individual permits is longer than that normally required to process projects under the state and federal general permits - generally greater than six months, as opposed to the two or three months needed to process general permits.

According to the Virginia Fish and Wildlife Information Service, there are several state-threatened species (green floater, Henslow’s sparrow, loggerhead shrike, upland sandpiper and wood turtle) occurring within two miles of the project area. It is possible that the state natural resources agencies could require a survey for any of these species, to support processing of the permits and to address any issues raised through the SERP.

VDOT indicates that it is conducting a Phase I archaeological investigation, the results of which will be provided with the RFP. This reduces, but does not obviate, the risk of unexpected Section 106 NHPA issues when we estimate the price. The Phase 1 survey will help us estimate what if any effort will be needed for additional archaeological survey, but there is still the possibility of uncovering a resource during excavation that was not identified in the Phase 1 survey, or any resources present are larger than anticipated.

The SERP will identify potential contamination issues along the proposed project route, as well. We will be in a better position to estimate effort required for management of contaminated soils and other media, if they exist within the project area, at the RFP stage when we have the PEI. However, as with archaeological surveys, environmental site assessments are a cursory effort to identify issues; there is always the possibility that these assessments will miss something which we will discover later, and be faced with the costs of additional site investigations or clean-up.

**Impact.** Any of the above risks, if realized, could significantly impact the schedule, level of effort, and cost required for environmental compliance.

**Mitigation.** We will expect the unexpected! We will delineate wetlands within the project area, allowing for as big enough project site at the outset to accommodate things like minor shifts in the alignment, adequate outfall design, and space for stormwater management facilities. We will plan for the extended permitting schedule associated with obtaining individual wetland permits. As soon as we know that there will be a requirement, we will organize any field surveys needed to address state-threatened species concerns, or archaeological data retrieval. We will also maintain close contact to the VDOT Project Environmental Managers, to make sure issues are addressed as they rise.

**VDOT’s Role.** VDOT’s role is anticipated to be one of partnership in helping us resolve issues with any of the resource and permitting agencies, and to advise us on VDOT’s and FHWA’s environmental processes, positions and policies regarding environmental matters. The CHC / Stantec Team will alert VDOT personnel as soon as we identify a need to change the project or a potential new issue. Public participation will help raise any previously unknown issues early.
ATTACHMENT 3.1.2

**Project: 2150-053-052**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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<tbody>
<tr>
<td><strong>Statement of Qualifications Checklist and Contents</strong></td>
<td>Attachment 3.1.2</td>
<td>Section 3.1.2</td>
<td>no</td>
<td>Appendix A</td>
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<td><strong>Acknowledgement of RFQ, Revision and/or Addenda</strong></td>
<td>Attachment 2.10 (Form C-78-RFQ)</td>
<td>Section 2.10</td>
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<td>Appendix B</td>
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<td><strong>Letter of Submittal (on Offeror’s letterhead)</strong></td>
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<tr>
<td>Authorized Representative’s signature</td>
<td>NA</td>
<td>Section 3.2.1</td>
<td>yes</td>
<td>Page 4</td>
</tr>
<tr>
<td>Offeror’s point of contact information</td>
<td>NA</td>
<td>Section 3.2.2</td>
<td>yes</td>
<td>Page 3</td>
</tr>
<tr>
<td>Principal officer information</td>
<td>NA</td>
<td>Section 3.2.3</td>
<td>yes</td>
<td>Page 3</td>
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<td>Offeror’s Corporate Structure</td>
<td>NA</td>
<td>Section 3.2.4</td>
<td>yes</td>
<td>Page 3</td>
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<tr>
<td>Identity of Lead Contractor and Lead Designer</td>
<td>NA</td>
<td>Section 3.2.5</td>
<td>yes</td>
<td>Page 4</td>
</tr>
<tr>
<td>Affiliated/subsidiary companies</td>
<td>Attachment 3.2.6</td>
<td>Section 3.2.6</td>
<td>no</td>
<td>Appendix C</td>
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<tr>
<td>Debarment forms</td>
<td>Attachment 3.2.7(a)</td>
<td>Section 3.2.7</td>
<td>no</td>
<td>Appendix D</td>
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<td>Offeror’s VDOT prequalification evidence</td>
<td>NA</td>
<td>Section 3.2.8</td>
<td>no</td>
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<td>Evidence of obtaining bonding</td>
<td>NA</td>
<td>Section 3.2.9</td>
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<td>Appendix F</td>
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## ATTACHMENT 3.1.2

### Project: 2150-053-052

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<table>
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<th>Statement of Qualifications Component</th>
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<tr>
<td>Full size copies of SCC and DPOR registration documentation (appendix)</td>
<td>NA</td>
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<td>SCC Registration</td>
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<td>Section 3.2.10.1</td>
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<td>DPOR Registration (Offices)</td>
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<td>DPOR Registration (Key Personnel)</td>
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<td>Section 3.2.10.3</td>
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<td>3.2.10</td>
<td>Section 3.2.10.4</td>
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**DBE statement within Letter of Submittal** confirming Offeror is committed to achieving the required DBE goal

<table>
<thead>
<tr>
<th></th>
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<td>Section 3.2.11</td>
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</table>

**Offeror’s Team Structure**

| Identity of and qualifications of Key Personnel | NA | Section 3.3.1 | yes | Page 5 |
| Key Personnel Resume – DB Project Manager | Attachment 3.3.1 | Section 3.3.1.1 | no | Appendix H |
| Key Personnel Resume – Quality Assurance Manager | Attachment 3.3.1 | Section 3.3.1.2 | no | Appendix H |
| Key Personnel Resume – Design Manager | Attachment 3.3.1 | Section 3.3.1.3 | no | Appendix H |
| Key Personnel Resume – Construction Manager | Attachment 3.3.1 | Section 3.3.1.4 | no | Appendix H |
| Key Personnel Resume – Lead Structural Engineer | Attachment 3.3.1 | Section 3.3.1.5 | no | Appendix H |
| Organizational chart | NA | Section 3.3.2 | yes | Page 10 |
| Organizational chart narrative | NA | Section 3.3.2 | yes | Page 8 |
## ATTACHMENT 3.1.2

**Project: 2150-053-052**  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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<td>Experience of Offeror’s Team</td>
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<td>Lead Contractor Work History Form</td>
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<td>Section 3.4.1</td>
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<td>Section 3.5.1</td>
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ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00104418DB68
PROJECT NO.: 2150-053-052

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 05/14/13
   (Date)

2. Cover letter of RFQ Addendum No. 1 06/06/13
   (Date)

3. Cover letter of
   (Date)

[Signature] 06.21.13

SIGNED
GREGORY M. ANDERSON, P.E.
DATE
Appendix C – List of Affiliated and Subsidiary Companies
ATTACHMENT 3.2.6
State Project No. 2150-053-052
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.

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate</td>
<td>AirTech Systems, Inc</td>
<td>1125 Close Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bronx, NY 10472</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Anderson Companies, Inc.</td>
<td>11400 Reichold Rd.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gulfport, MS 39503</td>
</tr>
<tr>
<td>Affiliate</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Affiliate</td>
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<tr>
<td>Affiliate</td>
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<tr>
<td>Affiliate</td>
<td>Brice Building Co., LLC</td>
<td>201 Sunbelt Parkway</td>
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<tr>
<td></td>
<td></td>
<td>Birmingham, AL 35211</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Daniel J. Keating Construction Co., LLC</td>
<td>1600 Arch Street, Suite 300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Philadelphia, PA 19103</td>
</tr>
<tr>
<td>Affiliate</td>
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<td>Affiliate</td>
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## ATTACHMENT 3.2.6

**State Project No. 2150-053-052**  
**Affiliated and Subsidiary Companies of the Offeror**

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<th>Affiliate</th>
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<td>Five Star Electric Corp.</td>
<td>101-32 101st Street Ozone Park, NY 11416</td>
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<td>FK Management Services, Inc.</td>
<td>1695 Allen Road, PO Box 6690 Evansville, IN 47719-0690</td>
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<tr>
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<td>FKC, LLC</td>
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<tr>
<td>Affiliate</td>
<td>Frontier Kemper Constructores Limitada</td>
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<tr>
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<td>Frontier-Kemper Constructors ULC</td>
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<tr>
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<td>30 North HMacQuesten Parkway Mount Vernon, NY 10550</td>
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<td>Affiliate</td>
<td>Harrell Contracting Group, LLC</td>
<td>368 Highland Colony Parkway Ridgeland, MS 39157</td>
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<td>Affiliate</td>
<td>International Construction Management Services, Inc.</td>
<td>73 Mt. Wayte Avenue Framingham, MA 01701</td>
</tr>
<tr>
<td>Affiliate</td>
<td>James A. Cummings, Inc.</td>
<td>3575 NW 53rd Street Fort Lauderdale, FL 33309</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Johnson Western Constructors, Inc.</td>
<td>940 Doolittle Drive San Leandro, CA 94577</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Johnson Western Gunite Company</td>
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</tr>
<tr>
<td>Affiliate</td>
<td>Keating Project Development, Inc.</td>
<td>1600 Arch Street, Suite 300 Philadelphia, PA 19103</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Lunda Construction Company</td>
<td>620 Gebhardt Rd. Black River Falls, WI 54615-0699</td>
</tr>
<tr>
<td>Affiliate</td>
<td>Mt. Wayte Realty, LLC</td>
<td>73 Mt. Wayte Avenue Framingham, MA</td>
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<tr>
<td>Affiliate</td>
<td>Nagelbush Mechanical, Inc.</td>
<td>1800 NW 49th Street, Ste 110 Fort Lauderdale, FL 33309</td>
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<td>Affiliate</td>
<td>Paramount Development Assoc., Inc.</td>
<td>73 Mt. Wayte Ave. Framingham, MA 01701</td>
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<tr>
<td>Affiliate</td>
<td>PCR Insurance Company</td>
<td>15901 Olden Street Sylmar, CA 91342</td>
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**ATTACHMENT 3.2.6**  
**State Project No. 2150-053-052**  
**Affiliated and Subsidiary Companies of the Offeror**

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<tr>
<td>Affiliate</td>
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<tr>
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<td>R.E. Dailey &amp; Co.</td>
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<td>RA Properties, LLC</td>
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<td>Affiliate</td>
<td>Roy Anderson Corp</td>
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<tr>
<td>Affiliate</td>
<td>Rudolph &amp; Sletten, Inc.</td>
<td>1600 Seaport Blvd., Suite 350 Redwood City, CA 94063-5575</td>
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<tr>
<td>Affiliate</td>
<td>Safe Harbor Electric, Inc.</td>
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<td>12306 Van Nuys Blvd. Lakeview Terrace, CA 91342</td>
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<tr>
<td>Affiliate</td>
<td>TPC Aggregates, LLC</td>
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<tr>
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<td>Affiliate</td>
<td>Tutor Pacific Construction, LLC</td>
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## ATTACHMENT 3.2.6
### State Project No. 2150-053-052
#### Affiliated and Subsidiary Companies of the Offeror

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<td>Affiliate</td>
<td>Tutor Perini Building Corp.</td>
<td>5055 E. Washington St., Ste 210 Phoenix, AZ 85034</td>
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<tr>
<td>Cherry Hill’s Parent Company</td>
<td>Tutor Perini Corporation</td>
<td>15901 Olden Street Sylmar, CA 91342</td>
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<tr>
<td>Affiliate</td>
<td>Tutor Perini Merger Company</td>
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<td>Affiliate</td>
<td>Tutor-Cayman, Ltd.</td>
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<td>Affiliate</td>
<td>Tutor-Saliba Corporation</td>
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<td>Affiliate</td>
<td>Valley Concrete &amp; Framing, Inc.</td>
<td>12308 Van Nuys Blvd Lakeview Terrace, CA 91342</td>
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<td>Affiliate</td>
<td>WDF Development LLC</td>
<td>30 North Macquestan Parkway Mount Vernon, NY 10550</td>
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<td>Affiliate</td>
<td>WDF, Inc.</td>
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<tr>
<td>Affiliate</td>
<td>WDF/Nagelbush Holding Corp.</td>
<td>1800 NW 49th Street, Ste 110 Fort Lauderdale, FL 33309</td>
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</table>
Appendix D – Debarment Forms
ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 2150-053-052

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: ____________________________  Date: 6/27/13  
Vice President Estimating  
Title

Bernard P. Beauchemin
Cherry Hill Construction, Inc.

Name of Firm
Letter of Submittal:

3.2.7: Certification Regarding Debarment Form Primary Covered Transactions – Clarification of False Claim Issue

Tutor-Saliba-Perini, Joint Venture v. Los Angeles County Metropolitan Transportation Authority CA Superior Court, (Los Angeles County, 1995). CA (LASC Case No. BC123559 consolidated with BC132928)

During 1995, a joint venture of Tutor-Saliba-Perini, or the Joint Venture, in which Perini Corporation, or Perini, was the 40% minority partner and Tutor-Saliba Corporation, or Tutor-Saliba, of Sylmar, California was the 60% managing partner, filed a complaint in the Superior Court of the State of California for the County of Los Angeles against the Los Angeles County Metropolitan Transportation Authority, or LAMTA, seeking to recover costs for extra work required by LAMTA in connection with the construction of certain tunnel and station projects. In 1999, LAMTA countered with civil claims under the California False Claims Act (“CFCA”) against the Joint Venture, Tutor-Saliba and Perini jointly and severally (together, “TSP”). In September, 2008, Tutor-Saliba merged with Perini.

Claims concerning the construction of LAMTA projects were tried in 2001. During the trial, based on the Joint Venture’s alleged failure to comply with the court’s discovery orders, the judge issued terminating sanctions that resulted in a substantial judgment against TSP.

TSP appealed and, in January 2005, the State of California Court of Appeal reversed the trial court’s entire judgment and found that the trial court judge had abused his discretion and had violated TSP’s due process rights, and had imposed impermissibly overbroad terminating sanctions. The Court of Appeal also directed the trial court to dismiss LAMTA’s claims that TSP had violated the Unfair Competition Law (“UCL”) because LAMTA lacked standing to bring such a claim, and remanded the Joint Venture’s claims against LAMTA for extra work required by LAMTA and LAMTA’s counterclaim under the CFCA against TSP to the trial court for further proceedings, including a new trial.

In December 2006, in the trial of the first issue, which arose out of a 1994 change order involving a Disadvantaged Business Enterprise (“DBE”) subcontractor pass-through claim, the jury found that the Joint Venture had submitted two false claims for payment and had breached its contract with LAMTA and awarded LAMTA $111,651 in direct damages. The court has awarded penalties of $10,000 for each of the two claims and will treble the damages awarded by the Jury. A final judgment with respect to these claims will not be entered until the entire case has been resolved and is subject to appeal.

In February 2007, the court granted a Joint Venture motion and precluded LAMTA in future proceedings from presenting its claims that the Joint Venture breached its contract and violated the CFCA.

After a series of motions and hearings, LAMTA conceded some of TSP’s affirmative claims; LAMTA’s four categories of remaining alleged false claims were all claims associated with certification language in progress payments that could carry penalties only.

On September 2, 2010, the LAMTA filed a unilateral withdrawal of three of its claims, including for (1) liquidated damages claim, for alleged delays in the Contractors completing a milestone in the building of a
power room on the project in 1994, which was the only remaining claim against the bonding companies; (2) LAMTA’s allegations under the False Claims Act for purported failure to provide proper Quality Control services on the project and certifying billings for the services; and (3) claims under the California Unfair Competition Law for disgorgement of profits on the project.

Then, on September 14, 2010, the LAMTA filed a unilateral Notice of Disposition of Remaining Claims, where the LAMTA: (1) withdrew its two remaining claims scheduled for trial under the False Claims Act for Buy America violations and Disadvantaged Business Enterprises program violation, which LAMTA sought penalties under the False Claims Act and Unfair Competition Law; and (2) LAMTA agreed to have judgment entered in favor of TSP for TSP’s remaining two claims set for trial.

As a result of the above filings, on September 14, 2010, the Court vacated the trial date.

On October 14, 2010, the LAMTA stipulated the interest would be added to the judgment to be financially in favor of TSP. The LAMTA has stipulated that $1.8 million will be added in interest in favor of those claims to be included in the judgment in favor of TSP.

On February 9, 2011, the Court entered judgment in favor of TSP and against LAMTA in the amount of $3,015,362.36. This amount is after deducting the amount of $526,957.64, representing the tunnel handrail verdict plus accrued interest against TSP. In addition, the judgment includes a judgment in favor of the People and against TSP, TSC and Perini, collectively, in the amount of $2,500 for a statutory penalty on the tunnel handrail claims. The parties have filed post-trial motions for costs and fees. The Court denied any right to attorney’s fees in this case. The parties resolved the issue of court costs, where the parties filed a stipulation and agreed not to appeal the cost issue.

Both parties have appealed prior rulings on the case including an appeal by TSP of the tunnel handrail verdict. LAMTA’s withdrawals of its claims are permanent and are not subject to appeal by LAMTA. The appeal remains pending.

This entire matter relates to events that transpired over 17 years ago. The events involved Tutor Perini Corporation (formerly known as Perini Corporation) as a participant in a joint venture. Tutor Perini Corporation acquired Cherry Hill Construction in 2005, some 10 years after the events occurred, and became its sole shareholder. None of the aforementioned related to any actions by or on behalf of Cherry Hill Construction, Inc. However, when responding to RFQ Section 3.2.7, Tutor Perini Corporation was interpreted to be a principal of Cherry Hill and the aforementioned events were disclosed pursuant to that interpretation.
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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

Stantec Consulting Services Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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]  6/17/13  General Manager/ Principal
[Date]  [Title]

Rinker Design Associates, P.C.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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: June 17, 2013

President

Title

Quinn Consulting Services, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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   6-10-13   Title

ECS Mid-Atlantic, LLC

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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: [Signature] Date: 6/18/2013 Title: Vice President

[Handwritten: DMY Engineering Consultants] Name of Firm
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<tr>
<td>8211 WASHINGTON BLVD.</td>
<td>002 - GRADING</td>
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<tr>
<td>JESSUP, MD 20794-9400</td>
<td>003 - MAJOR STRUCTURES</td>
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<tr>
<td>PHONE : 410-799-3577</td>
<td>006 - PORTLAND CEMENT CONCRETE PAVING</td>
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<tr>
<td>FAX : 410-799-5488</td>
<td>007 - MINOR STRUCTURES</td>
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<td>BUSINESS CONTACT: BEAUCHEMIN, BERNARD PAUL P.</td>
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<tr>
<td>EMAIL: <a href="mailto:DBEAUCHEMIN@CHCONSTR.COM">DBEAUCHEMIN@CHCONSTR.COM</a></td>
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<td>VIRGINIA BEACH, VA 23456-0000</td>
<td>045 - UNDERGROUND UTILITIES</td>
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<td>PHONE : 757-468-4600</td>
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<td>FAX : 757-468-4600</td>
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<tr>
<td>BUSINESS CONTACT: O'NEAL, JR., ROBERT CHARLES</td>
<td></td>
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<td>EMAIL: <a href="mailto:BONEAL@CHESBAYCONTRACTORS.COM">BONEAL@CHESBAYCONTRACTORS.COM</a></td>
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November 29, 2012

Mr. Ian Millikan
Alternate Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Re: Cherry Hill Construction, Inc.
Contractor’s Prequalification
A Design Build Project – Route 7 – Westbound Truck Climbing Lane From: Route 9 To: West Market Street, Loudoun County, Virginia

Dear Mr. Millikan,

This letter confirms that Cherry Hill Construction, Inc., a Tutor-Perini Company, is a highly regarded and valued bonding client of Travelers Casualty and Surety Company of America, Federal Insurance Company, Fidelity and Deposit Company of Maryland and Safeco Insurance Company of America (herein after referred to as “co-surety”). Each of the co-surety companies has an A.M. Best’s Rating of “A” or better, and each with a Financial Size Rating of “XV” or better. All of the co-surety partners are listed in the Department of the Treasury’s Listing of Approved Sureties (Department Circular 570) dated July 1, 2012.

Cherry Hill Construction, Inc. has a long and successful track record of completing complex road and bridge projects on time and within the available budget. As respects to bonding capacity, the co-surety will consider supporting Cherry Hill Construction, Inc. on individual projects up to $500,000,000 with an aggregate backlog approaching $5,000,000,000. Cherry Hill Construction, Inc. is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

Naturally, as is customary within the surety industry, the issuance of any bid or final bonds is always contingent upon a favorable underwriting review to include, but not limited to, a satisfactory review of contract terms, conditions, documents, and confirmation of an acceptable financing source to Cherry Hill Construction, Inc. and its co-surety at the time a request for bonds is made. It should be understood that any arrangement for the issuance of bonds is a matter strictly between Cherry Hill Construction, Inc. and its co-surety. We assume no liability to third parties or to you by issuance of this letter.

Sincerely,
Travelers Casualty and Surety Company of America
Fidelity and Deposit Company of Maryland
Liberty Mutual Insurance Company
Federal Insurance Company

Nicole Roy, Attorney-in-Fact
POWER OF ATTORNEY

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

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

Attorney-In-Fact No. 225311
Certificate No. 005227874

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

Michael J. Cusack, John J. Gambino, Nicole Roy, Natalie Coneys, Donald H. McCarter, Sandra C. Lopes, and Jean M. Feeney

of the City of Boston, State of Massachusetts, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereunto affixed, this 11th day of October, 2012.

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

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

State of Connecticut
City of Hartford ss.

By: Robert L. Rainey, Senior Vice President

On this the 11th day of October, 2012, before me personally appeared Robert L. Rainey, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2016.

[Signature]
Notary Public

58440-8-12 Printed in U.S.A.
This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 29th day of November 2012.

Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3830 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland (herein collectively called the "Companies"), by JAMES M. CARROLL, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Michael J. CUSACK, John J. GAMBINO, Sandra C. LOPES, Nicole ROY, Natalie CONEYS, Donald H. MCCARTER and Jean M. FEELEY, all of Boston, Massachusetts, EACH, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York, the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland, and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland, in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 27th day of July, A.D. 2012.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: 
Assistant Secretary
Eric D. Barnes

Vice President
James M. Carroll

State of Maryland
City of Baltimore

On this 27th day of July, A.D. 2012, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, JAMES M. CARROLL, Vice President, and ERIC D. BARNES, Assistant Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposed and said, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

By: 
Notary Public

Maria D. Adamecki

My Commission Expires: July 8, 2015

POA-F 063-0073A
EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney... Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 29th day of November, 2012.

Geoffrey Delisio, Vice President
THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

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

Certificate No. 5992494

American Fire and Casualty Company
The Ohio Casualty Insurance Company
West American Insurance Company

Liberty Mutual Insurance Company
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (hereinafter collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, **Donald H. McPhearson**, **Jean M. Fregly**, **John J. Garnino**, **Kathleen M. Flekner**, **Michael J. Cusack**, **Natalie Conaya**, **Nicole Roy**, **Richard A. Levenoni**, **Sanora C. Lopes**

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

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or officials of the Companies and the corporate seals of the Companies have been affixed thereto this 9th day of October 2012.

STATE OF WASHINGTON
COUNTY OF KING

On this 9th day of October 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written.

By: [Signature]

Gregory W. Davenport, Assistant Secretary

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

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power of authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, or the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts - SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the Chairman or the President, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

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

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

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company do hereby certify that the original power of attorney of which the foregoing is a true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 29th day of November 2012.

By: [Signature]

David M. Carey, Assistant Secretary
Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Natalie Coney, Michael J. Cusack, Jean M. Feeney, John J. Gambino, Sandra C. Lopes, Donald H. McCar and Nicole Roy of Boston, Massachusetts, each as their true and lawful Attorney-In-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surely therein or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any Instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 9th day of July, 2012.

Kenneth C. Wendel, Assistant Secretary

STATE OF NEW JERSEY

County of Somerset

On this 9th day of July, 2012, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereon affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by his authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in said officer’s presence.

Notarial Seal

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-In-Fact, for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

(i) the foregoing extract of the By-Laws of the Companies is true and correct,
(ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
(iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 29th day of November, 2012.

Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3493 Fax (908) 903-3555
e-mail: surety@chubb.com

Form 15-10-0225B-U (Ed. 5-03) CONSENT
Appendix G – SCC and DPOR Information
ATTACHMENT 3.2.10
State Project No. 2150-053-052
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.

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<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
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<td>Stantec Consulting Services Inc.</td>
<td>F1493198</td>
<td>Corporation</td>
<td>Active</td>
<td>6110 Frost Place Laurel, MD 20707</td>
<td>Eng</td>
<td>0411000985</td>
<td>2/28/2014</td>
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<td>F1493198</td>
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<td>Active</td>
<td>4500 Daly Dr Ste 100 Chantilly, VA 20151</td>
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<td>Stantec Consulting Services Inc.</td>
<td>F1493198</td>
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<td>10800 Midlothian Turnpike, Suite 310 North Chesterfield, VA 23235</td>
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<td>Stantec Consulting Services Inc.</td>
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<td>10800 Midlothian Turnpike, Suite 310 North Chesterfield, VA 23235</td>
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<td>4008001770</td>
<td>3/12/2015</td>
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<td>Stantec Consulting Services Inc.</td>
<td>F1493198</td>
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<td>108 Church St. SE Leesburg, VA 20178</td>
<td>Eng &amp; LS</td>
<td>0411000547</td>
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<td>Rinker Design Associates, P.C.</td>
<td>02270627</td>
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<td>Active</td>
<td>9385 Discovery Boulevard Suite 200 Manassas VA 20109</td>
<td>Eng, LS</td>
<td>040500502</td>
<td>12/31/2013</td>
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<tr>
<td>Rinker Design Associates, P.C.</td>
<td>02270627</td>
<td>Corporation</td>
<td>Active</td>
<td>927 Maple Grove Drive Suite 105 Fredericksburg, VA 22407</td>
<td>Eng, LS</td>
<td>0410000156</td>
<td>02/28/2014</td>
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<tr>
<td>Rinker Design Associates, P.C.</td>
<td>02270627</td>
<td>Corporation</td>
<td>Active</td>
<td>301 Concourse Boulevard, Suite 120 Glen Allen, VA 23059</td>
<td>Eng, LS</td>
<td>0410000220</td>
<td>02/28/2014</td>
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<td>Quinn Consulting Services, Inc.</td>
<td>0492551-7</td>
<td>S, Corporation</td>
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<td>14160 Newbrook Drive, Suite 220 Chantilly, VA 20151</td>
<td>Eng</td>
<td>0407003733</td>
<td>12/31/2013</td>
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**ATTACHMENT 3.2.10**  
**State Project No. 2150-053-052**  
**SCC and DPOR Information**

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<tr>
<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
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<td>ECS Mid-Atlantic, LLC</td>
<td>S-120821-6</td>
<td>S Corp</td>
<td>14026 Thunderbolt Place, Ste 100 Chantilly, VA 20151</td>
<td>Eng</td>
<td>04070004628</td>
<td>12/31/2013</td>
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<td>S-120821-6</td>
<td>S Corp</td>
<td>2119-D North Hamilton Street Richmond, VA 23230</td>
<td>Eng</td>
<td>04011000384</td>
<td>02/28/2014</td>
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<tr>
<td>Cherry Hill Construction, Inc.</td>
<td>Gregory Andricos</td>
<td>Jessup, MD</td>
<td>4202 Kilbourne Drive Fairfax, VA 22032</td>
<td>Professional Engineer</td>
<td>0402032211</td>
<td>7/31/2014</td>
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<tr>
<td>Stantec Consulting Services Inc.</td>
<td>Simon Simon</td>
<td>Laurel, MD</td>
<td>9214 Mintwood Street Silver Spring, MD 20901</td>
<td>Professional Engineer</td>
<td>0402034452</td>
<td>04/30/2014</td>
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<tr>
<td>Stantec Consulting Services Inc.</td>
<td>Maurice DeBeary</td>
<td>Laurel, MD</td>
<td>1422 Paddocks Court Crownsville, MD 21032</td>
<td>Professional Engineer</td>
<td>0402033790</td>
<td>06/30/2015</td>
</tr>
<tr>
<td>Quinn Consulting Services, Inc.</td>
<td>Kaushikkumar Vyas</td>
<td>Spotsylvania, VA</td>
<td>10170 Spring Drive Gordonsville, VA 22942</td>
<td>Professional Engineer</td>
<td>0402039004</td>
<td>06/30/2014</td>
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Lead Contractor

Cherry Hill Construction, Inc.
CHERRY HILL CONSTRUCTION, INC.

**General**
- SCC ID: F0290223
- Entity Type: Foreign Corporation
- Jurisdiction of Formation: MD
- Date of Formation/Registration: 3/4/1975
- Status: Active
- Shares Authorized: 91000

**Principal Office**
- 8211 WASHINGTON BLVD
- JESSUP MD 20794

**Registered Agent/Registered Office**
- CT CORPORATION SYSTEM
- 4701 COX RD STE 301
- GLEN ALLEN VA 23060
- HENRICO COUNTY 143
- Status: Active
- Effective Date: 1/5/2004

Screen ID: e1000

Need additional information? Contact: cecinfo@scc.virginia.gov Website questions? Contact: webmaster@scc.virginia.gov

We provide external links throughout our site.
Commonwealth of Virginia
State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That CHERRY HILL CONSTRUCTION, INC., a corporation incorporated under the law of
Maryland, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission
on March 4, 1975; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
June 7, 2013

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1306075544
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
"CLASSIFICATIONS" H/H

CHERRY HILL CONSTRUCTION INC
8211 WASHINGTON BLVD
JESSUP, MD 20794
Lead Designer

Stantec Consulting Services Inc.
Stantec Consulting Services Inc.

General
- SCC ID: F1493198
- Entity Type: Foreign Corporation
- Jurisdiction of Formation: NY
- Date of Formation/Registration: 12/4/2001
- Status: Active
- Shares Authorized: 3250000

Principal Office
- 200, 10160 - 112 STREET
- AB TSK 216
- EDMONTON

Registered Agent/Registered Office
- CORPORATION SERVICE COMPANY
- Bank of America Center, 16th Floor
- 1111 East Main Street
- RICHMOND VA 23219
- RICHMOND CITY 216
- Status: Active
- Effective Date: 4/29/2011
RE: Stantec Consulting Services Inc.
ID: F149319 - 8
DCN: 05-04-13-0109

Dear Customer:

This is your receipt for $25.00, covering the fees for filing a duly authenticated copy of articles of merger with this office.

The document was filed on April 15, 2005.

Each non-surviving entity:

Stantec Consulting Services Inc.

is merged into Stantec Consulting Services Inc. (formerly STANTEC CONSULTING GROUP INC.).

If you have any questions, please call (804) 371-9733 or toll-free in Virginia, 1-866-722-2551.

Sincerely,

Joel H. Peck  
Clerk of the Commission
COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION FOR AN AMENDED CERTIFICATE
OF AUTHORITY TO TRANSACT BUSINESS IN VIRGINIA

This application of a foreign corporation authorized to transact business in Virginia for an amended certificate of authority sets forth:

The former name of the corporation was STANTEC CONSULTING GROUP INC.

The present name of the corporation is STANTEC CONSULTING SERVICES INC.

If the corporation is a stock corporation and the present name of the corporation does not contain the word "corporation," "company," "incorporated" or "limited," or an abbreviation of one of such words, or if the corporation's present name is not available for use in Virginia, the name of the corporation with the word or abbreviation which it has elected to add thereto for use in Virginia, or the name designated by the corporation for use in Virginia, is

The name of the state or country under whose law the corporation is presently incorporated is New York.

The name of the state or country under whose law the corporation was formerly incorporated (if changed by the enclosed amendment) is

The undersigned chairman or vice-chairman of the board of directors, president, or any other of its officers authorized to act on behalf of the corporation, declares that the facts herein stated are true as of March 29, 2005.

STANTEC CONSULTING SERVICES INC.

(Present name of corporation)

By: [Signature] Michael J. Slocombe, Secretary

(Printed name and corporate title)

See instructions on the reverse.
Commonwealth of Virginia

State Corporation Commission

I Certify the Following from the Records of the Commission:

The foregoing is a true copy of an application for an amended certificate of authority to transact business in Virginia filed in this office by Stantec Consulting Services Inc.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
April 19, 2005

Joel H. Peck
Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2014

NUMBER
041100981

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

PROFESSIONS: ENG

STANTEC CONSULTING SERVICES INC
10800 MIDLOTHIAN TURNPIKE
SUITE 310
NORTH CHESTERFIELD, VA 23235-4725

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) 367-6500

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

PROFESSIONS: ENG, LS

STANTEC CONSULTING SERVICES INC
108 CHURCH ST SE
LEESBURG, VA 20178

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

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

PROFESSIONS: ENG, LS

STANTEC CONSULTING SERVICES INC
4500 DALY DRIVE
SUITE 100
CHANTILLY, VA 20151

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(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPLIED LICENSED ARCHITECTS BRANCH OFFICE REGISTRATION
NUMBER: 0411000987 EXPIRES: 02-28-2014
PROFESSIONS: ENG, LS
STANTEC CONSULTING SERVICES INC
4500 DALY DRIVE
SUITE 100
CHANTILLY, VA 20151

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REAL ESTATE APPRAISER BOARD
BUSINESS REGISTRATION

STANTEC CONSULTING SERVICES INC
10800 MIDLOTHIAN TURNPIKE SUITE 310
NORTH CHESTERFIELD VA 23235

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
06-30-2015

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

MAURICE FRED DEBEARY JR
1422 PADDOCKS COURT
CROWNVILLE, MD 21032

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
Subconsultants
Rinker Design Associates, P.C.

**General**

- SCC ID: 02270627
- Entity Type: Corporation
- Jurisdiction of Formation: VA
- Date of Formation/Registration: 2/24/1982
- Status: Active
- Shares Authorized: 20000

**Principal Office**

- 9385 DISCOVERY BOULEVARD
- SUITE 200
- MANASSAS VA 20109

**Registered Agent/Registered Office**

- JOHN S WISIAKAS
- ODIN FELDMAN & PITTELMAN PC
- 1775 WIEHE AVENUE STE 400
- RESTON VA 20190
- FAIRFAX COUNTY 129
- Status: Active
- Effective Date: 8/27/2012

Screen ID: e1000
Commonwealth of Virginia

State Corporation Commission

I Certify the Following from the Records of the Commission:

Rinker Design Associates, P.C. is a corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is February 24, 1982.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
October 22, 2009

Joel H. Peck, Clerk of the Commission
This is to Certify that the certificate of incorporation of Rinker-Detwiler & Associates, P.C. was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all the laws of the State applicable to the corporation and its business.

State Corporation Commission

[Signature]
First Assistant Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2014

NUMBER
0410000156

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION
PROFESSIONS: ENG, LS

RINKER DESIGN ASSOCIATES PC
927 MAPLE GROVE DR STE 105
FREDERICKSBURG, VA 22407

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

Gordon N. Dixon, Director
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

02-28-2014

0410000220

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

PROFESSIONS: ENG

RINKER DESIGN ASSOCIATES PC
301 CONCOURSE BLVD, STE 120
GLEN ALLEN, VA 23059

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

Gordon N. Dixon, Director
CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0492551-7 STATUS: 00 ACTIVE STATUS DATE: 12/01/08
CORP NAME: QUINN CONSULTING SERVICES INCORPORATED

DATE OF CERTIFICATE: 10/24/1997 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: JOHN H QUINN JR

STREET: 2208 S KNOLL ST AR RTN MAIL:
CITY: ARLINGTON STATE: VA ZIP: 22202 2134
R/A STATUS: 4 ATTORNEY EFF. DATE: 10/24/97 LOC: 106
ACCEPTED AR#: 212145571 DATE: 09/11/12 ARLINGTON COUNTY
CURRENT AR#: 212145571 DATE: 09/11/12 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
12 100.00

(Screen Id: Corp_Data_Inquiry)
Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That QUINN CONSULTING SERVICES INCORPORATED is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is October 24, 1997;

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:
August 15, 2011

Joel H. Peck, Clerk of the Commission
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

QUINN CONSULTING SERVICES INC
14160 NEWBROOK DR
SUITE 220
CHANTILLY, VA 20151

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

COMMONWEALTH OF VIRGINIA
BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003733 EXPIRES: 12-31-2013
PROFESSIONS: ENG
QUINN CONSULTING SERVICES INC
14160 NEWBROOK DR
SUITE 220
CHANTILLY, VA 20151

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

NOV 13 2012

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NUMBER
0402039004

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

KAUSHILKUMAR BHUPENDRA PRASAD YAS
10710 SPRING DRIVE
GORDONSVILLE, VA 22942-7581

EXPIRES ON
06-30-2014

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
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<td>SCC ID: 53134972</td>
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<td>Entity Type: Limited Liability Company</td>
<td>45662 TERMINAL DRIVE</td>
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<td>Jurisdiction of Formation/Registration: VA</td>
<td>SUITE 110</td>
</tr>
<tr>
<td>Date of Formation/Registration: 1/11/2010</td>
<td>DULLES VA 20166</td>
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<tr>
<td>Status: Active</td>
<td>LOUDOUN COUNTY</td>
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<td>Effective Date: 6/22/2011</td>
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<td>Pay annual registration fee</td>
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<td>Submit a PDF for processing</td>
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<td></td>
<td>View efile transaction history</td>
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Add to My Favorites | New Search | Home | Help |
STATE CORPORATION COMMISSION

Richmond, January 11, 2010

This is to certify that the certificate of organization of

DMY Engineering Consultants, 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: January 11, 2010

State Corporation Commission
Attest:

[Signature]
Clerk of the Commission
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9560 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0407005631

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

PROFESSIONS: ENG

DMY ENGINEERING CONSULTANTS, LLC
45662 TERMINAL DRIVE
SUITE 110
DULLES, VA 20166

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
STATE CORPORATION COMMISSION

Richmond, April 16, 2004

This is to certify that the certificate of organization of

Engineering Consulting Services - Mid-Atlantic, LLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: April 16, 2004

State Corporation Commission
Attest:

Clerk of the Commission
The State Corporation Commission has found the accompanying articles submitted on behalf of ECS - Mid-Atlantic, LLC (formerly known as Engineering Consulting Services - Mid-Atlantic, LLC) to comply with the requirements of law, and confirms payment of all required fees. Therefore, it is ORDERED that this CERTIFICATE OF AMENDMENT be issued and admitted to record with the articles of amendment in the Office of the Clerk of the Commission, effective August 5, 2004.

STATE CORPORATION COMMISSION

By

[Signature]
Commissioner

04-07-21-4045
LLAACPT
CIS0436
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

ECS MID- ATLANTIC LLC
2119-D NORTH HAMILTON ST
RICHMOND, VA 23230

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

Gordon N. Dixon, Director
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

PROFESSIONS: ENG

ECS-MID-ATLANTIC LLC
LEO J TITUS JR PE
14026 THUNDERBOLT PL STE 100
CHANTILLY, VA 20151

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
Appendix H – Key Personnel Resume Forms
Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
   Gregory Andricos, PE, Vice President/General Manager

b. Project Assignment:
   Design-Build Project Manager

c. Name of Firm with which you are now associated:
   Cherry Hill Construction, Inc.

d. Years experience: With this Firm 20 Years with Other Firms 0 Years
   Please list chronologically (most recent experience first) your employment History, position and general experience or field of practice for the last fifteen (15) years. (NOTE: If you have less than 5 years of experience, please list all of your experience for those you have worked.):

   **Cherry Hill Construction, Inc. – 8/93 – Present – Jessup, MD**
   **Start Date: 4/03 End Date: Present Position: Design-Build Project Manager**
   **Responsibilities:** Corporate Officer with full profit loss responsibility for Cherry Hill Construction, Inc. overseeing all estimating, management, and construction operations with direct management of all D-B projects.

   **Start Date: 4/06 End Date: 7/06 Position: Field Operations Manager**
   **Responsibilities:** Principal responsibility for all construction operations with direct management of all D-B projects.

   **Start Date: 10/00 End Date: 4/06 Position: Bridge & Structures Division Manager**
   **Responsibilities:** Principal responsibility for estimating and construction of all bridges and structures company wide. Served as the chief bridge engineer to review all design and construction related issues.

   **Start Date: 12/96 End Date: 9/99 Position: Chief Structures Estimator and Bridge Design Manager**
   **Responsibilities:** Principal responsibility for estimating all highway bridge and structures projects. Also served as chief structures engineer for construction projects throughout the company to review design or construction issues.

   **Start Date: 11/95 End Date: 7/97 Position: Bridge Engineer / Design-Build Coordinator**
   **Responsibilities:** Served as liaison with lead design firm (JMT) on Arena Drive project (first MD SHA Design-Build project). Coordinated activities of estimating and design functions to produce construction documents for owner approval. Assisted in development of design and led constructability review process.

   **Start Date: 8/93 End Date: 11/95 Position: Contractor Quality Assurance / Quality Control Manager**
   **Responsibilities:** Developed and executed the Contractor QA and QC Program in support of major runway improvements at Dulles International Airport. Scheduled and monitored inspection programs, sampling, testing, analysis, and reporting. Addressed non-conformance issues and implemented recovery plans to assure quality performance.

e. Education: Name and Location of Institution(s)/Degree(s)/Year/Specialization:
   Virginia Military Institute/Lexington, Virginia/BS/1992/Civil Engineering

f. Active Registration: Year First Registered/Discipline/VA Registration #:
   1998/Professional Engineer/VA/#032211
   2009/Registered Land Distributor/VA/#31805
   2008/ Certified Erosion and Sediment Control/VA/#45441C

g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. **Note your specific responsibilities and authorities for each assignment, 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 assignment.**
   **(List at least three (3) but no more than five (5) relevant projects for which you have performed a similar function.)**

   **Federal Highway Administration (FHWA) – Eastern Federal Lands Highway Division (EFLHHD)/ Virginia Department of Transportation (VDOT), Mark Center Short and Mid-Term Improvements (Design-Build), Alexandria, VA ($7.6M) - Design-Build PM.**
   Mr. Andricos is the POC for the D-B Team and will be responsible for the overall project design,
quality management, contract administration and construction oversight. He oversaw the preparation of the Tech/Price Proposal for this project that was determined by the Owner to provide the overall best value. Intermediate design is presently underway as required to ensure the timely completion of this much needed project to alleviate the complex transportation issues resulting from recent increases in traffic volumes. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** April 15, 2012 to present.

**EFLHD/VDOT, Fairfax County Parkway (FCP), Phases I/II & IV (Design-Build), Springfield, VA ($112.5M) - Design-Build PM.** Mr. Andricos was the primary point of contact and supervising a staff consisting of engineers, public relations professionals, context sensitive artisans, R/W specialists, utility coordinators, inspectors, construction managers, and field personnel for this $112.5 project. He was responsible for managing the project from the proposal through all phases of permit, design, and construction. He coordinated with multiple stakeholders (VDOT, FHWA-EFLHD, U.S. DOD, and Fairfax County) to ensure the project meet contractual requirements of all agencies. As the DBPM, he ensured strict adherence to the QA/QC programs for both design and construction. The project included 6 major highway bridge structures, highway and local ramps and interchanges, more than 2.7 miles of roadway construction, utility relocation, stringent environmental concerns and SWM practices, a critical ordnance safety and removal program, and an extremely aggressive schedule contract completion Nov. 2010. Context sensitive means and methods were used in the design of the Accotink Creek bridge structure (424 LF, three-span steel girder construction) minimizing impact to the watershed. Additional design work enhanced multi-modal accessibility at the Fullerton Road intersection, including widened sidewalks and architectural lighting. The design submission of this project was made on schedule and construction activities are underway. Mr. Andricos served on the VA Mega Projects Community Resource Board during the performance of this project and received a “Star Partner” award for his exceptional dedication, teamwork, and professionalism in support of the project's goals by the NGA and USACE. This project also received the 2011 ACEC VA Honor Award for Excellence in Engineering Design. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** October 2008 / September 2010 (Phase I/II) and October 2008 / July 2011 (Phase IV)

**EFLHD/District Department of Transportation (DDOT), 9th Street Bridge Replacement over CSXT and Amtrak Rail and New York Avenue, Washington, DC ($58.4M) - Design-Build PM.** Mr. Andricos was the primary point of contact and supervised a staff consisting of engineers, PR professionals, context sensitive artisans, ROW specialists, utility coordinators, inspectors, managers, and field personnel for this project. Responsible for managing this project from the proposal that provided the overall best value through all phases of permitting, design and construction. Project requires multi-disciplined design efforts to facilitate the phased removal and complete reconstruction of an existing structure spanning N.Y. Avenue as well as active CSXT and AMTRAK Railroads. Context sensitive means and methods were used in the design of the bridge structure, which resulted in numerous enhancements including widened sidewalks and bicycle lanes, and architectural elements including ornamental fencing and traffic railing, parapet and substructure treatments, and upgraded lighting fixtures. The 100% design submission of this project was made 3 months ahead of schedule due to a partnership established between all project shareholders including the FHWA-EFLHD, DDOT, AMTRAK, CSXT, and the USPS. This was a CHC/JMT D-B Team project. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** September 2006 / July 2011

**EFLHD/DDOT, Taylor St. Bridge Replacement over WMATA and CSXT and Brookland Avenue (Design-Build), Washington, DC ($10.9M) - Design-Build PM.** Mr. Andricos was the primary point of contact for this $10M D-B Project and was responsible for overseeing the design and construction efforts of the CHC/JMT team. He worked with JMT to develop a cost-efficient design that led to CHC being awarded the competitively bid project. The new bridge was constructed in two phases, without interrupting normal traffic across the bridge. Design included a two-span 294’ haunched steel plate girder structure crossing 3 roadways and 4 active freight and passenger rail lines and a mechanically stabilized earth retaining structure approach. Aesthetic features included granite-faced curbs, ornamental light poles, fencing and railings, and a natural stone finish on retaining walls. The project was completed on time and under budget. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** December 2003 / November 2006

**I-895 NB GP Bridge Over I-95, Moravia Road and Moravia Park Drive Over I-895, Maryland Transportation Authority - Bridge Division Manager/Chief Str.** This $53.7M contract required the replacement of two existing bridge structures, the construction of a new six span flyover bridge, a permanent tieback wall, and a noise-wall utilizing 36” to 48” dia. drilled shafts. Mr. Andricos prepared the estimate for this project and provided construction and engineering related oversight required for 24,000 LF of driven pile (350 TN capacity) and 4 each temporary pile bents that supported the phased erection of 108” deep steel plate girders over I-95. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** Est./May 2006 / January 2008
## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Kaushik Vyas, PE, Quality Assurance Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Quality Assurance Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Quinn Consulting Services, Incorporated</td>
</tr>
<tr>
<td>d. Years experience: With this Firm</td>
<td>3 Years with Other Firms</td>
</tr>
<tr>
<td>Please list chronologically (most recent experience first) your employment History, position and general experience or field of practice for the last fifteen (15) years. (NOTE: If you have less than 5 years of experience, please list all of your experience for those you have worked.):</td>
<td></td>
</tr>
<tr>
<td><strong>Quinn Consulting Services, Inc.</strong></td>
<td></td>
</tr>
<tr>
<td>State Date: March 2010 End Date: Present</td>
<td>Position: Quality Assurance Manager</td>
</tr>
<tr>
<td>Responsibilities: As Quality Assurance Manager, works exclusively on VDOT Design-Build projects in lead QA and QC roles.</td>
<td></td>
</tr>
<tr>
<td><strong>TRC, formally Site-Blauvelt</strong></td>
<td></td>
</tr>
<tr>
<td>State Date: April 2001 End Date: March 2010</td>
<td>Position: Transportation Engineer</td>
</tr>
<tr>
<td>Responsibilities: As Transportation Engineer, performed overall Quality Assurance Control, in line with VDOT PPTA Project QA/QC Guidelines.</td>
<td></td>
</tr>
<tr>
<td><strong>Gujarat Electricity Board</strong></td>
<td></td>
</tr>
<tr>
<td>State Date: June 1985 End Date: July 2000</td>
<td>Position: Civil Engineer</td>
</tr>
<tr>
<td>Responsibilities: Worked as a Civil Engineer in Power Plants (Generation Wing), dealt with construction, maintenance of plant and technical matters of Thermal power plant project.</td>
<td></td>
</tr>
<tr>
<td>e. Education: Name and Location of Institution (s)/Degree(s)/Year/Specialization:</td>
<td></td>
</tr>
<tr>
<td>Gujarat University, Ahmedabad, India/BS/1983/Civil Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>f. Active Registration: Year First Registered/Discipline/VA Registration #:</strong></td>
<td></td>
</tr>
<tr>
<td>2004/Professional Engineer/VA/#039004</td>
<td></td>
</tr>
<tr>
<td><strong>g. Document the extent and depth of your experience and qualifications relevant to the Project.</strong></td>
<td></td>
</tr>
<tr>
<td>1. Note your specific responsibilities and authorities for each assignment, not those of the firm.</td>
<td></td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm</td>
<td></td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each assignment.</td>
<td></td>
</tr>
<tr>
<td>(List at least three (3) but no more than five (5) relevant projects for which you have performed a similar function.)</td>
<td></td>
</tr>
<tr>
<td><strong>Sycolin Road Overpass Design-Build Project. QAM.</strong> The Project is located at the intersection of Sycolin Road with the Route 7-15 Bypass in the Town of Leesburg in Loudoun County, Virginia. This project will improve safety and operations along the Route 7-15 Bypass by building a grade separated bridge for Sycolin Road over the Route 7-15 Bypass and removing the existing signalized intersection. Sycolin Road will be reconstructed as a four-lane undivided overpass with no direct connection to the Route 7 Bypass after the Project is complete. Pedestrian access will be provided on the proposed bridge with a sidewalk on the south side of Sycolin Road and a shared-used path on the north side of Sycolin Road. The shared-use-path will be barrier-separated from the vehicular traffic across the bridge. As the QAM, Mr. Vyas is responsible for the Quality Assurance of the roadway, bridge and other physical construction operations, including the QA testing technicians. The QAM has the authority and responsibility to stop any work not being performed in accordance with the Contract requirements or lacking the QA/QC documentation necessary to prove that the work meets the Contract requirements. The QAM will determine and certify to VDOT whether the materials and work comply with the Contract Documents. The QAM will conduct preparatory inspection meetings in accordance with Section 5.3.3 of the VDOT’s Minimum QA/QC Requirements Manual prior to the start of any new work. Mr. Vyas is also responsible for overseeing and directing the independent quality assurance testing and inspections, comparing the QA and QC tests to ensure that they are within the tolerances established by VDOT’s Minimum QA/QC Requirements Manual, and certifying that the work is completed in accordance with the Contract Documents. <strong>Firm:</strong> Quinn Consulting Services, Incorporated; <strong>Project Dates:</strong> 2013 – Present</td>
<td></td>
</tr>
</tbody>
</table>
I-495 HOT Lanes Design-Build Project. Resident Area Engineer. Mr. Vyas was the Resident Area Engineer on this nearly 2 billion dollar public-private Capital Beltway Project that includes widening of approximately 14 miles of High Speed, High Traffic flow Interstate, widening/replacement of over 50 bridges, construction of new HOV toll lanes, upgrades to 12 key interchanges and new soundwalls and carpool ramps. Responsibilities included oversight of quality control operations; daily staff assignments in the field; analyzing and interpreting project plans and specifications; participating in weekly progress meetings; working closely with contractors to identify and resolve problems; monitoring and reviewing daily diaries prepared by inspection staff; preparing deficiency and non-compliance reports; ensuring materials testing was performed in accordance with project specific QA/QC Plan and VDOT QA/QC Minimum Standards for Design-Build and PPTA Projects; working directly with General Contractor, Engineering and VDOT oversight personnel to discuss and/or recommend resolutions for field construction problems. Firm: Quinn Consulting Services, Incorporated; Project Dates: November 2010 – February 2013

Design-Build, Route 15 Widening, Prince William County, VA. Quality Assurance Control Manager. Project included five different phases for widening Route 15 from Route 66 Interchange to Sudley Road which involves Old Carolina Road, Heathcote Boulevard and Waterfall Road Widening. Project also included three bridges. Served as the Quality Assurance Control Manager providing coordination with QA/QC Teams for execution of the work according to plans & VDOT Specifications. Responsibilities included checking test reports, daily reports, safety reports, environmental reports; coordination with companies for utility relocations; and also with public relations in regards to the project. Firm: TRC (formerly Site-Blauvelt); Project Dates: November 2007 – November 2010

Linton Hall Road Widening, Prince William County, VA. Quality Assurance Control Manager. Project included bridge over Broad Run Creek and Roadway Widening up to Route 28. Served as the Quality Assurance Control Manager providing coordination with QA/QC Teams for execution of the work according to plans & VDOT Specifications. Responsibilities included checking test reports, daily reports, safety reports, environmental reports. Also worked closely with utility companies during facility relocations and addressed public inquiries as related to the project. Firm: TRC (formerly Site-Blauvelt); Project Dates: November 2007 – November 2010

Spriggs Road Improvements Project, Prince William County, VA. Quality Assurance Control Manager. Project which included widening of Spriggs Road to make it a four-lane divided highway between Minnieville Road and Hoadly Road. Project also included the construction of access roads, MSE walls, and utility relocation. Responsibilities included interpreting geotechnical reports as related to actual field conditions and recommending solutions when unsuitable soils were encountered. Monitored ongoing roadway drainage work and soil stabilization work and prepared daily reports, pay item summaries, and project schedule reports. Firm: TRC (formerly Site-Blauvelt); Project Dates: May 2006 – October 2007
## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Name &amp; Title:</strong></td>
</tr>
<tr>
<td>Simon Simon, PE, Senior Principal</td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong></td>
</tr>
<tr>
<td>Design Manager</td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong></td>
</tr>
<tr>
<td>Stantec Consulting Services Inc.</td>
</tr>
<tr>
<td><strong>d. Years experience:</strong></td>
</tr>
<tr>
<td>With this Firm: 14 Years with Other Firms 20 Years</td>
</tr>
<tr>
<td>Please list chronologically (most recent experience first)</td>
</tr>
<tr>
<td>your employment History, position and general experience or</td>
</tr>
<tr>
<td>field of practice for the last fifteen (15) years. (NOTE:</td>
</tr>
<tr>
<td>If you have less than 5 years of experience, please list</td>
</tr>
<tr>
<td>all of your experience for those you have worked.):</td>
</tr>
<tr>
<td>Stantec Consulting Services Inc. (formerly Greenhorne &amp;</td>
</tr>
<tr>
<td>O’Mara, Inc. – acquired by Stantec in December 2012)</td>
</tr>
<tr>
<td>– Laurel, MD</td>
</tr>
<tr>
<td><strong>Start Date:</strong> January1999 <strong>End Date:</strong> Present</td>
</tr>
<tr>
<td><strong>Position:</strong> Senior Principal</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> Mr. Simon is the Transportation</td>
</tr>
<tr>
<td>Practice Lead for the Virginia, Maryland and District of</td>
</tr>
<tr>
<td>Columbia region for Stantec. Over the past 15 years, his</td>
</tr>
<tr>
<td>field of practice has been in the management and designs</td>
</tr>
<tr>
<td>of transportation facilities, particularly those</td>
</tr>
<tr>
<td>involving the design-build method of project delivery and</td>
</tr>
<tr>
<td>complex structures and roadway projects.</td>
</tr>
<tr>
<td>Sverdrup Civil Inc. (now Jacobs engineering Group) –</td>
</tr>
<tr>
<td>Falls Church, VA/Baltimore, MD</td>
</tr>
<tr>
<td><strong>Start Date:</strong> December1978 <strong>End Date:</strong> January1999</td>
</tr>
<tr>
<td><strong>Position:</strong> Structures Department Head/Office Manager.</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> Served as the lead structural</td>
</tr>
<tr>
<td>engineer and project manager on variety of roadway and</td>
</tr>
<tr>
<td>structural projects involving major, complex bridge and</td>
</tr>
<tr>
<td>roadway facilities; in charge of the structures group (over</td>
</tr>
<tr>
<td>20 bridge engineers) in the falls Church, VA office</td>
</tr>
<tr>
<td>performing related work throughout the east Coast of the</td>
</tr>
<tr>
<td>United States; office manager in Baltimore, MD.</td>
</tr>
<tr>
<td>University of Maryland, College Park, MD/BS/1978/Structural</td>
</tr>
<tr>
<td>Engineering</td>
</tr>
<tr>
<td>University of Maryland, College Park, MD/BS/1977/Civil</td>
</tr>
<tr>
<td>Engineering</td>
</tr>
<tr>
<td><strong>f. Active Registration:</strong></td>
</tr>
<tr>
<td>Year First Registered/Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2000/Professional Engineer/VA #0402034452; Also in MD, DC,</td>
</tr>
<tr>
<td>DE, WV, NC, SC, GA &amp; FL</td>
</tr>
<tr>
<td><strong>1. Document the extent and depth of your experience and</strong></td>
</tr>
<tr>
<td>qualifications relevant to the Project.</td>
</tr>
<tr>
<td><strong>2. Note your specific responsibilities and authorities</strong></td>
</tr>
<tr>
<td>for each assignment, not those of the firm.</td>
</tr>
<tr>
<td><strong>3. Note whether experience is with current firm or with</strong></td>
</tr>
<tr>
<td>other firm.</td>
</tr>
<tr>
<td><strong>4. Provide beginning and end dates for each assignment.</strong></td>
</tr>
<tr>
<td><strong>(List at least three (3) but no more than five (5) relevant projects for which you have performed a similar function.)</strong></td>
</tr>
<tr>
<td>Maryland Transportation Authority, “Award Winning” I-95</td>
</tr>
<tr>
<td>ETL; Section 100, Segment 1, Baltimore City/County, MD -</td>
</tr>
<tr>
<td>Joint Venture’s Project Manager. Mr. Simon was responsible</td>
</tr>
<tr>
<td>for administration and coordination of all design activities</td>
</tr>
<tr>
<td>for this $230M construction project. Work included design</td>
</tr>
<tr>
<td>for reconstruction and widening of 3.6 miles of I-95/I-895;</td>
</tr>
<tr>
<td>the I-95/I-895 Interchange; replacement of 3 bridges;</td>
</tr>
<tr>
<td>partial reconstruction of two bridges on I-95; and over 5</td>
</tr>
<tr>
<td>miles of retaining/noise walls. Included were design of</td>
</tr>
<tr>
<td>complex MOT, 5 SWM ponds, drainage structures &amp; utility</td>
</tr>
<tr>
<td>relocations; obtaining permits from MDE; public</td>
</tr>
<tr>
<td>involvement; construction scheduling; and coordination</td>
</tr>
<tr>
<td>with adjacent contracts. Led the design team’s</td>
</tr>
<tr>
<td>partnership efforts with Cherry Hill Construction during</td>
</tr>
<tr>
<td>construction. In addition, Mr. Simon performed review all</td>
</tr>
<tr>
<td>design plans and deliverables prior to submittal to the</td>
</tr>
<tr>
<td>Authority; performed Value Engineering of various elements</td>
</tr>
<tr>
<td>of the project including the Chesaco Avenue Bridge over</td>
</tr>
<tr>
<td>I-95. This 7-year-old structure was slated to be replaced</td>
</tr>
<tr>
<td>to accommodate the General Purpose Lanes; by obtaining a</td>
</tr>
<tr>
<td>Design Exception for the shoulder width under the bridge</td>
</tr>
<tr>
<td>(from 14’ to 10’), he developed a concept to keep the</td>
</tr>
<tr>
<td>existing 2-span structure and only modify the east end by</td>
</tr>
<tr>
<td>construction of a new abutment (behind existing) and</td>
</tr>
<tr>
<td>extending the superstructure 6 feet (spliced to existing</td>
</tr>
<tr>
<td>girders), and constructing a vertical soil nail wall in</td>
</tr>
<tr>
<td>front of the new abutment. Firm: Stantec Consulting</td>
</tr>
<tr>
<td>Services Inc.; <strong>Project Dates:</strong> May 2004 / December 2012</td>
</tr>
</tbody>
</table>

| AECOM c/o ACS/Dragados for Florida Department of         |
| Transportation, I-595 ETL Design-Build/3P, Broward County, |
| FL - Subconsultant’s Lead Engineer. Mr. Simon was         |
| responsible for preliminary and final design and         |
| preparation of plans for Zone 6 (1.8 miles - $150M)      |
| including 3 bridges (a 3-span 546-foot and a 4-span 680-  |
| foot braded ramps, and a 3-span 306-foot bridge) and the  |
| interchange at University Drive within this $1.2B, 10-mile-long project. Work included surveys, all associated roadway design, modifications to and partial reconstruction of Ramp N over University Drive, a 977’ third-level steel box-girder flyover bridge,
coordination with the lead designer and the contractor, and services during construction. During the Bid process, Mr. Simon performed a Value Engineering of the University Drive/I-595 Interchange; with slight realignment of the General Purpose Lanes and major modification of one of the fly-over ramps, he was able to provide an Alternative Technical Concept saving one of the ramps and 3 other bridges within the interchange for a total construction savings of $200M. The modification to the existing fly-over ramp included synchronized jacking of the bridge 18 inches to make room for vertical clearances over I-595. The interchange construction is now complete. **Firm:** Stantec Consulting Services Inc.; **Project Dates:** January 2009 / June 2013

FD/MK, LLC c/o Virginia Department of Transportation. I-895 Connector Design-Build, Henrico County, VA - Design Manager. This $18M D/B project involved design and reconstruction of the Britton Road to grade-separate it from I-895 by providing a 270-foot-long, two-lane bridge over I-895. Mr. Work included design for reconstruction of a mile of Britton Road, bridge, drainage, sediment & erosion control, stormwater management, maintenance of traffic, all roadway –related work, and preparation of right-of-way plans. Mr. Simon coordinated all the design activities between the design and construction teams, he personally investigated various bridge types, and roadway fill vs. structures options. He performed final QA/QC of the roadway and bridge construction plans and provided services during construction. **Firm:** Stantec Consulting Services Inc.; **Project Dates:** November 2000 / February 2002

Ahern & Associates, Inc. c/o Maryland State Highway Administration "Award Winning" Replacement of I-70 Bridges over Black Rock Road D/B, Washington County, MD. **Design Manager** responsible for all design activities for this $7M D/B project. The purpose of this project was to replace the existing dual deficient bridges along I-70 and also increase the minimum vertical clearance along Black Rock Road. This project is the first full scale use of AASHTO LRFD by SHA and the first design-build project undertaken by the SHA’s Office of Structures. Provided services for preliminary and final design and preparation of construction plans and documents for the replacement structures and the temporary bridge; a culvert structure under Black Rock Road; I-70 and Black Rock Road reconstruction work including drainage and erosion & sediment control; maintenance of traffic; environmental compliance and public involvement program; partnering with all stakeholders; and services during construction such as shop drawing reviews, field visits, and adjustments of design due to field changes. The replacement bridges consisted of a three-span continuous structure with span lengths of 33’-0", 49’-6" and 33’-0”. A temporary bridge consisting of an Acrow-type superstructure supported on concrete abutments and steel intermediate pile bent was used to detour traffic in stages in order to construct the proposed structures. **Firm:** Stantec Consulting Services Inc.; **Project Dates:** June 2007 / June 2009

Lane Construction Company c/o Prince William County Department of Transportation, Route 1 Widening PPTA, Prince William County, VA - Project Principal. Mr. Simon is responsible for audits and ensuring implementation of design QA/QC procedures, review of the deliverables prior to submittals for adherence to contract terms and design guidelines, and allocation of resources to meet the contract schedule. This $40M D/B project involves widening design & construction of over 2 miles of Route 1. The widening will consist of the addition of a third through lane in both the northbound and southbound directions of the highway as well as the introduction of a raised median throughout the length of the project. The project limits will be from the intersection of Jefferson Davis Highway and Neabsco Mills Road to the intersection of Jefferson Davis Highway and Featherstone Road. The project also involves design and construction of underground duct banks as well as utility relocation design and construction for Prince William County Water Authority. **Firm:** Stantec Consulting Services Inc.; **Project Dates:** July 2012 / on-going
### Brief Resume of Key Personnel anticipated for the Project.

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Roger Lant, Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Construction Manager</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Cherry Hill Construction, Inc.</td>
</tr>
</tbody>
</table>

**d. Years experience:**
- With this Firm: **10** Years
- With Other Firms: **5** Years

**Please list chronologically (most recent experience first) your employment History, position and general experience or field of practice for the last fifteen (15) years. (NOTE: If you have less than 5 years of experience, please list all of your experience for those you have worked.):**

<table>
<thead>
<tr>
<th>Company</th>
<th>Start Date</th>
<th>End Date</th>
<th>Position</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherry Hill Construction, Inc. – Jessup, MD</td>
<td>1/02</td>
<td>Present</td>
<td>Construction Manager</td>
<td>Principal responsibility for the Construction of Design-Build and Design-Bid-Build projects for VDOT, FHWA-EFLHD, MSHA, MTA.</td>
</tr>
<tr>
<td>Brise Construction – UK</td>
<td>5/01</td>
<td>1/02</td>
<td>Temporary Site Engineer</td>
<td>Supervised Construction of the £4 million rock armor structures portion of a £10 million 1.5 km roadway project.</td>
</tr>
<tr>
<td>Carl Bro Group – UK</td>
<td>1/99</td>
<td>2/01</td>
<td>Graduate Engineer</td>
<td>One year training from Balfour Beatty as part of on-going training to gain chartered status. Carrying out detailed design of concrete composite bridges. Inspection and assessment of bridges including supervision of site investigation works. Conceptual design at tender stage of bridges and retaining walls. Supervising production of working drawings and reinforcement schedules.</td>
</tr>
<tr>
<td>Balfour Beatty – UK</td>
<td>6/96</td>
<td>12/99</td>
<td>Graduate Engineer</td>
<td>Supervising construction of steel composite bridges, roadways and auxiliary structures. Member of safety working group formed to improve site safety.</td>
</tr>
</tbody>
</table>

**e. Education:**
- Herriot Watt University, Edinburg, United Kingdom / BS/1998/Civil Engineering with Honors

**f. Active Registration:**
- Year First Registered/Discipline/VA Registration #:
  - 2008 / VA Registered Land Disturber / #37622
  - 2008 / VA Erosion and Sediment Control Certification / #4543C

**g. Document the extent and depth of your experience and qualifications relevant to the Project.**
1. Note your specific responsibilities and authorities for each assignment, 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 assignment.

(List at least three (3) but no more than five (5) relevant projects for which you have performed a similar function.)

**Federal Highway Administration (FHWA) – Eastern Federal Lands Highway Division (EFLHD)/Virginia Department of Transportation (VDOT), Fairfax County Parkway (FCP), Phases I/II & IV (Design-Build), Springfield, VA ($112.5M) – Construction Manager.**

Primary point of contact for all project construction activities on this “Best Value” $112.5 M project. Mr. Lant is supervised a staff of engineers, superintendents, foreman, operators, laborers and other specialty craft. He Managed all subcontractors and vendors. As the Construction Manager, he ensures strict adherence to the Quality Control program by managing an independent Quality Control Program. The Parkway project includes 4 major highway bridge structures, highway and local ramps and interchanges, more than 2.7 miles of roadway construction, utility relocation, stringent environmental concerns and stormwater management practices, a critical ordnance safety and removal program, and an extremely aggressive construction schedule. His efforts directly resulted in the on time, on budget, safe and high quality delivery of this key Northern Virginia project. Mr. Lant served on the VA Mega Projects Community Resource Board during the performance of this project.
and received a “Star Partner” award for his exceptional dedication, teamwork, and professionalism in support of the project’s goals by the NGA and USACE. This project also received the 2011 ACEC VA Honor Award for Excellence in Engineering Design. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** October 2008 / September 2010 (Phase I/II) and October 2008 / July 2011 (Phase IV)

**Maryland State Highway Administration (MSHA), MD 5 (Branch Avenue) over I-95/I-495 (Capital Beltway), Prince George’s County, MD ($32.9M) - Construction Manager.** Responsible for supervision of all field activities for this $32.9M construction project encompassing 1.75 miles of MD 5 and I-95/I-495 and 2.25 miles of interchange ramps in this highly travel corridor. Major components of this project include the construction of two semi-direct flyover ramps, five bridges, four MSE walls and a reinforced earth slope. He was also responsible for schedule management and by partnering with the Owner to implement sequencing improvements, MOT plan revisions and E&S revisions was able to complete the project 8 months ahead of schedule. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** April 2006 / November 2008

**Maryland Transit Administration (MTA) Light Rail Double Track Section 1-4, Baltimore Metropolitan Region ($19.9M) - Construction Manager.** Responsible for this $19.9M project consisting of the installation of approx. 6 miles of new track adjacent to the existing single track. The construction entailed the mass excavation for the new track alignment, installation of approx. 20,000 LF of storm drainage systems, 40,000/LF of conduit for signal systems, import of 120,000-plus tons of sub-ballast/ballast and installation of 6 miles of track and special track work. The project was located in a tight ROW, with the following restrictions: major highways, housing communities, and challenging topographic conditions. It became necessary to add 5 retaining walls/designed slopes to the scope of the contract. CHC partnered with PRW/MTA to achieve the design requirements while minimizing the increase in project cost; this entailed simultaneous constructability reviews of walls as they were being designed. MTA determined it would be to the benefit of the System to minimize the construction duration; therefore CHC compiled a proposal to reduce the project completion by more than 1 year utilizing an extended rail shutdown. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** October 2003 / November 2006

**Padonia Road Bridge Reconstruction, Baltimore County, MD. Project Manager.** Mr. Lant has direct responsibility for all facets of this $4.5M project that consists of the demolition of the existing reinforced concrete steel composite bridge and construction of a concrete steel composite three span bridge. The project documents include the utilization of seven distinct phases of traffic control for the bridge construction and adjacent roadway improvements. The bridge carries a major thorough fare in a politically sensitive area of Baltimore County, while also spanning the Maryland Mass Transit Administration Light Rail System. The project required close coordination with all the involved agencies to provide a successful project. Cherry Hill is planning to complete the project approximately 6 months ahead of the Contract Schedule. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** 2005 / Present

**SR 1/I-95 Interchange Project, Newark, DE. Project Construction Manager.** Mr. Lant was responsible for all project construction activities on this “Best Value” $98.8M project, with a schedule completing 13 months in advance of the Owners proposed completion date. Mr. Lant supervised a staff of engineers, superintendents, foreman, and specialty craft. He managed all subcontractors and vendors. As the Construction Manager, he endured strict adherence to the quality management and multi-phase MOT requirements (207,000 ADT). The Interchange included 7 hwy. bridge structures including 2 flyovers of I-95 and 4 crossings of SR 7, 10 lane miles of interstate, ramp and major state road construction, installation of 5 miles of storm drainage and permanent barrier wall, utility relocation coordination, stringent environmental concerns and an extremely aggressive construction schedule. His efforts are presently leading this key project to be completed on time, on budget, safe and with high quality. **Firm:** Cherry Hill Construction, Inc.; **Project Dates:** 2011 / October 2013
<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Name &amp; Title:</td>
</tr>
<tr>
<td>Maurice DeBeary, Jr., PE</td>
</tr>
<tr>
<td>b. Project Assignment:</td>
</tr>
<tr>
<td>Lead Structural Engineer</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
</tr>
<tr>
<td>Stantec Consulting Services Inc.</td>
</tr>
<tr>
<td>d. Years experience:</td>
</tr>
<tr>
<td>With this Firm 8 Years with Other Firms 22 Years</td>
</tr>
<tr>
<td>Please list chronologically (most recent experience first) your employment History, position and general experience or field of practice for the last fifteen (15) years. (NOTE: If you have less than 5 years of experience, please list all of your experience for those you have worked.):</td>
</tr>
<tr>
<td>Stantec Consulting Services Inc. (formerly Greenhorne &amp; O’Mara, Inc. – acquired by Stantec in December 2012) – Laurel, MD</td>
</tr>
<tr>
<td>Start Date: May 2005  End Date: Present</td>
</tr>
<tr>
<td>Responsibilities: Mr. DeBeary is responsible for and manages the structural engineering group serving Virginia, Maryland and District of Columbia. He serves as project manager and lead structural engineer for transportation-related structural projects, particularly those involving the design-build method of delivery. He is an expert bridge engineer and has served in this capacity for several of the design-build and conventional projects for VDOT and other agencies in the Washington Metro area.</td>
</tr>
<tr>
<td>Sverdrup Civil Inc. (now Jacobs engineering Group) – Falls Church</td>
</tr>
<tr>
<td>Start Date: 8/1985  End Date: 4/2005</td>
</tr>
<tr>
<td>Responsibilities: Responsible for management and design of bridge and other structures; and served as lead structural engineer on several large, complex design-build and conventional projects.</td>
</tr>
<tr>
<td>District Engineering, Inc. – Philadelphia, PA</td>
</tr>
<tr>
<td>Start Date: 6/1983  End Date: 8/1985</td>
</tr>
<tr>
<td>Responsibilities: Inspection and design of bridge and culvert structures.</td>
</tr>
<tr>
<td>e. Education: Name and Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>North Carolina A&amp;T State University/Greensboro, NC/BS/1983/Architectural and Structural Engineering</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/Discipline/VA Registration #:</td>
</tr>
<tr>
<td>1999/Professional Engineer/VA #0402033790; Also in MD, DC, PA, and FL</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. Note your specific responsibilities and authorities for each assignment, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each assignment.</td>
</tr>
<tr>
<td>(List at least three (3) but no more than five (5) relevant projects for which you have performed a similar function.)</td>
</tr>
<tr>
<td>Maryland Transportation Authority, “Award Winning” I-95 ETL; Section 100, Segment 1, Baltimore City/County, MD – Lead Structural Engineer &amp; Deputy Project Manager for the lead JV firm. Mr. DeBeary was responsible for the day-to-day design activities, particularly for the structures, on this $230M construction project. Work included design for reconstruction and widening of 3.6 miles of I-95/I-895; the I-95/I-895 Interchange; replacement of 3 bridges; partial reconstruction of two bridges on I-95; and over 5 miles of retaining/noise walls. Included were design of complex MOT, 5 SWM ponds, drainage structures &amp; utility relocations; obtaining permits from MDE; public involvement; construction scheduling; and coordination with adjacent contracts. Led the efforts on design and preparation of construction plans for the 1600-foot-long, dual steel girder ETL bridges, and performed independent QA/QC of the design for the 1450-foot-long, steel curved girder flyover ramp structure at the I-95/I-895 Interchange. He was responsible for and performed audit reviews of all structural deliverables to the Authority for Segment 1. He provided services during construction working closely with Cherry Hill Construction to review shop and working drawings and provided resolution for field adjustments of the design during construction. Firm: Stantec Consulting Services Inc.; Project Dates: May 2004 / December 2012</td>
</tr>
<tr>
<td>Ahern &amp; Associates, Inc. c/o Maryland State Highway Administration &quot;Award Winning&quot; Replacement of I-70 Bridges over Black Rock Road D/B, Washington County, MD - Deputy Design Manager and Lead Structural Engineer for this $7M D/B project.</td>
</tr>
</tbody>
</table>
Project involved design and construction of replacement twin bridges and approach roadway work on I-70, reconstruction of Black Rock Road, and replacement of a single cell culvert. Checked substructure calculations and all structures-related construction plans; coordinated structures work with the MOT/Roadway work; reviewed shop and working drawings; and attended partnering meetings.  
**Firm:** Stantec Consulting Services Inc.; **Project Dates:** June 2007 / June 2009

**Virginia Department of Transportation, VA 609 over Garden Creek Design-Build, Fredericksburg, VA - Lead Structural Engineer.** This $2M D/B project involved replacing a structurally deficient bridge with a new one-lane, 64-foot-long. Mr. DeBeary was responsible for all design activities and developed an innovative solution to design and construct the new bridge. A temporary trestle structures supported by steel HP piles was designed and constructed adjacent to the existing bridge. The use of HP piles allowed us to limit the impact on wetlands. The entire superstructure of the proposed bridge was assembled on the temporary trestle structure parallel to the final position of the new bridge. The new abutments were constructed behind the existing abutments while maintaining access through the site on the existing structure. Once the construction of the abutments was complete, the new superstructure was rolled into its final position.  
**Firm:** Stantec Consulting Services Inc.; **Project Dates:** May 2006 / April 2008

**Maryland State Highway Administration, InterCounty Connector Design-Build, Montgomery County, MD - Structural Design Team Leader.** Mr. DeBeary was responsible for alternative studies and Pre-TS&L bridge design for part of the Design/Build ICC Corridor 2 (East of MD 97 to West of US 29) segment. Due to environmental impact concerns at stream crossings, Pre-TS&L design and drawings were initially developed for three stream crossings chosen by the GEC for inclusion in the Environmental Impact Assessment package. The major controlling/limiting factors for Pre-TS&L were pier locations due to 100-year flood plan (offset of 30 feet) and constructability/access concerns.  
**Firm:** Stantec Consulting Services Inc.; **Project Dates:** April 2004 / June 2006

**FD/MK, LLC c/o Virginia Department of Transportation. I-895 Connector Design-Build, Henrico County, VA – Structural Project Manager responsible for performing and supervising the final design and preparation of contract documents for seven grade separation structures under this $320M D/B/3P project.** The bridges included: the 239-foot-long, 2-span steel girder structures carrying New Market Road and Willson Road over I-895; the single-span, 114-foot-long steel girder bridges carrying I-895 over Monahan and Darbytown Roads; and Loop ‘B’ over I-295, a 280-foot-long, 2-span curved steel girder structure. All bridges were using integral abutments and for Category B seismic forces. This project was designed and constructed on a fast-track schedule. Mr. DeBeary was responsible for the day-to-day design activities on these structures and performed QA/QC of all deliverables.  
**Firm:** Jacobs Engineering Group; **Project Dates:** January 1998 / April 2001
Appendix I – Work History Forms
**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
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<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
</table>
| Fairfax County Parkway (FCP), Phase I/II & IV (Design –Build) | Johnson, Mirmiran & Thompson, Inc | 72 Loveton Circle  
Springs, MD 21152  
410.316.2400 | Federal Highway Administration  
Eastern Federal Lands Hwy. Division  
21400 Ridgetop Circle  
Sterling, VA 20166-6511  
Mr. Robert Morris  
T 703.404.6302 P 703.404.6217  
r robert.morris@fhwa.dot.gov | November 2010  
Phase I/II | November 2010  
Phase I/II | $73,756 | $112,416 |

**PROJECT DESCRIPTION**

The EFLHD, as the representative for VDOT/U.S. Army Garrison Fort Belvoir/Fairfax County, selected CHC for this “Award Winning” D-B project. The four-lane divided limited access highway completed the missing connection of FCP to I-95 and provides critical access to the National Geospatial-Intelligence Agency’s (NGA) facility at Fort Belvoir EPG. D-B Fee $112.5M.

- **Project Components**
  - The 2.2 mile project began at Rolling Rd./Frannonia-Springfield Parkway and proceeded southeastward on a new alignment ending east of Fullerton Rd.
  - The project also included widening of I-95 to accommodate a new exit lane designed as a certified Defense Access Road that provides direct access to the NGA.
  - Phased E&S and MOT, grading, drainage and paving, 5 SWM facilities, 6 new bridge structures, noise walls, lighting, traffic signals, landscaping, signing/striping and extensive environmental services were all apart of the design build project.
  - The design also included a new signalized interchange consisting of a two span bridge and on and off ramps at FCP and Barts Rd. for access to West North Loop Rd. (NGA interior roadway network) within the new NGA facility.
  - This project also provided a connection from FCP N.B. to Boudinot Dr. via Rump B; and access from S.B. FCP to Boudinot Dr. via Rump D and a new bridge crossing environmentally sensitive Accotink Creek.
  - The project required coordination with other contractors working on adjacent projects including the base

- **Project Challenges**
  - The FCP alignment cut through EPG and crossed five former firing ranges and testing sites including three RCRA sites that had significant groundwater and soil contamination, and stringent Land Use Controls required by an EPA Consent Order to protect human health and the environment including the investigation, characterization, and ultimate disposal of over 22,000 TNS of contaminated materials to an offsite facility.
  - Access across the Accotink Creek for significant bridge structure and roadway construction was needed for schedule demands and project continuity.
  - Phase IV was added in July 2011 to provide access to N.B. FCP from Boudinot Dr. by extending Boudinot Dr. beneath the FCP and constructing Loop B increase scope.
  - To meet the requirements of BRAC, the FCP project had an extremely aggressive schedule.

- **Project Solutions**
  - Implemented a detailed waste investigation and characterization plan for contaminated material in early construction phases. This investigation plan assured schedule demands were not impacted by recognition of disposal requirements early on.
  - Designed and gained approval from the Department of Natural Resources for a low level stream crossing across the Accotink Creek which provided access for bridge and roadway construction
  - By maintaining positive schedule throughout the D-B of Phases I and II, EFLHD and VDOT were able to add Phase IV to the project taking advantage of available ARRA funds.
  - The D-B Team implemented a formal partnering process and initiated design upon NOA beginning in Oct. 2008 and delivered approval for construction plans that allowed construction of the western end (west of Accotink Creek) of the project to commence in April 2009. Full plan approval for the remainder of the contract was received on Aug. 2009, approximately three months ahead of schedule. This accelerated design schedule allowed earlier construction starts that enabled the opening of Phases I/II on Sept. 20, 2010, nearly a month ahead of scheduled.

Team Members also received “Star Partner” awards for exceptional dedication, teamwork, and professionalism in support of the project goals by the NGA and USACE.

**SIMILAR SERVICES**

- Roadway
- Survey
- Structure and Bridges
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control
- Interchange Lighting
- ROW Support
- Utilities
- Public Involvement/ Relations
- QA/QC
- Construction Engineering / Inspection
- Project Management
- Transportation
- Construction Engineering / Inspection
- Project Management
- ROW Support

**PROJECT HIGHLIGHTS**

- Project received the VTCA 2012 Transportation Engineering Award for Projects Greater Than $10M.
- ACEC 2011 Honor Awards for Excellence in Engineering Design.
- Maintaining positive schedule throughout the D-B of Phases I and II opening nearly a month ahead of scheduled.
# LEAD CONTRACTOR - WORK HISTORY FORM

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</tr>
</thead>
<tbody>
<tr>
<td>9th Street Bridge Replacement over New York Avenue and Amtrak and CSXT Railways (Design-Build) Washington, DC</td>
<td>Johnson, Mirmiran &amp; Thompson, Inc 72 Loveton Circle Sparks, MD 21152 410.316.2400</td>
<td>Federal Highway Administration Eastern Federal Lands Hwy. Division 21400 Ridgetop Circle Sterling, VA 20166-6511 Mr. Ken Atkins T 703.404.6307 F 703.404.6217 E <a href="mailto:kenneth.atkins@fhwa.dot.gov">kenneth.atkins@fhwa.dot.gov</a></td>
<td>July 2010</td>
<td>May 2011 (Actual) (Project Extended at Owners Request)</td>
<td>$43,960 Contract Value</td>
<td>$58,444 Contract Value (Owner increased scope by adding ROW acquisition and Rail Road services by Amtrak and CSX-T to the D-B contract)</td>
</tr>
</tbody>
</table>

**PROJECT DESCRIPTION**

The Federal Highway Administration-Eastern Federal Lands Highway Division (EFLHD) representing the District Department of Transportation (DDOT) selected Cherry Hill Construction, Inc. (CHC) and for this competitively bid “Best Value” D-B project. The Team was issued Notice to Proceed on September 6, 2006 and completed its 100% design milestone approximately one-month ahead of schedule. Construction was able to begin in advance of the August 2009 scheduled-date. The Project mandated a community outreach program, which the Design-Build team had embraced through the establishment of a project website, community meetings, and an extensive aesthetic content program.

- **Project Components**
  - Design and construction of a new four span structure over CSXT and Amtrak rail facilities and New York Ave on a parallel alignment with the existing 7-span structure.
  - Full depth reconstruction and widening of 1,700 feet of New York Ave along with the realignment and construction of three new signalized intersections.
  - The project included the design and construction of ornamental street lighting, new storm water management (SWM) bioretention facilities, relocation of an 18” diameter structure mounted waterline, a new cast-in-place concrete retaining wall to minimize impacts to an adjacent SWM facility, landscaping, phased erosion and sediment control, and coordination with adjacent projects.

- **Project Challenge**
  - DDOT was unable to allocate sufficient resources to obtain the temporary and permanent easements required for the Project to go to construction.
  - Amtrak high voltage feeders ran under the existing bridge and outages of these lines required Amtrak to switch to diesel operations.
  - Along with utilities within the right of way such as DC Water, Washington Gas, PEPCO, M&T and Amtrak and CSXT Railroads, the project sees an average of 60,000 vehicles on New York Avenue and 24,000 vehicles on 9th Street. Maintaining this volume of traffic mandated seven (7) major traffic phases to accommodate peak rush-hour volumes without impact.

- **Project Solutions**
  - The Team formed a partnering agreement with DDOT, EFLHD and CSXT, United States Postal Service, Amtrak and the DC Water as significant stakeholders. These stakeholders were essential to the acquisition of easements and property transfers for the construction of the project. In support of the Owners property needs, a Contract Modification was issued to the DB-Team for ROW services. The DB-Team performed all Title Searches, Assessments, Local rights, and assisted with the assembly of agreements and closing services.
  - CHC partnered with Amtrak’s Electric Traction (ET) Division to implement a plan that temporarily relocated the high voltage feeders into a buried trough allowing catenary re-profiling and all bridge demolition and new construction to proceed without requiring outages on the feeders. A creative demolition sequence allowed the girder span holding the other ET elements to remain in place during the construction of all piers and abutments, thereby allowing construction to commence in advance of the one-year duration Amtrak quoted to perform the relocations.
  - Project phasing allowed vehicular and pedestrian traffic free movement throughout the project, during both construction and demolition, which was an important goal of the Owner.

CHC gained significant experience that will be relevant to the Gloucester project including but not limited to: providing a turn-key QA/QC program, developing and installing systems to manage quantity and quality of storm water in an urban interchange with limited ROW, establishing a formal public outreach program, coordinating the relocation of significant utilities and constructing a major bridge structure within a highly traveled urban interchange while minimizing the impact to local residents and the traveling public.

**SIMILAR SERVICES**

- Roadway
- Survey
- Structure and Bridges
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control
- Interchange Lighting
- Transportation Management Plan
- Utility Coordination
- Public Involvement/Relations
- Public Involvement/Relations
- Adjacent Projects

**PROJECT RELEVANCE**

- New 4 span bridge structure,
- Phased E&S and MOT, grading, drainage and paving,
- Widening of New York Ave to accommodate a new lane
- Extensive design collaboration and coordination
- QA/QC Program and Formal Public Outreach

**PROJECT HIGHLIGHTS**

- Team focus on achieving an elegant, streamlined bridge with numerous architectural enhancements along with an aesthetic development program lead by a local area artist specializing in urban streetscape design.
- CHC’s knowledge of railroad operations minimized time impacts
- CHC accelerated the project schedule by acquiring the necessary Amtrak materials at no contractor profit. The eliminated the need for Amtrak to procure these materials directly using their rigid and time consuming process.
**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

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</tr>
</thead>
<tbody>
<tr>
<td>I-895 NB GP Bridge Over I-95 and Associated Roadways</td>
<td>Stantec Consulting Services Inc. 6110 Frost Place Laurel, MD 20707-2927</td>
<td>Maryland Transportation Authority I-95 GEC Partners 8019 Corporate Drive, Suite F Baltimore, MD 21236 Mr. Gradon Toberry T410.931.0808 F410.931.4110</td>
<td>Oct 2008</td>
<td>Dec 2008</td>
<td>$53,762</td>
<td>$55,200</td>
</tr>
</tbody>
</table>

**PROJECT DESCRIPTION**

CHC provided construction services on this $55.2M “Award Winning” project extending 1.2 miles from south of the I-895 Moravia Road Interchange in Baltimore City to north of the I-95 Interchange in Baltimore County. The project provided a 1,400 LF 6-span flyover bridge carrying two new I-895 NB lanes over Moore’s Run and the realigned I-95, merging with I-95 NB from the right (previously the merge was on the left). The realignment of I-895 and I-95 required the phased removal and replacement of two 250 LF multi-span local road bridges over I-895 and the construction of noise walls and retaining walls to reduce impact to adjoining properties.

**Project Components**

- Over 150,000 CY of excavation and embankment construction including removal of contaminated material.
- Design-build retaining wall utilizing top-down construction and comprised of H-pile, lagging with drainage systems, grouted tendon tie-backs (approx. 100 each), and an architectural cast-in-place concrete facing.
- 30,000 SF of Noise wall required 1,745 LF of drilled shaft foundations.
- 6,500 LF of various dia. (15” to 54”) storm drain and structures included two jack and bore installations.
- Phased E&S control necessary for the construction and stabilization of the above described improvements.
- Reconstructed I-895 NB and SB requiring over 56,000 TNS of asphalt including superfave.
- Phased reconstructed of Moravia Road, Moravia Park Drive and associated ramps with full depth PCC pavement.

**Project Challenges**

- Multi-phased MOT to allow continuous traffic on I-895 (ADT of over 69,600) and I-95 (ADT of over 178,000) as well as two local overpasses during all construction phases.
- Erection of curved fabricated structural steel over I-95 NB and SB for the radial flyover.

**Project Solutions**

- Maintained access to residential and commercial properties without shut down and used temporary support of exaction to minimize impacts.
- Designed and installed temporary shoring bents to support cantilevered steel sections and coordinated night time detours of I-95 for physical girder erection, bracing, and jacking.
- Formally Partnered by CHC, General Engineering Consultants (GEC), and MDTA.

This project received an “Excellence in Partnering Award” presented by the Maryland Quality Initiative in 2010.

**SIMILAR SERVICES**

- Roadway
- Survey
- Structure and Bridges
- Environmental
- Geotechnical
- Traffic Control
- Interchange Lighting
- Transportation
- Management Plan
- Coordination with Adjacent Projects
- Construction
- Engineering / Inspection
- Utilities
- Project Management
- Engineering Consultants (GEC), and MDTA.

**PROJECT RELEVANCE**

- New bridge structures, SWM facilities, phased E&S and MOT, grading, drainage and paving, widening of I-95 to accommodate a new exit lane.
- Constructed three new stormwater management facilities including phased conversion of temporary basins.
- Formally Partnered by CHC, General Engineering Consultants (GEC), and MDTA.

**PROJECT HIGHLIGHTS**

- Maintaining positive schedule throughout the project
- “Excellence in Partnering Award” presented by the Maryland Quality Initiative in 2010.
**PROJECT DESCRIPTION** (Work performed in the following office locations: Laurel, MD, Baltimore, MD, Chantilly, VA, Germantown, MD)

In the late 1990's Stantec Consulting Services Inc. prepared a preliminary planning and engineering study, and an Environmental Impact Statement (EIS) for three potential sites, each more than 400 acres, to accommodate 2.6 million square feet of state-of-the-art laboratory, office, computer, child care, physical fitness, animal laboratory, 310-hazard laboratory, animal holding, and central utility plant facilities for the FDA Consolidation at the White Oak Federal Research Center in Silver Spring, Maryland. Currently, the GSA is considering campus expansion and a new eastern access road to accommodate additional employees at the site. In 2006, we were tasked by the GSA to assess new access road alignments, conduct additional traffic analysis, prepare preliminary and final road and bridge designs, and perform environmental compliance documentation to received regulatory approvals. Below is a summary of related services provided by Stantec for this project.

**PROJECT HIGHLIGHTS**

- **Project Components**
  - Environmental: Prepared an EIS that addressed environmental, cultural, socioeconomic, and infrastructure impacts resulting from the consolidation. Work included wetland delineation/jurisdictional determination, forest stand delineations/natural resources inventory, tree save plan, environmental permitting, and conceptual mitigation design to support the wetland permit application.
  - Traffic Engineering: performed a detailed traffic analysis, including preparation of a TMP, of the impacts the new employees would have on the roadway network. Intersections were evaluated and recommendations for improvements were made in order to maintain acceptable operations.
  - Roadway/Structural Engineering: Stantec was responsible for concept development, preliminary and final design and preparation of construction plans and documents for all access roads and associated bridges and other structures for the entire site. As an integral part of the bridge and roadway design, we incorporated an innovative SWM system that consists of three surface sand filters, two underground corrugated metal pipe SWM facilities, two bioretention areas, and one open SWM pond. The bridge work included design and construction of the Perconte Arch Bridge, a 3-span Bevo-arch on the GSA East Access Road connecting Cherry Hill Road to the new FDA Campus; 0ver 1100 feet of MSE wall with a maximum height of 40 feet; and the East Access Road Bridge over Paint Branch, a 3-span structure founded on drilled shafts (to avoid impact to Paint Branch) which is a breeding grounds for certain species of trout.
  - Civil Site Engineering: Stantec performed all related site/civil final design for the project.
  - Public Involvement: We developed and implemented public involvement strategy which included newsletters, open houses, scoping meetings, public hearings, and coordination with the Local Redevelopment Authority, and the Restoration Advisory Board.

- **Project Challenge**
  - Construction of the Bridge over Paint Branch in an environmentally sensitive area to avoid impact Paint Branch which is a breeding grounds for certain species of trout.

- **Project Solutions**
  - Developed a drilled shaft foundation system for the abutments as well as the piers and the use of top down construction eliminating excavation and minimizing impacts to Paint Branch.

**Similar Services**

- Roadway
- Survey
- Structure and Bridges
- Environmental
- Geotechnical
- Traffic Control
- Interchange Lighting

- Utilities
- Construction
- Engineering / Inspection
- Project Management
- Transportation
- Management Plan

**Project Relevance**

- New bridge structures, SWM facilities, phased E&S and MOT and detour roadway, grading, drainage and paving, constructed new stormwater management facilities, and utility relocation design, and retaining wall structures.
- Public involvement and coordination with various stakeholders

- Partnered with Cherry Hill Construction for the construction of the bridge
- Developed a drilled-shaft foundation system for the abutments
- Used “top-down” construction techniques to minimize impacts to environmentally sensitive areas.
ATTACHMENT 3.4.1(a)

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 or Owner and their Project Manager who can verify Firm’s responsibilities.
d. Construction Contract Completion Date
  (Original)
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)

<table>
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<tr>
<th>Project Name &amp; Location</th>
<th>Lead Contractor:</th>
<th>Lead Designer:</th>
<th>Prince William County Department of Transportation</th>
<th>June 2016</th>
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<th>$4,000 (Stantec Fee)</th>
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<td>Lane Construction Company</td>
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<td>(Route 1) Widening, Design-Build/PPTA</td>
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<td>Prince William County, VA</td>
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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.

PROJECT DESCRIPTION

(Work was performed in the following office locations: Chantilly, VA, Richmond, VA, Laurel, MD, Baltimore, MD)

Stantec Consulting Services Inc. is the Lead Designer in a design-build partnership with Lane Construction Company to prepare design and plans for the improvement to the Jefferson Davis Highway (Route 1) from the intersection of Neabsco Mills Road to the intersection of Featherstone Road. The project is approximately 10,800 feet in length. Jefferson Davis Highway functions as a multi-modal principal arterial carrying both intra and inter-county traffic. This project is being performed for the Prince William County Department of Transportation under the VDOT Locally Administered Projects program.

- **Project Components**
  - **Element #1** consists of the design, construction, right-of-way acquisition; utility relocation, environmental mitigation, and permitting associated with the widening of Jefferson Route 1. The widening will consist of the addition of a third through lane in both the northbound and southbound directions of the highway as well as the introduction of a raised median throughout the length of the project. The project limits will be from the intersection of Jefferson Davis Highway and Neabsco Mills Road to the intersection of Jefferson Davis Highway and Featherstone Road for a distance of approximately 2.06 miles.
  - **Element #2** consists of the design, construction, easement acquisition, utility relocation, environmental mitigation, and permitting for the provision of underground utility duct banks along Route 1. The limits of duct bank installation will be from the intersection of Jefferson Davis Highway and Neabsco Mills Road to the intersection of Jefferson Davis Highway and Featherstone Road for a distance of approximately 2.06 miles. The duct banks will serve Dominion Virginia Power, Verizon and Comcast. Duct banks will be located within easements to be acquired as part of this project outside of the proposed Jefferson Davis Highway right-of-way along both the northbound and southbound lanes.
  - **Element #3** consists of the design, construction, right-of-way acquisition, utility relocation, environmental mitigation and permitting for the provision of certain Prince William County Service Authority (PWCSA) betterments within the limits of the Jefferson Davis Highway project. Those improvements include approximately 2,225 linear feet of new 36” DIP water main, 1,300 linear feet of new 12” DIP water main, 5,875 linear feet of new 16” DIP water main and approximately 945 linear feet of relocated sanitary sewer main.

- **Project Challenge**
  - While project schedule reflected a construction start date of October 2013, Lane Construction desired to start construction in June 2013.

- **Project Solutions**
  - Working with Prince William County and the Virginia Department of Transportation, Stantec was able to secure early approvals of erosion and sediment control plans and obtain an advanced road construction permit to allow for the desired early construction start.

SIMULAR SERVICES

- Roadway
- Survey
- Structure and Bridges
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control
- Interchange Lighting
- Transportation Management Plan

PROJECT RELEVANCE

- Extensive utility coordination/relocation
- Extensive MOT
- Right-of-Way acquisition
- Public involvement and coordination with various stakeholders

PROJECT HIGHLIGHTS

- Accelerated permitting and phasing allowed construction to begin 6 months ahead of schedule
- Extensive utility coordination required to place utilities below grade in proposed duct banks
**PROJECT DESCRIPTION** (Work was performed in the following office locations: Laurel, MD, Mechanicsburg, PA, Tampa, FL, and West Palm Beach, FL.)

To improve safety and mobility along the I-595 corridor in Fort Lauderdale, FDOT District 4 has contracted ACS Dragados to finance, design, construct, operate, and maintain this 10-mile-long Express Toll Lanes (ETL) facility. The project involves design and construction of ETL along the median of existing I-595 and improvements to CD Roads in the corridor. It consists of the reconstruction of the I-595 mainline and all associated improvements to frontage roads and ramps from the I-75 interchange to the I-595/I-95 interchange. The design and construction cost is approximately $1.2B. The major project components include the design and construction of Express and Reversible Toll lanes along the median of existing I-595, improvements to the configuration of several interchanges, improvements to the CD Roads, construction of crossroad bypasses, and grade separated entrance and exit ramps to minimize merge, diverge, and weaving movements.

**Stantec Consulting Services Inc.,** under subcontract to AECOM (the Lead Designer), is responsible for the design of the Zone 6 segment of the project containing 2.3 miles of I-595 reconstruction and several structures. Stantec also provided survey and subsurface utility engineering (SUE) for the entire 10-mile corridor. The total construction cost is $1.2B, and Stantec is responsible for an estimated $150M in construction value within Zone 6. Stantec’s work for Zone 6 included alignment studies, development of final roadway geometries, final design and preparation of plans for roadways and structures, and coordination of work with all stakeholders.

**Construction** - Under subcontract to AECOM, the construction design build contract was let to ACS Dragados for an estimated $1.2B.

**PROJECT HIGHLIGHTS**

- **Project Components.** In addition to roadway, MOT, drainage, SWM, E&S, and other related components, the following structures were designed by Stantec:
  - Bridge No. 860390, also known as Ramp I-595. It was reconstructed to accommodate the proposed reversible I-595 Express Lane and the relocated I-595 Eastbound lane. The existing twin steel box girder bridge span length is 180’+184’+233’+184’+180’=961’. The proposed bridge span length is 180’+184’+233’+184’+194’=975’. The horizontal curve radius remains as 620’. (see below for more details.)
  - Bridge No. 860658 (formerly 000122), also known as Ramp P-2 over Ramp P-3 - Braid. It connects Eastbound (EB) of I-595 with SR-84 EB for traffic to exist the I-595 EB. Ramp P-3, which under passes Ramp P-2, connects SR-84 EB with I-595 EB for traffic to enter the I-595 EB. It is a 3-span (173’+206’+173’=546’) straight steel plate girders, and 30’-1” wide. The substructure comprises of cast-in-place end bents with wrap-around MSE walls, and cast-in-place piers. Both substructure units use 24” square prestressed concrete piles. Both piers are integral steel box straddles.
  - Bridge No. 860660 (formerly 000116), also known as Ramp Q-1 to SR 84 BW over University Drive. This bridge was constructed along Ramp Q-1 to transport the westbound I-595 traffic over University Drive and onto SR 84 WB. The completed steel plate girder bridge has three-span 83’+140’+83’=306’ and is 43’-1” wide, supported on 24-inch square, prestressed concrete piles. There is an 8’ sound barrier at the north side of bridge.
  - Bridge No. 860659 (formerly 000123), also known as Ramp Q-3 over Ramp Q-2 - Braid. This bridge was constructed to transport the westbound SR84 traffic over Ramp Q-2 and onto I-595 WB. The completed steel plate girder bridge is a four-span structure, 128’+212’+212’+128’=680 feet long and 30’-1” wide. All foundations use 24-inch square, prestressed concrete piles. Pier 2 & 4 use integral steel girder cap. Pier 3 uses steel box straddle cap.

**Project Challenge**

For the University Drive interchange, the indicative design called for removing and reconstructing the two 15-year-old curved steel girder bridges carrying southbound University Drive traffic to eastbound I-595 and northbound University Drive traffic to westbound I-595. This was to accommodate the I-595 ETLs.

**Project Solutions**

During the technical proposal and bid phase, Stantec investigated creative ways to save as much of the existing structures as possible. By reconfiguring the geometry of the ETLS and General Purpose Lanes and modification to the southbound ramp structure, we were able to save the northbound ramp structure. Partial modifications highlights include:

- Raise the entire bridge by 18 inches to accommodate the required vertical clearances. This required analysis and design of an elaborated synchronizing jacking system as well as replacement of the existing bearings with new pot bearings.
- Remove and reconstruct last span and a portion of the first interior span using a spiral alignment to accommodate the ETLS under the ramp, including:
  - New twin steel box girders on spiral alignment
  - Construction of a straddle bent replacing the existing hammerhead-type bent no. 5 and construction of a new end bent no. 6
  - Partial reconstruction of the top portion of bent no. 4 and strengthened the footing using new piles and posttensioning
  - Strengthening the existing twin steel box girders using cover plates and other retrofits to conform to the latest LRFD design Code. The existing bridge was designed to LFD Code.

This inventive solution saved approximately $40M construction dollars for the flyover bridges and approximately $200M for the entire Interchange. Stantec has completed final design of these modifications.

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**PROJECT RELEVANCE**

- 3 new, complex structures using straddle integral bents to accommodate vertical clearances.
- Complex interchange structure modification to save construction dollars and the recently constructed existing structures.
- Phased E&S and MOT, grading, drainage and paving.
- Widening of I-595 to accommodate a new ETLS.
- Extensive design collaboration and coordination
- QA/QC Program

**SIMILAR SERVICES**

- Roadway
- Survey
- Structure and Bridges
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control
- Interchange Lighting

**PROJECT HIGHLIGHTS**

- Stantec’s innovative solution saved approximately $200M in construction dollars for the I-595 and University Drive Interchange.
- Design-build/3P project that required fast-track design for which Stantec was able to meet or exceed schedule requirements.