Interstate 66

Active Traffic Management

A DESIGN-BUILD PROJECT

Qualifications submitted to the Virginia Department of Transportation

Prepared by

VDOT
Virginia Department of Transportation

LANE

State Project No.: 0066-96A-917, P101, N501
Federal Project Nos.: IM-5A01(253) & IM-5A01(274)
Contract ID Number: C00098017DB46

3.2
Letter of Submittal

THE LANE CONSTRUCTION CORPORATION
Since 1890
A Commitment to Excellence

MID-ATLANTIC REGIONAL OFFICE
14500 Avion Parkway
Suite 200
Chantilly, VA 20151
703-222-5670 Phone
703-222-5960 Fax
LaneConstruct.com

December 22, 2011

Mr. Joseph A. Clarke, PE
Alternate Project Delivery Office
Virginia Department of Transportation
1221 East Broad Street
Main Building, Fourth Floor
Richmond, Virginia 23219

RE: I-66 Active Traffic Management, A Design-Build Project
State Project No. 0066-96A-917, P101, N501
Federal Project No.: NH-581-5(035)
Contract ID Number: C00098017DB46

Dear Mr. Clarke:

The Lane Construction Corporation (Lane) is pleased to submit this Letter of Submittal (**Section 3.2**) for the above referenced design-build project with the Virginia Department of Transportation (VDOT). Lane has successfully participated in 50 Design-Build projects ranging in scope from $15 million to the $1.5 billion Capital Beltway HOT Lanes project in Northern Virginia. We understand the importance of partnering to make the Design-Build process a success and have partnered on teams that have constructed more than $2.8 billion in Design-Build projects in the last decade. Our team's experience enables us to deliver the kind of high quality and technically sound project VDOT has come to expect from each of our team members.

LANE National Rankings
4th ✖ *Top Highway Contractors in the U.S.*
8th ✖ *Transportation Top 20 in the U.S.*
8th ✖ *50 Domestic Heavy Contractors in the US*
~Engineering News-Record, 2011

Lane is the Offeror and will be the overall authority on the project as well as the Lead Contractor. Lane has teamed with Rinker Design Associates (RDA), Lead Design Consultant, to provide VDOT a team with a solid reputation for completing complex projects on time and often ahead of schedule. McDonough Bolyard Peck (MBP) will lead the construction Quality Assurance (QA) effort and will be responsible for the independent QA inspection and testing of all materials used on the Project. The LANE/RDA Team is committed to providing experienced personnel familiar with VDOT's requirements and will meet or exceed the quality and schedule demands of the Project. Recognizing that the I-66 ATM project is a national level project, the LANE/RDA Team includes renowned specialty firms and personnel to provide specific priority services in the areas of ITS design, structural design, and master electrician services. Other discipline expertise in geotechnical engineering, environmental compliance, and utilities will be provided by reputable firms familiar with VDOT processes and procedures. These specialists and their qualifications are identified and described in Section 3.3; the experience of the team is described in Section 3.4.

The Lane Construction Corporation is one of America's premier heavy contractors and the preferred partner on projects that connect and improve the communities and the world in which we live. Founded in 1890, Lane constructs quality bridges, highways, locks and dams and mass transit and airport systems in 20 states. In its 121-year history, Lane has never failed to complete a contract. Lane has successfully completed projects for federal, state, regional and local agencies in the Commonwealth of Virginia for nearly 40 years.

3.2.1 Offeror's Point of Contact Information: **Mr. Richard A. McDonough** is the official representative and point of contact for the LANE/RDA Team for all matters associated with this qualifications submittal.

Richard A. McDonough, District Manager
The Lane Construction Corporation
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (703) 222-5670
Fax: (703) 222-5960
Cell: (703) 898-3811
Email: RAMcdonough@laneconstruct.com

3.2.2 Principal Officer Information:
Mr. Joseph P. Lark is a principal officer of The Lane Construction Corporation and the legal entity with whom a design-build contract with VDOT will be written.

Joseph P. Lark,
Regional Vice President, Mid-Atlantic
The Lane Construction Corporation
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (703) 222-5670
Fax: (703) 222-5960
Email: JPLark@laneconstruct.com

3.2.3 Offeror's Corporate Structure: The Lane Construction Corporation, Offeror, founded in 1890, is structured as a corporation and was incorporated in the State of Connecticut on April 5, 1902. Lane will solely be responsible for this financial undertaking. As the lead contractor, Lane will be responsible for administering the contract, providing the bond, scheduling, quality control, supervising construction, the safety program, maintenance of traffic (MOT), and coordination of all subcontractors and trades. RDA will be under a subcontract with Lane for all design efforts pertaining to this project, including MOT. The additional subconsultants and/or specialty consultants, required by RDA in its design efforts, will be under a direct subcontract to RDA. World Fiber Technologies, Inc., providing Electrical/ITS Supervision and installation, will be under direct contract to Lane. MBP, providing the Quality Assurance Manager and support, will also be under direct contract to Lane.

Neither The Lane Construction Corporation, nor its parent, Lane Industries Incorporated, or any of its subsidiaries have contingent liabilities, financial commitments, or performance commitments that will put limitations on Lane's financial exposure for this project.

3.2.4 Affiliated/Subsidiary Companies: The Lane Construction Corporation has no affiliated companies. The names and addresses of our **subsidiary companies** are:

Virginia Paving Company Division
Main Office: 14500 Avion Parkway, Suite 200
Chantilly, VA 20151; Phone: (703) 230-0850

Lane Carolinas Corporation
90 Fieldstone Court, Cheshire, CT 06410
Phone: (203) 235-3351

§ **Rea Contracting, LLC**
Main Office: 6135 Park South Drive, Suite 400
Charlotte, NC 28210; Phone: (704) 553-6500

§ **Prestress of the Carolinas, LLC**
11630 Texland Boulevard, Charlotte, NC 28273
Phone: (704) 587-4273

Virginia Sign and Lighting Company Division
Main Office: 14500 Avion Parkway, Suite 200
Chantilly, VA 20151; Phone: (703) 222-5670

Senate Asphalt Division
Main Office: 6216 Oxon Hill Road, Oxon Hill, MD 20745; Phone: (301) 686-9090

Cold River Materials Division
Main Office: 1 Scale Lane, Walpole, NH 03608
Phone: (603) 445-2300

Sunrise Materials Division
Main Office: 61 Margin Street, Orono, ME 04473; Phone: (207) 866-2194

Sunquip Division
Main Office: 1065 Odlin Road, Hermon, ME 04401; Phone: (207) 942-7700

Wardwell Contracting Division
Main Office: 14 Earth Plaza, Orland, ME 04472
Phone: (207) 469-3872

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

3.2.6 Offeror's VDOT Prequalification Evidence: Evidence from VDOT's online Prequalified List may be found in the Appendix demonstrating that The Lane Construction Corporation is prequalified for this SOQ's submission.

3.2.7 Evidence of Obtaining Bonding: A surety letter from the bonding companies is included herein, indicating their willingness to provide any and all bonds for this project. The co-sureties will furnish a single 100% performance bond and a single 100% payment bond.

3.2.8 Professional Services Evidence: The matrix on the following page delineates the required respective state registrations and licensures of the LANE/RDA Team. The Offeror and all team members are eligible at the time of this SOQ submittal, under the law and relevant regulations, to offer and to provide any services proposed or related to the Project. Respective copies of the business and individual licenses may be found in the Appendix.

3.2.9 DBE Statement (15% Commitment): Lane supports the Disadvantaged Business Enterprise program and is committed to meeting or exceeding 15% of the design and construction of this project utilizing the services of organizations certified in Virginia as Disadvantaged Business Enterprises. It is also Lane's intention to take all necessary and reasonable steps to ensure that SWaM firms have the maximum opportunity to compete for and perform services in this design-build contract.

The next two sections of this SOQ provide a detailed description of the LANE/RDA Team's structure and the directly relevant experience of our team to design and construct this I-66 Active Traffic Management project. Further, as a team, we recognize that the following critical project risks must be addressed for the successful delivery of this Project; these identified risks are more fully described and the appropriate mitigation strategies that the LANE/RDA Team intends to implement in Section 3.5 in this submission.

1. Transportation Management Plan
2. Maintenance of ITS Infrastructure
3. Potential Conflicts with Public Service Providers.

By implementing sound controls and scheduling, it is our intention to deliver this Project on time and within budget. The LANE/RDA Team appreciates you taking the time to review this Letter of Submittal and we look forward to working with VDOT on this project.

Respectfully submitted,

Richard A. McDonough
District Manager

3.2.8 Required Information Business Name* *(Type—All firms are Active corporations in Good Standing)*	Registered Business Address	**SCC (3.2.8.1)** SCC#	**DPOR (3.2.8.2 / 3.2.8.3 / 3.2.8.4)**			
			DPOR Registration Type	Firm DPOR Registration# Expiration	Key Personnel *Office Location*	Individual DPOR# Expiration *DPOR Address*
The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410	F0254476	Class A Contractor	2701011871 1/31/12	Richard McDonough James Vogt *Chantilly, VA*	N/A
Rinker Design Associates, P.C.	9300 West Courthouse Road, Suite 300 Manassas, VA 20110	0227062-7	Professional Corporation	0405000502 12/31/11	C. Mo Kim, PE *Manassas, VA*	0402032943 7/31/2013
	927 Maple Grove Drive Suite 105 Fredericksburg, VA 22407		Professional Corporation Branch Office	0410000156 2/29/12		
URS Corporation	600 Montgomery Street 25th Floor San Francisco, CA 94111	F0387615	Bus Entity Branch Office	0411000280 2/28/12	Jeffrey Minnix, PE *Virginia Beach, VA*	0402018734 7/31/12
	4 North Park Drive Suite 300 Hunt Valley, MD 21030		Bus Entity Branch Office	0411000278 2/29/12	Nicholas Deros, PE *Hunt Valley, MD*	0402049640 10/31/13
World Fiber Technologies, Inc.	4070 Nine McFarland Drive Alpharetta, GA 30004	F1415738	Class A Contractor	2705055835A 4/30/12	Jerry Neely, ME *Alpharetta, GA*	2710042158 4/30/12
McDonough Bolyard Peck, Inc.	3040 Williams Drive Suite 300 Fairfax, VA 22031	03518008	Bus Entity	0407002955 12/31/11	Ali Abdolahi, PE *Fairfax, VA*	0402031852 1/31/12
FreeAhead Engineering, P.C.	4636 20th Street N. Arlington, VA 22207	06764757	Professional Corporation	0405001596 12/31/13	David Hill, PE† *Arlington, VA*	0402015296 2/28/13
ECS Mid-Atlantic, LLC	14026 Thunderbolt Place Suite 100 Chantilly, VA	S1208216	Bus Entity	0407004628 12/31/11		
Geo-Technology Associates, Inc.	3445 A Box Hill Corporate Center Drive Abingdon, MD 21009	F1317553	Bus Entity	0407004239 12/31/11		
Sabra, Wang and Associates, Inc.	101 West Broad Street Suite 301 Falls Church, VA 22046	F1343203	Bus Entity	0407005636 12/31/13	Ziad Sabra, PhD, PE, PTOE† *Falls Church, VA*	0402031146 3/31/12

† *Personnel proposed, albeit not designated Key Personnel by RFQ.*

Willis

December 22, 2011

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

Re:

Interstate 66 Active Traffic Management (I-66 ATM) Design Build
State Project No: 0066-96A-917, P101, N501
Federal Project Nos.: IM-5A01(253) & IM-5A01(274)
Contract ID Number: C00098017DB46

Estimated Value of Project $32-35M
Type of Project: Design-Build

To Whom It May Concern:

We are pleased to share with you our experience as surety for The Lane Construction Corporation. We consider The Lane Construction Corporation one of our outstanding and most valued clients in whom we have the highest confidence. Through the years this company has, in our opinion, remained properly financed, well equipped and most capably managed.

Fidelity and Deposit Company of Maryland and Zurich American Insurance Company have an A.M. Best rating of A+ XV and Liberty Mutual Insurance Company has an A.M. Best rating of A XV. They have approved a surety program for Lane consisting of single project limits of $250,000,000 with a corresponding aggregate bonding capacity of $1,500,000,000.

Fidelity and Deposit Company of Maryland, Zurich American Insurance Company and Liberty Mutual Insurance Company are prepared to give favorable consideration to the execution of any final bonds in association with the above captioned project. Naturally, the execution of any final bonds would be subject to our normal underwriting review which includes the following:

- The Lane Construction Corporation would request us to issue bonds for this project.
- Both The Lane Construction Corporation and Fidelity and Deposit Company of Maryland, Zurich American Insurance Company and Liberty Mutual Insurance Company will have the opportunity to review and find acceptable the contract terms and conditions, bond forms and project financing.
- A satisfactory underwriting review will have been completed at the time the bonds are required.

If we can provide any further assistance please do not hesitate to contact us.
Sincerely,

Fidelity and Deposit Company of Maryland
Zurich American Insurance Company
Liberty Mutual Insurance Company

Stacy Rivera, Attorney-In-Fact

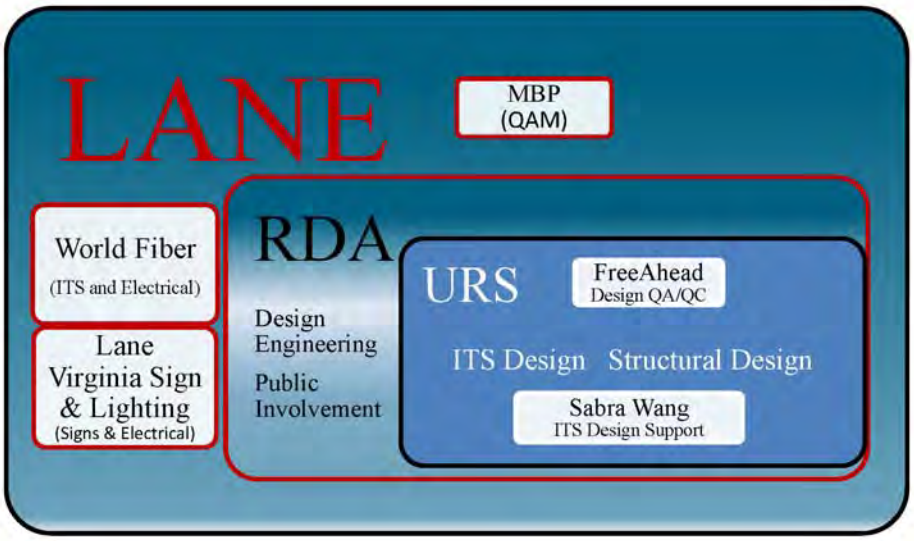
Willis of Massachusetts, Inc.
Three Copley Place
Suite 300
Boston, MA 02116

3.3
Offeror's Team Structure

3.3 Offeror's Team Structure

The Lane Construction Corporation (Lane) will serve as the lead contractor of the Design-Build (D-B) team for the Interstate 66 Active Traffic Management (I-66 ATM) Design-Build project. Lane's role will include managing the entire project, supervising the construction and performing major work elements. Lane's proven experience on more than 50 PPTA and D-B projects ranging in scope from $15M to the $1.5B Capital Beltway HOT Lanes project in Northern Virginia alone demonstrates the value obtained in having the right team. Lane's carefully selected members of our team for the I-66 ATM project will provide the Department tremendous value in delivering this project. In developing the framework of the I-66 ATM team, Lane has taken a unique but most effective approach assembling our team. Lane strategically selected Rinker Design Associates, P.C. (RDA) as the Lead Designer due to our previous and very successful working relationship on the Sudley Manor Drive and Linton Hall Road PPTA D-B Projects as well as other recent D-B pursuits, in which both firms gained valuable first-hand, local D-B experience. RDA exhibits overall strength in managing multi-discipline D-B projects with a thorough understanding of the Department's D-B requirements. Rinker Design's recent effectiveness in managing the design of numerous PPTA D-B projects in excess of $150M, in Virginia alone, enhances our team's ability to deliver this complex project.

Together, Lane and Rinker Design have selected specific subcontractor and subconsultant partners whose fortes lie in the required practice areas indicated in this procurement. We carefully chose a group of diverse team members to advantageously employ the design-build process to bring together a viable and functioning team structure that capitalizes on the strongest, respective attributes of our competencies to provide the Department with the finest specialty talent, national experience, local knowledge…all under the direction of experienced design-build Project management leaders.



LANE Team Functional Relationships
(See Organizational Chart at end of this section for direct personnel project relationships.

Construction Subcontractors. Lane will self-perform the heavy civil activities: MOT, Structures, and a portion of the Signs and Electrical. The primary subcontractors to Lane are **World Fiber Technologies, Inc. (World Fiber),** who will perform all of the fiber optic work and a portion of the signs and electrical and **McDonough Bolyard Peck, Inc. (MBP)** will provide the Quality Assurance Manager (QAM). Each of these firms will directly report to the Design-Build Project Manager, Mr. Rich McDonough. Additionally, other firms including DBE and SWAM will be selected utilizing Lane's two step subcontracting plan.

World Fiber is a premier, full service utility construction provider of infrastructure for cable, electrical services and telecommunications, deploying turnkey operations throughout the southeastern U.S. with the significant experience, company owned equipment, expert personnel and strong reputation to complete fiber optic construction projects safely, efficiently, on-time, on-budget, and to clients' satisfaction. Established in 1997 as a privately held engineering and construction company based in Alpharetta, Georgia, World Fiber specializes in deployment of fiber optic and wireless communications for ITS technologies, including traffic signalization, video surveillance, vehicle detection, motorist information and tolling equipment. World Fiber has completed ITS deployments throughout the southeast and telecommunications projects throughout the country.

World Fiber has an in-house engineering staff, which includes registered professional engineers providing Civil, Electrical and Mechanical engineering capabilities and more than 200 years (cumulative) of experienced Project Managers and Supervisors. World Fiber will be providing the **Electrical/ITS Supervising Technician, Mr. Jerry Neely**, a Virginia-certified Master Electrician.

World Fiber provides an added value to the LANE/RDA Team by bringing the combined wisdom of traditional heavy industrial methods with "new" state-of-the-art engineering technology. They, just as Lane, believe in integrating talent with like investments in capital equipment. The result is a self-sufficient, nimble and highly leveraged force producing quality construction, on time, at competitive prices that can perform everything from digging the trench for fiber optic cable to integrating the cable to intelligent traffic systems.

Virginia Sign and Lighting, a Division of Lane, will support World Fiber as well as provide all sign and lighting-related installation and construction. Lane's own construction personnel will be supported by construction subcontractors (including DBE/SWaM firms) for the construction of all other elements.

McDonough Bolyard Peck, Inc. (MBP) will provide the ***QAM, Mr. Ali Abdolahi, PE, CCM*** and his quality assurance supporting staff. MBP has been engaged in design-build projects and has provided specialized consulting on design-build projects for the past 16 years, including serving in the independent quality assurance role on three VDOT projects currently underway or recently completed. MBP's Northern Virginia design-build quality assurance experience includes serving as quality assurance manager for the Fairfax County Parkway project located at the Fort Belvoir Engineer Proving Grounds. MBP's experience includes specific relevant transportation projects in Virginia, as MBP has assisted the Innovative Project Delivery Division of the VDOT in developing standards for design-build and public-private projects. In particular, MBP developed recommended procedures and minimum requirements for quality assurance on design-build projects.

Design Subconsultants. RDA will provide overall project management for ***all*** design activities. Under subcontract to RDA and directly reporting to the **Design Manager, Mr. Mo Kim, PE**, the subconsultants include **URS, FreeAhead, Sabra, Wang Associates** and **ECS Mid-Atlantic.**

URS has been a national leader in ITS for 25 years, performing well over 50 ITS planning projects and 30 implementation projects in about half of the 50 states. A charter member of ITS America, they develop systems using the latest innovations in engineering and communications technology, centered around the National ITS Architecture. URS provides the broadest range of ITS system, electrical, communication, transportation, and related engineering services for the planning and design of Advanced Traffic Management Systems, Advanced Public Transportation Systems, Advanced Traveler Information Systems, Commercial Vehicle Operations, and Electronic Toll Collection systems, as well as emergency and traffic incident management and response. URS' proposed offices have provided planning, design, CEI, and O&M services to VDOT for development of ITS infrastructure for decades. The firm has managed traffic control device design, ITS design, and studies and analysis since 1998, performing over 100 assignments, including assisting VDOT with development of the current *Traffic Engineering Design Manual*.

FreeAhead Engineering, P.C. is an independent consultant that specializes in the research, design and implementation of Intelligent Transportation Systems (ITS), and traffic engineering services. The firm's principals offer over 90 years of experience in the research, planning, design and implementation of some of the most noteworthy ITS and traffic engineering projects undertaken around the world. They have been involved in ITS since its inception and were major contributors on some of the ground breaking ITS demonstration projects.

The principals of FreeAhead have been involved in ITS and traffic control systems in the Commonwealth of Virginia for over 20 years. They also have a wealth of experience working on design-build and public private partnerships both in Virginia and around the country. The firm has provided design support for the traffic signals as well as performing QA/QC of all of the signing, lighting and ITS plans that are part of the Beltway HOT Lanes project. FreeAhead is currently involved in supporting the design build teams on several ITS projects in Pennsylvania. FreeAhead staff have worked on many of the freeway and arterial traffic control systems throughout the Commonwealth including the NOVA ATMS, Extension of the I-95 HOV Lanes, Capital

Beltway HOT Lanes, I-64 Reversible Roadway System, I-664 Traffic Control System, and signal systems in Lynchburg, Arlington, Richmond, Newport News, Norfolk and Virginia Beach.

Sabra, Wang and Associates, Inc. (SWA) has extensive experience in ITS planning, operations and design. They have prepared ITS designs for hundreds of ITS devices including CCTV cameras, DMS sites, Roadway Weather Information Systems, ATR stations, side-fire detector stations, truck overheight sensors, light rail crossing safety devices, fog detection systems and numerous traffic signal related devices (communication, detection, adaptive systems, central systems, closed-loop systems). SWA is currently under contract to perform an ITS master plan for the District of Columbia DOT. They have prepared technology assessments, hardware evaluations and assisted clients in the selection of COTS products including CCTV, DMS, RWIS, ATRs, Battery-Back Up, Signal Controllers, Speed Flashers, vehicular detection, hardwire communication median, wireless communication media, cabinet level components as well as has prepared specifications for detector replacement, CCTV cameras, DMS signs, and fiber-optic upgrades. In additional to ITS design, SWA has prepared citywide strategic ITS plans for selection and prioritization of device locations for detector replacement/installation, CCTV cameras, and DMS signs. SWA has also provided ITS planning and design services for major highway expansions including five interchanges within I-95 Express Toll Lanes, and the I-695 at MD 144 Interchange Reconstruction in the past 5 years. SWA's staff will provide the necessary legs-on-the-ground support in the areas of both ITS and structure design, respectively.

3.3.1 Qualifications and Functional Relationships of Key Personnel: We consider VDOT management and staff true Project partners, working alongside the LANE/RDA Team members. Our relationships are effective, functional, and benefit from a common accountability initiative—to safely and soundly complete the project expeditiously. The LANE/RDA Team is led by experienced and capable professionals with local roots and strong D-B experience; and, ITS support both for design and construction with extensive experience regionally and nationally. All of the proposed Key Personnel have significant experience on transportation projects similar to the roles they will serve on the I-66 ATM project.

Leading the LANE/RDA Team is ***Design-Build Project Manager, Mr. Richard A. McDonough*** who is responsible for the overall project, construction quality management, and contract administration. He will facilitate communication among team partners, monitor design efforts to proactively eliminate potential constructability issues prior to breaking ground, and delegate resources to deliver the project on time. It will be his responsibility to work with the designer through the design phase to ensure that the design is on time and within the owner's specifications. Mr. McDonough's interaction from design through construction will include "task force" meetings, weekly design and construction meetings to discuss how the Lane Team will build the project. Should any issues arise, it is his responsibility for ensuring and addressing project issues with the designer, construction team and the owner. Interaction with the Quality Assurance Manager (QAM) will be continuous to ensure that the project is compliant with the specifications. As demonstrated in the Organization Chart, the following Key Personnel will report directly to the Design-Build Project Manager, leading their respective groups.

Quality Assurance Manager, Mr. Ali Abdolahi, PE, CCM, (MBP) will ensure that the construction quality of the I-66 ATM project meets or exceeds the Minimum Quality Control and Quality Assurance Requirements for Design-Build and PPTA Projects, which we understand will be updated prior to this contract notice to proceed. Mr. Abdolahi reports directly to the Design-Build Project Manager; he understands the importance of quality and the benefit of a good QA/QC program, having served as the Assistant State Construction Engineer for VDOT. He will apply his 30 years of experience toward the success of this project.

Mr. Abdolahi will report regularly to Mr. McDonough, the Design-Build Project Manager, and coordinate with Mr. Jim Vogt, the Construction Manager, on all quality issues. As issues arise, Mr. Abdolahi and the inspection staff will note trends and suggest remediation to construction personnel. Any item of work failing to meet minimum standards will be rejected and corrected immediately. Construction personnel will have no authority over inspection staff, and issues raised by construction personnel will be resolved by Mr. Abdolahi and the

Design-Build Project Manager. During all phases, VDOT will be informed by Mr. Abdolahi of issues/solutions through weekly reports and progress meetings. During construction, if declining quality becomes evident, Mr. Abdolahi and the Design-Build Project Manager will meet and evaluate the root causes of the decline. Upon evaluation, changes in procedure to improve quality will be implemented and documented immediately through instruction to the construction personnel. As QAM, Mr. Abdolahi does hold the authority to shut down the job if quality issues warrant.

Design Manager, Mr. Mo Kim, PE, (RDA), will be responsible for the design quality control and quality assurance (QA/QC) requirements, as outlined in VDOT's Minimum Quality Control and Quality Assurance Requirements for Design-Build and PPTA Projects, dated August 2008, specifically as outlined in Section 104 of the document. Mr. Kim fully understands the challenges of ensuring the quality of a D-B project versus a traditional bid-build project by having served as the Design Manager on several PPTA/D-B projects and as Design Manager on congested urban roadway facilities throughout Northern Virginia.

Mr. Kim shall be responsible for overall management of the QA/QC programs for design and will be assisted by Mr. David Hill, a renowned industry leader in the ITS arena. He will report directly to Mr. McDonough, the Design-Build Project Manager, and is essentially responsible for all QA activities associated with multi-discipline design elements of this project. Mr. Kim shall maintain close communication with the Design-Build Project Manager and shall ensure the Project is complete, in accordance with the requirements of the Contract Documents. Mr. Kim shall perform all of the design oversight reviews along with Mr. Hill as they relate to the ITS design, in which VDOT may participate. Under this procedure, Mr. Kim will provide VDOT with draft design plans for review and approval to confirm that the design work complies with the requirements of the Contract Documents, prior to initiation of construction activities on the Project. Plans for review will be submitted to VDOT's Project Coordinator, who will distribute plans to the appropriate VDOT staff for review and approval. RDA shall revise and modify all draft design plans to fully reflect the resolution of all comments and shall deliver to VDOT's staff. Rinker Design shall be responsible for the design details and ensuring that the design and construction work are properly coordinated. VDOT Formal Acceptance of the design will occur at the time of Final Acceptance, as provided in the Contract Documents.

A primary emphasis will be on providing high quality in the development of construction plans. In the design process, Mr. Kim is responsible for the project design management, compilation of the plan assembly and determination of when plans have been developed to the point that Quality Reviews are to be made. He is both responsible and accountable for the quality of all of the plans.

Construction Manager, Mr. James Vogt (Lane), is responsible for the day-to-day construction operations of the project and reports directly to the Design-Build Project Manager. Mr. Vogt is a project Manager with Lane and possesses nearly 20 years of construction experience. He most recently served as the Construction Manager on the VDOT I-66 Third Lane Widening project in Arlington County (within the limits of this project) that was successfully delivered on time and budget earlier this month. His daily duties include: safety, coordination of all project personnel including subcontractors, QC and QA. He holds ultimate responsibility for managing the project schedule with his staff engineer. He will lead daily meetings with the Project Inspector as well as the Quality Assurance Manager (QAM) to discuss all actions being taken. He will also review all reports and lab results. Anything that is not meeting standards will be addressed immediately with the Project Inspector and QAM with corrective actions being enforced that same day.

Mr. Vogt holds a Virginia Department of Conservation and Recreation (DCR) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC); He will have successfully completed OSHA training in electrical safety for Arc Flash Protection and Lockout/Tagout prior to the commencement of construction.

Lead Designer, Mr. Jeffery Minnix, PE, (URS), will coordinate and lead all ITS design activities to meet the needs of the Contract. He reports directly to the Design Manager, Mr. Mo Kim. He will work with the Design Manager, Design QA/QC Manager, Mr. Dave Hill, PE, and the ultimate responsible authority, Mr. Ali

Abdolahi, the QAM, as well as each key design lead in order to comply with the requirements of the QA/QC Plan. Mr. Minnix has 31 years of experience in traffic and transportation engineering, including implementing ITS for VDOT and other clients for over 20 years. His ITS work encompasses strategic planning, design, deployment, integration and testing, CEI, and O&M of components and systems for TOC and TMS programs nationwide, including variable message signs, CCTV surveillance and monitoring, vehicle detection, communication and IT systems, video walls, and other traffic control equipment. For nearly 25 years on a continuous basis, Mr. Minnix has led URS in projects providing planning, design, CE&I, and O&M services to VDOT for the implementation, development, and operations of the Hampton Roads TOC and TMS. He has also led URS in providing O&M services to VDOT TOCs on the I-81 corridor in recent years. He has helped plan, design, and implement ITS infrastructure for other clients in TN, FL, LA, and NY. He has had on on-going professional relationship of long-standing with both Mr. Hill and Mr. Sabra in the ITS arena and like them brings a regional and national reputation for ITS design capabilities.

Lead Structural Engineer, Mr. Nicolas Deros, PE, (URS) has over 27 years of widely varied experience in project management and performance of inspection, evaluation and load rating of bridges and other highway structures including sign structures, high mast light standards, and other traffic control devices. Mr. Deros has managed numerous recent on-call inspection contracts for bridges and traffic control devices for a variety of clients, including VDOT; he is managing URS' portion of the Woodrow Wilson TAMS Contract and has worked closely with a number of Northern Virginia District Inspection personnel.

Electrical/ITS Supervising Technician, Mr. Jerry Neely, ME, (World Fiber) has over 50 years' experience in fiber optics and electrical contracting. Jerry began his career in the field and learned the business hands-on in the field as a Master Electrician on high voltage construction projects, Electrical Division Manager on ITS projects and Project Manager and Owner of an electrical contracting company for projects across the US, including Virginia. Jerry holds a Master Electrical Contractor's License in Virginia and five other states. His diverse background and hands-on field experience is perfect for construction projects with an electrical component.

***Other Functional Relationships*—**The LANE/RDA Team has also recruited the following recognized specialists whom we deem critical to this Project albeit non-key personnel as defined by the RFQ; Mr. David Hill PE will serve as the Design QA/QC Manager and Mr. Chris Reed, CSI will serve as the Public Relations Manager. A brief description of their respective credentials and roles is provided below to further clarify the capacity of our team. Likewise, the task leaders responsible for Transportation Management Plan, David Holmes (construction) and Adam Welschenbach, PE (design), are also deemed critical personnel to this project and their qualifications provided below.

Design QA/QC Manager, Mr. David Hill, PE, (FreeAhead Engineering, P.C.) will provide QA/QC support for the ITS design and also report directly to the Design Manager. He has over 30 years of experience leading and managing some of the most complex ITS designs undertaken in the region. His vast experience dealing with highly visible projects that require extensive coordination both from a design as well as a public relations perspective make him ideally suited to support the I-66 ATM project. As a native and current resident of Arlington County he is keenly aware of the sensitivity of the I-66 corridor to the community and the importance of recognizing the local concerns in the design and construction process.

He has been involved in many of the ITS projects that have been deployed throughout Virginia, and in particular Northern Virginia during his years of working in the Commonwealth. He has managed the design of the ITS elements for some of the largest construction projects undertaken in Virginia, including the Springfield Interchange, extension of the Traffic Management System on I-66/I-95, the Route 1/I-495 Interchange, the I-95 Fourth Lane Widening, and the Beltway HOT Lanes. Mr. Hill was involved in the initial startup of the I-64 Reversible Lane Control System in Hampton Roads and creation of the operating procedures and the training program for the operations and maintenance of the system and facilities. The combination of experience he has acquired throughout his career and his extensive knowledge of the existing ITS infrastructure in Northern

Virginia and along I-66 make him the ideal candidate to provide the QA/QC support of the ITS design for the I-66 ATM project.

Public Relations Manager, Mr. Chris Reed, CSI, (RDA) will report directly to the Design-Build Project Manager. Mr. Reed has extensive experience in the I-66 Corridor. During his tenure as the NOVA District L&D Engineer, he managed the design of the Widening of I-66 from US Route 50 to Route 234 including all public involvement activities. Mr. Reed served in a similar capacity assisting the Project Manager in Public Outreach for the PPTA project to widen Route 15 from I-66 north to Route 234.

MOT Coordinator, Mr. David Holmes, (LANE) will report directly to the Construction Manager and will ensure the proper workzone protection is established at each and every phase of construction. Mr. Holmes will also oversee the adherence to the Traffic Management Plans to provide proper operations and flow of traffic throughout the limits of construction as depicted.

Direct supervisors of the work (e.g., design discipline managers, construction superintendents and inspectors) will perform and oversee the day-to-day work activities. Each of these supervisors will report directly to Design or the Construction managers. Continual coordination among Mr. Minnix, Mr. Deros, and Mr. Kim will be paramount. Mr. Jerry Neely our Electrical / ITS Supervising Technician, also a Key Personnel, will report directly to the Construction Manger along with the other construction discipline leaders.

3.3.2 Organizational Chart Narrative. The LANE/RDA Team is organized to provide VDOT with a single point of contact, responsible for all design and construction activities. The LANE/RDA Team organization has a straightforward chain of command, with individual tasks, responsibilities, and functional relationships clearly identified [above]. The Organization Chart on the following page identifies key personnel and major functions to be performed by them and others that we feel are critical to the successful design and construction of the I-66 ATM project.

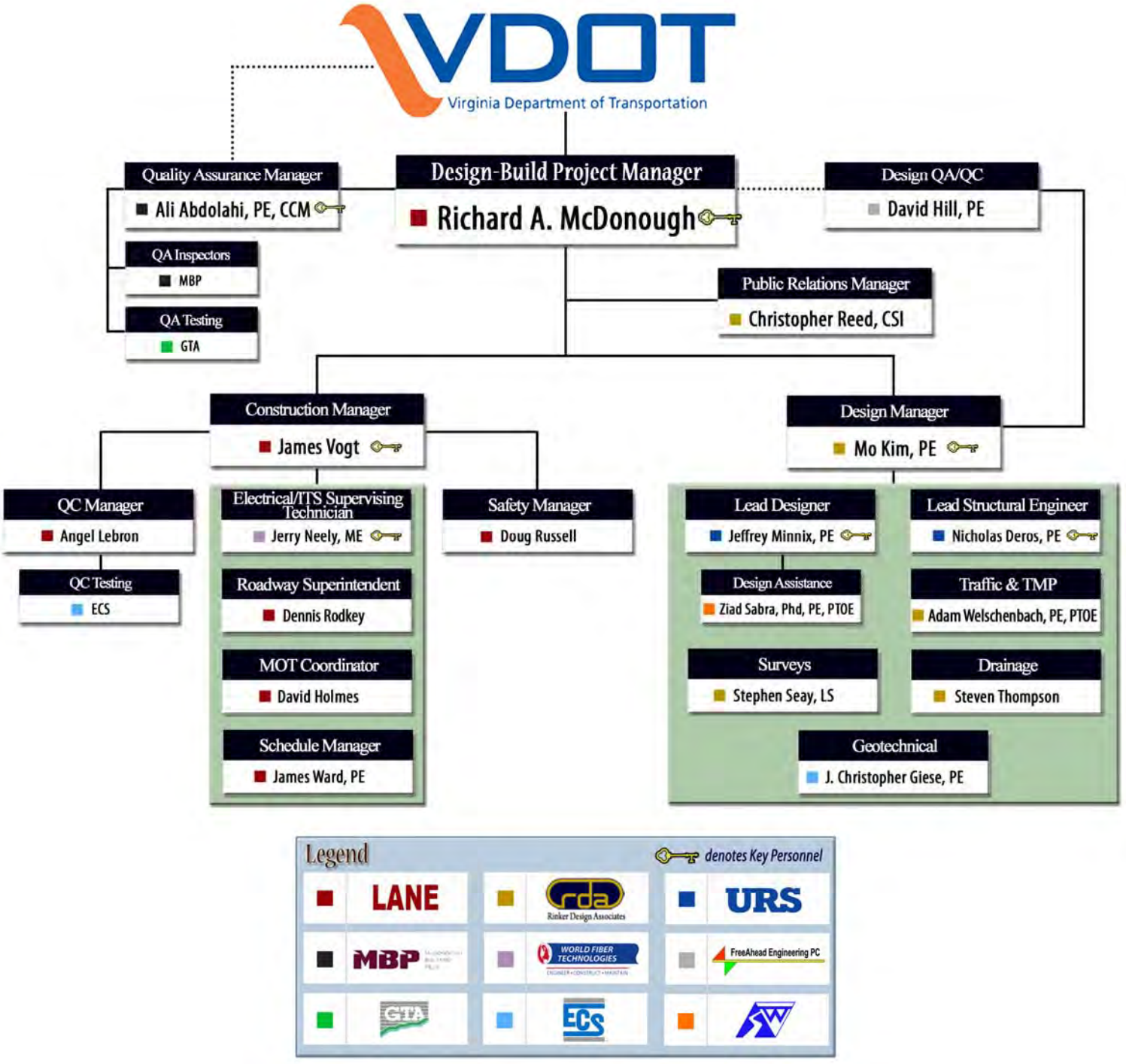
Using the "Task Force" Approach. Although the organizational chart shows reporting responsibilities, it is important to understand the Team's philosophy to D-B projects and the functional relationship of the members. The Lane Team's extensive D-B experience has shown that the Task Force approach during the design stage is key to realizing a successful project. This open forum of discussion, in the spirit of partnering, serves to clearly define project criteria, ensure the owner's intentions are being met, address corridor-wide constructability issues and provide consistency in design before becoming schedule-critical.

Task forces serve as a conduit for disseminating project-critical information. The Task Force, with the Design-Build Project Manager at the head, is the central point of decision-making and communication among all involved in the project. As part of this process, the Owner, Contractor and Designer are charged with reaching a consensus on project issues. This approach of equal representation by the Owner, Contractor and Designer is integral to the partnering process. The Task Force team will meet weekly at first, then as required as the project progresses. The Task Force meeting agenda will address project coordination, schedule review and implementation, and the overall project work plan. Reporting on partnering goals will also be included in the agenda. The Task Force meetings will be formal, with agenda and meeting minutes required.

The Task Force Approach is a proven mechanism to ensure quality, consistency, and integrated design and construction. It is also a hallmark of Lane's D-B process that results in schedule and budgetary success.

Design production managers will meet with discipline leaders from every design segment, the Contractor and the Owner on a weekly basis. The focus of these meetings will be to coordinate technical design issues, emphasize the appropriate design criteria and develop standardization of the designs to meet VDOT criteria.

3.3.2 Organizational Chart.



3.4
Experience of Offeror's Team

3.4 Experience of Offeror's Team

The Lane Construction Corporation (Lane), established in 1890 and incorporated in 1902 in the State of Connecticut, is one of the largest and most well-respected transportation contractors in the nation. The Corporation is headquartered in Cheshire, CT with regional offices throughout the Eastern United States including Chantilly, Virginia which supports multiple office locations throughout the Commonwealth. Lane consistently ranks among the top 10 transportation contractors in the nation, as reported by *Engineering News-Record,* and is currently ranked the 8th largest transportation contractor. Lane's current annual revenues exceed $1B, with the majority of contracts for state, federal and municipal agencies. As the traditional market of Design-Bid-Build shifts toward the Design-Build method of contracting, Lane is well positioned through experience, reputation, and past performance to maintain its role as a leader in the industry. Lane has successfully participated in over 50 Design-Build projects ranging in scope from $15M to $1.5B. Lane understands the importance of partnering to make the D-B process a success and has partnered on teams that have constructed more than $2.8B in Design-Build projects in the last decade.

Partnering is vital to the success of any project, however partnering within a Design-Build project is especially important due to the vulnerability to higher risks such as design growth, constructability issues, cost overruns, and environmental permitting challenges. Advantages of Design-Build with Lane includes partnering with a contractor that has experienced Design-Build personnel, D-B project experience on both large and small projects, a proven track record of successful Design-Build contract administration, a proven track record of completing work on time or ahead of schedule, one of the industry's best safety records, and a reputation for delivering only the highest quality workmanship.

LANE maintains a full time presence in Northern Virginia employing a permanent workforce in excess of 800 craftsmen; we understand the issues that drive the Commonwealth and recognize the transportation investment that VDOT is making with this D-B project. Our experienced Virginia workforce is very familiar with the stakeholders that need to be represented and communicated with for this project to ensure its success.

Lane and VDOT - Lane has been the active leader on numerous high profile projects for VDOT over the last 30 years including the very relevant $1.5B Capital Beltway HOT Lanes D-B Project, the recently completed $10.6M I-66 Third Lane Widening Project and the $75M construction of the Springfield Interchange Project, Phase V (shown on the Work History Forms). An active and recently completed list of Lane projects in Virginia for VDOT includes: I-495 HOT Lanes D-B, $1.5B (on-going and on-schedule); Gilberts Corner Route 50 Roadway Improvements D-B, $13.4M (completed 2009—early delivery and on budget); I-66 Third Lane Widening, $10.6M (completed 12/5/11); Springfield Interchange, $75M (completed—early delivery); I-66 Arlington, $28.5M; I-66 Glebe Road, $41.4M; Braddock Road, $3.7M; I-66 Rosslyn, $18M; Route 7, Sterling, $16M; Dulles Access Road , $19M; I-95 Woodbridge, $20M; Fairfax County Parkway, $12M; Centreville, $5.4M; Dulles Toll Road Ramps, $5.9M; and, Route 234 Prince William, $21M.

We hold in high regard the reputation we have achieved through these and other projects and take pride in maintaining that reputation on every project we construct. The Lane Lead Contractor History forms are highly indicative of the experience, capability, pride and commitment that Lane brings as a firm and instills in each of our team members. These same characteristics can be found in our lead designer, RDA.

RDA has been working for VDOT for over 20 years. Recent experience includes major roadway projects such as Stringfellow Road, Centreville Road, Route 50 and Route 29. Specific to D-B projects, Rinker Design has strong credentials within the Northern Virginia District. They were the lead design subconsultant on the extremely successful Sudley Manor Drive and Linton Hall Road PPTA projects and the Prince William County Route 15 PPTA Design-Build project.

3.4.1 Experience Delivering Similar Projects: The benefits of the design-build delivery method are enhanced when the team members are familiar with each other. The LANE/RDA Team have worked on a number of projects together and are proud to have successfully delivered many using this contracting method (i.e. Sudley

Manor Drive and Linton Hall Road PPTA projects). Based on this successful working relationship and other teaming efforts, our two firms have joined to bring the Department a highly skilled team with knowledge of the D-B process and a commitment to quality and value. Familiarity and reputations in the industry were key decision makers in establishing our team. The Lane Team brings together a group of uniquely qualified firms and experienced professionals that will successfully deliver the I-66 ATM Project. Our reputation established over the years of providing the consistent quality service to VDOT speaks volumes for Lane and the members of the Lane/RDA Team. Details encompassing the overall experience of both the Lead Contractor and the Lead Designer on complex projects, PPTA/D-B Projects and our established working relationship are described below in addition to the details identified in the attached work history forms (in the Appendix).

Subconsultants Relevant Experience. The Lane/RDA Team has selected specific subcontractor and subconsultant partners whose fortes lie in the required practice areas indicated in this procurement. The following narratives provide snapshots of the extensive experience of our electrical subcontractor, World Fiber, and our design subconsultants URS, FreeAhead, and Sabra, Wang and Associates to demonstrate their vast ITS-related capabilities and critical importance to this project.

World Fiber Experience. World Fiber constructed two phases of an **Advanced Traffic Management System (ATMS) deployment within the Bay County, Panama City region of Florida DOT District 3**. This ITS project provided the communications backbone network for all Bay County Schools for networking and video conferencing. The project included installation of approximately 50 miles of underground conduit and pull boxes for fiber optic cable, including splicing, termination and testing. Traffic signal cabinets were upgraded for Ethernet communications. [Completed 2009]

World Fiber constructed the underground infrastructure for the **Florida DOT I-10/I-110 Design-Build Freeway Management System (FMS) and Regional Traffic Management Center**, which included design, deployment, testing, operation, and maintenance. The FMS portion included 40 miles of conduit for the fiber optic backbone, 43 miles of 96 count single mode fiber optic cable and the electrical services for all devices. ITS devices included 88 microwave vehicle detectors (MVDS), 40 CCTV cameras and poles, 12 dynamic message signs (DMS) and one roadway weather information station (RWIS). This project was integrated into the RTMC as part of the FDOT SunGuide system. [Completed 2010]

Louisiana DOTD (LADOTD) Baton Rouge to Lafayette ITS-TIM Phase 2 Design-Build. World Fiber was a subcontractor for the ITS-TIM Phase 2 project. The one year contract deployed fiber optic and wireless communication along with CCTV cameras, RVDs, DMS, and HARs on I-10, I-49, US-90, and US-190 between Baton Rouge and Lafayette, LA. As a subcontractor, World Fiber, was responsible for the underground and bridge attached conduit installation as well as quality control and safety compliance. Project included construction of over 60 miles of underground and bridge mounted conduit. Over 22 miles of bridge attached conduits were installed across the Atchafalaya Basin, as well as 40 miles of underground conduit, including pull boxes and splice boxes. Power service was also installed for ITS devices throughout the corridor, including DMS, CCTV, RVD, and HAR. World Fiber installed pull boxes, hand holes and splice boxes, and provided splicing terminations and testing of the fiber system. World Fiber also installed the power service for portions of the project. [Completed 2010]

The **Early Deployment of the Memphis Smartway ITS** began in Arkansas and ran through West Memphis, Tennessee. Phase I included 3 dynamic message signs (DMS), 25 closed circuit TV cameras (CCTV), a wireless Ethernet communications system, a fiber optic cable network and related conduit, cable, power service, cabinets, bridge attachment conduit, and communications equipment both for the field component and the traffic

management center (TMC). World Fiber was responsible for installation of dynamic message signs (DMS), installation of 25 closed circuit TV cameras (CCTV), Wireless Ethernet communications, fiber optic cable network, testing and splicing, and bridge attachment conduit. [Completed 2005]

During the construction phase (II) of the Tennessee DOT $10M **Memphis Smartway ITS**, World Fiber installed approximately 83 miles of underground conduit to support a fiber optic backbone communications system. The project also included: 39 dynamic message signs (DMS), 90 closed circuit TV cameras (CCTV), 354 radar vehicle detectors, 5 over-head radar vehicle detectors, 16 highway advisory radios (HAR), directional boring, power service, backup generators, and cabinets. World Fiber also installed communications in the field and the traffic management center (TMC) as well as a separate wireless link between Memphis and Jackson, Tennessee. [Completed 2009]

World Fiber was the prime contractor for **Georgia's first HOT Lane (I-85) Deployment**. This $12M project included eight miles of new conduits installed by directional boring and one bridge attachment installation. Additionally, ten miles of existing conduit was proofed for fiber optic cable installation. Over 120,000 feet of fiber optic trunk line cable, as well as drop cables and power service, was installed to 59 cabinets. World Fiber installed 51 new structures for tolling equipment and overhead signage, and 35 horizontal extension arms were attached to existing structures. A 5.8 GHz wireless radio system was installed for system redundancy. The accelerated schedule required work crew coordination for daytime, nighttime and weekend construction activities, working through stringent lane closure restrictions. [Completed Oct 2011]

URS Experience. URS has extensive experience supporting VDOT on ITS projects statewide under our On-Call contracts. URS has held six on-call VDOT contracts since 1998 for traffic control device design, traffic study/analysis, and ITS services statewide, most recently being reselected in summer 2011. Under these contracts, URS has been tasked with over 100 projects, consistently providing deliverables on time and within budget. The following are several example projects demonstrating the variety of project type, size, and complexity:

- **I-64 and I-77 Active Traffic and Safety Management Systems—**URS is currently providing ITS planning and design services to improve traffic and safety operations along several miles of I-64 in the Afton Mountain Area and along 15 miles of I-77 in the Fancy Gap Area. The work involves Open TMS, variable message signs, lane-use control signals, and other technologies and is valued at approximately $850K. URS' major tasks for these two projects include performing safety analysis updates and verification; developing concepts of operation and system requirements documents; developing transportation management plans; and preparing designs, system validation and verification plans, construction plans, special provisions, and cost estimates.
- **Video and Data Sharing Project—**This effort involved system design and specification development to connect Newport News City Hall with the Hampton Roads Transportation Operations Center, the regional ITS management facility. The project design included both fiber-based and wireless Fast Ethernet network technologies (100Mb) for transporting full-motion, real-time video and data.
- **Traffic Management System RFP/RFQ for Pinners Point**—URS developed the functional requirements for a new Traffic Management System to be installed with the Pinners Point Interchange and Midtown Tunnel in Portsmouth. They developed contract documents for VDOT that include the functional requirements for the TMS, which consists of a CCTV system, Variable Message Signs, ramp meters, vehicle detection and incident management, and vehicle over-height detectors. URS worked with proposed I-66 teammate, World Fiber on this project.

URS was responsible for planning, design and construction support/integration services associated with upgrading the City of Virginia Beach's citywide **Traffic Management System (TMS)**. Elements included:

- Relocation of existing TMC and outfitting the new facility with a central computer system, operator workstations, video wall, and related infrastructure.
- A phased approach to replace existing legacy signal control system with a state-of-the-art signal system and migration to a fiber optic communications network.
- Incremental deployment of field devices consisting of CCTV cameras, dynamic message signs, vehicle detectors, pavement temperature detectors, flood sensors, and other devices.
- Development of the new TMC to communicate with VDOT's regional Hampton Roads Traffic Operations Center (TOC) by sharing video, voice, and other data between the two centers.
- Replacement of embedded loop detectors with aboveground detectors—RTMS units for signal actuation.

Successful completion of this project has paved the way for future planned projects such as safety enhancement, traveler information and information sharing with regional agencies, and improved coordination between the TMC and the City's Emergency Services Department. *URS worked with I-66 proposed teammates Sabra, Wang Associates and FreeAhead on this successfully delivered $2M project in 2011.*

Intercounty Connector (I-270 to US 1), Montgomery and Prince George's Counties, MD—URS has provided dozens of staff for procurement, PM/CM, design management, and structural design for the $2.5B ICC, with three major D-B construction projects to be completed in 2012. The **ICC** is a $2.5B, 18-mile-long multimodal highway connecting the I-270 and I-95/US 1 corridors north of DC. The selected alternative included a 6-lane section; multiple bridges and structures; open road tolling; and ITS elements.

Additionally, URS earned the ***ACEC Virginia Honor Award*** for their traffic control device, ITS elements and Transportation Management Plans for the VDOT I-64/Battlefield Boulevard Interchange Improvements project.

FreeAhead Experience. FreeAhead Engineering, P.C. and its principals have a long working relationship with many of the Lane team members. FreeAhead is currently serving as a subconsultant to both URS and SWA. Mr. Dave Hill, Design QA/QC proposed for this project, has worked with both of these firms on multiple occasions for over 20 years. FreeAhead has also worked with Lane Construction on the design of the Capital Beltway HOT Lanes. Other significant ITS-related recent project experience includes:

- **VDOT ITS Long Range Plan, Statewide—**The objective was to develop an ITS operations long-range strategic framework and plan for improving statewide transportation mobility and safety, in support of VDOT's System Operations Directorate.
- **Capital Beltway HOT Lanes Signal Design, Fairfax, VA—**Responsible for the design of three temporary signals for maintenance of traffic and 13 permanent signals as part of the Capital Beltway HOT Lanes Project. Also provided QC review of signing, lighting, ITS, signals and electrical design.
- **Capital Beltway HOT Lanes Project Architecture,** Fairfax, VA—Employed the systems engineering process to develop a Project Architecture for the HOT Lanes project that was compatible with the Northern Region ITS Architecture. Included the development of the Rule 940 Checklist and supporting documentation.
- **Strategic Planning Support for Norfolk ATMS Phase III, Norfolk, VA—**Under the VDOT ITS On-Call contract, leading the development of a strategic plan in support of the City of Norfolk's ATMS Phase III to provide direction as to how to expand and enhance their traffic signal system and evolve it into a fully functional ATMS.

3.5
Project Risks

3.5 Project Risks

Every project contains elements of risk; the three most critical for this Project are Transportation Management Plan (TMP), Maintenance of ITS Infrastructure and Potential Conflicts with Public Service Providers. The following narrative provides our reasoning why the risk is critical, indicates the impact the risk will have on the Project and discusses the mitigation strategies we propose to implement. We also identify the roles and responsibilities that VDOT and possibly other stakeholders to the project have in helping to resolve these risks. A risk summary table follows the detailed descriptions below with each risk element rated high, medium or low and assigned a mitigation strategy.

Risk 1: Transportation Management Plan (TMP). At the root of any TMP is a Maintenance of Traffic (MOT)/Sequence of Construction (SOC) plan. This is what the public experiences and ultimately determines a project's success in the court of public perception. TMP, through detailed analysis and modeling, helps to ensure that the MOT/SOC plan is a success. TMP also establishes protocols for incident management, coordination with other regional projects and public outreach. Unfortunately, for all the advanced planning and analysis, TMP still comes with a high level of risk. None is more evident than working in this corridor. Lane's recent experience on the I-66 3rd Lane project is a prime example of a successful project where TMP was the focal point as it affected congestion, noise and a local community (Arlington County) with a discerning eye on "new construction" in their backyard. Dealing with public outreach, especially Arlington County, is a significant component of an effective TMP.

Risks associated with TMP can be split between construction activities and after-hours maintenance. Each presents different, although similar, problems. The risk during "construction activities" is related to incident management. If an accident occurs within the work zone, does our incident management plan work? Does our public outreach program adequately disseminate information and alternative routes? Does our construction progress suffer? Are there long lasting impacts to schedule and cost due to the severity of the incident or damage to infrastructure? Similarly, the risk during "after-hours maintenance" is associated less with how well we can ensure traffic moves through the corridor and more about how well we have secured the work zone to protect the traffic from our on-going activities, equipment and material stockpiles. However, some similar questions arise: Did our public outreach program address the problem and offer ways around it? Are there long lasting effects with regards to schedule and cost? Were our TMP measures appropriate and was our implementation correct?

These and many other questions quickly arise when considering the risk of performing any construction along an interstate route. Add to that already significant risk that I-66 is one of the most congested corridors in the Commonwealth and provides a vital east/west link for both commuter and commerce traffic. Our Team's processes, proven delivery methods and collaborative, partnering approach will ensure a high-quality Transportation Management Plan is achieved. Specifically:

- *Team Development:* Immediately upon contract award, the LANE Team will conduct an initial partnering meeting with VDOT, FHWA, utility partners and other regional stakeholders to review project requirements and expectations. From this initial meeting we will develop "make certain" checklists identifying responsibilities and timelines for successfully achieving project success.
- *Design Workshops:* As the design progresses, we will hold regularly scheduled workshops to solicit input and buy-in by the Lead Designers, contracting team, VDOT and other affected stakeholders.
- *Public Outreach:* Our experienced staff will develop a program that informs, educates and interacts with the public. This program will be used as a proactive tool to apprise the public of upcoming construction activities that will impact their daily routine; it will also be a reactive tool to address "incident" management.
- *Constructability Reviews:* The LANE Team will conduct constructability reviews on all major components of work, as well as critical elements that may affect MOT, environmental permitting, utility relocation, and right-of-way, to be proactive in mitigating issues that may impact the project.

Perhaps the best measure for mitigation that is fully in our Team's control is unification; ***we are a unified Team.*** During design, construction members will provide insight and review on a continual basis to ensure that the TMP design addresses the VDOT technical requirements, the constructability/implementation needs for construction and the goals of the stakeholders. Our experienced staff, with expertise in the D-B arena and attention to detail will ensure smooth and efficient traffic operations throughout the construction.

Risk 2: Maintenance of ITS Infrastructure. The Lane Team understands the challenges associated with construction of a new Active Traffic Management System within an existing Intelligent Transportation System deployment. VDOT currently owns existing ITS infrastructure deployed along the I-66 corridor, including:

- Fiber communications cables
- Power service cables
- Lighting circuit cables
- Closed-circuit television (CCTV) cameras
- Traffic detectors
- Variable message signs
- Shoulder lane control signals
- Lane control gates
- Ramp meters

Maintaining these existing conduits, cables and devices requires a thorough understanding of the functionality of the current ITS, as well as careful location and preservation of its infrastructure. Understanding how the system is networked will mitigate risks associated with service disruption or loss of communications.

The Lane/RDA Team has contracted with the nationally experienced and respected ITS firm of World Fiber Technologies to provide conduit, cable and device installation services. World Fiber has experience installing ITS deployments throughout the southeast, including a HOT Lanes implementation for Georgia DOT (GDOT). This project was constructed within the project limits of GDOT's NaviGAtor ITS network, and 10 miles of existing duct bank were used for the HOT Lanes communications backbone. The I-85 HOT Lanes project included installation of the following components: 8 miles of new trunk line conduit; 20 miles of fiber optic communications cable; 52 overhead sign structures; 35 toll gantries; power service to 59 device cabinets; and, network switch installation in existing communications hubs. *This GDOT project is provided as a reasonable, relevant scenario and the lessons learned from it will be implemented for this proposed I-66 ATM project.*

World Fiber coordinated with GDOT, the State Road and Tollway Authority, power service providers and other contractors throughout the project to ensure GDOT's existing NaviGAtor ITS was not disrupted or minimally so. This coordination was accomplished through the following initiatives:

- *As-built plan reviews*—Prior to construction, World Fiber obtained plans for the existing ITS, lighting and drainage systems. We walked the entire corridor to identify potential conflicts with proposed poles, structure foundations or conduit runs. Where necessary, we recommended the relocation of poles and structures, which were confirmed and revised by the design firm. *We will apply this pro-active approach, working with RDA and URS designers to identify appropriate structure and device locations that will avoid existing infrastructure.*
- *Conduit proofing*—World Fiber proofed 10 miles of existing duct bank for installation of fiber optic communications cables. While we were provided the design plans, no as-built ITS plans were available. Some of the splice vaults and pull boxes had been paved or sodded over, so the existing conduits were rodded and metal detectors were used to identify the vault and box locations. *This level of field investigation will be applied along the I-66 corridor if needed to identify existing infrastructure that may not be visible from the ground.*
- *Power service coordination*—World Fiber coordinated with three power service providers to provide service drops to the proposed device cabinets. Some sections of the project required long service runs, so 240 volt service was installed to step-down transformers at the device cabinets. While some existing ITS service points were used, new meters and disconnects were installed for the HOT lane equipment. *A thorough review of existing and proposed power service locations along I-66, accurate voltage drop calculations and strict adherence to National Electric Code regulations will ensure efficient power service design and construction for the proposed ATM devices.*
- *Temporary service disconnects*—When new structure supports were installed on the median barrier wall, World Fiber coordinated temporary shut-off of the highway lighting circuit with GDOT and followed

appropriate "Lock Out Tag Out" procedures. The existing lighting circuits were de-energized and cut immediately prior to the foundation excavation, then the conductors were re-spliced and re-installed in new conduit adjacent to the spread footer or drilled shaft prior to pouring. This ensured the lighting down time was kept to a minimum. When power circuits to existing ITS cabinets needed to be temporarily disconnected for HOT Lane equipment installation, GDOT was given prior notification, and this work was scheduled during off-peak hours. *This coordination procedure will be followed with VDOT for any temporary power service disruptions necessitated by ATM equipment installation.*

- *Interfacing with the existing ITS network*—World Fiber installed hub switches in existing GDOT hubs for the HOT Lane equipment. Access to the hubs was coordinated with GDOT, and rack space was allocated for the new network switches. *If the ATM equipment will interface with the existing ITS network through hub cabinets or TMC equipment racks, World Fiber will provide the same coordination to avoid any disruption to the ITS network.*
- *Existing project coordination*—During the I-85 HOT Lanes construction, several ongoing projects required coordination by World Fiber, including: GDOT ITS fiber installation, interchange construction, bridge installation, landscaping and maintenance contracts. Pro-active dialogue with each contractor ensured that no conduit, structure or device installation conflicted with other project construction components. *The Lane Team understands the 17 additional projects impacting I-66, as listed in the High Level Concept Plan, and we will work to pro-actively coordinate our activities with these other contractors.*

These lessons learned provide the framework for a proactive approach ensuring that ITS risks are mitigated.

Risk 3: Potential Conflicts with Public Service Providers (i.e., WMATA, ITS and Private Utilities).

ITS service providers in the corridor, private utilities or WMATA, are potentially at risk. No Right of Way (R/W) is anticipated for this project, but there remains a risk that utility impacts within R/W may be a project cost or that the proximity of our construction to WMATA facilities may warrant constraints. Given the uncertainty of the utilities' facilities, whether they can be manipulated vs. relocated and the extent of the construction required, these may pose inherent risks to cost and schedule.

WMATA's R/W along the corridor presents a risk based on the proximity of the rail to our construction activities. We anticipate that WMATA will provide conservative input to protect their facilities thereby impacting when we can perform certain elements of work, what methods we can use to perform those activities and how long we can occupy their R/W. Each of these variables impacts cost and schedule, collectively compounding the issue.

ITS infrastructure operations is an additional risk that must be mitigated. The Lane/RDA Team has unsurpassed experience in Northern Virginia designing and implementing major roadway improvement projects that have had to protect and preserve VDOT's ITS infrastructure under extreme conditions. This experience includes the most significant construction projects that VDOT has undertaken in this area over the past 20 years: Springfield Interchange, Route 1/I-95/I-495 Interchange, I-95 Fourth Lane Widening, and the Beltway HOT Lanes. Mr. David Hill, our Design QA/QC Manager from FreeAhead, managed and directed the ITS design of these projects. It was clear that VDOT's ITS infrastructure is a critical component of the daily operations in this region and must remain operational at all times. Special consideration was given to protecting the ITS infrastructure throughout each of the construction projects. We learned that relying on special provisions *alone* for ITS elements in a major roadway reconstruction effort may not be sufficient to prevent damage/conflict. Separate ITS projects were implemented to install new conduit and fiber in advance of construction so that the existing system would remain operational.

For example, several alternatives for maintaining communications throughout the construction of the Springfield Interchange were evaluated. Since the fiber network provided the control mechanism for the reversible HOV lanes along I-95/I-395, it was critical that communication not be interrupted so as to protect the vital life-safety function this provides along the corridor. These included high speed wireless links that could bridge the construction area, rerouting of the fiber along the parallel CSX rail lines, and rerouting of the fiber

overhead along the local roadway network. The ultimate solution included rerouting the backbone fiber around the construction area through an existing DOD conduit network along Backlick Road, and connecting fiber to the rooftop of the Springfield Tower office building; additional temporary CCTV cameras were installed on the roof of the Hilton Hotel and wood poles throughout the construction area and connected wirelessly to the roof of the Springfield Tower. Lane was the contractor for Phase V of the Springfield Interchange, and was responsible for implementing the ITS elements in that phase of construction.

The experience gained/lessons learned by the Lane/RDA Team through these previous VDOT projects as well as the ongoing work with the Beltway HOT Lanes provides us with tremendous insight and knowledge of VDOT's existing ITS infrastructure throughout the region and the steps that are required to protect these assets. To mitigate these concerns, our Team will establish a partnering approach to collaborate with all service providers along the corridor to address concerns at their infancy so that solutions will be established before cost and schedule are impacted. The success of our partnering strategy will be enhanced by our excellent relationships with these service providers, both on the design and construction side to ensure that the I-66 ATM project is designed and constructed with the preservation of the system as the highest priority.

Risk/Mitigation Summary

Risk Factor	Exposure	Mitigation
TMP	 Incident Management	• Early coordination w/ Emergency response agencies. • Formulate multiple "scenarios" through a partnering strategy.
	 Public Outreach	• Establish buy-in with stakeholders for "best approach" to communication. • Provide comprehensive approach to integrate regional projects.
	 TMP/MOT Implementation	• Compare field controls to "make certain" checklists. • Secure the work zone for non-construction periods.
ITS	 Evaluate existing ITS Infrastructure	• Field walk-thrus to identify potential impacts and changes for avoidance. • Initiate a utility designation to better define uncertain infrastructure.
	 Maintain ITS service and communication	• Evaluate power drops in the corridor to determine if new drops are required. • Coordinate temporary power service shutoffs at non-critical times of the day to integrate new infrastructure. • Coordinate with VDOT to ensure that hub switches or TMC equipment racks allocate appropriate space for proper integration without disruption.
	 Coordinate with 17 regional projects	• Initiate a coordination meeting with all project representatives. • Maintain open dialogue with each project manager to ensure that the projects work in concert not in conflict.
Conflicts w/ Service Providers	 Private Utilities	• Determine if utilities can be manipulated to avoid construction or vice versa. • Establish a partnering approach built on past relationships.
	 WMATA	• Utilize past working relationships to establish a collaborative approach to minimizing/avoiding conflict.
	 ITS Operations	• Establish partnership with service providers early to remedy potential operational impacts • Design considerations for minimal impact to existing ITS devices so the system remains operational throughout construction • Schedule sequence of construction activities to ensure zero/minimal system downtime

APPENDIX

Attachment 3.1.2

SOQ Checklist

ATTACHMENT 3.1.2

0066-96A-917, P101, N501

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	**Appendix Attachment 3.1.2**
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	**Appendix Attachment 2.10**
Letter of Submittal (on Offeror's letterhead)				**1**
Offeror's point of contact information	NA	Section 3.2.1	yes	**2**
Authorized Representative's signature	NA	Section 3.2.1	yes	**3**
Principal officer information	NA	Section 3.2.2	yes	**2**
Offeror's Corporate Structure	NA	Section 3.2.3	yes	**2**
Affiliated/subsidiary companies	NA	Section 3.2.4	yes	**2**
Debarment forms	Attachment 3.2.5(a) Attachment 3.2.5(b)	Section 3.2.5	no	**Appendix Attachments 3.2.5 (a) and (b)**
Offeror's VDOT prequalification evidence	NA	Section 3.2.6	no	**Appendix Attachment 3.2.6**

ATTACHMENT 3.1.2

0066-96A-917, P101, N501

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20-page limit?	SOQ Page Reference
Evidence of obtaining bonding	NA	Section 3.2.7	yes	At 5
Professional Services Evidence				
Full size copies of SCC and DPOR registration documentation (appendix)	NA	Section 3.2.8	no	Appendix Attachment 3.2.8
SCC Registration	NA	Section 3.2.8.1	yes	4
DPOR Registration (Offices)	NA	Section 3.2.8.2	yes	4
DPOR Registration (Key Personnel)	NA	Section 3.2.8.3	yes	4
DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.8.4	yes	4
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.9	yes	3
Offeror's Team Structure				6
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	8
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix Attachment 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	
Key Personnel Resume – Lead Designer	Attachment 3.3.1	Section 3.3.1.5	no	

ATTACHMENT 3.1.2

0066-96A-917, P101, N501

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20-page limit?	SOQ Page Reference
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.6	no	**Appendix Attachment 3.3.1**
Key Personnel Resume – Electrical/ITS Supervising Technician	Attachment 3.3.1	Section 3.3.1.7	no	
Organizational chart	NA	Section 3.3.2	yes	**12**
Organizational chart narrative	NA	Section 3.3.2	yes	**11**
Experience of Offeror's Team				**13**
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	**Appendix Attachment 3.4.1(a)**
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	**Appendix Attachment 3.4.1(b)**
Project Risks				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	**17**

Attachment 2.10

Form C-78-RFQ

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00098017DB46

PROJECT NO.: 0066-96A-917, P101, N501

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 10/25/2011
   (Date)
2. Cover letter of RFQ Addendum No. 1 12/13/2011
   (Date)
3. Cover letter of _____
   (Date)

_____ 12/22/11
SIGNATURE DATE

Attachment 3.2.5(a)

Debarment Form–Primary Covered Transactions

ATTACHMENT NO. 3.2.5(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

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

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

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

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

[signature] 12/22/11		District Manager
Signature	Date	Title

The Lane Construction Corporation

Name of Firm

Attachment 3.2.5(b)

Debarment Form–Lower Tier Covered Transactions

ATTACHMENT NO. 3.2.5(b)

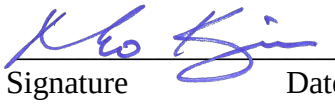
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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



12/22/2011 Director of Transportation

Signature Date Title

RINKER DESIGN ASSOCIATES, P.C.

Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

Signature	14 December 2011 Date	Vice President Title

URS Corporation
Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

MK Bell — President/CEO

Signature Date Title

World Fiber Technologies, Inc.

Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

December 15, 2011	Senior Vice President/Regional Manager
Signature Date	Title

MBP
Name of Firm

ATTACHMENT NO. 3.2.5(b)

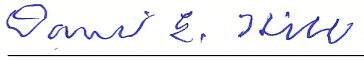
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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



12/8/11 President

Signature Date Title

FreeAhead Engineering PC

Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

12/14/2011 — Vice President/Chief Engineer

Signature — Date — Title

ECS Mid-Atlantic, LLC

Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

Signature	12/16/2011	Vice President
	Date	Title

GEO-TECHNOLOGY ASSOCIATES, INC.
Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-96A-917, P101, N501

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

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

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

Signature	12/14/2011 Date	Principal Title

Sabra, Wang & Associates, Inc.
Name of Firm

Attachment 3.2.6

VDOT Prequalification Screenshot Printout

L002
THE LANE CONSTRUCTION CORPORATION
PREQ. EXP : 06/30/2012

--PREQ ADDRESS ----------
90 FIELDSTONE COURT
CHESHIRE, CT 06410-1212
PHONE : 203-235-3351
FAX : 203-686-0696

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

BUSINESS CONTACT: ALGER, ROBERT EVERETT
EMAIL: VAPREQUAL@LANECONSTRUCT.COM

------DBE INFORMATION------

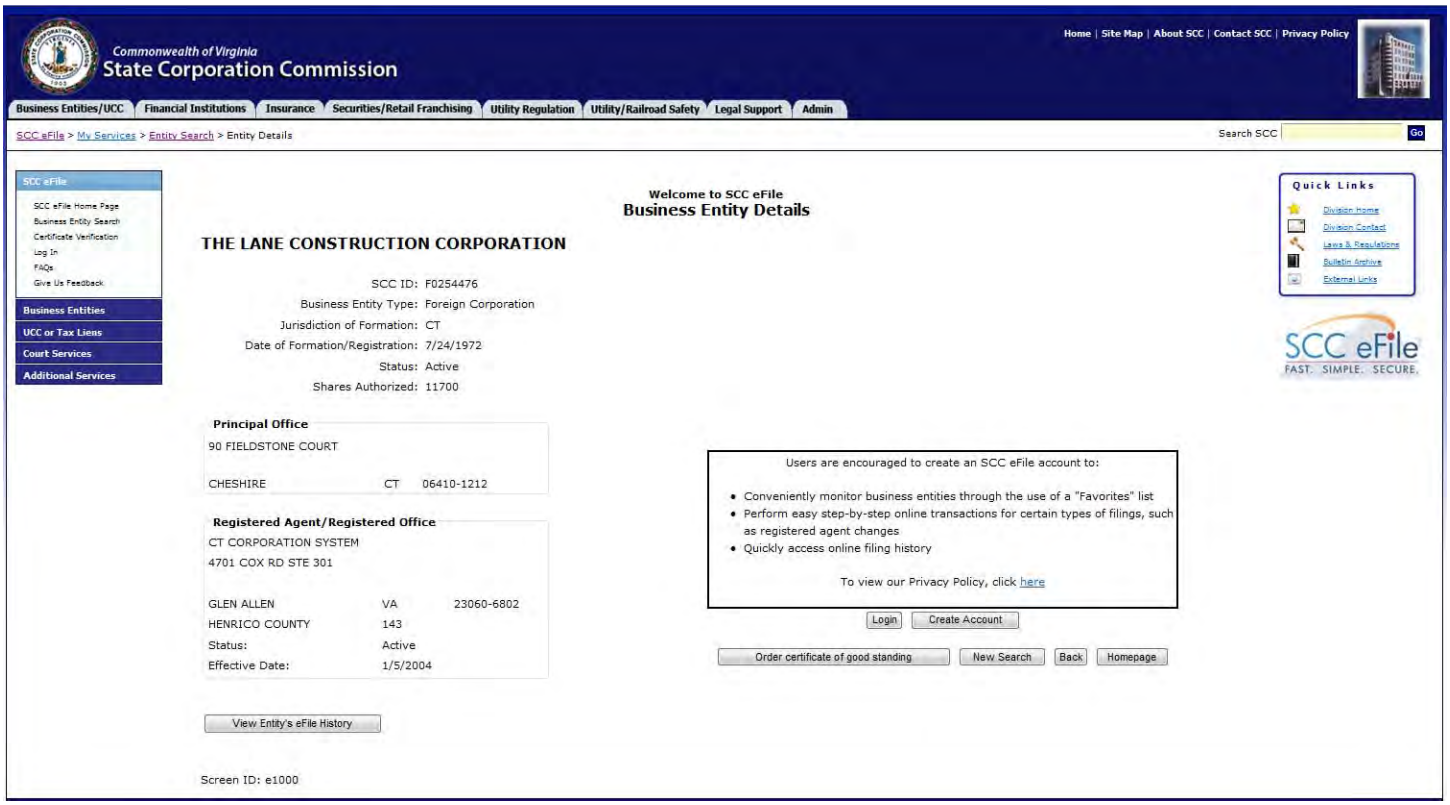
DBE TYPE : N/A
DBE CONTACT: N/A
DBE/WBE EXP: N/A

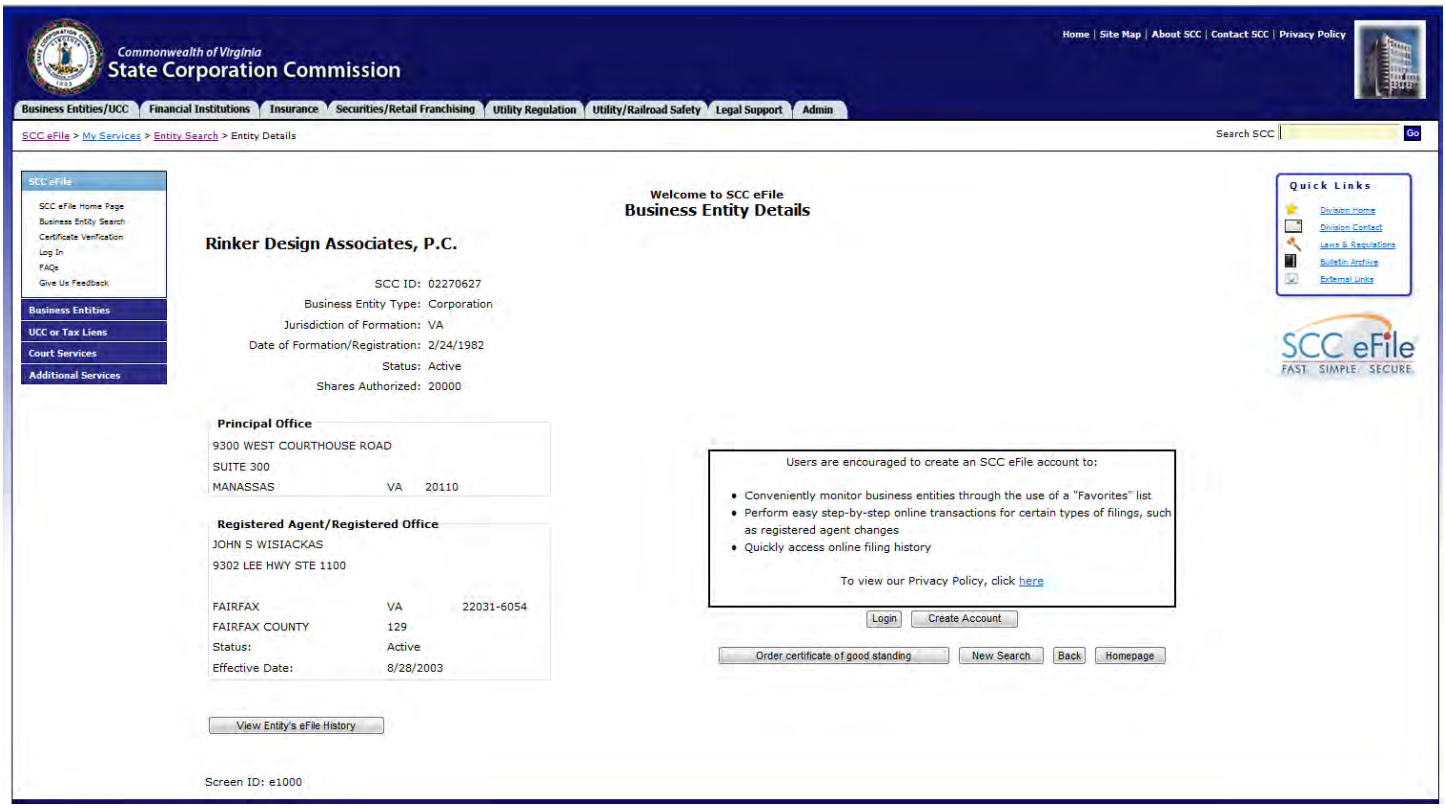
Attachment 3.2.8

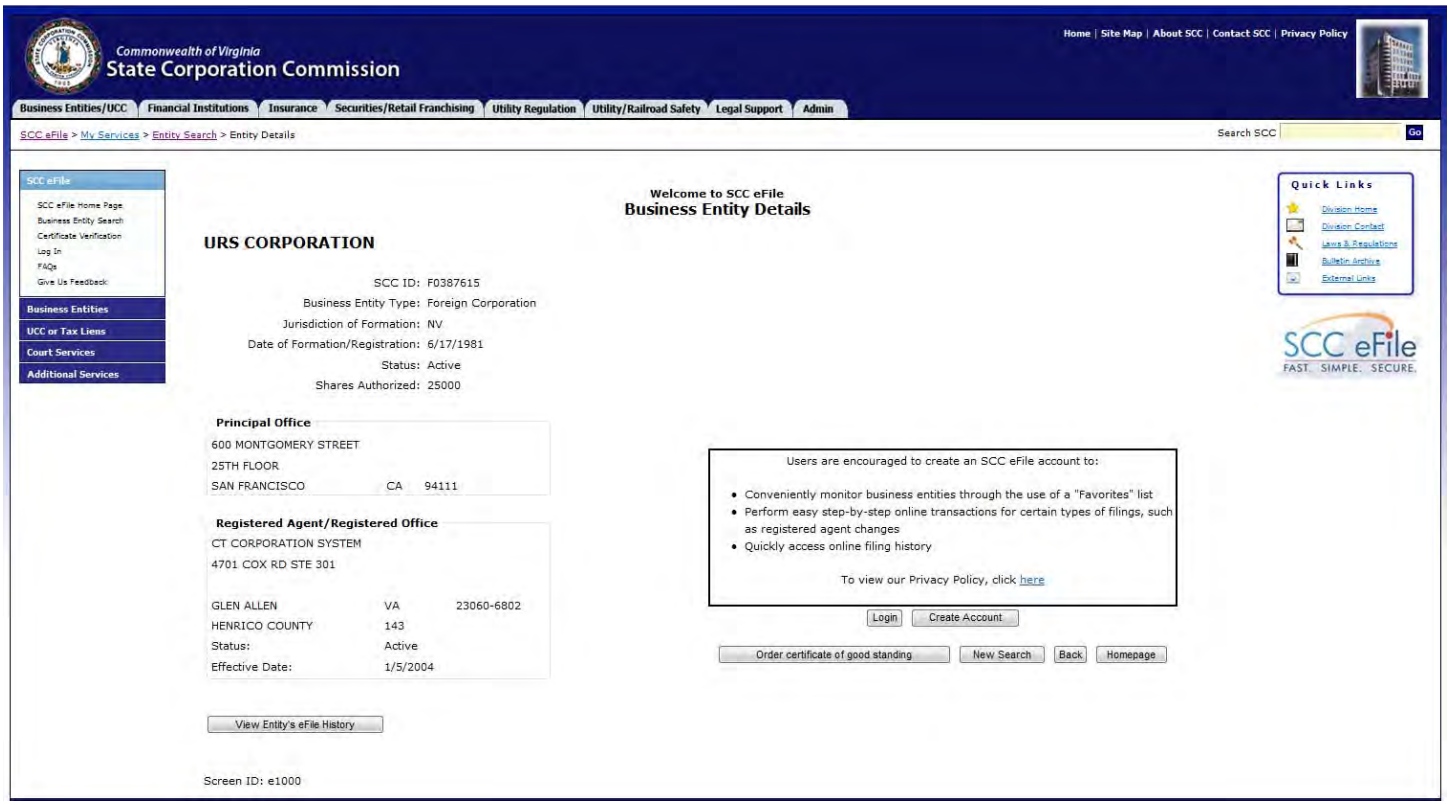
SCC/DPOR Supporting Documentation

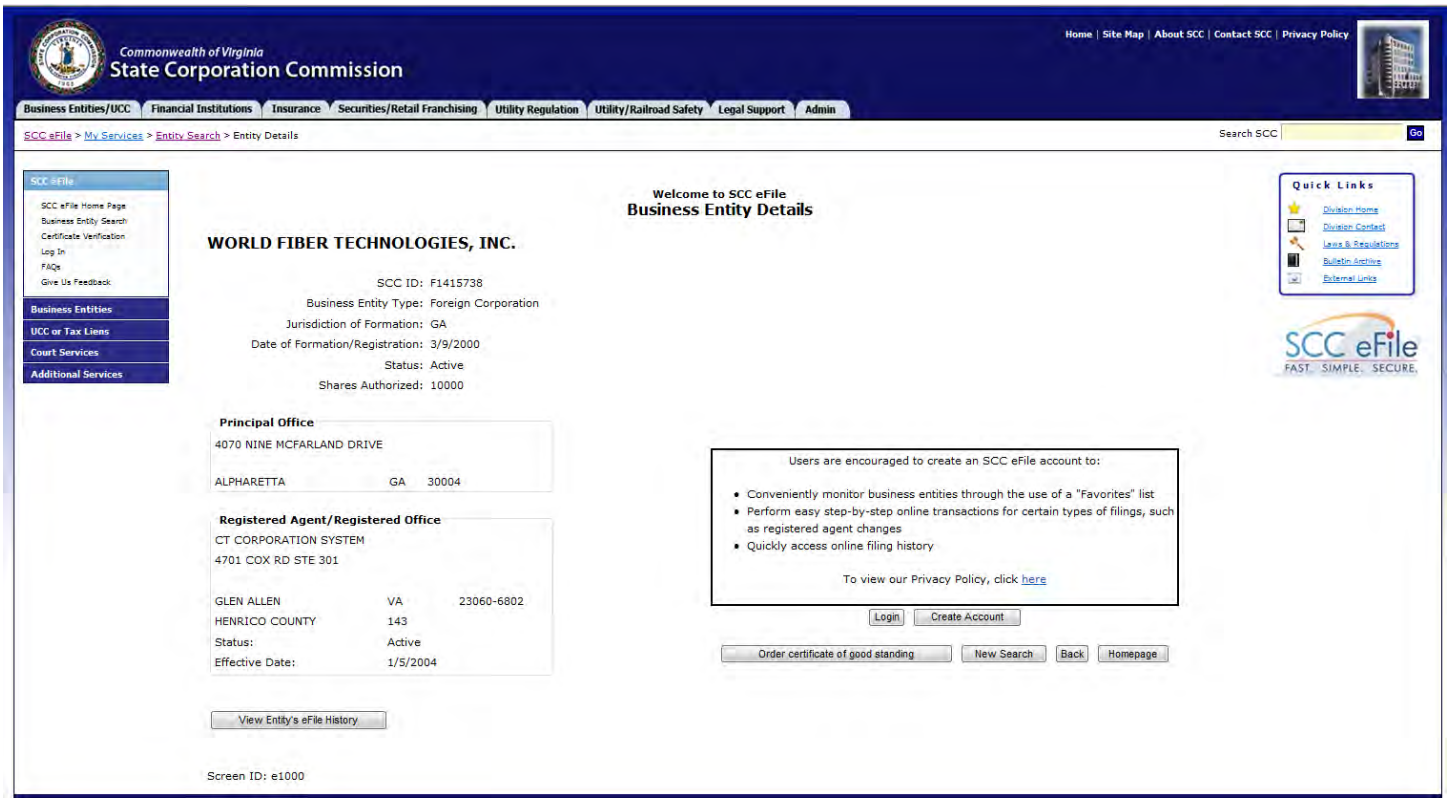
Attachment 3.2.8.1

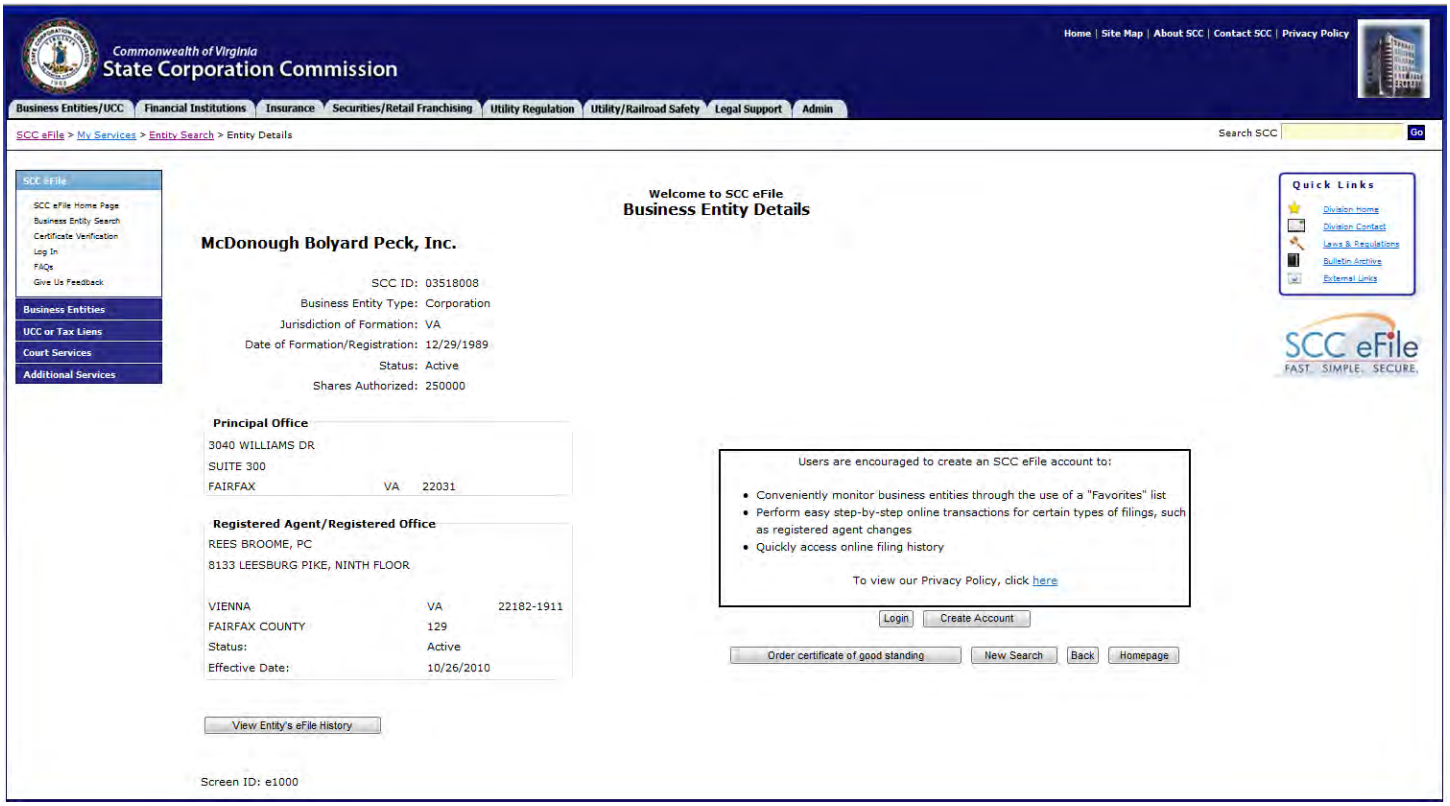
SCC Registration Supporting Documentation

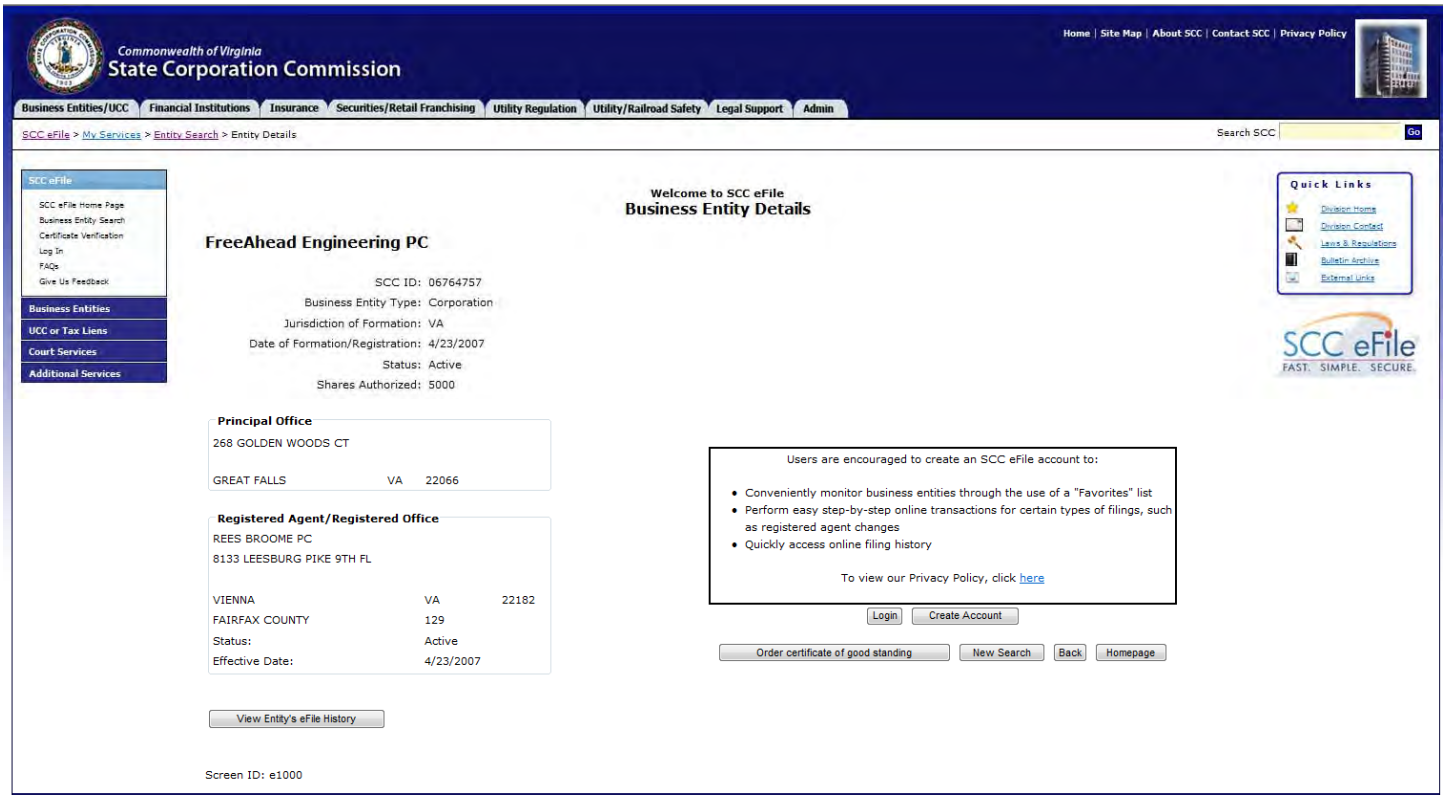

Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
Go
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
THE LANE CONSTRUCTION CORPORATION
SCC ID: F0254476
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: CT
Date of Formation/Registration: 7/24/1972
Status: Active
Shares Authorized: 11700
Principal Office
90 FIELDSTONE COURT
CHESHIRE CT 06410-1212
Registered Agent/Registered Office
CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN VA 23060-6802
HENRICO COUNTY 143
Status: Active
Effective Date: 1/5/2004
View Entity's eFile History
Screen ID: e1000
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage

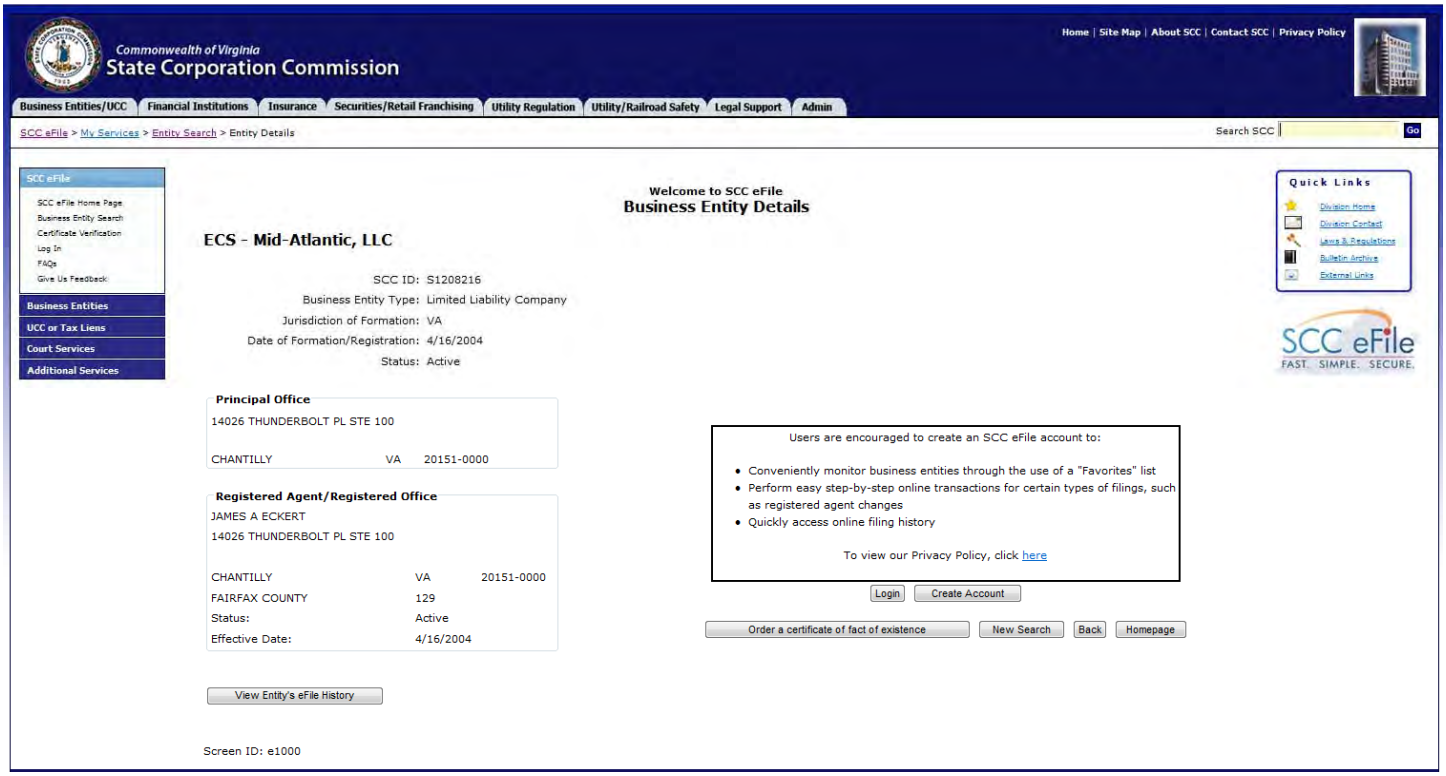

Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
Go
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
Rinker Design Associates, P.C.
SCC ID: 02270627
Business Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 2/24/1982
Status: Active
Shares Authorized: 20000
Principal Office
9300 WEST COURTHOUSE ROAD
SUITE 300
MANASSAS VA 20110
Registered Agent/Registered Office
JOHN S WISIACKAS
9302 LEE HWY STE 1100
FAIRFAX VA 22031-6054
FAIRFAX COUNTY 129
Status: Active
Effective Date: 8/28/2003
View Entity's eFile History
Screen ID: e1000
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage

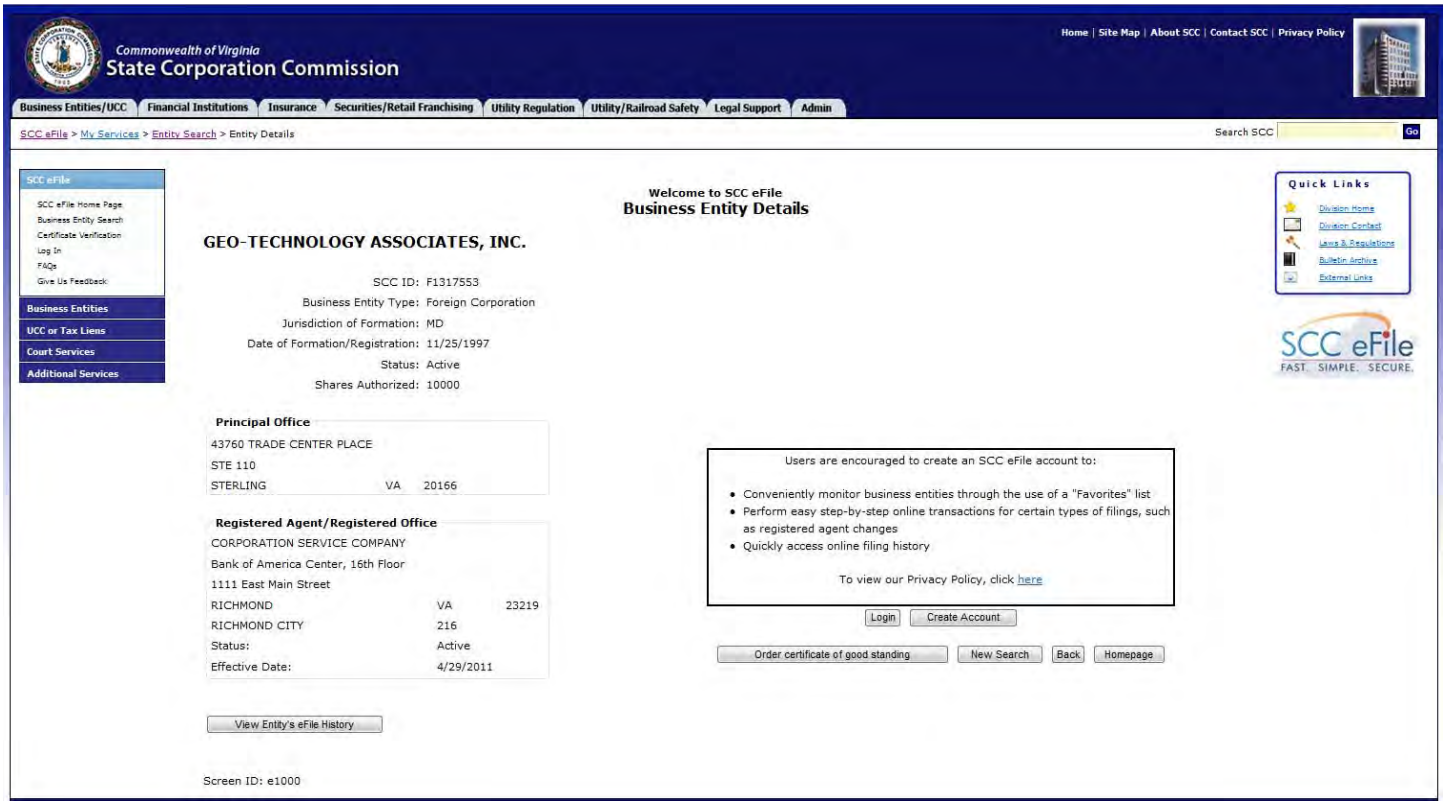

Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
URS CORPORATION
SCC ID: F0387615
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: NV
Date of Formation/Registration: 6/17/1981
Status: Active
Shares Authorized: 25000
Principal Office
600 MONTGOMERY STREET
25TH FLOOR
SAN FRANCISCO CA 94111
Registered Agent/Registered Office
CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN VA 23060-6802
HENRICO COUNTY 143
Status: Active
Effective Date: 1/5/2004
View Entity's eFile History
Screen ID: e1000
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage

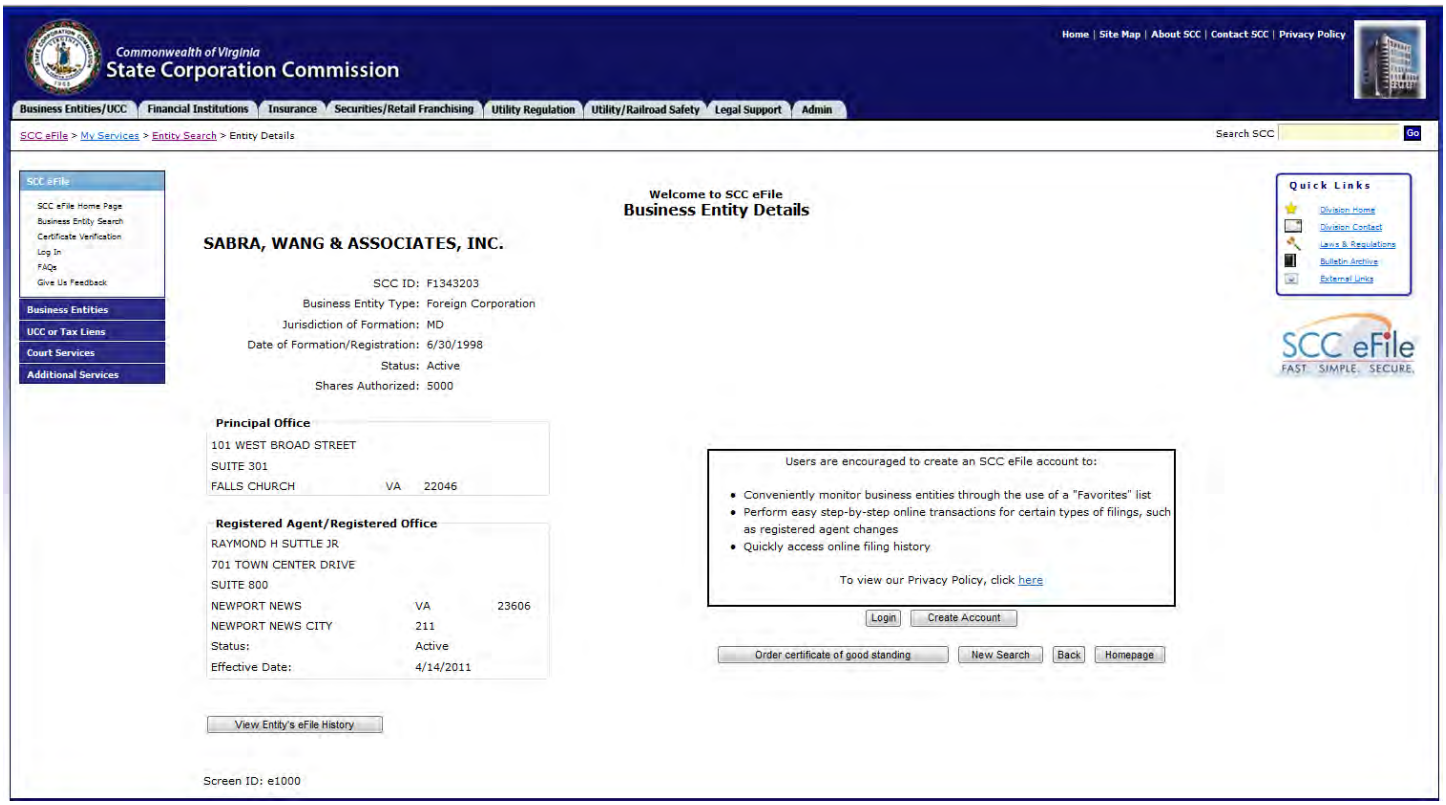

Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
WORLD FIBER TECHNOLOGIES, INC.
SCC ID: F1415738
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: GA
Date of Formation/Registration: 3/9/2000
Status: Active
Shares Authorized: 10000
Principal Office
4070 NINE MCFARLAND DRIVE
ALPHARETTA GA 30004
Registered Agent/Registered Office
CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN VA 23060-6802
HENRICO COUNTY 143
Status: Active
Effective Date: 1/5/2004
View Entity's eFile History
Screen ID: e1000
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage


Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
McDonough Bolyard Peck, Inc.
SCC ID: 03518008
Business Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 12/29/1989
Status: Active
Shares Authorized: 250000
Principal Office
3040 WILLIAMS DR
SUITE 300
FAIRFAX VA 22031
Registered Agent/Registered Office
REES BROOME, PC
8133 LEESBURG PIKE, NINTH FLOOR
VIENNA VA 22182-1911
FAIRFAX COUNTY 129
Status: Active
Effective Date: 10/26/2010
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage
View Entity's eFile History
Screen ID: e1000


Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
FreeAhead Engineering PC
SCC ID: 06764757
Business Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 4/23/2007
Status: Active
Shares Authorized: 5000
Principal Office
268 GOLDEN WOODS CT
GREAT FALLS VA 22066
Registered Agent/Registered Office
REES BROOME PC
8133 LEESBURG PIKE 9TH FL
VIENNA VA 22182
FAIRFAX COUNTY 129
Status: Active
Effective Date: 4/23/2007
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage
View Entity's eFile History
Screen ID: e1000


Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
ECS - Mid-Atlantic, LLC
SCC ID: S1208216
Business Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 4/16/2004
Status: Active
Principal Office
14026 THUNDERBOLT PL STE 100
CHANTILLY VA 20151-0000
Registered Agent/Registered Office
JAMES A ECKERT
14026 THUNDERBOLT PL STE 100
CHANTILLY VA 20151-0000
FAIRFAX COUNTY 129
Status: Active
Effective Date: 4/16/2004
View Entity's eFile History
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order a certificate of fact of existence
New Search
Back
Homepage
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
Screen ID: e1000


Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC | Financial Institutions | Insurance | Securities/Retail Franchising | Utility Regulation | Utility/Railroad Safety | Legal Support | Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
GEO-TECHNOLOGY ASSOCIATES, INC.
SCC ID: F1317553
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 11/25/1997
Status: Active
Shares Authorized: 10000
Principal Office
43760 TRADE CENTER PLACE
STE 110
STERLING VA 20166
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
View Entity's eFile History
Users are encouraged to create an SCC eFile account to:
Conveniently monitor business entities through the use of a "Favorites" list
Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
Screen ID: e1000


Commonwealth of Virginia
State Corporation Commission
Home | Site Map | About SCC | Contact SCC | Privacy Policy
Business Entities/UCC
Financial Institutions
Insurance
Securities/Retail Franchising
Utility Regulation
Utility/Railroad Safety
Legal Support
Admin
SCC eFile > My Services > Entity Search > Entity Details
Search SCC
Go
SCC eFile
SCC eFile Home Page
Business Entity Search
Certificate Verification
Log In
FAQs
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Welcome to SCC eFile
Business Entity Details
Quick Links
Division Home
Division Contact
Laws & Regulations
Bulletin Archive
External Links
SCC eFile
FAST. SIMPLE. SECURE.
SABRA, WANG & ASSOCIATES, INC.
SCC ID: F1343203
Business Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 6/30/1998
Status: Active
Shares Authorized: 5000
Principal Office
101 WEST BROAD STREET
SUITE 301
FALLS CHURCH VA 22046
Registered Agent/Registered Office
RAYMOND H SUTTLE JR
701 TOWN CENTER DRIVE
SUITE 800
NEWPORT NEWS VA 23606
NEWPORT NEWS CITY 211
Status: Active
Effective Date: 4/14/2011
View Entity's eFile History
Users are encouraged to create an SCC eFile account to:
• Conveniently monitor business entities through the use of a "Favorites" list
• Perform easy step-by-step online transactions for certain types of filings, such as registered agent changes
• Quickly access online filing history
To view our Privacy Policy, click here
Login
Create Account
Order certificate of good standing
New Search
Back
Homepage
Screen ID: e1000

Attachment 3.2.8.2

DPOR Licensure Supporting Documentation for Each Office

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
03-31-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
2705 027522A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

THE LANE CONSTRUCTION CORPORATION
VIRGINIA PAVING COMPANY
90 FIELDSTONE COURT

CHESHIRE CT 06410

CLASSIFICATIONS H/H

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2011

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0405000502

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

PROFESSIONS: ENG, LS

RINKER DESIGN ASSOCIATES PC
9300 WEST COURTHOUSE RD
STE 300
MANASSAS, VA 22110

Jay W. DeBoer, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: 1 (804) 367-8500

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

Jay W. DeBoer, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0411000280

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

PROFESSIONS: ENG, LS

URS CORPORATION
277 BENDIX RD STE 500
VIRGINIA BEACH, VA 23452

Jay W DeBoer Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0411000278

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

PROFESSIONS: ENG, LA, ARC

URS CORPORATION
4 NORTH PARK DR
SUITE 300
HUNT VALLEY, MD 21030

Jay W DeBoer Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
04-30-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
2705 055835A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

WORLD FIBER TECHNOLOGIES INC

4070 NINE MCFARLAND DR

ALPHARETTA GA 30004

CLASSIFICATIONS ELE

Jay W. DeBoer, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2011

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: 1 (804) 367-8500

NUMBER
0407002955

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

PROFESSIONS: ENG

MCDONOUGH BOLYARD PECK INC
3040 WILLIAMS DR., STE 300
FAIRFAX, VA 22031

Jay W. DeBoer, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0405001596

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

PROFESSIONS: ENG

FREEAHEAD ENGINEERING PC
4636 20TH STREET N.
ARLINGTON, VA 22207

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2011

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0407004628

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

Jay W. DeBoer, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2011

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0407004239

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

PROFESSIONS: ENG

GEO TECHNOLOGY ASSOCIATES INC
3445 A BOX HILL CORPORATE
CENTER DR
ABINGDON, MD 21009

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.

Jay W. DeBoer, Director

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0407005636

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

PROFESSIONS: ENG

SABRA, WANG & ASSOCIATES, INC
101 WEST BROAD ST
STE 301
FALLS CHURCH, VA 22046

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.

Gordon N. Dixon, Director

Attachment 3.2.8.3

DPOR Licensure Supporting Documentation for Key Personnel

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
07-31-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0402032943

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

CHUN M KIM
12530 BRENMILL LANE
MANASSAS, VA 20112

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
07-31-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0402018734

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

JEFFREY BRYANT MINNIX
URS CORPORATION
277 BENDIX ROAD
SUITE 500
VIRGINIA BEACH, VA 23452

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
10-31-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0402049640

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

NICHOLAS GEORGE DEROS
5 LORD MAYERS CT
COCKEYSVILLE, MD 21030

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: 1 (804) 367-8500

NUMBER
0402031852

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

ALI ABDOLAHI
MCDONOUGH BOLYARD PECK
3040 WILLIAMS DRIVE
SUITE 300
FAIRFAX, VA 22031

Jay W. DeBoer Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0402015296

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

DAVID EASTERLY HILL
FREEAHEAD INC
4636 20TH STREET NORTH
ARLINGTON, VA 22207

Gordon N. Dixon, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
03-31-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0402031146

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

ZIAD ADEL SABRA
SABRA WANG AND ASSOC., INC
1504 JOH AVENUE
SUITE 160
BALTIMORE, MD 21227

Jay W. DeBoer Director

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

Attachment 3.2.8.4

DPOR Supporting Documentation for Non-APELSCIDLA Regulated Services

Department of Professional & Occupational Regulation
9960 Mayland Dr., Suite 400, Richmond, VA 23233
(804) 367-8500

BOARD FOR CONTRACTORS
TRADE[illegible]ENSE

Card No. 2710 [illegible]2158

Issue Date: 04-05-2004
Expire Date: 04-30-2012

JERRY NEELY
4070 NINE MCFARLAND DRIVE

ALPHARETTA GA 30004

TRADE DESIGNATIONS
MASTER ELECTRICIAN

Jay W. Deboer, Director
Department of Professional & Occupational Regulation

Alterations of this document, use after expiration, or use by persons other than those named may result in criminal prosecution.

Attachment 3.3.1

Key Personnel Resumes

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
RICHARD A. McDONOUGH / DISTRICT MANAGER

b. Project Assignment:
3.3.1.1 DESIGN-BUILD PROJECT MANAGER

c. Name of Firm with which you are now associated:
THE LANE CONSTRUCTION CORPORATION

d. Years experience: With this Firm **5** Years With Other Firms **27** Years

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

The Lane Construction Corporation *[District Manager, 2009–Present]*—Responsible for the construction operations in Virginia. Responsible for overall administration of projects, addresses project issues, communicates design progress to owners, adheres to project schedules. Interacts with the Construction Manager, the Owner, and all other involved stakeholders regarding the progress of construction, schedule, budget, quality control, and safety. He has managed/led construction for more than 30 miles of highway and 36 bridges.

The Lane Construction Corporation *[2006–2009]*—Rich joined The Lane Construction Corporation as a Project Manager through the Moore Brothers acquisition in October 2006. He was promoted to Assistant District Manager in December 2007. Assists with Lane Mid-Atlantic operations and Virginia Sign and Lighting company (division of Lane), Project Manager for Linton Hall Road, and Design-Build Project Manager for Gilberts Corner/Route 50 Traffic Calming Improvements, VA. He participated in the development of new projects for construction, negotiations with Owners and plan development. Responsible for overall administration of projects, addressed project issues and took corrective actions as necessary, communicated design progress to owners, adhered to project schedules. Interacted with the Construction Manager, the Owner and all other involved stakeholders regarding the progress of construction, schedule, budget, quality control and safety.

Moore Brothers Construction *[Vice President of Operations, 1996–2006]*—Responsible for field operations: safety, project staffing, means and methods of construction, direct oversight of all bridge construction operations, estimating for bids and change orders, budget review and project development.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Military Institute (Lexington, VA) / BS / 1979 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
Virginia Transportation Construction Alliance (VTCA) Board Member (1999–2010)
- **Served as VTCA President (2007–2008)**
- **Serves on the VTCA/VDOT Design-Build Subcommittee (2007–Present)**

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.)

Sudley Manor Drive PPTA/Design-Build (D-B) Project, Prince William County, VA

1. **Project Manager** for this $26M contract for design-build of roadway improvements. Major project elements consisted of three bridges, replacement of substandard 2-lane roadway with a new 4-lane divided highway and new multi-use trails. The work completely reconstructed the 2-lane secondary road into a 4-lane divided highway with turn lanes. It included bridges, highway, geotechnical work, hydraulics, hydrology and erosion control, permitting, utility coordination, project management, construction and QA/QC.

   As the **Senior Project Manager**, he was responsible for the project's budget and schedule milestones; regular coordination with Prince William County staff; allocation of construction resources, both manpower and equipment; overseeing subcontractors; coordination and synchronization of work packages; and, most importantly, supervision and enforcement of quality control and safety measures. Worked with the project sponsor's designers providing input to the design for constructability, maintenance of traffic, value engineering concepts and cost. Responsible for overall administration for construction of project. Accountable for addressing all project construction issues and taking proactive measures to ensure issues did not impede progress of the project schedule. Interacted with the Construction Manager, the owner, and all other involved stakeholders regarding the progress of construction, schedule, budget, quality control and safety.
2. *The Lane Construction Corporation* 3. *2006–2009*

VDOT Route 50 Traffic Calming Improvements D-B Project [Gilberts Corner Roundabouts], Loudoun County, VA

1. **Design-Build Project Manager** for this innovative $13M design-build traffic-calming project for VDOT. The scope for this project was to add four roundabouts within the existing roadway, under traffic, to calm and make safe travel through this congested commuter corridor. As Design-Build Project Manager, his responsibilities included overall administration of project—Design, Public Relations, Construction and Quality Management. He was also responsible for chairing weekly coordination meetings between Lane Team and VDOT to maintain a homogeneous work effort for design, construction, schedule and permitting. Accountable for addressing all project issues and taking proactive measures to ensure unforeseen conflicts and problems do not impede progress of the project schedule. Interacted with the Construction Manager, the Owner, and all other involved stakeholders regarding the progress of construction, schedule, budget, controls and safety. The project was delivered ahead of schedule and on budget.
2. *The Lane Construction Corporation* 3. *2007–2009*

I-95 Widening Improvements, Stafford/Spotsylvania Counties, VA

1. **Executive Sponsor** for $30M new I-95 interchange with primary road improvements for the new Stafford Airport. He facilitated, supported and participated in the formal Partnering process of the project to improve project communications, relations and problem solving. Led the effort for several construction Value Engineering Proposals which resulted in financial savings and schedule improvements. Responsible for all facets of field management, project supervision oversight and direct supervision of bridge superintendents for construction of four bridges. Interacted with senior construction managers, supported Owner relations, negotiated change orders, accountable for budget and safety.
2. *Moore Brothers Construction* 3. *2004–2006*

I-66 HOV Lane [Widening], Prince William County, VA

1. **Executive Sponsor and on-site Construction Manager** for all facets related to field management of this major $37M project. The scope challenge for this project was to reconstruct four miles of four lane interstate and four new lanes. Project included highway, geotechnical work, hydraulics, hydrology and erosion control, permitting, utility coordination, project management and construction As Executive Sponsor, he supervised project staffing, provided input to estimating costs and budget review and made recommendations for means and methods of construction. In addition, he facilitated, supported and participated in the formal Partnering process of the project to improve project communications, relations and problem solving on the project. Led the effort for several construction Value Engineering Proposals which resulted in financial savings and schedule construction Value Engineering Proposals which resulted in financial savings and schedule improvements. Supervised senior project staff, negotiations with the Owner, estimating, budget, and input for means and methods of construction. Direct supervision of superintendents and subcontractors for all structure construction to include bridges, retaining walls and shoring for support of excavation.
2. *Moore Brothers Construction* 3. *2004–2006*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
ALI ABDOLAHI, PE, CCM / PROJECT MANAGER

b. Project Assignment:
3.3.1.2 QUALITY ASSURANCE MANAGER (QAM)

c. Name of Firm with which you are now associated:
McDONOUGH BOLYARD PECK, INC.

d. Years experience: With this Firm **18** Years With Other Firms **12** Years

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

MBP *[Senior Engineer and Project Manager, 1996–Present]*—Mr. Abdolahi has more than 30 years of experience in field engineering and contract administration for sitework, highways, buildings, and residential construction. He has performed constructability reviews and extensive take-offs and pre-construction cost estimate/budget reviews. Mr. Abdolahi has provided independent site inspections varying from bank draw requests to inspections of multiple residential/commercial building and K-12 educational facility projects verifying FHA and ADA requirements. He has worked extensively with VDOT and is certified by VDOT to perform concrete, asphalt, soils, nuclear testing and erosion control inspections. In addition, Mr. Abdolahi has overseen specialty quality assurance (QA) inspections for design-build projects.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute and State University (Blacksburg, VA) / MS / 2003 / Architecture/Construction Management
Florida International University (Miami, FL) / BS / 1981 / Construction Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1998 / Professional Engineer / #031852
2006 / Certified Construction Manager

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.)

Fairfax County Parkway (Route 7100) Design-Build, Fairfax, VA

1. As **Quality Assurance Manager**, responsible for providing Quality Assurance and Quality Control (QA/QC) of all work and ensuring conformance with contract documents. Overall, responsible for developing and adhering to the Design-Build QA/QC Plan. The $107 million design-build project consists of the construction segment of the Fairfax County Parkway between Rolling Road and Fullerton Road. It runs approximately 1.5 miles through the western and southern portions of Fort Belvoir. The project included construction of a four-lane divided, limited access highway; relocation of portions of Hooes Road and Rolling Road; construction of a multipurpose trail; construction of interchanges; and construction of bridges. In addition, the project involved Boudinot Drive Interchange which includes construct extension of Boudinot Drive from Fullerton Road to Fairfax County Parkway, including construction of new Ramp D, Ramp B, Loop B, Ramp D Bridge over Accotink Creek, and Boudinot Drive bridge over Branch of Accotink Creek.
2. *MBP* 3. *2008–2011*

Pohick Road Bridge over Fairfax County Parkway, Fairfax, VA

1. As **Senior Construction Manager/Inspector**, monitored construction activities, scheduled technicians for testing soils and concrete, reviewed contractor's monthly pay requisition, and performed project documentation. Served as MBP's primary on-site representative responsible for inspection, communication with Fairfax County and the contractor, arranging third-party materials tests and overall contract administration. Responsible for overall project coordination; on-site inspection, review of construction and documentation; mill and shop inspection; shop drawing review; and as-built drawings, all in accordance with VDOT specifications. The $2.4 million overpass project included a 210-foot-long, 70-foot-wide bridge over Fairfax County Parkway. The bridge consisted of two-span continuous steel girders with center concrete pier and integral concrete abutments.
2. *MBP* 3. *2001–2002*

Northern Virginia District Permit Inspection, Fairfax, Arlington, Prince William Counties, VA

1. As **Senior Inspector**, performed inspections and issued construction permits throughout Fairfax County on a wide range of highway, developer, and utility projects. Inspected over 14 miles of sound walls on Fairfax County Parkway, W&OD arch bridge and trail improvements in Reston, traffic signal installations, subdivision acceptances, landscaping, commercial and private entrances, street tie-ins, street lights, water main installations, underground and overhead fiber-optic installation. In addition, performed traffic engineering design review of the ultimate signage and striping for the projects. Reviewed and inspected construction of new fiber-optic telecommunications network including field coordination with various telecommunications and utility companies, inspected and issued Fiber Optic permits. Provided oversight in the review of all the Cox Communications permits for their fiber optics installation project throughout the Fairfax County. Assisted VDOT Permits Section with review of utility checklist for the proposed dedicated right-of-way to Commonwealth of Virginia by the developers, contractors, and the Fairfax County Government.
2. *MBP*
3. *1996–2004*

I-64 / Battlefield Boulevard Interchange, Chesapeake, VA

1. As **Senior Engineer**, provided an independent plan and constructability review of the design documents. Analyzed major work sequencing and traffic staging, and performed detailed take-offs. This $101 million project consisted of the first braided collector-distributor lanes in the Hampton Roads area. This phased construction project included nearly six lane miles of concrete paving with expansion of I-64 from six lanes to 14 lanes, four new Interstate bridges, mechanically stabilized earth (MSE) walls, demolition and replacement of the existing Battlefield Boulevard bridge over I-64, sound barrier wall, signage, utility work and the completion of the fiber optic traffic management system. The project received several public relations awards, an honorable mention national award through the Construction Management Association of America (CMAA) and the Road and Bridge Paving Innovation Top 10 Award.
2. *MBP*
3. *2006–2009*

Military Highway, Route 13, Norfolk, VA

1. As **Senior Engineer**, conducted detailed constructability review of a complex $40 million fast-track highway, bridge and utility reconstruction in a congested urban setting; analyzed major work sequencing and traffic staging; performed detailed take-offs and developed crew and equipment productions for pre-construction estimate and schedule. The project involved reconstruction of a two-mile stretch of highway. Work included demolition of existing bridge and construction of a 3-span, 477 linear feet steel box girder bridge, 1,800 linear feet of retaining walls, 23,000 linear feet of storm drainage and box culverts, 19,000 linear feet of 48-inch water mains, 151,000 tons of asphalt paving and surface improvements to roadways.
2. *MBP*
3. *1995–1999*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
MO KIM, P.E. / DIRECTOR OF TRANSPORTATION

b. Project Assignment:
3.3.1.3 DESIGN MANAGER

c. Name of Firm with which you are now associated:
RINKER DESIGN ASSOCIATES, P.C.

d. Years experience: With this Firm **17** Years With Other Firms **1** Year

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

Rinker Design Associates, P.C. *(formerly Rinker-Detwiler and Associates, P.C.) [Director of Transportation, 2003–Present]—* Principal-In-Charge of overseeing and managing all elements of roadway design, hydrology and hydraulics, construction plans and overall direction of the Transportation Department. Duties include Quality Control and Quality Assurance (QA/QC) for all professional services and oversight of all subconsultant work. Strong emphasis is placed on constructability reviews and best value solutions for recent D-B projects. Recently served as the President of the American Society of Highway Engineers–Potomac Section, having served on the Board of Directors for the past 7 years (most recently as the Past-President). Also served as a member of the Technical Advisory Committee for the Northern Virginia Transportation Alliance.

Rinker-Detwiler and Associates, P.C. *[Project Manager, 2000–2003]—*Primary Point of Contact on numerous roadway improvement projects. Responsible for managing all aspects of design and performing IGRDS to Geopak migration for the firm. Project Manager/Lead Designer on several VDOT L&D projects. Duties included performing geometric layouts, drainage design, stormwater management, flood studies, maintenance of traffic, value engineering and quality control. Also responsible for providing bid assistance, construction support and review of shop drawing as the Engineer of Record.

Rinker-Detwiler and Associates, P.C. *[Senior Transportation Engineer, 1997–2000]—*Responsible for elements of roadway design production associated with large widening and infrastructure projects. Duties included reviewing cross sections and performing take-off on construction plans. Team Leader for preparing and assembling plans for constructions, as well as developing the technical capabilities of the junior staff. Provided all elements of geometric and drainage design on an array of projects throughout the Commonwealth.

Rinker-Detwiler and Associates, P.C. *[Transportation Engineer, 1996–1997]—*Assisted in the first migration of projects developed in IGRDS, MicroStation and metric design criteria. Developed electronic files and data for roadway projects and assisted VDOT in developing the IGRDS software development through the IGRDS Task Force. Generated cross sectional data for geometric design, prepared plans, developed storm and ditch calculations and prepared plan quantities. Also developed earthwork quantities and grading diagrams while utilizing and manipulating multi-surface DTMs.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
University of Virginia (Charlottesville, VA) / BS / 1993 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2001 / Professional Engineer / #032943

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.)

James Madison Highway (Route 15) PPTA Design-Build, Prince William County (Haymarket), VA

1. Design Manager and Engineer of Record responsible for the oversight of all disciplines encompassed under the design elements of work as identified in the Design-Build contract with Branch Highways including Quality Control and Quality Assurance for all design services, work being performed by subconsultants (including work being performed by subconsultants), which included two bridges. Responsible for executing timely design while meeting VDOT and AASHTO design criteria. Also responsible for facilitating coordination meetings between the various stakeholder on the project and overseeing the CEI efforts for construction Quality Control, ensuring design intent is being carried out in the field. The specific responsibilities and authorities associated with this $55M Design-Build project are similar, if not identical, to the scope set forth in this RFQ. Although this project is a Prince William County administered project, responsibilities as the Design Manager included close coordination with VDOT for ultimate acceptance and maintenance of a quality product.
2. *Rinker Design Associates, P.C.*
3. *February 2007–January 2010*

Sudley Manor Drive PPTA/Design-Build, Prince William County (Manassas), VA

1. **Design Manager** for the first project in Prince William County contracted and constructed in accordance with the Public Private Transportation Act of 1995 in association with CH2MHILL and The Lane Construction Corporation. The construction plans (completed with VDOT approval within an accelerated 180-day schedule) entailed right of way acquisitions, transcontinental petroleum line relocations and utility design/coordination. Responsible for overall management of geometric and hydrologic/ hydraulic design on the project and the preparation of the overall construction plans including in plan utility design for VDOT approval. Responsible for coordinating field revisions with CH2MHILL and ensuring the proper stakeout of the revised facilities for The Lane Construction Corporation.
2. *Rinker Design Associates, P.C.*
3. *July 2004–September 2006*

VDOT Stringfellow Road (Route 645) Widening, Fairfax County, VA

1. **Project Manager** providing engineering services for this 2.02-mile project for right of way and construction plans including roadway design, hydraulic design, traffic engineering design (including traffic data collection and analysis), sign, signal, pavement marking, lighting plans and ITS, retaining wall design, permit sketches, coordination of utility design and supplemental survey data with roadway design and construction coordination and support. Responsible for administering the contract and overseeing all elements of the professional engineering design services. Serve as the primary point of contact for VDOT and responsible for all aspects of design quality and oversight of personnel and subconsultants. Responsible for extensive stakeholder coordination and developing a best value solution to the geometric design due to heavy utility impacts and Fairfax County stewardship. Included the development of detailed traffic management plans to ensure constructability and safety during construction.
2. *Rinker Design Associates, P.C.*
3. *October 2005–Present*

Linton Hall Road PPTA, Prince William County (Manassas), VA

1. **Design Manager** for segments C-502, C-503 and C-504, which were adopted by Prince William County as a PPTA by way of a bond referendum in association with The Lane Construction Corporation and CH2MHILL. Served as Project Manager on the original VDOT project, which was a 9.5-kilometer urban minor arterial improvement project, including roadway widening, intersection improvements, sound walls, box culverts and installation of asphalt trails and curb and gutter. 4.8 kilometers were constructed under the bid-build guideline, and the remaining 4.7 kilometers as a PPTA/Design-Build. Responsible for overall management and design QA/QC of geometric design and the oversight of all subconsultants encompassing hydrologic/hydraulic analyses, flood studies and traffic. Performed detailed geometric design for horizontal and vertical geometry and prepared design waiver and exception requests to the Department. Responsible for the review of all stormwater management and drainage design to ensure adequate outfall and BMP applications. Also led the development of detailed sequence of construction, maintenance of traffic and noise abatement plans.
2. *Rinker Design Associates, P.C.*
3. *2001–December 2008*

VDOT Route 36 Improvements (Design-Build, VDOT), City of Hopewell and Prince George County, VA

1. **Design QA/QC Lead** responsible for the quality assurance and quality control for multi-discipline construction plans. Duties and responsibilities included the review of roadway widenings and new alignments. Project responsibilities also included the review of open and closed storm drain systems, SWM, TMP, Signals and utility coordination/design. Acted as design QA/QC manager to review the overall submissions and provide review guidance on all design elements for both RDA and subconsultants. Also responsible for coordinating with Design Manager to ensure that Abernathy Construction had the largest available time to construct the project—efficiently and under budget.
2. *Rinker Design Associates, P.C.*
3. *November 2008–2010*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
JAMES VOGT / SUPERINTENDENT AND CONSTRUCTION MANAGER

b. Project Assignment:
3.3.1.4 CONSTRUCTION MANAGER

c. Name of Firm with which you are now associated:
THE LANE CONSTRUCTION CORPORATION

d. Years experience: With this Firm **15** Years With Other Firms **2** Years

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

The Lane Construction Corporation *[Superintendent/Construction Manager, 2007–Present]*—As a Superintendent, Jim is in charge of the general day-to-day activities of a project at the construction site. His duties include working with the owner, senior management, subcontractors and Lane work crews. He is responsible for implementing and adhering to all safety and quality measures as well as maintaining schedule milestones, organizing manpower, managing the project budget and delivering the project on time or ahead of schedule. He additionally functions as the Quality Control Manager on projects.

The Lane Construction Corporation *[1997–2007]*—Jim worked his way from a Project Engineer to Assistant Superintendent where he was increasingly responsible for field operations: safety, project staffing, means and methods of construction, direct oversight of project site construction operations, and providing on-site engineering calculations and drawings.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Pennsylvania State University (University Park, PA) / BS / 1993 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #: **N/A**
Certifications: SuperPave Level I, ACI Concrete Field Testing Technician–Grade I, PennDOT Concrete Field Testing Technician, WACEL Concrete Level I and Soils Level I, OCHS Safety Training, and U.S. Army Corps of Engineers Construction Quality Management for Contractors, DCR Responsible Land Disturber, VDOT ESCCC.

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.)

VDOT I-66 Spot Improvements Project, Arlington County, VA

1. **Superintendent** for this $10.6M, 2-mile roadway widening project constructed in multiple phases with full-depth reconstruction and widening of the inside and outside shoulders. The work also included storm water management pond improvements, new and upgraded drainage, underdrain, curb, barrier wall, guardrail, bridge widening, variable and static overhead message signs, traffic management systems, roadway lighting and landscaping. Responsibilities: supervised all aspects of construction; developed and maintained project schedule; coordinated and scheduled subcontractors' activities.
2. *The Lane Construction Corporation* 3. *2010–2011*

VDOT Route 50 Traffic Calming Improvements D-B Project [Gilberts Corner Roundabouts], Loudoun County, VA

1. **Superintendent** for this $13M traffic calming project which consisted of design and construction of four roundabouts in line with existing roadways and a ½-mile new section of rural roadway. The project also involved new and upgraded drainage, underdrain, decorative concrete truck apron, concrete curb and gutter, guardrail, pavement milling and overlay, roundabout lighting, striping, signage, utility relocations and landscaping. Responsibilities: supervised all aspects of construction; implemented and enforced corporate safety policy; EEO officer who ensured a workplace free of discrimination, harassment, and intimidation; performed constructability review of design drawings; developed and maintained project schedule; scheduled and coordinated subcontractors' activities.
2. *The Lane Construction Corporation* 3. *2007–2009*

Sudley Manor Drive PPTA/Design-Build Project, Prince William County, VA

1. **Project Engineer** for this $11.5M project to construct 3 miles of new roadway. Construction included excavation and embankment, storm pipe culverts and inlets, sanitary sewer relocation, waterlines, underdrain and roadway subbase. Responsibilities: supervised engineering and QC staff; developed and maintained project schedule; tracked and evaluated project costs; review submittals for compliance with project specifications; scheduled and coordinated subcontractors' activities; procured daily material deliveries; provided on-site engineering calculations and drawings.
2. *The Lane Construction Corporation* 3. *2005–2006*

Metropolitan Washington Airports Authority Taxi-lane B Shoulder Rehabilitation, Washington Dulles International Airport, Loudoun County, VA

1. **Project Engineer** in Charge for this $1.2M project to demolish and widen an existing taxi-lane shoulder in 90 days. The work involved demolition of existing asphalt shoulder and lighting system, excavation to widen shoulder by 10 feet, paving for the new shoulder section, installing a new taxi-lane edge light system, and placement of sod and seed. Responsibilities: supervised all aspects of construction; Quality Control Manager; developed and maintained project schedule; scheduled subcontractors' activities; reviewed submittals for compliance with project specifications; procured daily material deliveries; provided on-site engineering calculations and drawings.
2. *The Lane Construction Corporation*
3. *2007–2007*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
JEFFREY MINNIX, P.E. / VICE PRESIDENT AND SENIOR TRANSPORTATION ENGINEER

b. Project Assignment:
3.3.1.5 LEAD DESIGNER

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

d. Years experience: With this Firm **24** Years With Other Firms **7** Years

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

URS Corporation *[Vice President/Traffic and Transportation Department Manager/Senior Transportation Engineer, 1996–Present]*—Responsible for overseeing the majority of URS' traffic and transportation engineering services throughout Virginia. In his current role, Mr. Minnix offers 32 years of experience in traffic and transportation planning, engineering, design, CEI, and ITS Operations and Maintenance, including nearly 25 years of experience developing and implementing ITS projects. Responsible for overseeing: ITS Planning, Design, Deployment, Integration, and Construction Engineering and Inspection (CE&I) of ITS components and systems, including: variable message signs, CCTV surveillance and monitoring systems, vehicle detection systems, wire line and wireless communication systems, and various other traffic control devices and equipment.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Military Institute (Lexington, VA) / BS / 1979 / Civil Engineering
Texas A&M University (College Station, TX) / Certificate / 1981 / Advanced Traffic Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1988 / Professional Engineer / #18734

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.)

Hampton Roads TMS and TOC; VDOT; Hampton Roads, VA (ITS PLANNING, DESIGN, CE&I AND OPERATIONS AND MAINTENANCE)

1. **Program Manager, Project Manager and Senior Engineer** responsible for planning, design, CE&I, and O&M services relative to implementation and daily operation of TMS and TOC. Major projects/programs include prime consultant for design of Interim, Phase 1 and 2 systems (50+ miles); prime consultant for design and CEI of new TOC; and prime consultant for ongoing O&M support, overseeing a 150-person consultant team providing 24/7/365 operations of the TOC and TMS that covers 110+ miles of interstate.
2. *URS Corporation* 3. *1987–Ongoing*

VDOT I-64 and I-77 Active Traffic and Safety Management Systems; Augusta, Albemarle, Carroll and Wythe Counties, VA (ITS PLANNING AND DESIGN PROJECT)

1. **Task Manager and Senior ITS Engineer** responsible for management of planning and design efforts to improve traffic and safety operations along eight miles of I-64 in the Afton Mountain Area and 15 miles of I-77 in the Fancy Gap Area. Work includes performing safety analysis updates and verification; developing concepts of operation and system requirements documents; preparing high-level design definition documents; developing system validation and verification plans; and preparation of construction plans, special provisions, and cost estimates.
2. *URS Corporation* 3. *2011–Ongoing*

Traffic Signal System Integrator and ITS Development, Virginia Beach, VA (ITS PLANNING, DESIGN AND CE&I PROJECT)

1. **Project Manager** responsible for planning, design, and construction support to upgrade traffic signal system to citywide TMS. Relocated and improved TOC, replaced legacy signal control system and migrated to fiber optic network, deployed field devices (CCTV, DMSs, vehicle detectors, etc.), and established communications link with VDOT's regional TOC.
2. *URS Corporation* 3. *2004–2011*

Memphis Regional TMS, TDOT, TN and AR (ITS PLANNING AND DESIGN PROJECT)

1. **Deputy Project Manager and Senior ITS Engineer** responsible for the design and preparation of complete construction plans, specifications, and estimates for a regional TMS. Tasks included overseeing development of the systems engineering analysis and project architecture for the early deployment phase. Responsible for managing the design and preparation of complete plans, specifications, and estimates associated with the wireless communication system for CCTV cameras and variables message signs over 17 miles of I-40 and I-55 in Tennessee and Arkansas.
2. *URS Corporation* 3. *2003–2005*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title:
NICHOLAS G. DEROS / BRIDGE STRUCTURES GROUP LEADER

b. Project Assignment:
3.3.1.6 LEAD STRUCTURAL ENGINEER

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

d. Years experience: With this Firm **27** Years With Other Firms **0** Years

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

URS Corporation *[1996–Present]*—Mr. Deros has spent his entire professional career with URS Corporation. He has extensive experience in the project management and performance of inspection, evaluation and load rating of bridges and other highway structures including movable bridges. Additional expertise includes bridge analysis and design, rehabilitation, and construction inspection. Mr. Deros is a URS-Certified Project Manager, having completed a rigorous training course, and is also certified by FHWA/NBIS in Bridge Condition Inspections.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
The Johns Hopkins University (Baltimore, MD) / BS / 1984 / Civil Engineering
The Johns Hopkins University (Baltimore, MD) / MCE / 1989 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2011 / Professional Engineer / #049640

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.)

Turnkey Asset Maintenance Services—Woodrow Wilson Bridge Facility, Virginia/Maryland

1. **Project Manager** for URS portion of a contract to provide bridge inspection and engineering services for the Virginia Department of Transportation. Services include:
   - NBIS inspections, preparation of reports, repair recommendations, and cost estimates, for the Woodrow Wilson Bridge, a dual 33-span bascule bridge carrying I-95 over the Potomac River.
   - NBIS biennial inspections, preparation of reports, repair recommendations, and cost estimates, for 41 interchange bridges in Maryland and 40 interchange bridges in Virginia.
   - Regular inspections, preparation of reports and repair recommendations, and updating inventory databases in Virginia and Maryland for sign structures, high mast lights and roadway lighting.
   - Design of required repairs when appropriate.
   - Miscellaneous engineering services on an as-needed basis.
2. *URS Corporation* 3. *2010–Ongoing*

Inspection of Sign Structures, High Mast Lighting and Traffic Signal Structures, Statewide, Delaware

1. **Project Manager** for two consecutive contracts for development of inspection program for Delaware Department of Transportation. Work included creation of inventory database for all structures. Database includes all physical information on structures such as type, size, and GPS locations, and also includes inspection data and digital photographs. Inspections included hands-on inspection of all structures, as well as non-destructive testing of all fatigue-sensitive details
2. *URS Corporation* 3. *2000–2006*

Bridge Condition Inspection, Evaluation and Rating Services for State, County and Local Jurisdiction Bridges (BCS 2007-03F, 2004-06F and 001-07C) Statewide, Maryland

1. **Project Manager** for three consecutive 4 year contracts with the State Highway Administration's Structure Inspection and Remedial Engineering Division to inspect, evaluate and rate State, County and local bridges. Tasks include:
   - NBIS biennial inspections, preparation of reports, repair recommendations, and cost estimates, and updating of SI&A/PONTIS data for 529 bridges in Baltimore, Garrett, St. Mary's, Charles, Calvert, and Cecil Counties, and 8 movable bridges.
   - Fatigue evaluation/analysis for cracks found in 12 steel girder bridges. Included design of retrofits and preparation of contract documents for five of the bridges.
   - Inspection, analysis, and design of retrofits to cracked truss gusset plates on Bridge 6049 (MD 32 over Liberty Reservoir).
2. *URS Corporation* 3. *2001–Ongoing*

Inspection of Traffic Control Structures, Statewide, Maryland (BCS 2002-25 and BCS 2008-03A)

1. **Project Manager** for two consecutive contracts for condition inspections of sign structures for State Highway Administration's Office of Traffic and Safety. Work includes population of inventory database for all structures, including all physical information on structures such as type, size, and GPS locations, and inspection data and digital photographs. Inspections include hands-on inspection of all structures, as well as non-destructive testing of anchor bolts and fatigue-sensitive details.
2. *URS Corporation*
3. *2003–Ongoing*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

h. Name & Title:
JERRY NEELY / VICE PRESIDENT/HEAD ESTIMATOR

i. Project Assignment:
3.3.1.7 ELECTRICAL/ITS SUPERVISING TECHNICIAN

j. Name of Firm with which you are now associated:
WORLD FIBER TECHNOLOGIES, INC.

k. Years experience: With this Firm **11** Years With Other Firms **37** Years

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

World Fiber Technologies, Inc. *[Vice President, Head Estimator, Project Manager, QA/QC Manager, Master Electrician, 2000–Present]*—Jerry joined World Fiber in 2000 and has been an integral part in the company's success as a Project Manager, Master Electrician, Estimator, and Vice President. With over 50 years in fiber optics and electrical contracting, Jerry began his career in the field and learned the business hands-on in the field as a Master Electrician on high voltage construction projects, Electrical Division Manager on ITS projects and Project Manager and Owner of an electrical contracting company for projects across the US, including Virginia. Jerry holds a Master Electrical Contractor's License in six states. His diverse background and hands-on field experience is perfect for construction projects with an electrical component.

Transportation Safety Consultants *[Project Manager, Estimator, Electrical Contractor 1996–2000]*—Jerry was responsible for the overall project management and electrical design and construction of ATMS and ITS jobs throughout the southeast. He also estimated projects, procured materials and coordinated delivery.

l. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
N/A

m. Active Registration: Year First Registered/ Discipline/VA Registration #:
2004 / Master Electrician / #2710 042158

n. 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.)

I-85 High Occupancy Toll (HOT) Lanes Conversion, Atlanta, GA

1. **Estimator and Electrical Contractor** for this $11.7M contract for this tolling and freeway management system in Atlanta, Georgia. World Fiber was the prime contractor for Georgia's first HOT Lane deployment. It included eight miles of new conduits and ten miles of proofing existing conduit for fiber optic cable installation. Over 120,000 feet of fiber optic trunk line cable, as well as drop cables and power services was installed to 59 cabinets. World Fiber also installed 51 new structures for tolling equipment and overhead signage as well as a 5.8 GHz wireless radio system for redundancy.

   Jerry's role on this low bid project was extremely important as the estimator during the bidding process and was key to World Fiber winning the job. Jerry's hands-on experience provided the Georgia DOT with the best pricing and the job was completed on time and on budget. His role changed to Master Electrical Contractor as the project began. Jerry was also responsible for designing the power services to the ITS devices at 55 locations, for both the freeway management and tolling components, as well as overseeing their implementation, integration and testing.
2. *World Fiber Technologies, Inc.*
3. *January 2011–October 2011*

Baton Rouge to Lafayette ITS-TIM Phase 2, Louisiana (Design-Build Project)

1. **Estimator and Electrical Contractor** for this $2.6M contract for design-build of an ITS-TIM design build project in Louisiana. World Fiber served as a subcontractor on this project for the construction of over 60 miles of underground and bridge mounted conduit, pull and splice boxes, splicing terminations and testing of the fiber system as well as the power service.

   Jerry's role on this design-built project began as the estimator during the bidding process that was key to World Fiber winning the job. Jerry's hands-on experience provided the Prime Contractor with the best pricing and the job was completed on time and on budget. His role changed to Master Electrical Contractor as the project began. Jerry was also responsible for designing the power services to the ITS devices at 17 locations, including bridges and transformer stations, as well as overseeing their implementation, integration and testing.
2. *World Fiber Technologies, Inc.*
3. *2009–2010*

I-10/1-110 Design-Build FMS & Regional Traffic Center, Escambia & Santa Rosa Counties, FL (Design-Build Project)

1. **QA/QC, Estimator and Electrical Contractor** for this $7M contract for design-build of a freeway management system and regional traffic center. Major project elements consisted of the installation of 1600 bridge attachments and custom designed conduit hangers, 43 miles of conduit with electrical work for power services to the ITS devices, 47 miles of fiber optic cable, fiber splicing, testing and training. The installation of the underground fiber optic cable created the backbone infrastructure for the freeway and all electrical tied the ITS devices back to the Regional Traffic Center.

   Jerry's role on this design-built project was three-fold and began as the estimator during the bidding process that was key to World Fiber winning the job. Jerry's hands-on experience provided the District with the best pricing and the job was completed on time and on budget. His role changed to QA/QC Manager as the project began. Jerry's Quality Management Plan was based on previous implemented experience and was very structured approach to the development of project design and construction documentation. While the project team members performed quality control procedures during their day-to-day work, Jerry performed quality assurance procedures as an ongoing process to oversee the QC functions. As the Master Electrical Contractor for this job, Jerry was also responsible for designing the power services to ITS devices at 65 locations as well as overseeing their implementation, integration and testing.
2. *World Fiber Technologies, Inc.*
3. *2008–2010*

Memphis Smartway ITS (Early Deployment & Construction Phases), Memphis, TN

1. **Estimator and Electrical Contractor** for this $4.8M contract for the for the Early Deployment phase of the ITS on the Memphis Smartway. The key project components included three dynamic message signs, 25 closed circuit TV cameras, a wireless Ethernet communications system, a fiber optic cable network and related conduit, cable, power service, cabinets, bridge attachment conduit and communications for both the field component and the traffic management center.

   Jerry's role on this project began as the estimator during the bidding process that was key to World Fiber winning the job. His role changed to Master Electrical Contractor as the project began. Jerry was responsible for overseeing the implementation, integration and testing of the power services to the ITS devices at all locations. Jerry's role as the Electrical Contractor became increasingly important as the project went from Early Deployment to the $10.5M Construction Phase of the Smartway. The Construction Phase required power service to over 40 locations to support the dynamic message signs and CCTV cameras.
2. *World Fiber Technologies, Inc.*
3. *Early Deployment: 2003–2005; Construction Phase: 2006–2008*

Attachment 3.4.1(a)

Lead Contractor

Work History Forms

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR—WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Contractor—three (3) projects which best illustrates current qualifications relevant to this Project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Estimated Value (in Thousands)		
					Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
I-66 SPOT IMPROVEMENTS PROJECT **Arlington County, Virginia** **DELIVERY METHOD:** DESIGN-BID-BUILD **CATEGORY OF WORK:** • LIMITED ACCESS HIGHWAY INTERCHANGE • BRIDGE AND RAMP • ITS AND LIGHTING • GRADING • EXCAVATION • UTILITIES COORDINATION • PHASED SEQUENCE OF CONSTRUCTION • EXTENSIVE PUBLIC INVOLVEMENT • COORDINATION WITH ADJACENT PROJECTS **CONTRACTOR:** THE LANE CONSTRUCTION CORPORATION (Chantilly, VA) **LEAD DESIGNER:** HNTB	**PROJECT SCOPE** This project adds a third lane between the interchanges of Fairfax Drive on-ramp (just west of George Mason Drive) to the existing deceleration lane at the Sycamore Street off-ramp (1.9 miles). **PROJECT DESCRIPTION** The westbound acceleration and deceleration lane between Fairfax Drive and Sycamore Street have been lengthened to form a continuous auxiliary lane between the two ramps. A new 12-foot-wide shoulder was constructed with full-strength pavement capable of carrying traffic during emergencies. The work also included: sight distance improvements, variable and static message signs, traffic management systems, roadway lighting and landscaping in selected areas. Lane removed the existing ITS conduit, cables and equip and seamlessly integrated new communications, CCTVs, dynamic message sign, service panel telemetry and vehicle detection subsystems into VDOT's existing AutomatedTraffic Management System (ATMS). All work was performed within the existing right-of-way. A multi-phased (three phases) construction approach was implemented to minimize the inconvenience to the traveling public through the area and get the completed road under traffic prior to inclement weather. Although motorists were expected to experience periodic lane closures until the project was completed, all lane closures were at night (no daytime, weekend or holiday closures) and the lack of disruption on this heavily-traveled interstate has been notable in its mere silence. This recently completed project (December 5, 2011) adds much needed capacity to this heavily congested commuter thoroughfare. This enhancement will also serve the local population well for their everyday access through the community. **PROJECT BACKGROUND** The Virginia Department of Transportation began studying short and long-term solutions to growing traffic congestion on the I-66 Cooridor inside the Capital Beltway. This is the first of three spot improvements on I-66 to reduce congestion and increase safety along westbound I-66 inside the Capital Beltway. **PROJECT BENEFITS** The additional third lane will offer faster travel choices and congestion relief for motorists in the northern Virginia/ Washington, D.C. region. Benefits to drivers, carpoolers, public transportation users and the business community include: • Less stop-and-go traffic • Improved capacity to relieve previously congested commuter traffic conditions • Improved safety conditions • Integrated ATMS elements into existing VDOT system ***Evidence of Performance*** The project was delivered for less than VDOT's projected budget and on time.	**Virginia Department of Transportation** **Northern Virginia District** **4975 Alliance Drive** **Fairfax, VA 22030** **Mr. Charles Mel Harvey** **Area Construction** **703.259.3240**	December 2011	December 5, 2011	$10,200	$9,800	$9,800

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR—WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Contractor—three (3) projects which best illustrates current qualifications relevant to this Project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Estimated Value (in Thousands)		
					Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
DULLES METRO UTILITY RELOCATION PROJECT [TYSONS CORNER] **Fairfax County, Virginia** **DELIVERY METHOD:** DESIGN-BUILD **CATEGORY OF WORK:** • UTILITY INSTALLATION • UTILITY RELOCATION • ITS AND COMMUNICATION DUCTBANKS • GRADING • EXCAVATION • HIGH OCCUPANCY TOLL (HOT) LANES • DESIGN-BUILD **LEAD CONTRACTOR:** BECHTEL **LEAD DESIGNER:** BECHTEL	**PROJECT SCOPE** Lane's project scope involved the installation of over 18 miles of ductbank, 240 large manhole vaults, 11,000 LF of waterline, and 8,000 LF of jacked steel casings. The utilities average depth was approximately 15 feet and involved innovative and significant support of excavation systems. There are 21 different existing utilities in the Tyson's Corner area. The crews that worked in this area made a significant effort to locate and test-pit for utilities in order to avoid utility hits and service interruptions. Utilities that were installed include Dominion Virginia Power electrical ductbank, Fairfax Water Authority waterline, City of Falls Church waterline, sanitary sewer, storm drain, traction power ductbank, and communication ductbank for over 8 different communication companies. **PROJECT DESCRIPTION** Lane is the prime subcontractor on the Dulles Metro Utility Relocation Design-Build Project which began construction in June 2008. Lane's contract is part of the first phase of construction for the extension of the Metro System towards Dulles International Airport. Despite the fact that the area is surrounded by businesses and attracts tens of thousands of visitors daily, Lane managed to complete the work in a timely and safe manner with an incident rate under 1.5. A major challenge was working in Tysons heavily traveled Route 7 and Route 123 corridor and adjacent to the high speed traffic of Route 267 highway. Lane submitted over 300 stamped Maintenance of Traffic plans that were reviewed and approved by MWAA and VDOT and implemented measures to protect workers and traveling public's safety. Another challenge was planning the work to avoid interference with numerous contractors working for the Dulles Metrorail Project, and we were successful in avoiding any conflicts or delays. **PROJECT BACKGROUND** The proposed alignment of the transit system places the track and five stations along the Dulles Connector Road, Route 123, Route 7, and the Dulles Airport Access Highway. Working in Tyson's Corner is a challenge due to the high density of residential and commercial properties. According to the Fairfax County Economic Development Authority, Tyson's Corner is currently the country's 12th-largest business district. **PROJECT BENEFITS** Lane has fully supported environment stewardship on this project. From noise mitigation implementation to waste management (>75% recycling efforts of material leaving the project site), Lane has been able to properly protect the environment through proactive best management practices during construction. ***Evidence of Performance*** Owner has been pleased with Lane utilities relocation performance—project is on schedule for completion in January 2012. "Again, thank you for your efforts and work to date on the DCMP." **~ Larry Melton, Design Build Project Manager** **Dulles Corridor Metrorail Project, Dulles Transit Partners, LLC**	**Metropolitan Washington Airports Authority** **1593 Spring Hill Road** **Vienna, VA 22182** **Mr. Larry Melton** **Design Build Project Manager** **Dulles Transit Partners** **703.852.5939** **Mr. John Kearney** **Owner's Representative** **703.572.0622**	January 31, 2012	Anticipated January 31, 2012Project is on schedule	$72,525*	$112,000* Owner requested additional change orders	$112,000*

* Lane is the Prime Subcontractor to Bechtel on the $2.5B Dulles Metrorail Phase I Project. The dollar figures above reflect the total subcontract amount and dollar value of work for which Lane was responsible.

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR—WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Contractor—three (3) projects which best illustrates current qualifications relevant to this Project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Estimated Value (in Thousands)		
					Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
I-495 CAPITAL BELTWAY HOT LANES **Fairfax County, Virginia** **DELIVERY METHOD:** DESIGN-BUILD **CATEGORY OF WORK:** • LIMITED ACCESS HIGHWAY INTERCHANGE • BRIDGES • ITS • GRADING • EXCAVATION • SOUND WALLS • HIGH OCCUPANCY TOLL (HOT) LANES • DESIGN-BUILD **CONTRACTOR:** THE LANE CONSTRUCTION CORPORATION **(Chantilly, VA)** **LEAD DESIGNER:** HNTB	**PROJECT SCOPE** Construction of four new general-purpose traffic lanes (two in each direction) outside of the existing lanes on the Capitol Beltway. Work includes the reconstruction of ramps, interchanges, frontage roads, overpasses and underpasses, bridges and other necessary crossings. **PROJECT DESCRIPTION** Lane is constructing two new lanes in each direction on a 14-mile stretch of I-495 from the Springfield Interchange to just north of the Dulles Toll Road. The project will encompass the replacement of more than $260 million of aging infrastructure, including more than 50 bridges and overpasses. Construction of Springfield Interchange Phase VIII creates a seamless HOV network on I-95/395, the Capital Beltway, I-66, the Dulles Toll Road and future HOV lanes on Braddock Road (allowing for easier connection to I-66). There will be three new access points to the Capital Beltway at Rte. 29/Lee Highway, Westpark Bridge and Jones Branch Drive. Upgrades to 12 key interchanges will promote driver safety. Lane is also building more than 70,000 linear feet of sound walls to double the existing protection for local neighborhoods. **PROJECT BACKGROUND** The Virginia Department of Transportation began studying short and long-term solutions to growing traffic congestion on the Capital Beltway in the late 1980s. By 1994 it had concluded High Occupancy Vehicle (HOV) lanes were needed. A private developer submitted plans for High Occupancy Toll (HOT) lanes in 2002 to the Commonwealth, which resulted in selecting that alternative in 2005. The HOT Lanes project is the most significant package of improvements to the Capital Beltway in a generation. When completed, they will provide drivers with the option of paying a toll for a faster, more predictable trip. Drivers using the HOT lanes will also have access to (HOV) lanes usually limited to vehicles with multiple occupants. **PROJECT BENEFITS** The new HOT Lanes will offer faster travel choices and congestion relief for motorists in the Northern Virginia/Washington, D.C. region. Benefits to drivers, carpoolers, public transportation users and the business community include: • Less stop-and-go traffic • Improved opportunities for reliable bus service for public transportation users • Reduced cut-through traffic on local neighborhood streets • Positive environmental impact because vehicles move through the area more quickly, reducing emissions ***Evidence of Performance*** "A solid experienced company that has built to standard and worked well under difficult traffic and space constraints to minimize impact on travel." **~ Garrett Moore, VDOT NOVA District Administrator**	**Virginia Department of Transportation** **Northern Virginia District** **4975 Alliance Drive** **Fairfax, VA 22030** **Mr. Garrett Moore** **District Administrator** **703.259.1959**	December 2012	Anticipated December 2012 Project is on schedule	$1,500,000	$1,500,000	$500,000

Attachment 3.4.1(b)
Lead Designer
Work Historv Forms

ATTACHMENT 3.4.1(b)

LEAD DESIGNER—WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Designer—three (3) projects which best illustrates current qualifications relevant to this Project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Estimated Value (in Thousands)		
					Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
JAMES MADISON HIGHWAY (ROUTE 15) PPTA DESIGN-BUILD **Prince William County, Virginia** **DELIVERY METHOD:** DESIGN-BUILD **CATEGORY OF WORK:** • ROADWAY DESIGN • STRUCTURAL DESIGN • TRAFFIC MANAGEMENT PLANS • TRAFFIC ENGINEERING • PUBLIC INVOLVEMENT • HYDRAULIC DESIGN **DESIGNER:** RINKER DESIGN ASSOCIATES, P.C. (Manassas, VA) **LEAD CONTRACTOR:** BRANCH HIGHWAYS, INC.	**PROJECT SCOPE** This project involved the sesign and construction of Route 15 from an existing 2-lane roadway to an urban principal arterial, VDOT Std. GS-5 with 60mph design speed from Dominion Valley Drive to Route 234 (approx. 2.2 miles). Construct Route 15 widening from two to four lanes from I-66 to Utterback Lane (approx. 1.2 miles). The project also involved the design and construction to realign Waterfall Road from its existing location to the intersection of Route 15/Sudley Road (approx. 0.3 miles). The realigned Waterfall Road is a Major Collector, VDOT Std. GS-7, with 45mph design speed. Design and construct Heathcote Blvd. Extended, from the intersection of Route 15 and Heathcote Boulevard to the intersection of Old Carolina Road and Heathcote Boulevard (approximately 0.3 miles). Heathcote Boulevard is a 4-lane divided Urban Minor Arterial, VDOT Std. GS-6, with design speed of 45mph. Additionally, this project involved the design and construction of Old Carolina Road from existing 2-lane roadway to the ultimate 4-lane divided section - Major Collector, VDOT Std. GS-7, with 45mph design speed from the intersection of Old Carolina Road and Heathcote Blvd to a point approx. 0.7 miles north. *Total Length of Work—3.5 Miles of Design and 4.7 Miles of CEI).* **PROJECT DESCRIPTION** RDA served as the Lead Designer providing engineering design services, right-of-way acquisition services, environmental permitting, and construction engineering/inspection services for the Route 15 PPTA project in Haymarket (Prince William County), Virginia. The project consists of complete roadway and bridge construction for 2.2 miles of US Route 15, 0.3 miles of Waterfall Road, 0.7 miles of Old Carolina Road, and 0.3 miles of Heathcote Boulevard. The project also includes construction of an additional 1.2 miles of Route 15 widening design by others. Project limits are from the I-66/Route 15 interchange on the south to the Route 15/ Route 234 intersection on the north, including construction of bridge structures over Little Bull Run Creek and Catharpin Creek and a major box culvert at the Tributary to Catharpin Creek. Rinker served as the Prime Engineering Consultant to Branch Highways, Inc., the Lead Contractor/Project Constructor responsible for development and construction. The project was performed as a Design-Build venture under the Virginia PPTA Act of 1995.	**Prince William County Department of Public Works** **5 County Complex Court** **Prince William, VA 22192** **Mr. Tom Blaser** **Director of Transportation** **703.792.6825**	December 2009	December 2009	$56,430	$56,430	$4,119

ATTACHMENT 3.4.1(b)

LEAD DESIGNER—WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Designer—three (3) projects which best illustrates current qualifications relevant to this Project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Estimated Value (in Thousands)		
					Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
SUDLEY MANOR DRIVE PPTA/DESIGN-BUILD **Prince William County, Virginia** **DELIVERY METHOD:** DESIGN-BUILD **CATEGORY OF WORK:** • ROADWAY DESIGN • HYDRAULIC DESIGN • GRADE-SEPARATED RAILROAD CROSSING • PUBLIC INVOLVEMENT • ENVIRONMENTAL PERMITTING **DESIGNER:** RINKER DESIGN ASSOCIATES, P.C. (Manassas, VA) **LEAD CONTRACTORS:** THE LANE CONSTRUCTION CORPORATION AND CH2M HILL	**PROJECT SCOPE** Four-Lane Divided Highway, Urban Typical Section with Curb and Gutter, and Raised Median; 10,000 LF Urban Minor Arterial **PROJECT DESCRIPTION** Sudley Manor Drive was prepared for Prince William County on an accelerated schedule in accordance with the Public-Private Transportation Act of 1995 (PPTA). The project provides a direct connection from Linton Hall Road to the Prince William Parkway and Sudley Road area as called for in the Prince William County Comprehensive Plan. In addition to the 10,000-foot extension of Sudley Manor Drive (a four-lane urban minor arterial designed to accommodate future expansion to six lanes), the project included Linton Hall Road Improvements from Devlin Road to Broad Run. The project required close coordination with the Virginia Department of Transportation to meet the accelerated schedule for plan design, utility relocation, right-of-way acquisition, and construction. This project has been constructed and placed under traffic. The project's typical section consisted of a four lane roadway built on six lane right of way with curb and gutter, raised median, sidewalk and a 10 foot wide shared use path to accommodate both pedestrians and bicyclists in the corridor. The design adhered to VDOT standards and policies throughout, incorporating standard pavement, incidentals, drainage, and stormwater management design. The Sudley Manor Drive project provided many challenges for the project team. The accelerated schedule required Rinker to assemble construction plans within 7 months of project kickoff while incorporating directives from the Contractor, VDOT and Prince William County into the design. Design issues that needed special consideration included: a bridge with MSE walls over a railroad; coordination of the project with several large fuel pipelines, the construction and access requirements of a new firehouse, and several site developments; floodplain analysis and environmental considerations related to major stream crossings; and a traffic analysis and design. The project team also worked closely with VDOT to ensure a seamless transition between this PPTA project and the adjoining VDOT administered construction project on Linton Hall Road. As part of this contract, Rinker also provided survey services including complete boundary and topographic surveys, in addition to plat preparation for more than 50 properties.	**Prince William County Department of Public Works** **5 County Complex Court** **Prince William, VA 22192** **Mr. Khattab Shammout, PE** **Project Manager** **703.792.6826**	2006	2006	$30,000	$30,000	$2,000

ATTACHMENT 3.4.1(b)

LEAD DESIGNER—WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

Work by Lead Designer—three (3) projects which best illustrates current qualifications relevant to this Project.

a. Project Name & Location	b. Narrative describing nature of Firm's Responsibilities	c. Client/Owner/Project Manager who can verify Firm's responsibilities. Include address and current phone number.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Estimated Value (in Thousands)		
					Original Contract Value	Final or Estimated Contract Value	Dollar Value of Work for Which Firm Was/Is Responsible
STRINGFELLOW ROAD (ROUTE 645) WIDENING **Fairfax County, Virginia** **DELIVERY METHOD:** DESIGN-BID-BUILD **CATEGORY OF WORK:** • ROADWAY WIDENING • TRAFFIC MANAGEMENT PLANS • HYDRAULIC DESIGN • PUBLIC INVOLVEMENT • TRAFFIC ENGINEERING **DESIGNER:** RINKER DESIGN ASSOCIATES, P.C. (Manassas, VA) **LEAD CONTRACTORS:** TO BE DETERMINED (PROJECT IS IN DESIGN PHASE)	**PROJECT SCOPE** This project involves the widening of the existing 2-lane roadway (2 miles) to a 4-lane divided urban minor arterial facility with sidewalks and trails, curb and gutter and a raised median from Route 50 to Route 7735 (Fair Lakes Boulevard). **PROJECT DESCRIPTION** VDOT selected RDA to provide engineering services for this 2.02-mile project for right of way and construction plans including roadway design, hydraulic design, traffic engineering design (including traffic data collection and analysis), sign, signal, pavement marking, lighting plans and ITS, retaining wall design, permit sketches, coordination of utility design and supplemental survey data with roadway design and construction coordination and support. The project consists of widening the existing 2-lane roadway to a 4-lane divided roadway with on-road bicycle lanes, sidewalks and trails, curb and gutter, and a raised median for the length of 2.02 miles from route 7735 Fair Lakes Boulevard to Route 50. The project passes through a densely populated residential corridor with several public facilities including a library, schools and parks, as well as several stream crossings. In addition, the corridor has major utilities including a newly installed 24 inch water main, several large aviation fuel serve Dulles International Airport's fuel farm, as well as the other standard overhead and underground utilities. Roadway design tasks include horizontal and vertical geometrics, pedestrian facility design, on-road bicycle lanes, detailed Traffic Management Plan (TMP) design, signal design, and signage and marking plan design. Drainage design tasks include storm water management facility design, major culvert design, H&H analyses, closed system roadway drainage design, and erosion/sediment control plans. During the preliminary design phase, RDA developed and evaluated multiple roadway alignments in coordination with VDOT, Fairfax County, and other stakeholders including homeowners' associations and public school representatives for the selection of the preferred roadway alignment. In addition to roadway design tasks, RDA has assisted VDOT with the coordination of the relocation of underground and above ground utilities by developing detailed utility relocation information plans depicted as-built information for each relocated utility. RDA has received significant positive feedback on this project through VDOT's Consultant Performance Reports. VDOT's Project Manager (from Northern Virginia District Location and Design Division) noted that: • *"Rinker staff has been very cooperative in addressing the needs/requirements of the Department."* • *"Rinker has worked very well with other agencies particularly Fairfax County" and "exceeded expectations on many tasks."* • *"Rinker staff work diligently to prosecute the work thoroughly and efficiently" and "Rinker's response to review comments is exemplary."*	**Virginia Department of Transportation** **Northern Virginia District** **4975 Alliance Drive** **Fairfax, VA 22030** **Mr. Zamir Mirza** **Project Manager** **703.259.1794**	2011	2012 (est.)	$1,600	$2,600	$2,300

LANE

www.laneconstruct.com

CORPORATE

90 Fieldstone Court
Cheshire, CT 06410
p/203.235.3351 f/203.237.4260

LOCAL

14500 Avion Parkway, Suite 200
Chantilly, VA 20151
p/703.222.5670 f/703.222.5960