

December 22, 2011

Brenda L. Williams
Virginia Department of Transportation
Central Office Mail Center
Loading Dock Entrance
1401 East Broad Street
Richmond, VA 23219

Re: I-66 Active Transportation Management, RFQ No.: C00098017DB46

Dear Ms. Williams,

The TransCore Team, consisting of **TransCore ITS, LLC, Parsons Brinkerhoff, Inc., Elite Contracting Group, Iteris, Inc., Austin Brockenbrough & Associates, and Pulsar Advertising, Inc. (DBE)**, is pleased to offer the Virginia Department of Transportation a first-rate team for the Interstate 66 Active Traffic Management (I-66 ATM) design-build project. The TransCore Team members have worked together in various capacities within the last 15 years, during which we have demonstrated our ability to deliver successful systems. Each team member has proposed their most qualified design-build personnel for this important project. With TransCore's past experience in over 30 Intelligent Transportation System (ITS) design-build projects, we have learned valuable lessons related to the design-build process that we will apply in delivering the I-66 ATM project. Our team is acutely aware of the aspects required for the successful delivery of an ITS design-build project such as specifications and plans development; quality assurance; subcontractor management; and public relations. Furthermore, our team is prepared to manage and mitigate the project risks we have identified for this project which include safety and maintenance of traffic; schedule adherence; as well as quality control and long-term sustainability. The TransCore Team is motivated to deliver this project with the utmost quality to the satisfaction of the Department and its patrons.

TransCore ITS, LLC will be the Prime Contractor with ultimate responsibility for this project. TransCore is the largest firm in the United States specializing in ITS, providing value with dedicated and knowledgeable project staff. Including TransCore's former experience as JHK and Associates, we have been serving VDOT for nearly 40 years, beginning with studies for I-495 and I-66. Today, TransCore's service to VDOT continues with our on-going ITS maintenance, design and construction projects.

The TransCore Team has 350 staff combined in 11 offices throughout Virginia. A Project Office near the I-66 Corridor has been identified and will serve as the central hub for all design and construction activities.

The TransCore Team has provided information as specified in the Request for Qualifications in order for VDOT to better understand our team structure, qualifications and relevant experience. ***Appendix A - SOQ Checklist and Contents*** provides the SOQ Page Reference for each SOQ component. The completed Acknowledgement of the RFQ, Revision and/or Addenda form has been supplied in ***Appendix B - Form C-78-RFQ***.

3.2.1 Point of Contact

TransCore's Point of Contact for matters related to the submitted SOQ and this project will be Stephanie K. DeFazio, P.E. Ms. DeFazio can be contacted at:

Name: Stephanie K. DeFazio, P.E.
Title: Department Manager
Address: 8158 Flannery Ct., Manassas, VA 20109
Phone: (804) 332-2415
Fax: (571) 208-0090
E-mail stephanie.defazio@transcore.com

3.2.2 Principal Officer for Contract

The Principal Officer that will sign a binding contract for TransCore is John A. Simler. Mr. Simler's contact information for contractual purposes is:

Name: John A. Simler
Title: President, TransCore ITS, LLC
Address: 8158 Flannery Ct., Manassas, VA 20109
Phone: (571) 208-0088

3.2.3 Corporate Structure

The Offeror, TransCore ITS, LLC, is formed as a limited liability company and will undertake financial responsibility for the project. TransCore ITS, LLC does not have any financial liability limitations under law. TransCore ITS, LLC will comply with the performance and/or payment bonds as required for the project.

3.2.4 Affiliated and/or Subsidiary Companies

TransCore ITS, LLC is affiliated with Roper Industries, Inc; TransCore Holdings, Inc; TransCore Partners, LLC; TLP Holdings, LLC; and TransCore, LP. The names and detailed addresses are:

- *Roper Industries, Inc.*
6901 Professional Parkway East, Suite 200
Sarasota, FL 34240
- *TLP Holdings, LLC*
8158 Adams Dr., Hummelstown, PA 17036
- *TransCore, LP*
8158 Adams Dr., Hummelstown, PA 17036
- *TransCore Holdings, Inc.*
8158 Adams Dr., Hummelstown, PA 17036
- *TransCore Partners, LLC*
8158 Adams Dr., Hummelstown, PA 17036

3.2.5 Debarment Forms

TransCore, TransCore's affiliates, and the team partners have completed the Debarment Forms, Attachments 3.2.5(a) & (b) as requested. The Debarment Forms are provided in [Appendix C - Debarment Forms](#).

3.2.6 VDOT Prequalification Certificate

[Appendix D - VDOT Prequalification](#) provides a screen shot from VDOT's on-line Prequalified List showing that TransCore is currently prequalified to perform this project.

3.2.7 Surety Letter

TransCore's Surety Letter is enclosed with this Letter of Submittal. The Surety Letter is as requested in the RFQ.

3.2.8 Professional Services Evidence

The TransCore Team complies with the RFQ requirements to hold all necessary registrations, as evidenced in [Appendix E - SCC and DPOR Registration Documentation](#). Additionally, the license information is summarized in the following four tables.

3.2.8.1 SCC Registration			
<i>Name of Firm</i>	<i>Registration Number</i>	<i>Type of Corporation</i>	<i>Status of Business Entity</i>
TransCore ITS, LLC	T0286841	Foreign Limited Liability Company	Active
Parsons Brinckerhoff, Inc.	F0501603	Foreign Corporation	Active
Elite Contracting Group, Inc.	03569767-0	“C” Corporation	Active
Iteris, Inc.	F1610544	Foreign Corporation	Active
Austin Brockenbrough & Associates, LLP	J000357-5	Limited Liability Partnership (LLP)	Active
Pulsar Advertising, Inc.	F1608555	Foreign Corporation	Active

3.2.8.2 DPOR Registration (Offices)				
<i>Name of Firm</i>	<i>Address</i>	<i>Registration Type</i>	<i>Registration Number</i>	<i>Expiration Date</i>
TransCore ITS, LLC	8158 Flannery Ct. Manassas, VA 20109	Bus Entity. Branch Office Registration; Professions: ENG	0411000879	02/29/12
Parsons Brinkerhoff, Inc. formerly known as PB Americas, Inc.	465 Spring Park Place Herndon, VA 20170	Bus. Entity Branch Office; Professions: ARC, ENG	0411000142	2/29/12
Iteris, Inc.	107 Carpenter Dr., 230 Sterling, VA 20164	Business Entity Professions: ENG	0407005884	12/31/11
Austin Brockenbrough & Assoc., LLP	1011 Boulder Springs Dr., Suite 200 Richmond, VA 23225	Business Entity; Professions: LS, ENG	0407000031	12/31/11

3.2.8.3 DPOR License (Key Personnel)					
<i>Name of Individual</i>	<i>Address</i>	<i>Type</i>	<i>Registration Number</i>	<i>Expiration Date</i>	<i>Office Location for I-66 ATM</i>
Julianne Perkoski	4000 Monitor Dr Hampton, VA 23669	Professional Engineer	0402026174	06/30/12	465 Spring Park Pl. Herndon, VA 20170
Stephanie Kolb DeFazio	8158 Flannery Ct. Manassas, VA 20109	Professional Engineer	0402039113	11/30/12	465 Spring Park Pl. Herndon, VA 20170
Mark Allen Thompson	8317 Jordan Valley Way Frederick, MD 21702	Professional Engineer	0402048032	10/31/12	465 Spring Park Pl. Herndon, VA 20170
John W. Michels	47577 Sandbank Sq. Sterling, VA 20165	Professional Engineer	0402023321	06/30/12	465 Spring Park Pl. Herndon, VA 20170
David Nies-Berger	14204 Santel Drive Chester VA 23838	Tradesman: Journeyman and Master Electrician	271048423	02/29/12	465 Spring Park Pl. Herndon, VA 20170

3.2.8.4 DPOR Registration (Non-APELSCIDLA)				
Name of Firm	Address	Registration Type	Registration Number	Expiration Date
TransCore ITS, LLC	8158 Adams Dr. Hummelstown, PA 17036	Class A Contractors License Classifications: ESC	2705 141956A	07/31/13
Elite Contracting Group	23220 Airpark Dr. Petersburg, VA 23803	Class A Contractors License Classification: ELE, CIC	2705 064851A	08/31/13

3.2.9 DBE Participation Goal

TransCore is committed to achieving the fifteen percent (15%) DBE participation goal for the entire value of the contract. This will be achieved in part through our teaming with *Pulsar Advertising, Inc.* for Public Relations services, as well as electrical supply vendors that have been identified.

Why the TransCore Team?

- ✓ *ATM Experience*
- ✓ *Unparalleled knowledge of MOT on I-66*
- ✓ *Local Project Office near Project Corridor*
- ✓ *Proven track record on VDOT projects*
- ✓ *Team members have worked together successfully*
- ✓ *Proven track record on ITS Design-Build Projects*

Sections 3.3, 3.4, and 3.5 of this Statement of Qualifications provide the requested Offeror's Team Structure, Experience of Offeror's Team, and Project Risks, respectively. As you will learn from our submittal, we believe that VDOT will benefit from our highly qualified team of design, construction, integration, and testing resources. With the TransCore Team's direct experience and knowledge of the existing Northern Virginia Region systems, our experience with ATM, and our proven record on ITS design-build projects, we look forward to the opportunity to serve VDOT on this important I-66 ATM project.

Sincerely,

TransCore ITS, LLC

Stephanie K. DeFazio, P.E.
Department Manager

Enclosure: Surety Letter



CHUBB GROUP OF INSURANCE COMPANIES

15 Mountain View Road
P.O. Box 1615
Warren, NJ 07061-1615

November 3, 2011

Virginia Department of Transportation
Attn: Joseph A. Clarke, P.E.
1401 E. Broad St.
Richmond, VA 23219

RE: TransCore ITS, LLC –Interstate 66 Active Traffic Management (I-66 ATM) Design-Build Project, State Project No. 0066-96A-917, P101, N501, Contract ID No. C00098017DB46

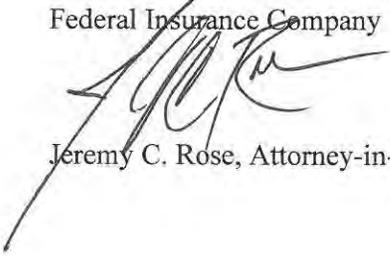
Dear Mr. Clarke:

This is to advise you that Federal Insurance Company, (“Chubb”), provides suretyship on behalf of TransCore ITS, LLC. RLI is licensed in all fifty states, A++ and XV rated by A.M. Best, and U.S. Department of Treasury listed.

It is the intent of Federal Insurance Company to provide the required 100% payment and 100% performance bonds and any warranty periods, subject to acceptable contract terms by the parties, acceptable bond forms by us, as Surety, and consent of TransCore ITS, LLC. It is understood that any arrangement for a performance and/or payment bond is a matter between TransCore ITS, LLC and Chubb, as Surety, and will be subject to Chubb’s standard underwriting conditions at the time of any performance and/or payment bond request. We value our relationship with TransCore ITS, LLC and have the utmost confidence in their ability. The Surety is prepared to provide the bonding capacity in excess of \$32,000,000.

If you have any questions or need any further assistance, please feel free to contact our office at (865-588-8101) and ask for the individual listed below. Thank you.

Federal Insurance Company



Jeremy C. Rose, Attorney-in-Fact

3.3 Offeror's Team Structure

The TransCore Team is comprised of staff members from five highly qualified and experienced firms. The TransCore Team members have worked together in various capacities over the last ten years and have demonstrated our ability to deliver successful systems. This includes existing ITS design, construction, and maintenance projects in several VDOT Regions, as well as ITS design-build projects outside of Virginia. We are fully prepared to perform the design, construction, and integration support services necessary for the I-66 Active Traffic Management Design-Build project and to provide a successful system deployment for the Department.



TransCore will provide all project management and oversight, design management and support, ITS construction, and QC testing services for this project.

TransCore ITS, LLC (TransCore) is the largest firm in the United States specializing in ITS, providing value with dedicated project staff experienced in ITS that understand the issues surrounding ITS planning and deployment and bring practical experience from other ITS projects across the Country. For nearly 40 years, TransCore has been involved in the planning, design, and deployment of Advanced Transportation Management Systems (ATMS), Advanced Traveler Information Systems (ATIS), and ITS. TransCore currently has a staff of over 1,800 people in 60 offices across the Country.

TransCore is in its fourth year of serving the Department as the ITS Maintenance contractor for Northern Virginia, performing routine and preventive maintenance for all of VDOT's existing ITS field devices on I-66, I-95, I-495, I-395 and associated access points. Through this project and other VDOT ITS projects, TransCore has gained intimate knowledge of VDOT's ITS in Northern Virginia and how to manage the challenges of working on ITS equipment in the Northern Region, particularly due to the vast quantity, magnitude, and complexity of lane closures that are required to access existing equipment. TransCore has also been involved in the design and construction of ITS for VDOT regions across the Commonwealth; therefore, we understand VDOT's processes and procedures for both design and construction.

Additionally, TransCore has been responsible for nearly \$150M worth of ITS Design-Build work across the U.S. since 1997. With TransCore's history of successful ITS Design-Build deployments, as well as TransCore's knowledge of ITS design and construction for VDOT, we are exceptionally qualified to serve the Department in the successful delivery of the I-66 ATM Design-Build project.



PB will lead the ITS, roadway, and structural design of the project, and will be responsible for Quality Assurance of the project construction.

Parsons Brinckerhoff, Inc. (PB) is a global consulting firm assisting public and private clients to plan, develop, design, construct, operate, and maintain thousands of critical infrastructure projects around the world. Founded in New York City in 1885, Parsons Brinckerhoff is one of the oldest and most distinguished engineering consulting firms in the United States with 14,000 people in more than 150 offices on five continents. With a strong commitment to technical excellence, a diverse workforce, and service to their

clients, PB is currently at work on thousands of infrastructure projects throughout the world. These range from the mega-projects that define an entire region to smaller, more local projects that keep a community humming. PB serves both public and private clients, and offers skills and resources in strategic consulting, planning, engineering, program management, construction management, and operations and maintenance. PB provides services for all modes of infrastructure, including transportation, power, energy, community development, water, mining and the environment.



Elite's role for this project will include infrastructure and electrical construction, maintenance of traffic, and safety.

Elite Contracting Group, Inc. (Elite) is a SWaM certified full-service Virginia-based contractor with specialization in ITS, transportation, technology, and physical security solutions for critical infrastructure. Elite maintains a network of staff, equipment, and resources that enable effective completion of construction projects and responsiveness to customers. Elite has a perfect safety record, despite the challenging conditions encountered over the past five years while working on Northern Virginia freeways.

Since 2007, Elite has been responsible for more than \$20M worth of ITS construction work for VDOT across the Commonwealth of Virginia. ITS construction elements of Elite's projects include butterfly, half span and full span structures for DMS; 80 ft. steel poles for CCTV cameras; 40 ft. steel poles for radar detectors; structure and pole foundations / drilled shafts; concrete work; guardrail; trenching and boring of conduit; pull boxes and splice vaults; fiber optic cable and splicing; electrical services; removal and installation of full size DMS and static signs; maintenance of traffic; and other miscellaneous construction activities.

Additionally, Elite supports TransCore on the ITS Maintenance contract for Northern Virginia. Elite's primary responsibilities include the maintenance of HOV gates and lane control signals, as well as all maintenance of traffic for lane closures.



For this project, Iteris will provide ITS Design services support with specialized roles in ITS Architecture and Systems Engineering.

Iteris, Inc. (Iteris) has been in the ITS business since 1993 with 270 staff in 22 branch offices located in 15 states. All Iteris staff supporting projects are experts in the fields of traffic signal coordination, preliminary design, preparation and development of plans, specifications and estimates (PS&E), transportation planning, feasibility studies, traffic impact and operations analysis, ITS planning, design, and systems engineering. Iteris combines the talents of transportation engineers, systems engineers, system integrators and

transportation planners to bring to the industry a unique combination of talents and experience when it comes to developing and applying traffic engineering solutions. Iteris currently provides ITS professional services to the VDOT Central Office Operations and Security Division, as the prime for the ITS On-Call Services consultant contract, with TransCore as a subconsultant.



Brockenbrough will support the project design by offering roadway, structural and transportation management plan design services as well as surveying.

Austin Brockenbrough & Associates, LLP (Brockenbrough) is a Virginia-based professional services firm founded in 1955. Services include civil/transportation, electrical, mechanical, and structural engineering as well as land surveying. The firm maintains one office location in Richmond, Virginia and has a professional staff of 46 personnel. Brockenbrough is certified with the Virginia Department of Minority Business Enterprise as a Certified Small Business (SWaM).

Brockenbrough has worked for VDOT since inception. Special areas of expertise for VDOT include design for ITS installations, electrical and security engineering, roadway design, utility adjustments, hydraulics and hydrology engineering, lighting design, traffic management plans and land surveying. The firm has completed hundreds of projects in every district in Virginia and brings knowledge of VDOT processes, procedures and personnel.



Pulsar will provide public relations services for this project.

Pulsar Advertising, Inc. (Pulsar), a Virginia certified small, minority and disadvantaged business, was founded in 1992 as a corporation, specializing in transportation marketing. Pulsar is a full-service advertising agency providing clients with everything from branding and situation analysis/planning to nationally recognized creative executions to highly effective public involvement strategies. Pulsar has proven experience in

creating TDM and transit programs for prestigious transportation clients, including VDOT. For these clients Pulsar has successfully provided transportation, transit, mobility, public outreach, TDM analysis, research, and marketing/communications.

3.3.1 Key Personnel

We are pleased to offer the seven individuals identified herein as the Key Personnel to lead the I-66 ATM Design-Build project. Each of these individuals is highly qualified with the appropriate background and the necessary credentials to meet the requirements of the RFQ and to ensure the successful delivery of the project. Descriptions of each person's experience and qualifications are provided below with detailed résumés provided in [Appendix F](#).

Mr. Victor Foreman (TransCore), Design-Build Project Manager, has more than 20 years of professional experience serving as a project manager for a variety of highly technical TransCore projects, mainly focused in the areas of ITS, automatic vehicle identification (AVI) and electronic toll collection (ETC) systems. Mr. Foreman recently concluded his successful management of a \$13M design-build project for the Utah DOT which included High Occupancy Toll (HOT) lanes and ITS deployments. On that project, he oversaw the contribution of nine subcontractors for the design of structures and foundations, static and dynamic signage, striping, traffic control, barrier, electrical infrastructure, and data communications as well as the construction, deployment, fabrication, and inspection in the field. This contract was a Federally-funded project with prevailing wage, payroll certification, American steel, and materials certifications reporting. The contract also had a software development effort to control and

manage field level components, including a roadway congestion management subsystem. Additionally, he has served in project management roles for a number of VDOT projects.

Ms. Julie Perkoski, PE (PB), Quality Assurance Manager (QAM), has over 25 years of construction experience and has provided construction management and design services for numerous airport, military, governmental, recreational, and residential facilities. She is thoroughly familiar with VDOT's design specification, field inspections documentation, project controls, including document control and scheduling. She has direct experience performing construction management services on a variety of ITS related projects involving field communications, sign structures, DMS and traffic signals. Prior to joining PB, Ms. Perkoski served as the QA/QC manager for the contractor for a major airport facility. She understands better than most the critical role of QA in maintaining quality, safety, schedule and budget. Ms. Perkoski is a registered, licensed Professional Engineer in the Commonwealth of Virginia.

Ms. Stephanie DeFazio, PE (TransCore), Design Manager, has more than fifteen years of design management experience with freeway and arterial ITS projects for Virginia DOT and nationally. She has been involved in managing ITS design for traditional design-bid-build projects, as well as design-build. In addition to her ITS design experience, Ms. DeFazio also served as the lead for ITS Systems Manager / Systems Integrator projects in Florida, technical lead for ITS construction for VDOT, and management lead for ITS maintenance in Tampa and Ft. Myers, FL and now for VDOT's Northern Region. Her knowledge gained through this well-rounded experience in the design, deployment and maintenance of ITS will serve as a valuable contribution in managing the design of the VDOT I-66 ATM. She will also ensure the overall project design is in conformance with the contract documents. Ms. DeFazio is a registered, licensed Professional Engineer in the Commonwealth of Virginia.

Mr. Frank Stock (TransCore), Construction Manager, has been serving in lead management roles for numerous high profile, multi-million dollar ITS construction and design-build projects for TransCore across the U.S. since 2000. He has managed the installation of over 500 drilled shaft foundations, 110 poles and CCTV cameras for 50 and 80 foot installations, 48 full span gantries for Dynamic Message Signs, 350 radar and video detectors and poles and structures associated with those devices. Construction of underground conduit, fiber optic cable and power distribution systems have also been managed under Mr. Stock's purview. He has overseen the integration of large scale ITS projects, integrating thousands of devices into new and existing control centers over various wireline and wireless communications media. In accordance with the RFQ requirements, Mr. Stock currently holds the Virginia DCR Responsible Land Disturber Certification, the VDOT Erosion and Sediment Control Contractor Certification, and successfully completed OSHA safety training for Arc Flash Protection and Lockout/Tagout.

Mr. Mark Thompson, PE (PB), Lead Designer, is an expert in system design, implementation, and integration with over 25 years of practical system delivery experience. His ITS, traffic engineering, computer hardware, and systems background makes a unique combination of skills that allows him to deliver unique working solutions to transportation problems. Mr. Thompson has experience in transportation planning, design, systems engineering and operations. He has managed engineering projects, both large and small, involving software development, systems integration, traffic impact analyses, thoroughfare alternatives analyses, parking studies, design, and inspection of signal, street lighting, and outdoor warning siren systems. Mr. Thompson is a registered, licensed Professional Engineer in the Commonwealth of Virginia.

Mr. John Michels, PE (PB), Lead Structural Engineer, has over 23 years of experience in design and management of structural designs for many Virginia bridges, including serving as Deputy Project Manager for the current VDOT Region IV Maintenance and Repair contract where he is tasked with numerous emergency maintenance and repair tasks. He has extensive expertise in the design of sign structures in freeway environments, sign structure foundations and traffic signal foundations. Mr. Michels is completely familiar with VDOT standards and manuals, and has extensive experience with rehabilitation design of concrete and steel bridges, box culverts, and sound walls. In addition, he has value engineered several bridge projects and numerous structural foundation elements. Mr. Michels is a registered, licensed Professional Engineer in the Commonwealth of Virginia.

Mr. David Nies-Berger (Elite), Electrical/ITS Supervising Technician, is a Master Electrician with three years of experience serving VDOT on ITS projects and eight years of prior electrical experience. He has provided team leadership and technical expertise on VDOT ITS construction projects, DMS retrofit projects, and the Northern Virginia ITS maintenance contract since joining Elite. Mr. Nies-Berger brings exceptional experience to the team in project leadership, troubleshooting, planning and project execution of electrical and communications projects. Mr. Nies-Berger successfully completed the requisite OSHA training for electrical safety, and he is a registered, licensed Master Electrician in the Commonwealth of Virginia.

3.3.2 Organization Chart and Narrative

At the end of this section is an organizational chart of the TransCore Team's key personnel and additional lead staff that we have identified to ensure the success of the project. If short-listed, and after careful review of the RFP, we will selectively add personnel, sub-consultants, and vendors, including DBEs, to meet any additional RFP requirements. Descriptions of the roles and experience of the additional lead staff beyond the Key Personnel are provided below.

Ms. Karen George, PE (TransCore) is a Vice President and the Northeast Regional Manager for TransCore and will allocate TransCore's resources as the **Managing Director** for this project. With experience in ITS design, integration, device maintenance, communication networks, and traffic control systems for over 25 years, she will provide oversight to the project as a whole.

Mr. Julio Natareno, PE (TransCore) will be the **Deputy Project Manager** for the I-66 ATM Design-Build project. Mr. Natareno has over 23 years experience in ITS project management, engineering, planning, design, construction, and maintenance. Furthermore, he brings invaluable ITS Design-Build experience to the team, having served as the Project Manager and Design Manager for nearly ten multi-million dollar ITS Design-Build projects for TransCore.

The TransCore Team is proud to offer three nationally recognized ITS experts to serve as **Technical Advisors** for this project, including **Les Jacobson, Bob Rausch, and Bev Mitchell**. Brief descriptions of their experience and roles are provided below.

Mr. Leslie (Les) Jacobson, PE (PB) is a Senior Engineering/ITS Manager with more than 30 years of experience in ITS planning, design and operations, including Active Traffic Management (ATM). He is a nationally recognized leader in the planning and implementation of ramp metering and ATM solutions in the U.S and brings a national perspective on lessons learned for ramp metering and ATM implementations. He supported the development of the concept of operations, conceptual and preliminary design for the Seattle ATM implementation. He has also been directly involved in the implementation of the Minnesota ATM project. For the

I-66 ATM, he will support the design team from an operations implementation perspective such that the design will meet VDOT's operation and maintenance needs.

Mr. Robert Rausch, PE (TransCore) is a Vice President and Chief ITS Systems Engineer with TransCore. His expertise includes more than 40 years in the design and implementation of ITS, Traffic Signal Systems, and Communications Systems. Mr. Rausch has also been active in the standards arena both Nationally and Internationally and is currently one of the instructors for the ITS standards training program and the National Highway Institute training programs.

Mr. Beverly Mitchell (TransCore) is nationally recognized as an expert in ATMS and the deployment of ITS, with 38 years of traffic systems experience. His career focus has been in the design, implementation, and operation of real time traffic control and surveillance systems. Mr. Mitchell has been supporting VDOT ITS programs through on-call services contracts during the past 5 years and offers unparalleled experience in the successful deployment of ITS solutions.

Ms. Heather Lober (TransCore) will provide **Scheduling/Project Controls** for this project. She has created and maintained schedules for TransCore ITS Design-Build projects for the past eight years. Prior to joining TransCore, Ms. Lober gained six years of scheduling and project coordination experience working for a general contractor.

Mr. Raymund Royandoyan (TransCore) will lead the **Design QA & QC** for the I-66 ATM design-build project. He has over 23 years of experience in all facets of ITS, including design, implementation, integration, testing, maintenance, and operations. Mr. Royandoyan's most recent experience includes leading a \$4M ITS Design-Build for the New Hampshire DOT, as well as design/build/maintain projects for Traffic.com in Columbus, OH and Norfolk, VA where he served as project manager and design lead.

Mr. Timothy Ramey, PE (PB) will be our **Roadway Lead** for the project design. Mr. Ramey is a licensed professional engineer in Virginia and has 33 years of experience as a Design Manager for all types of complex roadway widening projects. Mr. Ramey will be responsible for leading and coordinating the individual design disciplines including roadway, drainage, utilities, right-of-way, maintenance of traffic (MOT), geotechnical engineering and environmental compliance. He is knowledgeable on VDOT specifications, design standards and construction practices.

Mr. Steve Miles, PE, LS (Brockenbrough) will serve as the **Transportation Management Plan Lead**. Mr. Miles has extensive experience with developing Transportation Management Plans (TMP) including temporary traffic control plans, public communications plans and transportation operations plans. He has been responsible for TMP's for a number of VDOT ITS and road design projects including most recently the I-95 Chesterfield and I-495 Fiber Installation projects. Past experience includes over 15 years of responsibility for VDOT road designs that included complex details for maintenance of traffic plans with placement of traffic barriers, impact attenuators, lane shifts and tapers for phased construction. Steve has received the latest VDOT training in Advanced Work Zone Traffic Control, Certification No: 082610021.

Mr. Guy Browder (Elite) will ensure the safety of project staff and the traveling public as the **Field Safety Supervisor**. He brings extensive real world experience in planning and supervising safety and operational elements of major VDOT ITS work. Mr. Browder has more than 20 years of experience and is a certified Safety Manager as validated by the National Association of Safety Professionals. He has an unblemished safety record which includes the direct oversight of the ITS Maintenance and DMS Retrofit projects for the VDOT Northern Region.

Mr. Chris Borrow (TransCore) will serve as the **Construction Field Supervisor**. He has 30 years of technical experience, including 7 years in the field management of ITS construction and ITS maintenance projects in Virginia. Additionally, having served 5 years as a senior technician for a DMS manufacturer, Mr. Borrow's DMS technical expertise will be invaluable for the I-66 ATM project due to DMS and Lane Control sign installations being major project elements.

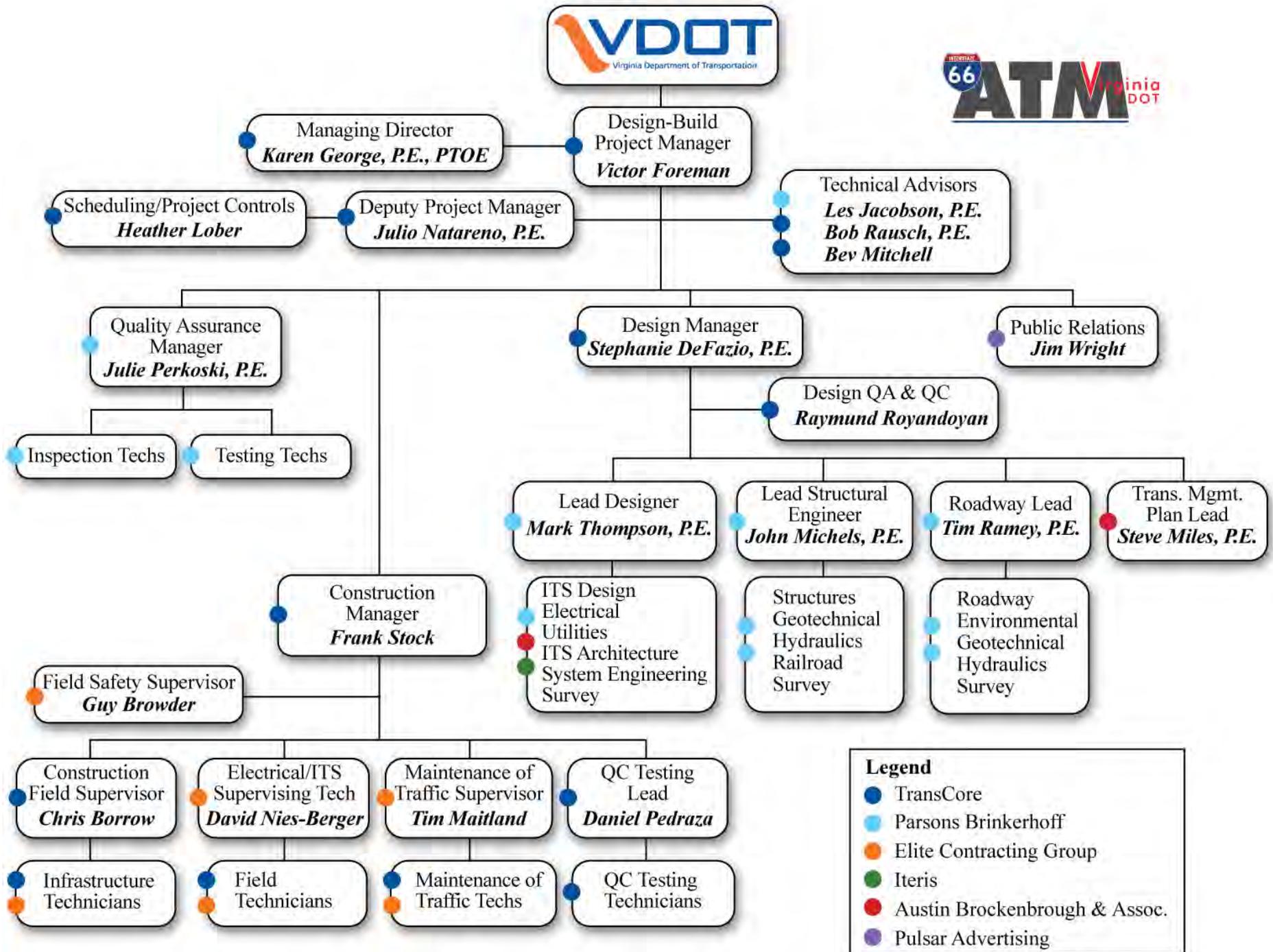
Mr. Tim Maitland (Elite) is the proposed **Maintenance of Traffic Supervisor**. He is a proven expert in planning, establishing, and maintaining effective traffic management at job sites in the intense urban Northern Virginia traffic environments. A seasoned Work Zone professional, Mr. Maitland is directly responsible for MOT at VDOT worksites across Northern Virginia including 152 HOV gates, 24 Lane Control Signals, and more than 200 DMS which require regular maintenance. Mr. Maitland brings a commitment to safety and a depth of MOT experience that will add great value to the I-66 ATM Team.

Mr. Daniel Pedraza, CCNA (TransCore) will serve as the **QC Testing Lead**. He has been involved in a number of multi-million dollar ITS construction and design-build projects for TransCore, with his primary focus being the testing and integration of ITS field equipment.

Mr. Jim Wright (Pulsar) will serve as the **Public Relations Lead**. He brings more than 25 years of senior management and advertising/public relations/community and business outreach expertise. Most recently, Mr. Wright has directed the development of a marketing planning effort for the Rappahanock Rapidan Regional Commission as well as directing Pulsar's business outreach team (Employer Solutions Team) for VDOT's Virginia Megaprojects. All of these campaigns included integrated advertising/marketing and stakeholder outreach plans as well as identifying cost efficient ways to brand the unique product/service within the target audience.

The functional relationships and communication among project staff, including interaction between the design and construction teams, will be critical to the success of this project. The TransCore Team understands the importance of these facets of communication, and we are already taking measures to effectively manage them by assigning the team to work from a single project office near the I-66 corridor. This will ensure that in addition to regularly scheduled meetings, the design and construction staff will have frequent interaction to quickly and effectively answer questions, and in some cases make trips to the field to resolve construction challenges. The TransCore Team has utilized this co-location approach on design-build projects in the past, and we find it to be extremely beneficial in the effective and efficient management of the project. In addition to communication within the project team, we will hold regularly scheduled meetings to keep VDOT abreast of project progress and planned lane closures, and to discuss project challenges and associated resolutions. Our team will follow this coordinated approach for the duration of the project.

As depicted in the organizational chart, the Quality Assurance (QA) team will operate as a separate entity from the design and construction teams. The TransCore Team is dedicated to delivering a quality system for the Department, and we understand the importance of having a separate QA team to ensure that all facets of ITS and typical construction elements are delivered with utmost quality. All QA Inspection and Testing Technicians will report directly to the QA Manager, Julie Perkoski, PE, who will report directly to the Design-Build Project Manager. The QA Technicians will be completely separate from the construction activities to avoid any bias in their observations and reports.



Legend

- TransCore
- Parsons Brinkerhoff
- Elite Contracting Group
- Iteris
- Austin Brockenbrough & Assoc.
- Pulsar Advertising

3.4 Experience of Offeror's Team

The TransCore Team's experience in the successful delivery of major ITS Design-Build projects nationally, as well as the design and construction of ITS projects for VDOT, is unsurpassed. The following table is a summary of some of the ITS construction / integration work that TransCore has performed in the U.S. As detailed in this table, TransCore has been involved in the construction and/or integration of more than 7,300 ITS field devices, with the majority of this work being accomplished through ITS design-build projects. These numbers continue to increase significantly due to TransCore's current involvement in numerous ITS Design-Build, Construction and Systems Integration projects which are underway.

Based on experience from these numerous ITS deployments, TransCore will apply its knowledge and lessons learned in the delivery of the I-66 ATM. Because of our vast experience with ITS design-builds, we find that TransCore's involvement in both the design and construction phases of these projects ensures that construction challenges are identified and mitigated early in the process for a seamless and well thought out project implementation. Additionally, TransCore's role as the prime contractor for VDOT's ITS Maintenance program in Northern Virginia will ensure that maintenance considerations are incorporated into the project design and construction, and our intimate familiarity with maintaining ITS devices on I-66 will ensure ease of deployment during project construction.

TransCore has proven experience in working with the partners that we have selected to support us in delivery of the I-66 ATM project. For example, TransCore has previous project experience with PB in New York, as well as with key personnel proposed on this project in previous roles. Additionally, the TransCore / PB team was recently selected to deliver a \$5.7M ITS design-build project in the Tampa Bay area for FDOT with an organization structure similar to that being proposed for the VDOT I-66 ATM design-build.

TransCore and Elite Contracting Group have partnered on more than \$35M worth of ITS construction and ITS maintenance for VDOT alone over the past five years. We find that TransCore's and Elite's construction related skill sets are complimentary to one another, which has resulted in successful deployment and maintenance of ITS for the Department.

In Virginia, currently TransCore supports Iteris on the VDOT On-Call ITS Services contract for the Central Office. Additionally, TransCore and Iteris work together on a number of other ITS related contracts in the U.S. and internationally.

The partnership between TransCore and Brockenbrough has also been a successful one, with the two firms working together to deliver four ITS design projects for VDOT over the past four years. With TransCore's technical ITS background and Brockenbrough's civil and electrical engineering design background, this team has proven to be a successful combination of each firm's skill sets.

TRANSORE. Construction / Integration Experience Location	CCTV Cameras	DMS	Detectors	Ramp Meters	Traffic Signals	RWIS	HAR	Communications Network
AZ – I-17, Phoenix, AZ	10	6	30	16	9			Fiber
AZ – Maricopa County ATMS	7	3			15			Fiber
AZ – Mesa Traffic Signals System	22				30			Fiber
AZ – US 60 Design/Build	17	9	44	21	21			Fiber
CA – Anaheim ATMS	18	12			350			Fiber
FL – Aventura, FL	16							Fiber
FL – FDOT D3 I-10/I-110 Pensacola	40	12	88			1		Fiber
FL – D1 Ft. Myers I-75 RTMC/FMS	81	26	126			2		Fiber
FL – FDOT D4, Miami Area ITS	93	33	108					Fiber, Wireless
FL – D5 iFlorida – Model Deploymt			122					Fiber
FL – Turnpike Ocoee Traffic Sys.	8		4					Ethernet
FL – Lakeland Traffic Signal System	44				175			Fiber
FL – MDX SR 836/SR 826 W. Ext.	19		67			2		Fiber
FL – Southwest Florida ATIS			46					CDMA
FL – St. Johns River Bridge	19	6	30					Fiber, CDPD
FL – FDOT D7, Tampa Bay ITS	85	28	175		40			Telephone, Fiber
ID – Boise FMS	6		6					Wireless
IA – Des Moines & E. Iowa ITS	71	28	105				5	Fiber, Wireless
KS – City of Olathe	10				51			Fiber
NV – Las Vegas ITS	55	17	294	31				Fiber, CDMA
NV – Southern NV DMS Deploy.		3						Fiber, Radio
NJ – Meadowlands Complex		16						CDMA
NY – New York (Lower Manhattan)	27	13	155				2	EVDO
PA – PA Turnpike VMS	13	15						Fiber
TN – Chattanooga I-75 Fog System	21	9	14			9		Fiber
TN – Memphis Smartway	90	29	341				16	Fiber, Wireless
TX – Houston I-10 Managed Lanes	18		34					Fiber, Wireless
TX – Houston Traffic Signal System					1510			Fiber, Wireless
TX – Houston Uptown Devel Auth.	7							Wireless
TX – TxDOT AVI Travel Time Sys.			170					Cellular
TX – Wrong Way Detection Sys			14					Fiber
UT – Salt Lake Area ATMS	150	48	370	22	550	13		Fiber, Wireless
VA – Lynchburg ITS	5							Fiber, Wireless
VA – Martinsville CCTV	4							Cellular
WA – Tacoma Narrows Bridge	4							Wireless
WY – various deployments	8	11	4			6	2	Wireless, Cellular
Total Devices:	968	324	3150	90	2751	33	25	7,341 total

3.4.1 Work History Forms

The three TransCore construction projects presented in the Lead Contractor Work History Form include:

- Florida DOT District 3 I-10/I-110 Freeway Management System and Regional Transportation Management Center Design/Build/Operate/Maintain
- Nevada DOT Freeway and Arterial System of Transportation (FAST) Stage 1 and 2
- Tennessee DOT Memphis SmartWay Expansion

As prime for all three contracts with a total combined value of \$90.8M, these projects demonstrate TransCore's ability to deliver ITS construction and design-build efforts of similar size and complexity as that of the VDOT I-66 ATM. Additionally, we are pleased to offer the services of *Mr. Frank Stock*, proposed Construction Manager, who was instrumental to the success of both the Nevada DOT FAST and Memphis SmartWay ITS deployment efforts.

The three PB design projects presented in the Lead Designer Work History Form include:

- Washington State DOT Active Traffic Management (ATM) Feasibility Study
- City of Chesapeake, Virginia Dominion Boulevard Improvements Design
- Florida DOT District 1 Bridge Incident Management System Design-Build

PB is proud of their involvement in the first ATM deployment in the U.S. through their participation in the Washington State DOT ATM Feasibility Study. We are pleased to offer the services of PB staff who were central to the successful delivery of the Seattle ATM project, as they will now be available to support the TransCore Team in the design and implementation of the VDOT I-66 ATM project.

PB's role in the Virginia Dominion Boulevard Improvements project demonstrates PB's capability to handle project designs of a grand scale. The value of the project design was \$13.1M with estimated construction cost of \$250M. Mr. Mark Thompson, proposed Lead Designer, was instrumental in the design of ITS for this project.

Additionally, PB's role in the design of the \$5.7M FDOT District 1 ITS project demonstrates their experience and capabilities in the successful delivery of ITS Design-Build projects.

Please refer to the *Lead Contractor Work History Form* and *Lead Designer Work History Form* in *Appendix G* of this proposal for further details of each project.

3.5 Project Risks

Risk management is part of the TransCore culture and we use a systematic process of planning for, identifying, analyzing, proactively addressing, and monitoring project risks. A project risk is any uncertain event or condition that, if it occurs, can have a significantly negative effect on a project objective. Most risks are associated with negative outcomes. The challenge is to prevent the threatening condition from occurring, and mitigating its impact if it does happen.

Our Team has the experience to identify what items are critical, why certain items are important, when to take appropriate actions, and how to mitigate impacts throughout the project.

This section describes three risks the TransCore Team has identified as the most relevant and critical to the successful outcome of the I-66 ATM project. These risks stem from lessons learned through our collective experience, as well as information gleaned from a recent team visit with the Washington State DOT to observe the completed installation and operation of the Seattle ATM system.

Included in each subsection below is a description of why the risk is critical, an indication of the anticipated impact of the risk on the project, and a discussion of the mitigation strategies the TransCore Team will implement to address the risk.

The table below summarizes the three critical risks we have identified for the VDOT I-66 ATM project, and our planned mitigation strategies that will ensure the successful delivery of the project and will minimize the likelihood of additional efforts needed by VDOT or other agencies.

Risk	Impact	Mitigation Strategies
Safety & MOT	High Negative	<ul style="list-style-type: none"> ▪ Utilization of staff with I-66 MOT experience. ▪ Minimize the need for lane closures. ▪ Implement plans and processes for protecting workers. ▪ Provide Field Safety Supervisor.
Schedule Adherence	High Negative	<ul style="list-style-type: none"> ▪ Expedited design of critical path elements. ▪ Early coordination with utility companies. ▪ Project field office to be located near I-66 corridor.
Quality Control and Long-Term Sustainability	Medium Negative	<ul style="list-style-type: none"> ▪ Design for maintainability. ▪ Early testing for NTCIP communications compliance. ▪ Provide flexible design for potential future uses.

In order to make this vision a reality for VDOT and the TransCore Team, this effort will need to include the collaborative effort of all stakeholders. This is the relationship that all team members of the TransCore Team strive to establish with all of our clients, including each other.

Partnership, commitment, and adherence to standards will serve as the building blocks of a system to be designed with the traveling public in mind. A quality system that is delivered on-time with no incidents, meets the needs of its users and has inherent flexibility for future expansion are the three goals of the TransCore Team on this I-66 ATM design-build project. The mitigation strategies listed will ensure the successful delivery of the project and will minimize the likelihood of additional efforts now and in the future by the project stakeholders.

The following sections provide further details of each risk and the proposed mitigation strategies.

3.5.1 Safety & Maintenance of Traffic

When working on any roadway construction project, safety is always the top priority, particularly as it relates to Maintenance of Traffic (MOT). The I-66 Corridor is ranked as one of the most congested corridors in the nation, creating one of the highest risk areas for roadway construction work.

Safety and MOT are critical risks on the I-66 ATM project due to the sheer number of lane closures that will be required. Numerous facets of the project construction will require lane closures including the installation of full span and half span sign structures, overhead dynamic message signs, and auxiliary lane control signs. We anticipate that night lane closures will likely be required in multiple project locations on a daily basis.

A poorly planned or executed traffic control plan can have disastrous effects on public safety and create long delays, congestion, negative public perception, and negative economical impacts. Providing accurate and timely communication to motorists on message boards prior to construction work zones, particularly for lane closures, will be critical, as well as coordinating public announcements with VDOT and local agencies.

TransCore and Elite know this corridor, as we have been partnered with VDOT Northern Region Operations for ITS Maintenance for more than three years with over 1,000 lane closures and have an exceptional record (zero incidents) of working in the I-66 ROW. This experience provides us with the understanding that working in this environment requires our personnel to be cognizant of their surroundings at all times.

To stress this fact, Work Area Protection, Maintenance of Traffic, PSTOC coordination of LCAMS and general safety will be regular topics at the daily staff and weekly project meetings, both with project managers and in the field with our front line construction team. Consistent team communication of safety requirements and best practices defined by the *VDOT Work Area Protection Manual*, OSHA, ATSSA, MUTCD, and FHWA recognized guidelines, as well as the best practices we have learned over years of transportation safety experiences, will be held at all levels of the project staff to maintain the continued awareness required for a safe project.

The safety aspects of the project will be managed by our proposed Field Safety Supervisor, working alongside our Construction Manager. Furthermore, all field members of our staff are certified in Work Zone Safety.

Proper and specific Transportation Management Plans will be prepared for each site in accordance with the *VDOT Work Area Protection Manual*. Lane closure work will be performed during VDOT approved work hours to minimize impacts to the motoring public. All materials and equipment for the project will be stored outside the clear zones, away from hazards, with a managed safety construction plan to minimize the hazards to the public, the project staff, and to prevent damage to equipment and other properties.

Another mitigation strategy is to minimize the need for lane closures by minimizing the duration of required field work. This is accomplished by bench-testing and burning-in ITS devices at our building facilities prior to installation in the field. This approach greatly minimizes the time required of technicians being in the field, working on exposed roadways and construction areas. Minimizing field construction exposure leads to less public distractions, and thus confirming our approach and philosophy to protect and save lives. Providing a safe environment is the responsibility of our team.



Quick and efficient removal of the lane closures is critical to a safe construction environment. Often times the contractor will put the lane closure up and keep it up as long as permitted regardless of the level of work that is actually being accomplished. To avoid this scenario, TransCore will coordinate the work so that multiple items are being accomplished at the same time to ensure the work zone is truly required for the time period it is in place.

3.5.2 *Schedule Adherence*

An aggressive 18-month schedule from start to finish has been proposed by VDOT for the I-66 ATM project. Any noticeable schedule delays which prolong lane closures and cause unacceptable traffic jams may result in a poorly perceived project by the public and could jeopardize the success of the project. It is imperative that the public embrace the project so that it is seen as successful and beneficial. An on-time delivery is paramount.

There are several areas of this project that may pose a schedule risk including limited right-of-way, specific structure placement accounting for existing utilities and rail lines, identification of existing inoperable equipment, unexpected environmental risks, the inability of material suppliers to meet a demanding schedule, and power company coordination. All of these aspects will be addressed specifically by the design team in preparation for this project, and it is expected that all issues that arise will be handled in an expedited manner.

We anticipate that the DMS/lane control signs and associated structures will be the most critical path items due to the significant production time required. As such, finalization of the installation sites and design approvals of the DMS/lane control signs and structures must be expedited early.

Based on years of experience in the design and construction of ITS devices, utility coordination is one of the highest risk items for delaying projects. Therefore, obtaining all appropriate permits from the local utility companies is critical to maintaining schedule.

To further minimize delays, the TransCore Team will have an established project office near the project corridor where the designers and field construction leads will work hand-in-hand. By being located so close to the I-66 corridor and in one location, the TransCore Team will work more efficiently. It is critical to not only have the construction team involved during the design phase for constructability reviews, but also to keep the design team in place and active throughout construction and the entire post-design period. In addition, the TransCore Team boasts over \$20 million in construction equipment, with qualified operators, which will be readily available to begin work on this project at a moment's notice. This will ensure that VDOT and the public will benefit from the most effective and efficient deployment team possible.



The TransCore Team understands that meeting the schedule is imperative; therefore, we commit the following to the VDOT:

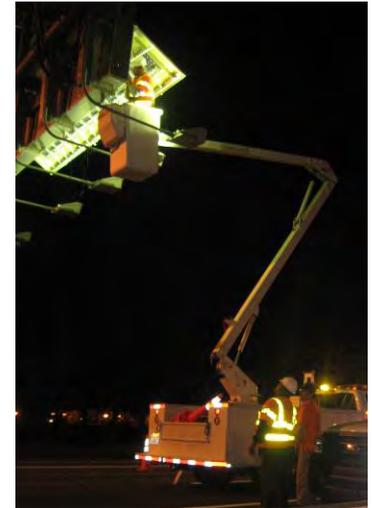
- A team where the proposed staff is prepared to start work on Day 1 of the project.
- A team that brings multiple resources, consisting of subcontractors and subconsultants that will provide redundant capabilities to the TransCore Team.
- The TransCore Team will keep this project on schedule by applying the right resources to this project at the right time.

3.5.3 Quality Control & Long-Term Sustainability

In the TransCore Team's meeting with WSDOT staff in Seattle, they stressed the importance of considering the future use and maintenance of the system in the design phase. Accordingly, we have identified that it is essential for the proposed I-66 ATM design-build team take quality control and long-term sustainability into account during the project design and implementation in order to mitigate future risks, such as device failures, structure failures, incompatible communication standards (NTCIP), unnecessary maintenance lane closures, etc. With the vast number of field devices on this project, early consideration of these sustainability items are imperative to the project's long term success for the Department. The TransCore Team is best suited to applying design and construction methods that take operability and maintainability into consideration.

TransCore, with the support of Elite, is the current ITS maintenance contractor for the Northern Virginia Region. TransCore performs ITS maintenance services for over 30 other state and county agencies in the US. In addition, TransCore and PB have operations experience throughout the US, including integration of ITS field equipment to operating operations centers. This breadth of maintenance and operations experience will be applied to the design and will continue to be a focus as we move into installation.

One example of this design for maintainability application is our consideration for the placement of poles. Poles will be placed in areas that are most easily accessible by maintenance vehicles and bucket trucks, meaning we will select locations without significant slopes and without obstructions, for ease of access to the device should replacement, calibration, or troubleshooting be needed.



Another example is proper placement of equipment within ITS device cabinets. We understand that selecting the most appropriate installation locations of equipment within a cabinet will enable ease of access to the equipment components to enable a maintenance technician to easily perform any troubleshooting or maintenance activities. Relative to the installation of cabinets of all types, TransCore also realizes the importance of properly labeling each cable and component inside the field cabinets, and we are committed to accomplishing this task.

Additionally, TransCore is experienced in the testing of ITS devices to ensure compliance with NTCIP standards. We performed this task for the VDOT DMS Retrofit project in Northern Virginia, and we are prepared to perform similar testing for the I-66 ATM devices to ensure ease of integration during the software implementation phase of the project.

The TransCore Team will design a system that provides optimum future use, including quality control during all phases of the project and maintenance and operational considerations during and after construction. We will take a Systems Engineering approach to the project to be sure that a logical process is followed and documented to provide a system that will best suit the stakeholders' needs. Specific tasks will be performed to ensure a pragmatic design and construction process.

Sustainability relies on a flexible design that can be used for many years to come. In TransCore's tolling group, we call these gantries "smart" gantries. The TransCore Team will consider designing a smart gantry system for ATM that can support future uses such as tolling, variable pricing, and other possible uses. If budget allows, other innovative designs could be proposed based on the lessons learned from the team's collective experience.

Appendices

- Appendix A* **SOQ Checklist and Contents**
- Appendix B* **Form C-78-RFQ**
- Appendix C* **Debarment Forms**
- Appendix D* **VDOT Prequalification**
- Appendix E* **SCC and DPOR Registration Documentation**
- Appendix F* **Key Personnel Résumé Forms**
- Appendix G* **Work History Forms**

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 A-1
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix B-1
Letter of Submittal (on Offeror's letterhead)				Tab 3.2
Offeror's point of contact information	NA	Section 3.2.1	yes	Page 2
Authorized Representative's signature	NA	Section 3.2.1	yes	Page 4
Principal officer information	NA	Section 3.2.2	yes	Page 2
Offeror's Corporate Structure	NA	Section 3.2.3	yes	Page 2
Affiliated/subsidiary companies	NA	Section 3.2.4	yes	Page 2
Debarment forms	Attachment 3.2.5(a) Attachment 3.2.5(b)	Section 3.2.5	no	Appendix C
Offeror's VDOT prequalification evidence	NA	Section 3.2.6	no	Appendix D
Evidence of obtaining bonding	NA	Section 3.2.7	yes	Page 5

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
Professional Services Evidence				
Full size copies of SCC and DPOR registration documentation (appendix)	NA	Section 3.2.8	no	Appendix E
SCC Registration	NA	Section 3.2.8.1	yes	Page 3 & App. E
DPOR Registration (Offices)	NA	Section 3.2.8.2	yes	Page 3 & App. E
DPOR Registration (Key Personnel)	NA	Section 3.2.8.3	yes	Page 3 & App. E
DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.8.4	yes	Page 4 & App. E
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.9	yes	Page 4
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Page 8 & App. F
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	App. F-1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	App. F-3
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	App. F-5
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	App. F-7
Key Personnel Resume – Lead Designer	Attachment 3.3.1	Section 3.3.1.5	no	App. F-10
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.6	no	App. F-12
Key Personnel Resume – Electrical/ITS Supervising Technician	Attachment 3.3.1	Section 3.3.1.7	no	App. F-14

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
Organizational chart	NA	Section 3.3.2	yes	Page 13
Organizational chart narrative	NA	Section 3.3.2	yes	Page 10
Experience of Offeror's Team				Tab 3.4
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix G-1
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix G-4
Project Risk				Tab 3.5
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Page 17

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)

Stephanie DeFazio
SIGNATURE

12/20/2011
DATE

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

Date

Controller

Title

TransCore ITS, LLC

Name of Firm

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;

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

 _____ Signature	 _____ Date	 _____ Controller Title
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TransCore, LP

Name of Firm

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.

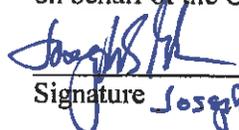
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under 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 Joseph S. Gramia Date 12/14/11

Controller VICE PRESIDENT - FINANCE
Title

TransCore Holdings, Inc.

Name of Firm

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;

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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	12/13/11 _____ Date	Assistant General Counsel _____ Title
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Roper Industries, Inc.

Name of Firm

ATTACHMENT NO. 3.2.5(b)

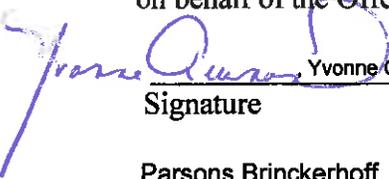
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

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.

 Yvonne Quinones December 1, 2011
Signature Date

Vice President
Title

Parsons Brinckerhoff, Inc. f/k/a PB Americas, 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.

		<u>Vice President</u>
Signature	Date	Title

Iteris, 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.

C.P. [Signature] 12/13/11 Partner
Signature Date Title

Austin Brockenbrough & Associates, LLP
Name of Firm

ATTACHMENT NO. 3.2.5(b)

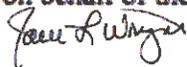
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

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

Date

12/20/11

Principal/Regional Director

Title

Pulsar Advertising, Inc.

Name of Firm

TRNSPORT - E22
LSPPREQ

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PREQUALIFIED VENDORS SORTED BY VENDOR NAME
THIS LIST INCLUDES ALL PREQUALIFIED LEVELS
AS OF 12/09/2011
- T -

12/09/2011
2:00 PM
PAGE 378

=====

T1000
TRANSCORE ITS, LLC
PREQ. EXP : 10/31/2012

--PREQ ADDRESS -----	-- WORK CLASSES -----
8158 ADAMS DRIVE	052 - TRAFFIC SIGNAL
HUMMELSTOWN, PA 17036	164 - TRAFFIC MANAGEMENT SYSTEMS
PHONE : 717-561-2400	
FAX : 717-564-8439	

BUSINESS CONTACT: DEFAZIO, STEPHANIE
EMAIL: STEPHANIE.DEFAZIO@TRANSCORE.COM

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

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

=====

DeFazio, Stephanie

From: Silies, Don E. [Don.Silies@VDOT.Virginia.gov]
Sent: Thursday, December 08, 2011 2:42 PM
To: DeFazio, Stephanie
Cc: Lucas, Suzanne F.
Subject: RE: TransCore Waiver Request for VDOT I-66 ATM, RFQ No.:C00098017DB46

I have reviewed the qualifications of TransCore ITS and I find them acceptable for the purpose of bidding this project. Therefore, I hereby waive the bidding restriction on your firm for this project. If in the future you desire to bid beyond what your prequalification status allows, please continue to make a request to me by email. State which project you wish to bid on and that I have granted a waiver in the past. I will keep the supportive information on file so you do not need to send it again. I would welcome additional supportive information if available. I look forward to your bid.

Don Silies

Assistant Division Administrator
Scheduling and Contract Division
Virginia Department of Transportation
(804) 786-1630
Don.Silies@vdot.virginia.gov

From: DeFazio, Stephanie [<mailto:Stephanie.DeFazio@TransCore.com>]
Sent: Wednesday, November 23, 2011 1:32 PM
To: Silies, Don E.
Cc: Clarke, Joseph, P.E.; CO S&C Prequalification Section; George, Karen; Ball, Bob
Subject: TransCore Waiver Request for VDOT I-66 ATM, RFQ No.:C00098017DB46
Importance: High

Mr. Silies –

Attached please find TransCore's request for waiver in reference to VDOT I-66 ATM, RFQ No.:C00098017DB46.

Stephanie K. DeFazio, P.E.
Department Manager
TransCore ITS
8158 Flannery Ct.
Manassas, VA 20109
Phone (804)332-2415

November 21, 2011

Mr. Don E. Silies
State Construction Contract Officer
Virginia Department of Transportation
Scheduling & Contracts Division
1401 E. Broad Street
Richmond, VA 23219

Subject: Request for Waiver of Prequalification Maximum Contract Value
VDOT I-66 ATM, RFQ No.:C00098017DB46

Dear Mr. Silies:

TransCore ITS, LLC is interested in pursuing the Virginia Department of Transportation's I-66 Active Traffic Management Design-Build Project as prime contractor. Because TransCore ITS, LLC currently holds a Prequalified Probationary status with the Department, we hereby request a waiver to pursue the I-66 ATM project, which has an estimated contract value of approximately \$32M. As a subsidiary of Roper Industries (NYSE: ROP), a diversified growth company, we have sufficient financial backing to perform a project of this size. Furthermore, our firm has a successful history of deploying ITS Design-Build projects of similar size and complexity across the U.S., as the enclosed Reference Letters from a few of our clients will attest.

In addition to our national experience, we have been performing a variety of ITS construction activities for various VDOT tasks across the state. And we have unsurpassed knowledge of the Department's existing ITS in the Northern Region, as we have been serving the Department as your ITS Maintenance contractor (operating as TransCore, LP) for the past 3 years, and we were recently granted a 1 year extension.

We are proud of our performance, and we encourage you to contact our submitted references and VDOT project managers for further details of TransCore's capabilities.

If you should have any questions related to this submittal, please contact Ms. Stephanie K. DeFazio, P.E. Her contact information and TransCore vendor information is provided below:

Address:	8158 Flannery Ct., Manassas, VA 20109
Phone Number:	(804)332-2415
Email Address:	Stephanie.Defazio@transcore.com
Vendor No.:	T1000
Employer ID:	94-3198006



8158 Adams Dr.
Hummelstown, PA 17036
Phone 717.561.5810 Fax 717.564.8439

TransCore ITS is excited for the possible opportunity to serve the Department in implementing the first ITS Design-Build project for the Commonwealth of Virginia. We appreciate your consideration of this request, and we look forward to hearing from you.

Sincerely,
TRANSCORE ITS, LLC

A handwritten signature in blue ink that reads "Robert A. Ball".

Robert Ball
Senior Vice President, Managing Director

RB/sd

Enclosures (3)

Cc: Suzanne Lucas, VDOT
Joseph A. Clarke, P.E., VDOT
Karen George, P.E., TransCore ITS, LLC
Stephanie DeFazio, P.E., TransCore ITS, LLC



STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712

BRIAN SANDOVAL
Governor

SUSAN MARTINOVICH, P.E., *Director*

In Reply Refer to:

November 18, 2011

Mr. Don E. Silies
State Construction Contract Officer
Virginia Department of Transportation
Scheduling & Contracts Division
1401 E. Broad St.
Richmond, VA 23219

Subject: TransCore ITS, LLC Letter of Reference

Dear Mr. Silies:

This letter serves as reference to the performance of TransCore on several projects for the Nevada Department of Transportation, primarily concerning the buildout of our Freeway Management System (FMS) in Las Vegas, as well as the initiation of the FMS in Reno. Specific information regarding their performance on these projects is provided below.

TransCore has been responsible for the following FMS projects:

- FAST System Integrator Stage 1 – I-515 from Charleston Blvd to I-15, and I-15 from I-515 to Lake Mead Blvd
- FAST System Integrator Stage 2B – I-15 from I-215 to I-515, and I-215 from I-15 to Decatur Blvd
- US 95 Freeway Management System – US 95 from I-15 to CC-215
- I-580 Widening – I-580 from Moana to I-80 in Reno (currently in construction)

In addition, TransCore is currently performing the following projects:

- FAST System Integrator Package B2 – I-515 from I-215 to Charleston Blvd (NTP March 17, 2011, expected completion March 2012)
- I-15 ITS Design-Build – I-15 from California state line to I-215 (NTP May 2, 2011, expected completion December 2012)
- I-80 Design-Build – I-80 from Robb to Vista (Reno) (NTP May 16, 2011, expected completion December 2012)

The following table provides some statistics regarding these projects:

	FAST Stage 1	FAST Stage 2B	US 95 FMS	I-580 Widen.*	FAST Pkg B2*	I-15 ITS DB*	I-80 DB*	Totals
Value (M)	\$13.77	\$8.24	\$8.56	\$1.30	\$8.98	\$13.53	\$7.00	\$61.38
Completed	2005	2007	2009	2011	2012	2012	2012	-
CL Miles	6	10.5	13.5	5.0	10.5	35.0	10.0	90.5
Radar Det.	64	74	74	13	71	60	39	395
CCTV	13	12	22	11	13	12	18	101
DMS	-	9	6	1	2	5	4	27
Rp Meter	4	15	19	-	20	2	2	62
Cabinet	26	48	43	10	39	17	19	202
Fiber (kft)	123	201	200	27	103	194	116	964
Wireless	31	-	3	13	21	22	57	147

* Projects are in process, totals based on contract quantities

As can be seen, during this time TransCore has been responsible to install and integrate a vast array of equipment, integrating it into a fully operations system. Other components have included Traffic Management Center elements (workstations, consoles, video wall), work zone traffic control detection and surveillance (more than 30 sites in Las Vegas and Reno), and general construction activities (installing conduit, poles, conductor, sign structures, and other related infrastructure).

TransCore's efforts represent roughly 90% of the construction, installation, and integration activities contracted to date by NDOT, and we are sufficiently pleased with their performance to date to continue the relationship with the recent selection for contracts for the I-15 ITS Design-Build (as prime contractor) and I-80 Design-Build (as subcontractor). We have also hired TransCore to provide some maintenance responsibilities, mostly involving repair of equipment knocked down by others.

TransCore has been consistently responsive to the Nevada Department of Transportation's needs in meeting schedules, deadlines, and budget on these projects. We have been very pleased with TransCore's performance and we highly recommend them.

Sincerely,



Jon Dickinson
ITS Program Manager



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.
SECRETARY

November 17, 2011

Mr. Don E. Silies
State Construction Contract Officer
Virginia Department of Transportation
Scheduling & Contracts Division
1401 E. Broad Street
Richmond, VA 23219

Subject: TransCore ITS, LLC Letter of Reference

Dear Mr. Silies:

It is my understanding that the Virginia Department of Transportation has recently advertised an Interstate 66 Design/Build project for which your agency is requesting reference letters from interested Proposers that pertain to previous projects. This letter serves as reference in regard to the performance of TransCore ITS (TransCore) on the Florida Department of Transportation's (FDOT) Interstate 10 / Interstate 110 Freeway Management System (FMS) and associated Regional Transportation Management Center (RTMC) projects in Escambia and Santa Rosa Counties. A primary goal of these Intelligent Transportation Systems projects is to provide the public with real-time information on current traffic conditions along Interstates 10 and 110, as well as to improve regional operations in the areas of construction, work zone safety, congestion mitigation, and incident response. Specific information regarding both TransCore's scope of work and performance on these projects is provided below.

On June 30, 2008 FDOT executed a \$34.8M contract with TransCore as the prime contractor to establish a RTMC and FMS to manage traffic on Interstates 10 and 110 in the Pensacola metropolitan area. July of 2008 marked the start of the design of the system, with construction of the underground segments beginning in March of 2009. Support structure and device installations followed thereafter and TransCore ITS has now entered the operations and maintenance phase of the initial ten-year contract term which will continue through June of 2018.

More specifically, TransCore was responsible for preparing deployment plans and specifications, system hardware and software procurement, hardware compatibility testing, system communications testing, coordinating system deployment, performing system integration, providing system documentation and training, performing system evaluation, and data management. TransCore remains responsible for providing on-going operation and maintenance in support of a comprehensive FMS. This FMS was deployed along approximately 32 miles of Interstate 10 beginning at the Florida/Alabama state line and ending in Santa Rosa County approximately one mile east of the interchange of Interstate 10 and State Road 87. The FMS also includes the entire six miles of the Interstate 110 spur that originates at Interstate 10 and terminates in downtown Pensacola. The ITS field elements deployed by TransCore along the aforementioned interstate corridors include twelve (12) dynamic message signs, forty-one (41) closed circuit television cameras, eight-eight (88) microwave vehicle detectors, and one (1) road weather

November 17, 2011

Page 2

information system (weather station). TransCore also provided a wireless expansion of the FMS communications system to include a closed circuit television camera at each end of the Pensacola Bay Bridge. In addition, TransCore has also deployed and administers a Road Ranger Service Patrol program along these interstate limits for the region.

The Pensacola RTMC regularly operates 16 hours a day (Monday through Friday) and this schedule expands during times of emergency and regional significance as determined by FDOT. The RTMC's video wall display system is comprised of six 67-inch modules arranged in a three wide by two high configuration flanked by two 46-inch LCD flat panel monitors on either side. There are currently three operator stations within the RTMC, two for operators and one for the shift supervisor, with room to expand up to five operator stations.

Overall, TransCore has been responsive to FDOT's needs in meeting project schedules, deadlines, and budget on these Intelligent Transportation Systems projects. In addition, we have been very pleased with TransCore's performance thus far during the operations and maintenance phase of the initial ten-year contract and we highly recommend them. It is worth noting that FDOT's contractual agreement with TransCore contains monetary disincentives when monthly performance measures are not met and to date no penalties have been imposed.

Sincerely,



Chad A. Williams, P.E.
FDOT District Three Intelligent Transportation Systems Engineer
District Three Traffic Operations Office
P.O. Box 607, Chipley, FL 32428-0607
phone: (850) 415-9504
e-mail: chad.williams@dot.state.fl.us

cc: Jonathan Tursky, P.E., TransCore ITS, LLC



November 17, 2011

Mr. Don E. Silies
State Construction Contract Officer
Virginia Department of Transportation
Scheduling and Contracts Division
1401 E. Broad Street
Richmond, VA 23219

Subject: TransCore ITS, LLC Letter of Reference

Dear Mr. Silies:

This letter serves as reference to the performance of TransCore on Traffic.com's Traveler Information System Nationwide Deployment and Traveler Information System Nationwide Maintenance projects. Specific information regarding their performance on this project is provided herein.

Traveler Information System Nationwide Deployment

In October 2006, TransCore was retained by Traffic.com to deploy infrastructure supporting the Federal Highway Administration Intelligent Transportation Infrastructure Program (ITIP). The ITIP project consists of the integration of field devices for metropolitan areas across the United States. Under this program, Traffic.com is creating interoperable systems of digital traffic sensors in major metropolitan areas across the country to provide comprehensive real-time traffic information.

TransCore serves as the primary contractor for this work at fourteen metropolitan areas across the United States, providing design, construction, integration, and maintenance of traffic sensor sites within each metropolitan area. Each site consists of a 40 foot steel stand-alone pole, pole mounted cabinet, non-intrusive detection devices such as RTMS and SAS sensors and wireless communications. The site is powered by solar equipment and is designed to run 24 hours-a-day, 7 days-a-week.

For each city, TransCore was responsible for the design of each site layout including the required solar equipment and detection layout, obtaining jurisdictional permits for the construction of each site, and installation of all equipment (poles, foundations, cabinets, sensors, solar equipment, and cellular modems). TransCore was responsible for final configuration of the equipment and the eventual integration of the real-time data back to the central database. The following table provides a summary of the 14 city deployment status. Upon system acceptance for each city, TransCore provides preventative and emergency maintenance for a 24-month term.

1000 Cedar hollow Road
Malvern, PA 19355
www.navteq.com

T: 610 407 7400
F: 610 725 0530
Latitude 40°04' 04 8" N
Longitude 75° 27' 14.9" W

City	Contract Value	# of Sites	# of Sensors	Status
Indianapolis, IN	\$1,419,433	57	63	Completed
Salt Lake City, UT	\$114,965	5	8	Completed
Las Vegas, NV	\$1,254,550	55	77	Completed
Atlanta, GA	\$1,584,512	71	99	Completed
Raleigh, NC	\$1,561,952	67	79	Completed
Columbus, OH	\$1,645,782	63	86	Completed
Cincinnati, OH	\$1,470,928	53	73	Completed
New Orleans, LA	\$1,375,771	64	90	Completed
Norfolk, VA	\$1,141,250	56	72	Completed
Sacramento, CA	\$1,523,403	56	73	Completed
San Jose, CA	\$1,484,339	52	70	Completed
Tampa, FL	\$386,331	34	40	Completed
Los Angeles, CA	\$119,610	5	8	Completed
San Diego, CA	\$206,518	22	30	Installing
Total Contract Value	\$15,289,344			

Traveler Information System Nationwide Maintenance

In January 2007, TransCore was retained by Traffic.com to provide nationwide maintenance services in support of the Federal Highway Administration Intelligent Transportation Infrastructure Program (ITIP) described above. TransCore is serving as the primary maintenance contractor for this work at numerous metropolitan areas across the United States in the following cities. As part of this contract, TransCore provides Traffic.com with a single point of contact to provide preventative, emergency, and unscheduled maintenance services.

City	# of Sites	# of Sensors
Atlanta, GA	62	101
Boston, MA	74	100
Cincinnati, OH	58	73
Columbus, OH	64	85
Detroit, MI	65	113
Indianapolis, IN	57	62
Las Vegas, NV	52	67
Los Angeles, CA	71	84
New Orleans, LA	65	91
Norfolk, VA	56	72
Oklahoma City, OK	58	76
Raleigh, NC	63	77

NAVTEQ

Sacramento, CA	54	73
Salt Lake City, UT	5	8
San Diego, CA	67	104
San Francisco, CA	77	97
San Jose, CA	54	71
Tampa, FL	65	97

TransCore has been consistently responsive to Traffic.com's needs in meeting schedules, deadlines, and budget on these projects. We have been very pleased with TransCore's performance.

Sincerely,



Tom Hewitt
Construction Manager
Traffic.com, Inc, a NAVTEQ Company

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That TransCore ITS, LLC, a limited liability company organized under the law of Delaware, obtained a certificate of registration to transact business in Virginia from the Commission on October 7, 2005; and

That it is registered to transact business in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.

*Signed and Sealed at Richmond on this Date:
October 27, 2011*

A handwritten signature in cursive script that reads "Joel H. Peck".

Joel H. Peck, Clerk of the Commission



Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Parsons Brinckerhoff, Inc., a corporation incorporated under the law of New York, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on February 11, 1986; and

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

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

November 9, 2011

Joel H. Peck

Joel H. Peck, Clerk of the Commission

From:

12/16/2011 12:39 #019 P.003/003



COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

December 13, 2011

HERMAN C DANIEL III
8041 FOREST HILL AVE
RICHMOND, VA 23225-1900

RECEIPT

RE: Elite Contracting Group, Inc.

ID: 0356967 - 0

DCN: 11-12-09-0003

Dear Customer:

This is your receipt for \$25.00 to cover the fee(s) for filing articles of amendment for a corporation with this office.

The effective date of the amendment is December 13, 2011

Note: Prior to the effective date of this filing, the name of the above-referenced corporation was Elite Fence, Inc..

Thank you for contacting our office. If you have any questions, please call (804) 371-9733 or toll-free in Virginia, (866) 722-2551.

Sincerely,

Joel H. Peck
Clerk of the Commission

AMENACPT
CIS0313

**COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION**

AT RICHMOND, DECEMBER 13, 2011

The State Corporation Commission has found the accompanying articles submitted on behalf of
Elite Contracting Group, Inc. (formerly Elite Fence, Inc.)

to comply with the requirements of law, and confirms payment of all required fees. Therefore, it
is ORDERED that this

CERTIFICATE OF AMENDMENT

be issued and admitted to record with the articles of amendment in the Office of the Clerk of the
Commission, effective December 13, 2011.

The corporation is granted the authority conferred on it by law in accordance with the articles,
subject to the conditions and restrictions imposed by law.

STATE CORPORATION COMMISSION

By



James C. Dimitri
Commissioner

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, December 13, 2004

This is to certify that a certificate of authority to transact business in Virginia was this day issued and admitted to record in this office for

Iteris, Inc.

a corporation organized under the laws of DELAWARE and that the said corporation is authorized to transact business in Virginia, subject to all Virginia laws applicable to the corporation and its business.



State Corporation Commission

Attest:

Joel H. Peck
Clerk of the Commission



COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

May 24, 2011

BRUCE K SADLER
1011 BOULDER SPRINGS DR STE 200
RICHMOND, VA 23225

RECEIPT

RE: AUSTIN BROCKENBROUGH & ASSOCIATES, L.L.P.
ID: J000357 - 5
DCN: 11-05-24-0507

Dear Customer:

This is your receipt for \$50.00 to cover the fee for filing the annual continuation report for the above-referenced registered limited liability partnership.

The annual continuation report was filed on May 24, 2011.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

GPACCEPT
CIS0436

Commonwealth OF Virginia



State Corporation Commission

I Certify the Following from the Records of the Commission:

Pulsar Advertising, Inc., a corporation incorporated under the laws of NEW YORK is authorized to transact business in Virginia and is in good standing. It obtained a certificate of authority from the Commission on November 22, 2004.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
December 6, 2010*

Joel H. Peck

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
0411000879

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

PROFESSIONS: ENG

TRANSCORE ITS LLC
8158 FLANNERY CT
MANASSAS, VA 20109



Gordon N. Dixon
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.

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APPLSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000879 EXPIRES: 02-29-2012
PROFESSIONS: ENG
TRANSCORE ITS LLC
8158 FLANNERY CT
MANASSAS, VA 20109



(FOLD)

(DETACH HERE)

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

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON
02-29-2012

NUMBER
0411000142

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

PROFESSIONS: ARC, ENG

PB AMERICAS INC
465 SPRING PARK PL
HERNDON, VA 20170



Gordon N. Dixon
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.

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA

(DETACH HERE)

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

BOARD FOR APPLSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000142 EXPIRES: 02-29-2012
PROFESSIONS: ARC, ENG
PB AMERICAS INC
465 SPRING PARK PL
HERNDON, VA 20170



POCKET CARD

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

0407005884

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

PROFESSIONS: ENG

ITERIS, INC
107 CARPENTER DR
STE 230
STERLING, VA 20164



Gordon N. Dixon
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.

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APPELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005884 EXPIRES: 12-31-2011
PROFESSIONS: ENG
ITERIS, INC
107 CARPENTER DR
STE 230
STERLING, VA 20164



(FOLD)

(DETACH HERE)

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

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
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EXPIRES ON

12-31-2011

9960 Mayland Dr., Suite 400, Richmond, VA 23233
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NUMBER

0407000031

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

PROFESSIONS: LS, ENG

AUSTIN BROCKENBROUGH & ASSOCIATES
1011 BOULDER SPRINGS DR
SUITE 200
RICHMOND, VA 23225



Jay W. DeBoer
Jay W. DeBoer, Director

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EXPIRES ON

06-30-2013

9960 Mayland Dr., Suite 400, Richmond, VA 23233
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BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

JULIANNE PERKOSKI
4000 MONITOR DRIVE
HAMPTON, VA 23669



Gordon N. Dixon
Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA

EXPIRES ON

11-30-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23233
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NUMBER

0402039113

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

STEPHANIE KOLB DEFAZIO
8158 FLANNERY CT
MANASSAS, VA 20109



Gordon N. Dixon
Gordon N. Dixon, Director

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BOARD FOR APESCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402039113 EXPIRES: 11-30-2012

STEPHANIE KOLB DEFAZIO
8158 FLANNERY CT
MANASSAS, VA 20109



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10-31-2012

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NUMBER
0402048032

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

MARK ALLEN THOMPSON
8317 JORDAN VALLEY WAY
FREDERICK, MD 21702



Gordon N. Dixon
Gordon N. Dixon, Director

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BOARD FOR APESCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402048032 EXPIRES: 10-31-2012

MARK ALLEN THOMPSON
8317 JORDAN VALLEY WAY
FREDERICK, MD 21702



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AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

JOHN W MICHELS
47577 SANDBANK SQ
STERLING, VA 20165

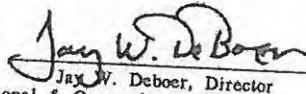


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Gordon N. Dixon, Director

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JOURNEYMAN ELECTRICIAN
MASTER ELECTRICIAN



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

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COMMONWEALTH OF VIRGINIA

EXPIRES ON
07-31-2013

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

NUMBER
2705 141956A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

TRANSCORE ITS LLC

8158 ADAMS DR LIBERTY CITY BUILDING 200

HUMMELSTOWN PA 17036



Gordon N. Dixon
Gordon N. Dixon, Director

***CLASSIFICATIONS* ESC**

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COMMONWEALTH OF VIRGINIA

BOARD FOR CONTRACTORS - CLASS A
CONTRACTOR LICENSE - CLASSIFICATIONS: ESC

NUMBER: 2705 141956A EXPIRES: 07-31-2013
TRANSCORE ITS LLC

8158 ADAMS DR LIBERTY CITY BUILDING 200



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EXPIRES ON
08-31-2013

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

NUMBER
2705 064851A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

ELITE FENCE INC
ELITE CONTRACTING GROUP
23220 AIRPARK DRIVE

PETERSBURG VA 23803



Gordon N. Dixon
Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA

BOARD FOR CONTRACTORS - CLASS A
CONTRACTOR LICENSE - CLASSIFICATIONS: ELE
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NUMBER: 2705 064851A EXPIRES: 08-31-2013

ELITE FENCE INC
ELITE CONTRACTING GROUP
23220 AIRPARK DRIVE



PETERSBURG VA 23803
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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Victor A. Foreman, Area Manager
b. Project Assignment:	Design-Build Project Manager
c. Name of Firm with which you are now associated:	TransCore
d. Years experience: With this Firm <u>23</u> Years With Other Firms <u>2</u> 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.):	<p>Mr. Foreman is an experienced project manager with 23 years of experience in technical development and management of systems programs for TransCore. A certified SEI CMM Level 2 project manager, Mr. Foreman has been responsible for the delivery of programs involving ITS, automatic vehicle identification (AVI) and electronic toll collection systems. His electronic toll collection experience includes all aspects of the transaction process, including the roadside equipment, lane solution, host software, and back office software and operations.</p> <p>Prior to joining TransCore, he served as a Project Manager for SAIC, leading an Underground Storage System project for the U.S. Environmental Protection Agency.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	<p>James Madison University, Harrisonburg VA, B.S., 1985, Computer Science Virginia Tech, Blacksburg VA, Certification Transportation Construction Management Institute, 2004</p>
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	<p>Project Manager, I-15 Express Lanes, Salt Lake City, Utah</p> <p>Mr. Foreman is serving as project manager for the deployment of the I-15 Express Lanes in Salt Lake, Utah. Being deployed under a design-build procurement, Mr. Foreman is leading a multi-disciplinary team that is responsible for the system design, software development, infrastructure construction, and system integration. The I-15 Express Lanes cover over 38 centerline miles with over 36 AVI locations and dynamic messages signs. The field devices will be integrated with UDOT's fiber optic network to provide connectivity to UDOT's traffic management center, which will house the central processing system hardware and software. Software elements include lane level system to interface with AVI and detection equipment, dynamic pricing algorithm, transaction processing, and maintenance management system. Transactions will be exported to a third-party customer service center (CSC). The field construction will include the installation of new sign structure located in the median of I-15. Conduit infrastructure will be installed from power and communications service points to equipment cabinets and over to the median to support the roadway equipment.</p> <p>Mr. Foreman's experience on this project is with TransCore Project start and end dates: 2009 – 2011</p>

Manager, Richmond Metropolitan Authority System Expansion, Richmond, Virginia

Mr. Foreman was part of the management team that designed and implemented six open road tolling (ORT) lanes over two three-plus-two ORT plazas for the Richmond Metropolitan Authority (RMA) in Virginia. This contract scope included the roadside equipment, lane level solution, and the toll host functionality. The system interfaces with the Virginia Department of Transportation's (VDOT's) customer service center for electronic toll collection account management and payment processing, violation enforcement, and IAG reciprocity. Mr. Foreman managed a team of engineers and technicians that were responsible for the design, implementation, and commissioning of the system. At its peak, the TransCore project team included 21 personnel working on different elements of the project. The design for the roadside equipment included AVI equipment, vehicle detection and classification subsystem, and violations enforcement components. These components are integrated with zone controllers that manage each of the subsystems and assemble toll transactions. System design and implementation was completed over an 18-month timeframe, including a 4-month shutdown in construction over the winter of 2007-2008.

Mr. Foreman's experience on this project is with TransCore

Project start and end dates: 2007 – 2008

Project Manager, Dulles Greenway System Upgrade (MIG), Leesburg, Virginia

Mr. Foreman served as project manager for the delivery of separate system expansion and upgrade projects on the Dulles Greenway. The project included the four-lane expansion of an existing mainline plaza and added eight new lanes to the system as part of two new interchanges. This was a lane-level contract that included the design and implementation of roadside and plaza systems. The roadside equipment included AVI, vehicle classification, and violations enforcement subsystems. Throughout this project, TransCore coordinated its efforts with the contractor responsible for the interchange construction. This coordination effort included working with the contractor and the staff at the Dulles Greenway on the infrastructure requirements and location to support the toll operations. This project began in 2006 and concluded in 2008, with significant periods of non-activity due to the construction schedule. The Dulles Greenway is a privately financed and owned toll road.

Mr. Foreman's experience on this project is with TransCore

Project start and end dates: 2006 – 2008

Project Manager, Dulles Toll Road (VDOT), Spring Hill Ramp Expansion

As a subcontractor on a construction contract, Mr. Foreman managed an expansion of the Spring Hill Road entrance ramp to the Dulles Toll Road. This contract added a full service lane/electronic toll collection lane, an automated coin machine/ETC lane, and an express, electronic toll collection-only lane to a congested on ramp.

Mr. Foreman's experience on this project is with TransCore

Project start and end dates: 2002 – 2003

Project Manager, Southern Connector, Greenville, SC (Southern Connector 2000)

Mr. Foreman managed the contract acceptance phase of the Greenville Southern Connector, a privately financed toll road on I-185 near Greenville, South Carolina. This system included the roadside equipment and lane solution for 20 lanes spread among two plazas and four ramps, host software, and back office software.

Mr. Foreman's experience on this project is with TransCore

Project start and end dates: 2001 – 2002

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Julianne Perkoski, P.E., Lead Construction Engineer
b. Project Assignment:	Quality Assurance Manager
c. Name of Firm with which you are now associated:	Parsons Brinckerhoff, Inc.
d. Years experience: With this Firm <u>18</u> Years With Other Firms <u>8</u> 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.):	<p>With over 26 years of experience, Julie Perkoski has managed a number of complex transportation construction projects. She has considerable knowledge of roadway, structure, traffic engineering, construction methods, and procedures. She is thoroughly familiar with project controls, including document control and scheduling. She is well versed in such computer applications as Microsoft Project, Primavera, and Suretrak, and possesses excellent communication and leadership skills.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	Pennsylvania State University, University Park PA, BAE, 1985, Architectural Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	1995, Professional Engineer Virginia, #0402-026174
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	<p>Quality Assurance Manager, Meadowville Road Interchange, Chesterfield, VA</p> <p>As QA Manager, Julie was responsible for the overall administration of this Project QA Plan. Responsibilities included assuring that all the QA/QC inspections and testing of materials and in-place construction had been performed, ensuring all documentation had been submitted, and verifying that all design and construction adheres to the contract before any payment is approved. Julie was also responsible for overseeing the QA staff and testing lab, who performed independent control testing in accordance with the VDOT Design-Build requirements.</p> <p>Ms. Perkoski's experience on this project is with Parsons Brinckerhoff Project start and end dates: 2010 – 2011</p>

Resident Engineer, Pinner's Point ITS, Norfolk, Virginia

Julie's responsibilities included managing the CE&I services provided to the Virginia Department of Transportation (VDOT) for the traffic management system portion of the project. Her duties included reviewing contractor's shop drawing submittals, resolution of conflicts, assisting VDOT with management of the project, coordination between the hardware and software contracts and tabulation of the contractor's pay quantities. The Pinner's Point Interchange construction project includes providing a new roadway alignment using multiple bridge structures that span the western Branch of the Elizabeth River in Portsmouth, Virginia.

Ms. Perkoski's experience on this project is with Parsons Brinckerhoff
Project start and end dates: 2002 – 2007

Resident Engineer, Traffic Signal Network, Hampton, Virginia

Resident engineer for complete construction of a \$4.5 million advanced traffic management system for the City of Hampton. The work included installation of fiber optic cable, conduit and CCTV cameras, modification of existing signalized intersection control cabinets, and installation of a computerized traffic control center. Julie's responsibilities included managing the CE&I services provided to VDOT, assisting VDOT with control of project correspondence and resolution of conflicts, reviewing and tracking the contractor's construction schedule, and tabulating the contractor's pay quantities.

Ms. Perkoski's experience on this project is with Parsons Brinckerhoff
Project start and end dates: 2002 – 2005

Resident Engineer, Advanced Computer Traffic Signal and Management System—Phase II, Norfolk, Virginia

Resident engineer during the complete construction of an advanced traffic management system for the City of Norfolk. The completed system will control approximately 170 signalized intersections in the city. This five-year, \$4.5 million project includes the installation of a fiber optic communications system (conduit, fiber optic cable, controllers, and fiber optic transceivers), central computer system hardware and software, CCTV surveillance cameras, and variable message signs. Julianne's responsibilities were diversified and included managing the CE&I services provided to VDOT as well as assisting the Department with controlling project correspondence, resolving conflicts, reviewing and tracking the contractor's construction schedule, and tabulating the contractor's pay quantities. She also conducted a presentation that addressed scheduling at a VDOT conference, and conducted classes in scheduling.

Ms. Perkoski's experience on this project is with Parsons Brinckerhoff
Project start and end dates: 1997 – 2001

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Stephanie K. DeFazio, P.E., Department Manager
b. Project Assignment:	Design Manager
c. Name of Firm with which you are now associated:	TransCore
d. Years experience: With this Firm <u>12</u> Years With Other Firms <u>3</u> 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.):	<p>Ms. DeFazio serves as TransCore’s Department Manager for ITS in Virginia. She is experienced in project management, project evaluations, specification development, construction inspection, and ITS design for freeways, arterials and rural applications.</p> <p>Prior to joining TransCore, Ms. DeFazio was the Traffic Management Engineer for the Federal Highway Administration, Georgia Division. She also gained experience in Baltimore, Maryland; Washington, D.C.; and Seattle, Washington while on the FHWA training program.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	<p>Texas A&M University, College Station TX, Master of Science, 1996, Civil Engineering Virginia Tech, Blacksburg VA, Bachelor of Science, 1994, Civil Engineering</p>
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	<p>Professional Engineer, 2003, Civil, Virginia #0402039113 Professional Engineer, 2004, Civil, Florida #62166</p> <p>Associate Member, Institute of Transportation Engineers Board of Directors, ITS Georgia, 2001-2002 Local Arrangements Committee, Transpo2006</p>
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	<p>Managing Director, ITS Maintenance Services, VDOT Northern Region Operations Ms. DeFazio serves as TransCore’s Managing Director for this project which involves preventive and routine maintenance of all ITS devices on I-66, I-95, I-495, I-395 and approaching routes in Northern Virginia, as well as task orders for larger ITS maintenance activities, such as HOV gate replacement, CCTV camera lowering device installations, cabinet foundation replacements, fiber splicing repairs, and blank out sign installations for ramp meters. In her role as Managing Director, Ms. DeFazio supports TransCore’s local project manager by ensuring that sufficient TransCore resources are allocated to the project, supporting the management and processing of</p>

project task orders, subcontracts and the like, and helping to ensure the overall satisfactory performance of the project team.

Ms. DeFazio's experience on this project is with TransCore.

Project start and end dates: 2008 – Present

Engineer of Record, Virginia 164 ITS Design

Ms. DeFazio was TransCore's ITS Engineer of Record for the VA 164 ITS design project, which was performed for the VDOT Central Office. This project includes dynamic message signs, CCTV cameras, radar detectors, video encoders and decoders, Gigabit Ethernet switches, field Ethernet switches, and fiber optic infrastructure. She was responsible for plans development as well as the development of project specifications for ITS equipment.

Ms. DeFazio's experience on this project is with TransCore.

Project start and end dates: 2008 - 2009

Project Manager, Tampa Bay SunGuide Phases II and III, FDOT District 7

Ms. DeFazio served as TransCore's Project Manager for these Systems Manager/Systems Integrator Freeway ITS projects. As such, she led the development of the ITS Construction and Procurement Technical Special Provisions for the deployment of freeway management system devices and associated systems communications. Other responsibilities included providing design support to the project team and performing material submittal reviews for all ITS components. Ms. DeFazio also supported the management of the systems integration efforts following completion of construction for each project.

Ms. DeFazio's experience on this project is with TransCore.

Project start and end dates: 2004 – 2008

Task Lead/Design Engineer, Georgia DOT ITS Design Project

TransCore served as the prime consultant for the \$4M Georgia DOT ITS Design Project, a task order based contract to develop PS&E packages mainly for the implementation of ITS for freeways in the Atlanta, Georgia metropolitan area. For this project, Ms. DeFazio served as the Task Lead and Design Engineer for multiple GDOT ITS PS&E development task orders. She supported the design of ITS field devices, system equipment, network configuration, and fiber allocation. Ms. DeFazio was responsible for hub equipment configuration, fiber allocation, and network electronics design for all ATMS projects connecting to the GDOT NaviGator system. Additionally, Ms. DeFazio developed new specifications for an environmentally controlled cabinet and intersection video detection systems and modified specifications for communication hub buildings.

Ms. DeFazio led the engineering of a 20-mile fiber optic network for communications with 114 traffic signals and 13 CCTVs to replace the existing copper communications infrastructure. Design included fiber allocation, splicing plans, hub equipment design and associated connections, conduit and pull box design. A key element of this project was minimizing the loss of communications to existing traffic signals and CCTV cameras during the transition from copper to fiber communications. Detailed requirements were developed to mitigate potential impacts of the communications loss.

Ms. DeFazio's experience on this project is with TransCore.

Project start and end dates: 1999 – 2004

Off-Corridor ITS Design Lead, Colorado DOT T-REX

Led the off-corridor ITS design for T-REX, a massive light rail construction and freeway reconstruction design/build project on I-25. The off-corridor ITS consisted of DMSs, arterial CCTVs, and an arterial vehicle detection system (AVDS) in the vicinity of the I-25 corridor. AVDS was comprised of over 300 video image detectors communicating over CDPD for congestion detection.

Ms. DeFazio's experience on this project is with TransCore.

Project start and end dates: 2001 - 2003

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Frank T. Stock, Associate Vice President
b. Project Assignment:	Construction Manager
c. Name of Firm with which you are now associated:	TransCore
d. Years experience: With this Firm <u>17</u> Years With Other Firms <u>0</u> 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.):	<p>Mr. Stock's 17 year career has been with TransCore in the field of ITS. The following is the chronology of his assignments during his tenure with TransCore to date:</p> <p>2005 – Current: Department Manager of Tennessee, Associate Vice President Primary responsibility is managing Tennessee projects, which are primarily ITS construction projects including Memphis and Chattanooga as detailed in Section g.</p> <p>2000 – 2005: Department Manager of Colorado and Arizona , Senior Engineer</p> <ul style="list-style-type: none">▪ Primary responsibility for overseeing and developing business in the Department.▪ Managed the ITS construction and integration of US-60 Design-Build project, and served as lead communication designer for that project.▪ Oversaw deployment of several projects at the Arizona DOT TMC, and participated in the design of several Phoenix metro area ITS projects.▪ Served as the on-site Engineer for the first NTCIP traffic signal system installation in Lakewood, CO.▪ Managed ITS Design for TREX Design-Build project in Denver, CO.▪ Managed Rural ITS Study to identify and develop plans for 5 projects for NE New Mexico. <p>1997 – 2000: Senior Engineer, Salt Lake City Initially involved in the project as the Lead Designer of the ITS communications network for the I-15 ATMS Design-Build project, and later transitioned to become Manager for the integration of all ITS on the project. TransCore's team completed the efforts several months allowing for an early completion of the project.</p> <p>1995 – 1997: Engineer, Atlanta, Georgia Involved in the design, integration and testing of several ITS projects in the southeast, including the ATMS for the 1996 Summer Olympic Games and several projects in Florida.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	<p>Montana State University-Bozeman, B.S., 1995, Civil Engineering Montana State University-Bozeman, B.S., 1993, Electrical Engineering</p>
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	<p>ATSSA Traffic Control Supervisor certification Responsible Land Disturber, VA Dept. of Conservation and Recreation (Cert. No. 36859) VDOT Erosion & Sediment Control Contractor Certification (Cert. No. 5999C) Engineer-In-Training, Montana Professional Affiliation: ITE</p>

- 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.)

Project Manager, Memphis SmartWay Project, Memphis, Tennessee

Responsible for the daily coordination and management of 15 subcontractors performing over \$16 million of work. Project deployed ITS devices and all civil, electrical, and communication infrastructure necessary to support them. Included and integrated 330 radar detectors, 90 CCTVs, 39 DMSs, 10 VIDs, and 5 over-height detectors in the Memphis metropolitan area. Included installation of 89 miles of fiber optic cable in conduit for the gigabit network connecting the devices. Also included installation of two new towers for a licensed 23 GHz microwave radio network and the build-out of the Traffic Management Center with video wall, cubes, support structure and 11 custom consoles.

Mr. Stock's experience on this project is with TransCore
Project start and end dates: 09/2005 – present

Project Manager, Freeway and Arterial System of Transportation, Las Vegas, Nevada

In Phase One of this project, he was responsible for the system integration of the FAST ATMS. Oversaw all staff associated with the system integration, equipment procurement and testing, communication protocol development and testing, and quality assurance and system acceptance for each element of the project.

Mr. Stock was responsible for all aspects of the second phase of the project which expanded on the first phase adding 74 radar detectors, 9 overhead DMSs, 12 CCTVs. This phase built-out the traffic management center, installed a 4x9 video wall, 10 custom operator consoles, equipped a "War room" with video equipment, and provided electrical service for 80 equipment racks in communication and computer rooms.

Mr. Stock's experience on this project is with TransCore
Project start and end dates: 06/2003 – 09/2005

Project Manager, I-75 Fog Detection & Warning System, Chattanooga, Tennessee

Oversaw installation, integration, and maintenance of 21 miles of centerline ITS infrastructure, including replacement of 21 miles of a 3,000 Volt power distribution system, 7 miles of fiber optic infrastructure, 21 CCTV cameras, 14 radar traffic sensors, 9 DMSs, 10 changeable speed limit signs, and 6 entrance ramp gates. Included furnishing and installing poles, sign structures, cabinets, foundations, guardrail, conduit, fiber optic cable, electrical power service, wired and wireless wide-area Ethernet network, and other required software and hardware to complete a fully functioning system.

Mr. Stock's experience on this project is with TransCore
Project start and end dates: 11/2008 – 11/2012

Project Manager, US-60 Design Build, Phoenix, Arizona

Freeway Management System (FMS) installation, integration, testing as part of widening of US60 through Mesa and Tempe. Mr. Stock supervised TransCore staff responsible for all construction inspection of the ATMS, including conduit, wiring, and installation of the FMS. Included was over 26 miles of fiber optic cable with 900 fusion splices, configuring, wiring, programming and testing over 50 341-type cabinets with 179-type controllers, calibration and testing of passive acoustic detectors at each 341 cabinet, testing and configuration of the CCTV and variable message signs, integration of all elements with the existing Arizona DOT network and expansion of the database at the ADOT traffic operations center.

Mr. Stock's experience on this project is with TransCore
Project start and end dates: 05/2001 – 06/2003

Advanced Traffic Management System; Salt Lake City, Utah

Mr. Stock was responsible for overseeing the construction, installation and integration of the communication system and configuration of the network through SNMP based network management software for the I-15 ATMS Design/Build Project in Salt Lake City, Utah. The install team is responsible for configuring field elements, installing and proving communication from each device to central network, and testing the network. The project construction and integration of the ITS was completed early in June 2001, several months ahead of schedule.

Mr. Stock's responsibilities included the design, procurement, and installation of all components of the fiber plant and communication end equipment. The communication network relays information between approximately 550 traffic signals, 200 freeway traffic monitoring stations, 150 closed circuit television cameras, and 50 variable message signs to three fully redundant traffic management centers over approximately 550 miles of fiber optic cable. This system is fully redundant down to the device level. The network design includes the data and video distribution, a video backbone, SONET OC-3 data backbone, and an ATM backbone. Low speed data devices communicate over fiber and Mr. Stock designed the physical fiber optic cable plant, including fiber counts for all segments of the system, splice designs, hub locations, and SONET ring routing

Mr. Stock's experience on this project is with TransCore
Project start and end dates: 06/1997– 09/2000

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	Mark A. Thompson, P.E., Vice President, Transportation Mobility Manager
b. Project Assignment:	Lead Designer
c. Name of Firm with which you are now associated:	Parsons Brinckerhoff, Inc.
d. Years experience: With this Firm <u>15</u> Years With Other Firms <u>13</u> 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.):	Parsons Brinckerhoff, Herndon, Virginia, July 2009 to present Vice President, Transportation Mobility Manager – leading ITS design, ITS consulting, traffic engineering and traffic operations projects. Telvent Farradyne, Rockville, Maryland, July 2006 to July 2009 Vice President, Technical Director – led all software development, system engineering, communication design and system delivery for the firm. Served as PM for the delivery of more than 50 systems. PB Farradyne, Rockville, Maryland, February 1993 to July 2006 Senior Vice President, Technical Director - led all software development, product development, product evolution, system engineering, communication design and system delivery for the firm. Served as PM for the delivery of more than 50 systems.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	University of Minnesota, St. Paul/Minneapolis MN, B.S.C.E. Civil Engineering, 1983, Emphasis in Transportation
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	2010, Professional Engineer, Virginia #0402048032 1995, Professional Engineer, Civil, Maryland, #20599
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	I-95 Reconstruction, Innovative Strategies, PennDOT, Philadelphia, PA Served as the task lead for the development of innovated strategies to improve the maintenance and protection of traffic, ITS design and Operations during the reconstruction of 51 miles of I-95 through Pennsylvania. The effort included providing research on a wide variety of innovated strategies to improve traffic operations and safety, implementation of ITS devices including ATM and improved operational procedures during constructions. Development of VISSIM models for the corridor and conducted an extensive 30-day Origin-Destination survey of existing facility users to help with construction sequencing decisions, alternate route selection, and improve traffic

operations for the facility. Also served as lead for ITS strategy development for the corridor leading to the development of strategies and designs for the implementation of Active Traffic Management, Ramp Metering and the integration of performance management into a continuous improvement process for the management of traffic during and post construction operations.

Mr. Thompson's experience on this project is with Parsons Brinckerhoff
Project start and end dates: 2010 – present

Dominion Boulevard Improvements, Chesapeake, Virginia

Project involved the design of a 4-lane bridge over the Atlantic Intracoastal Waterway (AIW), grade separated interchanges and improvement of at-grade intersections along Dominion Blvd./US 17. Led the development of the technology based elements of the project. Work included the development of the ITS elements such as the Open Road Tolling (ORT) specification, CCTV, License Plate Recognition system, vehicle classification system, Dynamic Message Signs (DMS) and supported the signal system designs.

Mr. Thompson's experience on this project is with Parsons Brinckerhoff
Project start and end dates: 2004 – present (supporting construction activities)

Dulles Rail Phase 2 Extension, Fairfax and Loudoun Counties, VA

Served as the Senior Traffic Engineer and Technical Lead for the evaluation of station access and circulation issues for construction Phase II of the Dulles Rail Extension. Updated traffic forecasts, prepared trip distribution and assignment, evaluated impacts to adjacent intersections, analyzed station access and circulation, and made recommendations regarding lane use, lane control, signalization and geometric design.

Mr. Thompson's experience on this project is with Parsons Brinckerhoff
Project start and end dates: 2009 – 2011

Traveler Information Systems/ITS Systems

Technical manager for the delivery of systems for MTC in San Francisco, California (TravInfo), New Jersey Department of Transportation Statewide, New York State Department of Transportation Statewide, and Pennsylvania Department of Transportation Statewide 511 solutions. Developed technical specifications for DelDOT 511 system. Served as project manager for the implementation of the NoVA Districts traffic signal system.

Mr. Thompson's experience on this project is with Parsons Brinckerhoff
Project start and end dates: Various dates

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title:	John Michels, PE, Supervising Structural Engineer
b. Project Assignment:	Lead Structural Engineer
c. Name of Firm with which you are now associated:	Parsons Brinckerhoff, Inc.
d. Years experience: With this Firm <u>24</u> Years With Other Firms <u>0</u> 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.):	<p>John Michels is a Supervising Structural Engineer experienced in project management, design, review, and inspection of concrete and steel structures. His assignments have included bridge design and rehabilitation projects including bridge widening, deck replacements, load ratings, and other transportation structures using LRFD like highway sign bridge and cantilever structures and foundations. John has served in supervisory and project management positions during the design, construction, and inspection of numerous bridges.</p>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:	Virginia Polytechnic Institute and State University, Blacksburg, VA, BS, 1987, Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #:	Professional Engineer: 1992/Virginia (#023321); 2001/DC (#PE900039); 2004/Maryland (#30078)
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your specific responsibilities and authorities for each assignment, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each assignment.</i> (List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)	<p>Supervising Engineer, Dominion Boulevard Improvements, Chesapeake, Virginia Supervised the final design, production, and coordination of structural drawings for grade separation bridge structures over Cedar Road, Bainbridge Blvd., Great Bridge Blvd. and Ramp K over Ramp L. The single-span to three-span continuous bridges ranged in length from 120-feet to 503-feet and consisted of prestressed concrete girders with semi-integral abutments supported by prestressed concrete piles. All designs met VDOT specifications.</p> <p>Mr. Michels' experience on this project is with Parsons Brinckerhoff. Project start and end dates: 2010 – 2011</p> <p>Supervising Engineer, Rte. 17 over Poquoson River, VDOT On-Call Contract for Design of New Bridges, Region III (Richmond, Fredericksburg, and Hampton Roads), Virginia Supervising engineer for the final design, production, and coordination of structural drawings of an 88-foot-long, single-span, six-lane prestressed concrete girder bridge with integral abutments supported by steel piles. Design included load rating using Virtis software. All designs met VDOT specifications.</p> <p>Mr. Michels' experience on this project is with Parsons Brinckerhoff. Project start and end dates: 2007 – 2007</p>

Supervising Engineer, Lansdowne Interchange Design, Lansdowne, Virginia

Supervising engineer for the final design, production, and coordination of structural drawings of a 214-foot-long, two-span continuous, three-lane steel girder bridge. All designs met VDOT specifications.

Mr. Michels' experience on this project is with Parsons Brinckerhoff.
Project start and end dates: 2001 – 2006

Supervising Engineer, VDOT Region IV Bridge Maintenance and Repair Task Order Contract, Northern Virginia District

Supervising engineer for the structural inspection, design and production of final documents and specifications, and related support services. Tasks include:

- Rehabilitation of I-95 NB & SB bridges over Russell Road. Work included deck mill and overlay, superstructure steel repair, bearing replacement, reconstruction of bearing pedestals and substructure repairs.
- Reconstruction of concrete culvert wingwall at McLearen Road over Horsepen Run.
- Rehabilitation of fire damaged four-barrel culvert at Army-Navy Drive located below I-395.
- Repair of erosion and undermining of Pohick Road bridge substructure and approach slab over Fairfax County Parkway (Rte. 7100).
- Rehabilitation of steel and aluminum sound wall on I-395 Ramp to I-95 SB.

Mr. Michels' experience on this project is with Parsons Brinckerhoff.
Project start and end dates: 2008 – ongoing

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: David Nies-Berger, Master Electrician
b. Project Assignment: Electrical/ITS Supervising Technician
c. Name of Firm with which you are now associated: Elite Contracting Group
d. Years experience: With this Firm <u>3</u> Years With Other Firms <u>13</u> 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.): Elite Contracting Group, Petersburg, VA, Electrical Division Team Leader, Master Electrician 2009 – Current Mr. Nies-Berger has served as the lead electrician on numerous VDOT construction and maintenance projects including ITS and security contracts in the Northern Operations Region and statewide. IBEW Local 666, Electrical Union, Journeyman Electrician 2005 – 2009 As a Journeyman Electrician in Richmond’s Electrical Union, Mr Nies-Berger worked on a broad variety of electrical jobs including construction electrician on high end commercial and heavy industrial projects such as Capitol One data centers, Budweiser control upgrades, multiple Phillip Morris projects, MCV bed tower construction; installed, electrical equipment using blueprints and the NEC including the slab work and any outside/tower work; and other installations including low voltage lighting, fire alarm systems, to 4160kV switch gear, 5” PVC coated rigid, 150kVA transformers, and everything in between. Richmond Joint Apprenticeship and Training Center, Electrician Apprentice 2001 – 2005 Completed 8,000 hours of on the job training and 900 hours of classroom training preparing for certification as a Journeyman Electrician. In four years of full-time on the job training, Mr. Nies-Berger gained experience working in a wide range of job sites and equipment and studied AC/DC Theory, Algebra/Trigonometry for the electrician, Codeology, emerging technologies, construction techniques and tools, blueprint and ladder logic interpretation, motor controls, and many other topics. Key training accomplishments included learning to navigate, and understand the National Electrical Code (NEC) to apply on the job and receiving OSHA 10 and OSHA 30 (Arc Flash Protection and Lockout/Tagout) training and certification. Pollard & Bagby Real Estate Property Management 2000 Provided property management support working in landscaping, carpentry, electrical, plumbing and other maintenance capacities, as needed to maintain the facilities. US Navy, Gas Turbine Engine Mechanic 1995 – 1999 Maintained and repaired gas turbine engines aboard U.S. Naval vessels.

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

Richmond Joint Apprenticeship and Training Center, Ashland, VA – Journeyman Electrician card, 2005
Gas Turbine “A” School, Chicago, IL – Gas Turbine “A” certification, 1999
Midlothian High School, Midlothian, VA – Diploma, 1995

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

2005, Electrician – Journeyman: 2005 / #2710 48423
2010, Electrician – Master: 2010 / #2710 48423
OSHA 30, Electrical safety and Flash Protection, Training completed: 2002

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.)

Virginia Department of Transportation Northern Virginia Operating Region ITS Maintenance

As Elite’s Senior Electrician, Mr. Nies-Berger has worked closely with TransCore, the prime Contractor on this contract, maintaining, troubleshooting, and repairing a broad variety of ITS equipment across VDOT’s entire Northern Virginia Region. Mr. Nies-Berger has direct contact with VDOT staff in his roll on this project and has demonstrated exceptional interpersonal communications skills working with VDOT and TransCore throughout this project.

Mr. Nies-Berger’s experience on this project is with Elite Contracting Group.
Project start and end dates: 11/17/2008 – Ongoing

Virginia Department of Transportation Northern Virginia Operating Region and Eastern Operating Region Dynamic Message Sign Retrofits

Mr. Nies-Berger led Elite’s electrical work in retrofitting aging DMS with new controllers and lighting panels in Northern Virginia and in Hampton Roads. Mr. Nies-Berger performed hands-on work as well as supervising the work of the elite team in surveying, planning, and carrying out the electrical work providing power and communications to more than 100 Dynamic Message Signs across the state. Mr. Nies-Berger worked closely with TransCore throughout the project. This project was also featured in the December 2011 edition of ITS International: <http://www.itsinternational.com/features/article.cfm?recordID=4839>

Mr. Nies-Berger’s experience on this project is with Elite Contracting Group.
Project start and end dates: 1/20/2011 – 9/20/2011(NOVA), Ongoing (Eastern Region)

Virginia Department of Transportation Route 164 Intelligent Transportation System Project

On the Western Freeway ITS Deployment, Mr. Nies-Berger leads the Elite Contracting technical team in surveying, planning, and installing the electrical and communications services for CCTV, DMS, as well as the supporting power and communications infrastructure for Virginia State Route 164 in Hampton Roads. TransCore and Elite are partners on this important project.

Mr. Nies-Berger’s experience on this project is with Elite Contracting Group.
Project start and end dates: 3/17/2011 – Ongoing

Virginia Department of Transportation Statewide Critical Infrastructure Security Maintenance

Mr. Nies-Berger provides invaluable experience and expertise as a senior technical leader and as a Master Electrician on Elite’s 24/7/365 support of VDOT providing maintenance support to security facilities at all of VDOT’s critical infrastructure installations. The scope of this project includes Transportation Management Centers, bridges, tunnels, and other facilities totaling over 35 across Virginia. Mr. Nies-Berger coordinates planned-maintenance activities and responds to service calls, troubleshooting and repairing CCTV, access control, and other similar equipment affiliated with VDOT’s critical infrastructure installations.

Mr. Nies-Berger’s experience on this project is with Elite Contracting Group.
Project start and end dates: 7/1/2010 – Ongoing

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
<p>(1) Florida DOT District Three I-10/I-110 Freeway Management System and Regional Transportation Management Center Escambia and Santa Rosa Counties, FL</p>	<p>TransCore was the prime contractor for the design, construction, operation, and maintenance of this Freeway Management System and Regional Transportation Management Center project. The system includes 12 dynamic message signs, 40 CCTV cameras, 88 microwave vehicle detectors, and 1 road weather information station. This also includes a fiber optic backbone along approximately 40 miles of interstate highways with a wireless communications extension. TransCore's work included build-out of the RTMC and video wall, along with long term system operations, maintenance, and Road Ranger Service Patrol.</p> <p>All devices were integrated into the central communications system utilizing the SunGuide Software package. Software integration and installation was completed under this contract for all devices and the overall communications and traffic management center system. As prime contractor, TransCore provided program management, value-engineering, installation, test software preparation, and integration of the components.</p> <ul style="list-style-type: none"> ▪ Management of subcontractors responsible for underground construction activities (conduit plant, poles and foundations, power infrastructure). ▪ Installation, splicing, and termination of over 40 miles of fiber optic cable. Splicing included over 1000 fusion splices at 42 splice locations. ▪ Installation of 40 Type 336 cabinets, with 88 radar detection stations ▪ Installation of 40 CCTV cameras along the freeway corridors. ▪ Installation of 88 microwave vehicle detector units at locations to allow for travel time recording and display. ▪ Installation of 12 dynamic message signs and new support structures. ▪ Installation of communications elements, including network switches, terminal servers, fiber optic transceivers, covering wired and wireless serial and Ethernet communications. ▪ Development and installation of a traffic management and information website providing real time streaming video images for public reference. ▪ Installation and integration of a 3x2 rear projection video wall and LCD monitors for management center use. ▪ Construction and build-out of the traffic management center facility for operations staff and device management ▪ Integration and in-depth testing of all devices prior to delivery. 	<p>Florida Department of Transportation, District Three P.O. Box 607 Chipley, FL 32428-0607</p> <p>Mr. Chad A. Williams, P.E. Florida DOT, District Three P.O. Box 607 Chipley, FL 32428-0607 Telephone: (850) 415-9504 E-mail: chad.williams@dot.state.fl.us</p>	<p>Design/Build: June 30, 2010</p>	<p>Design/Build: February 2011 (extended due to weather days and additional work)</p> <p>Operate/Maintain: June 2018</p>	<p>\$34,000,000</p> <p>(Design/Build: \$17,500,000 Operate/Maintain: \$16,500,000)</p>	<p>\$35,206,486</p>	<p>\$35,206,486</p>

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
(2) Nevada DOT Freeway and Arterial System of Transportation (FAST) Stages 1 and 2 Las Vegas, NV	<p>TransCore was the prime contractor for Stages 1 and 2 of this system deployment. The project encompassed construction, installation, and integration of freeway management system components along seven miles of I-515 and I-15 adjacent to downtown Las Vegas. Included are 13 CCTV cameras, 26 traffic monitoring stations with 64 radar detectors and 6 loop count stations, 4 ramp meters with 8 video detection stations, 60 dynamic trailblazer signs, and 24 remote webcams. All devices communicate with the FAST operating center where it connects to the central system over equipment provided under this project. TransCore also furnished, installed, integrated, and tested communication servers, video switching equipment, test equipment and test software. As prime contractor for Stage 1, TransCore provided program management, value-engineering, installation, test software preparation, and integration of the components. Specific tasks included:</p> <ul style="list-style-type: none"> ▪ Management of subcontractors responsible for underground construction activities (conduit plant, poles and foundations, power infrastructure). ▪ Installation, splicing, and termination of over 23 miles of fiber optic cable. Splicing included over 1200 fusion splices at 38 splice locations. ▪ Installation of 26 Type 170 controller cabinets, with 64 radar detection stations, 8 video detection stations, 6 inductive loop detection stations, and 4 ramp meters. ▪ Development of firmware (BITran Systems) to operate the ramp meters, and support for the successful turn-on of 3 existing ramp meters in March 2005. ▪ Installation of 13 CCTV cameras along the freeway corridor. ▪ Installation of 24 Webcams at locations to allow for FAST operators to view existing dynamic message signs and confirm messages and traffic conditions. ▪ Installation of 60 state-furnished trailblazer signs at key intersections generally north and east of the freeway project limits. ▪ Installation of communications elements, including network switches, terminal servers, video switches, fiber optic transceivers, covering wired and wireless serial and Ethernet communications. ▪ Preparation of software for testing and maintenance purposes for CCTV, trailblazer signs, 170 controllers, and video switches. ▪ Integration and in-depth testing of all devices prior to delivery. <p>Stage 2 expansion of the project included the following work by TransCore.</p> <ul style="list-style-type: none"> ▪ Management of subcontractors responsible for electrical contracting activities (power infrastructure, incidental conduit installation). ▪ Installation, splicing, and termination of over 30 miles of fiber optic cable along I-15, Clark County 215, Charleston Blvd, and Sahara Blvd. Splicing included over 1200 fusion splices at over 70 splice locations. ▪ Installation of 48 Type 170 controller cabinets, with 76 radar detection stations, 10 video detection stations, 6 inductive loop detection stations, & 11 ramp meters. ▪ Installation of 12 CCTV cameras along the freeway corridor. ▪ Installation of 9 dynamic message signs along the freeway corridor. ▪ Installation of 65 state-furnished trailblazer signs at key intersections generally west of the freeway project limits. ▪ Installation of communications elements, including video switches, fiber optic transceivers, covering wired and wireless serial and Ethernet communications. ▪ Preparation of software for testing and maintenance purposes for CCTV, trailblazer signs, 170 controllers, and video switches. ▪ Integration and in depth testing of all devices prior to delivery. 	<p>Nevada Department of Transportation 1263 South Stewart Street Carson City, NV 89712</p> <p>Tom Moore, P.E., Chief Traffic Engineer Nevada Department of Transportation 1263 South Stewart Street Carson City, NV 89712 Telephone: (775) 888-7566 E-mail: tmoore@dot.state.nv.us</p>	<p>Stage 1:Jan. 2005 Stage 2:Apr. 2007</p>	<p>Stage 1: Jun. 2005 Stage 2: May 2007</p>	<p>\$19,950,000 (St. 1: \$11,700,000, Stage 2: \$8,250,000)</p>	<p>\$21,945,000 (Stage 1: \$13,700,000 includes work from planned future stages to be finished before moving into the new TMC in spring, 2005; Stage 2: \$8,245,000 includes change orders adding communications and control equipment at the TMC and changing from copper to aluminum conductors)</p>	<p>\$21,945,000 (Stage 1: \$13,700,000; Stage 2: \$8,245,000)</p>

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
(3) Memphis SmartWay Expansion Memphis, TN	<p>TransCore provided construction and integration services for the Memphis SmartWay expansion to the Tennessee DOT. As prime contractor, Transcore provided comprehensive installation, integration, and maintenance of approximately 84 miles of centerline ITS infrastructure. The system includes furnishing and installation of poles, sign structures, cabinets, foundations, guardrail, conduit, fiber optic cable network, electrical power service, a wired and wireless wide-area Ethernet communications network system, and other required vendor software/hardware necessary to complete a fully functioning system. A summary of the project components includes the following:</p> <ul style="list-style-type: none"> ▪ 84 centerline miles ▪ 67 miles of fiber optic communication infrastructure ▪ 90 CCTV cameras, with new metal poles and foundations ▪ 330 microwave radar traffic sensors ▪ 39 dynamic message signs ▪ Licensed wireless microwave communications between Memphis and TDOT Regional Headquarters ▪ Unlicensed wireless Ethernet communications (field devices) ▪ Environmentally-hardened fiber optic Ethernet switches ▪ IP system design, configuration, and management ▪ TOC console, video display equipment, network equipment, and other miscellaneous furnishings ▪ 3 years system maintenance upon project completion <p>The fiber optic Ethernet communications system is installed for the IP-based transport of all system data and video communications for the areas that the system serves. The fiber optic cable network consists of cable, conduit, splicing and termination facilities and connects all field locations in approximately 61 miles of the project limits. Local field devices communicate over the fiber optic cable on 100Mb Ethernet LAN segments that connect to communications hubs and the Regional Transportation Management Center.</p> <p>Under this contract, TransCore also provided an unlicensed wireless Ethernet communications used for IP-based transport of all system data and video communications for the areas that the system serves, linking the subscriber locations at the local field device to base station collection points. Ethernet trunk links were installed for the aggregation of subscriber links.</p> <p>In addition to the local wireless links, the project also included a separate long-haul licensed microwave transport backbone connection between the TMC and TDOT's Region 4 Office located in Jackson, Tennessee. This wireless long-haul connection included five total "hops" and is used to transmit video and data from the TMC to the Region 4 Office. These wireless links also include additional bandwidth and interfaces for future uses by other State Agencies. This wireless system includes the use of four existing towers, the replacement of one existing tower, and the construction of one additional new tower.</p> <p>The overall project was constructed and brought online in two separate segments. The first segment included approximately 27 miles of new installation, implementation of TMC Systems including the Interim Software System and all related materials, and switching over the existing Early Deployment Project devices and wireless links from the existing Help Dispatch Center to the new TMC. Segment 1 also included constructing the wireless long-haul connection to TDOT's Region 4 Office. The second segment included all remaining items in the contract. The project is in the maintenance phase through August 2012.</p>	<p>Tennessee Department of Transportation Memphis Transportation Management Center 5344 Boswell Avenue Memphis, TN 38112</p> <p>Michael Rebick (former Proj. Engineer for Tennessee DOT) Gannett Fleming Project Development, Corp. 3086 Summer Ave. Memphis, TN 38112 Telephone: (901) 463-0790 E-mail: mrebeck@gfnet.com</p> <p>Gregory Dotson, P.E. ITS CEI Manager Gresham, Smith and Partners 1138 N. Germantown Pkwy. Suite 101-341 Cordova, TN 38016 Telephone (901)355-1256 E-mail: greg_dotson@gspnet.com</p>	March 31, 2008	October 27, 2008	\$31,588,888	\$33,669,308	\$33,669,308

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
(1) Active Traffic Management Feasibility Study Seattle, Washington	<p>This feasibility study assessed innovative traffic management concepts from European countries and cities for their applicability in the Puget Sound region.</p> <p>Phase 1 culminated in a workshop that included the presentation of ATM concepts, the identification of evaluation criteria, and the selection of a freeway for testing of ATM concepts.</p> <p>Major work elements for Phase 2 included an investigation of ATM concepts for application in the Puget Sound, an assessment of operational, policy and institutional benefits and challenges to implementation, and conceptual design and cost estimates for all ATM techniques.</p> <p>Phase 3 included the development of conceptual designs and cost estimates for a combined speed harmonization and queue warning system, completion of a Concept of Operations report for the proposed system, modification of the Regional ITS Architecture to include ATM techniques, development of a sketch-planning tool using IDAS, and the creation of a video animation of the proposed system for WSDOT's public information and project roll-out process.</p>	<p>Washington State Department of Transportation Urban Corridors Office 401 2nd Ave. S. #300 Seattle, WA 98104</p> <p>Craig Stone Telephone: (206)464-1222</p> <p>Jennifer Charlebois Telephone: (206)716-1106</p>	2009	2009	\$702K	\$702K	\$382K
							<p><u>Note:</u> An additional \$232K of subcontracted work was performed by staff who are now employed by Parsons Brinckerhoff.</p>

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
(2) Dominion Boulevard Improvements Chesapeake, Virginia	<p>The project involves converting Dominion Boulevard, currently a two-lane, rural roadway into a four-lane limited access principal arterial throughout the project limits. This requires construction of grade separated interchanges at the intersections of Dominion Boulevard with Great Bridge Boulevard, Bainbridge Boulevard and Cedar Road, as well as frontage roads and access roads required in conjunction with the construction of these interchanges. The project also involves replacement of the existing bascule bridge over the Atlantic Intracoastal Waterway (AIW) with a mile long, high level fixed span providing 95' of vertical clearance.</p> <p>The preliminary phase involved extensive traffic studies including a sensitivity analysis to evaluate route diversion and travel pattern changes as a result of the imposition of a toll to the roadway; travel demand modeling for design year traffic (Ad date plus 22 years) for various improvement scenarios; post-processing of demand model data to develop traffic estimates suitable for operations analysis; and Level of Service analyses of various roadway and interchange alternatives. Traffic design includes signing, striping, signalization and maintenance of traffic plans.</p> <p>Roadway plans include a detailed and specific construction sequence and maintenance of traffic plan for the project in order to maintain traffic on existing Dominion Boulevard during construction. The plan included construction of a new bridge, grade separated interchanges and supporting infrastructure.</p> <p>A comprehensive plan was developed for the project. The plan included elements such as the bridge deck, bridge piers, roadway design, open road tolling infrastructure elements (vehicle classification equipment, tag readers, license plate readers, etc.), open road tolling back office, open road tolling gantry piers. ITS equipment was included in the plan and designed such as cantilevered DMS signs and structures, the communications backbone, CCTV, intersection signal plans with communication support and design for power to all the devices associated with the project.</p>	City of Chesapeake Department of Public Works 306 Cedar Road Chesapeake, VA 23322 Kevin Lundgren, Civil Engineer Telephone: (757)382-6383	Fall 2015	Ongoing	\$11.5M	\$13.1M	\$9.85M
			Note: estimate for completion of construction			Note #1: Additions were for extra work requested by the client. Note #2: construction cost estimate is \$250 million	

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<p>(3) Lee County Bridge Incident Management System (BIMS), Phase I Design-Build Lee County, FL</p>	<p>Florida DOT District One awarded the \$5.7 million Lee County Bridge Incident Management System (BIMS), Phase I Design-Build Project to the Traffic Control Devices, Inc. (TCD)/PB Team. The project will deploy an Incident Management System for three bridges across the Caloosahatchee River and the surrounding roadway network in Lee County, Florida. As prime designer, PB designed a hybrid wireless/fiber optic Ethernet-based communications network to support a variety of ITS devices. Some of these devices were:</p> <ul style="list-style-type: none"> ▪ Nine Closed Circuit Television cameras ▪ Nine Dynamic Message Signs ▪ 18 Microwave Vehicle Detectors ▪ 37 Dynamic Trailblazer Signs ▪ Two Highway Advisory Radio (HAR) transmission sites ▪ 14 HAR signs with flashing beacons ▪ A Roadway Weather Information System (RWIS) assembly near one of the bridges ▪ Five wireless hub sites with cellular modem connections ▪ Four Gigabit Ethernet node sites <p>PB's efforts include preparation of site plans, communications plans, wireless spectrum analyses, fiber optic splicing and connection details, structural design, wiring diagrams, power service design, special details, traffic control plans, as well as drilled shaft inspection.</p> <p>Noteworthy Features</p> <ul style="list-style-type: none"> ▪ ITS conduit infrastructure designed and approved for construction first. Remaining design completed during infrastructure construction. ▪ Extensive spectrum analyses were performed for locating wireless remote sites within the 4.9 GHz spectrum. <p>Detailed bridge attachment design for supporting conduits, aerial junction boxes, and devices on bridge.</p>	<p>Florida Department of Transportation, District One Katherine Duvall FDOT District One, Traffic Operations PO Box 1249 Bartow, FL 33831-1249 Telephone: (863)519-2726</p>	November 2011	February 2012	\$5.8 million	\$5.8 million (estimated)	\$400K