

STATEMENT OF QUALIFICATIONS

I-66 WIDENING PRINCE WILLIAM COUNTY, VA

State Project No.: 0066-076-003,
P101, R201, C501, B674, B675
Federal Project No.: NH-5A01(194)
Contract ID Number: C00093577DB48

Submitted to

VDOT

Alternative Project Delivery Office
1221 East Broad Street
Main Building, 4th Floor
Richmond, VA 23219

Submitted by

**Fort Myer
Construction Corporation**

2237 33rd Street, N.E.
Washington, DC 20018
(202) 636-9535

T.Y. Lin International

5285 Shawnee Road, Suite 210
Alexandria, VA 22312
(703) 245-5200

February 13, 2012

ATTACHMENT 3.1.2

0066-076-003, P101, R201, C501, B674, B675

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	i-iii
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	iv
Letter of Submittal (on Offeror's letterhead)				
Offeror's point of contact information	NA	Section 3.2.1	yes	1
Authorized Representative's signature	NA	Section 3.2.1	yes	2
Principal officer information	NA	Section 3.2.2	yes	3
Offeror's Corporate Structure	NA	Section 3.2.3	yes	4
Affiliated/subsidiary companies	NA	Section 3.2.4	yes	4
Debarment forms	Attachment 3.2.5(a) Attachment 3.2.5(b)	Section 3.2.5	no	Addend. A
Offeror's VDOT prequalification evidence	NA	Section 3.2.6	no	Addend. B
Evidence of obtaining bonding	NA	Section 3.2.7	yes	5
Professional Services Evidence				
Full size copies of SCC and DPOR registration documentation (appendix)	NA	Section 3.2.8	no	Addend. C

ATTACHMENT 3.1.2

0066-076-003, P101, R201, C501, B674, B675

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20-page limit?	SOQ Page Reference
SCC Registration	NA	Section 3.2.8.1	yes	6
DPOR Registration (Offices)	NA	Section 3.2.8.2	yes	6-7
DPOR Registration (Key Personnel)	NA	Section 3.2.8.3	yes	7
DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.8.4	yes	7
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.9	yes	7
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	8-10
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Addend. D
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Addend. D
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Addend. D
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Addend. D
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Addend. D
Key Personnel Resume – Lead Traffic/ITS Designer	Attachment 3.3.1	Section 3.3.1.6	no	Addend. D
Organizational chart	NA	Section 3.3.2	yes	11
Organizational chart narrative	NA	Section 3.3.2	yes	12
Experience of Offeror's Team				13

ATTACHMENT 3.1.2

0066-076-003, P101, R201, C501, B674, B675

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 20- page limit?	SOQ Page Reference
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Addend. E
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Addend. E
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	16-20

ATTACHMENT 2.10

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00093577DB48
PROJECT NO.: 0066-076-003, P101, R201, C501, B674, B675

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

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

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

1. Cover letter of RFQ December 20, 2011
(Date)
2. Cover letter of _____
(Date)
3. Cover letter of _____
(Date)


Jose Rodriguez, SIGNATURE
President, FORT MYER CONSTRUCTION CORPROATION

February 13, 2012
DATE

Statement of Qualifications

3.0 General



FORT MYER CONSTRUCTION CORPORATION

2237 33rd Street, NE • Washington, DC 20018-1594 • (202) 636-9535 • FAX (202) 526-8572

February 10, 2012

Commonwealth of Virginia
Department of Transportation (VDOT)
Central Office Mail Center
Loading Dock Entrance
1401 E. Broad Street
Richmond, Virginia 23219

Attention: Brenda L. Williams

Re: Interstate 66 widening from approximately 1.2 miles west of U.S. Route 15 (James Madison Highway) to approximately 0.2 miles west of U.S. Route 29 (Lee Highway)
State Project No. 0066-076-003, P101, C501, B674, B675
Federal Project No. NH-5A01(194)
Contract ID No. C00093577DB48

Dear Ms. Williams:

Fort Myer Construction Corporation (“Fort Myer”) is pleased to submit its Statement of Qualifications regarding the above-referenced design-build project.

Fort Myer is dedicated to delivering superior quality projects meeting all cost and schedule needs of our customers, all while being a contractor of choice in the Virginia, Washington D.C., and Maryland area. Through its nearly 40 years, Fort Myer has established itself as a premier infrastructure contractor. During that time, it has constructed new, milled and re-paved public roads; constructed hundreds of miles of city streets; repaired and constructed bridges; provided the extension and construction of underground utilities, and provided streetlight and traffic signal construction and rehabilitation services. Fort Myer has worked on numerous Design-Build projects, including the current reconstruction of I-66 and the reconstruction of the New York Avenue Bridge in the District of Columbia.

Fort Myer is privileged to be partnering with T.Y. Lin International (“TYLI”) located in Alexandria, VA. Founded in San Francisco in 1954, TYLI is a multi-disciplinary architectural and transportation engineering firm with over 675 planners, scientists, and engineers sited throughout the United States, and provides the U.S. and the global infrastructure market with innovative and cost-effective engineering analysis and design.

Operating from key office locations around the U.S., TYLI’s staff offers a wide range of professional capabilities in the area of bridge and transportation project delivery. In partnership with transportation officials, construction and development firms, and community leaders, we create and help build unique structures while emphasizing constructability, value, and schedule. TYLI provides leadership and support on projects of varying sizes and complexities, such as: design of bridges, interchanges,

highways, rail/transit, airport, and port/marine; seismic retrofit and rehabilitation of existing structures; transportation planning and traffic engineering; structural analysis, feasibility studies, and engineering consultation; general civil and structural engineering.

TYLI has been providing design-build services for more than 50 years. We understand what it means to work as an integrated team and maintain the objectivity of project goals. Knowing that design-build is a method chosen by owners for reasons such as design and cost control, risk management, schedule efficiencies and single point of delivery, we have established a reputation for defining, designing, managing and delivering superior projects that meet owner expectations every time.

It will be my privilege to serve as the point of contact for this Project. I am a Vice President and have the authority to bind Fort Myer to the terms of this proposal. During the bid period and throughout the project, I can be contacted at any time through the following:

Mail: 2237 33rd Street, N.E.
Washington, D.C. 20018
Phone: (202) 636-9535 x2805
Fax: (202) 529-1692
email: mfernandes@fortmyer.com

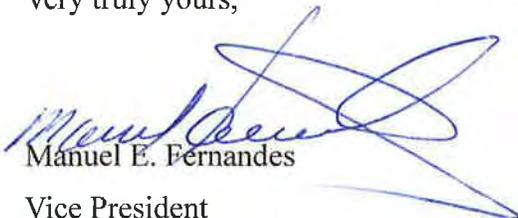
The principal officer of the corporation to whom the contract should be written is Jose Rodriguez, President, Fort Myer Construction Corporation, 2237 33rd Street, N.E., Washington, D.C. 20018; (202) 636-9535.

Team member Pradip Patel, Fort Myer Construction Corporation Design-Build Project Manager, will be the principal contact regarding financial matters for this project.

Fort Myer Construction Corporation has no affiliated and/or subsidiary companies.

We thank you for the opportunity to offer our services to the Commonwealth of Virginia. Should you have any additional questions or concerns, please feel free to contact me.

Very truly yours,


Manuel E. Fernandes

Vice President

Fort Myer Construction Corporation

3.2 Letter of Submittal

3.2.1 POINT OF CONTACT

Primary Contact:

Manuel Fernandes, Vice President of Estimating
Fort Myer Construction Corporation
2237 33rd Street, NE
Washington, DC 20018
Telephone: (202) 636-9535 x 2805
Facsimile: (202) 526-8572
mfernandes@fortmyer.com

Secondary Contact:

Pradip "Pete" Patel, Design-Build Project Manager
Fort Myer Construction Corporation
2237 33rd Street, Northeast
Washington, DC 20018
Telephone: (202) 636-9535 x 2319
Facsimile: (202) 526-8572
ppatel@fortmyer.com

3.2.2 PRINCIPAL OFFEROR

Primary Officer:

Jose Rodriguez, President
Fort Myer Construction Corporation
2237 33rd Street, Northeast
Washington, DC 20018
Telephone: (202) 636-9535
Facsimile: (202) 526-8572
jrodriguez@fortmyer.com

Secondary Officer:

Lewis F. Shrensky, Vice President
Fort Myer Construction Corporation
2237 33rd Street, Northeast
Washington, DC 20018
Telephone: (202) 636-9535
Facsimile: (202) 526-8572
lshrensky@fortmyer.com



3.2.3 OFFERORS STRUCTURE

The team assembled for this proposal is not a joint venture entity.

Fort Myer Construction Corporation (FMC) will be the contracting entity for the Design-Build Team. FMC will undertake the financial responsibility for the project. The principal officer and official representative for the Offeror with whom a Design-Build contract with VDOT would be written is noted in section 3.2.2.

3.2.4 NAMES AND ADDRESSES OF AFFILIATED AND / OR SUBSIDIARY COMPANIES

Fort Myer is organized as a Virginia corporation and is registered (and in good standing) with the State Corporation Commission. Additionally, FMC has no affiliated and/or subsidiary companies other than the legal business entity “Fort Myer Construction Corporation”. Additionally, T.Y. Lin International Group nor any of its design subconsultants have any affiliated and/or subsidiary companies as described in the RFQ with the exception of Haley and Aldrich, Inc.

Haley & Aldrich of Michigan, Inc.

3840 Packard Road, Suite 100 | Ann Arbor, MI 48108-2280

Haley & Aldrich Design and Construction, Inc.

56 Roland Street | Boston, MA 02129

Haley & Aldrich Real Estate, LLC

465 Medford Street, Suite 2200 | Boston, MA 02129-1400

Haley & Aldrich of New York

200 Town Centre Drive, Ste. 2 | Rochester, NY 14623

Haley & Aldrich, P.C.

7926 Jones Branch Drive, Suite 870 | McLean, VA 22102-3363

Haley & Aldrich, Inc. (Ohio)

5755 Granger Road, Ste. 320 | Cleveland, OH 44131

3.2.5 DEBARMENT FORMS

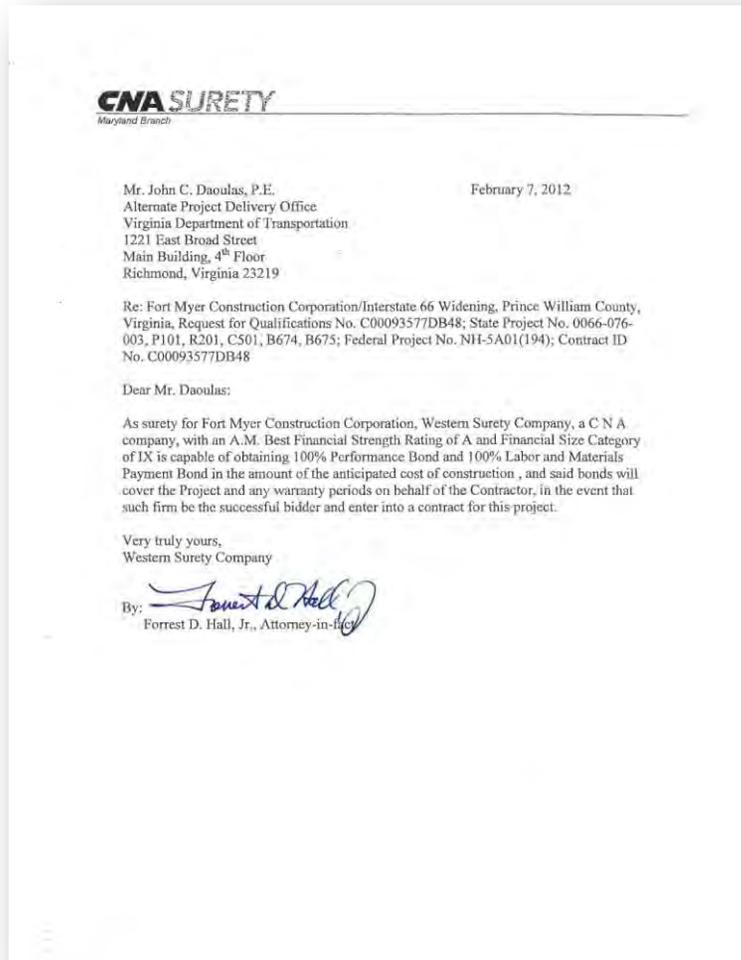
Executed Certification Regarding Debarment Form(s) Primary Covered Transactions, set forth as Attachment 3.2.5(a) and Certification Regarding Debarment Form(s) Lower Tier Covered Transactions, set forth as Attachment 3.2.5(b) can be found in Appendix A.

3.2.6 CONTRACTOR VDOT PREQUALIFICATION

Fort Myer Construction Corporation’s certification number is F034. A full-size copy of VDOT prequalification certificate is included in Appendix B.



3.2.7 SURETY LETTER



3.2.8 PROFESSIONAL AND BUSINESS LICENSES

Full size copies of appropriate commercial professional registration and license for all offices (main and branch) as well as individuals are included in Appendix C. Below is a tabulated summary of requested details.

.1 State Corporation Commission Registration Details:

Name	Registration Number	Type of Corporation	Status
Fort Myer Construction Corporation	0150814-2	Professional Corporation	Active
T.Y. Lin International	F038827-4	Professional Corporation	Active
Greenhorne & O'Mara	F051099-2	Professional Corporation	Active
Haley & Aldrich	F108818-8	Professional Corporation	Active
Schnabel Engineering Consultants, Inc.	0712676-6	Professional Corporation	Active
CMTS LLC	T0486482	Limited Liability Co.	Active
Professional Services Industries, Inc.	F044982-9	Professional Corporation	Active

.2 DPOR Registration Details:

Name	Address	Registration Type	Registration Number	Expiration Date
Fort Myer Construction Corporation	2237 33rd St NE Washington, DC 20018	Contractor Type A	2701 015396	08-31-12
T.Y. Lin International	5285 Shawnee Rd, Suite 210 Alexandria, VA 22312	Business Entity	0405 000362	12-31-13
Greenhorne & O'Mara, Inc.	6110 Frost Pl Laurel, MD 20707	Business Entity	0407 005462	12-31-13
	4460 Brookfield Corporate Drive Suite G Chantilly, VA 20151	Bus. Entity Branch Office	0411 000598	02-29-12
	10800 Midlothian Tnpk Suite 310 Richmond, VA 23235	Bus. Entity Branch Office	0411 000611	02-29-12



Name	Address	Registration Type	Registration Number	Expiration Date
Haley & Aldrich	7926 Jones Branch Drive, Suite 870 McLean, VA 22102	Business Entity	0407 003076	12-31-13
Schnabel Engineering Consultants, Inc.	46020 Manekin Plaza, Suite 110 Sterling, VA 20166	Bus. Entity Branch Office	0411 000701	02-29-12
CMTS, LLC	5028 Wisconsin Avenue, N.W., Suite 250 Washington, D.C. 20016	Business Entity	0407 006004	12-31-13
Professional Services Industries, Inc.	2930 Eskridge Rd Suite A Fairfax, VA 22031	Bus. Entity Branch Office	0411 000149	2-29-12

.3 DPOR Licensing details for Key Personnel

Name	Address	Type	Registration Number	Expiration Date	Location
David Schoenwolf	1 Plantation Court Rockville, MD 20852	PE	022802	8-31-12	McLean, VA
Santiago Rodriguez	5285 Shawnee Rd, Suite 210 Alexandria, VA 22312	PE	034240	10-31-2012	Alexandria, VA
Amir Arab	13314 Hound Run Dr Fairfax, VA 22033	PE	042390	5-31-2012	Alexandria, VA
John Christman	10810 Topbranch Lane Columbia, MD 21044	PE	023087	3-31-12	Laurel, MD

.4 For this project the FMC team does not intend to use any non-APELSCIDLA entities.

3.2.9 DBE COMMITMENT

Furthermore, Fort Myer is committed to exceeding the thirteen (13%) DBE participation goal for the entire value of the contract. As indicated on our organizational chart CMTS, LLC is a minority business and has agreed to provide utility design assistance.



3.3 Offeror's Team Structure

3.3 OFFEROR'S TEAM STRUCTURE

Completed Key Personnel Resume Forms are included in Appendix D for the following individuals:

Design-Build Project Manager

Pradip "Pete" Patel

Fort Myer Construction Corporation

As Design-Build Project Manager, Mr. Pete Patel brings more than 27 years of construction management experience specializing in Design-Build, heavy civil, structural, and roadway projects. With Fort Myer, Mr. Patel has successfully managed several Design-Build projects including the most recent I-66 Rehabilitation project. Mr. Patel will lead all aspects of the project and be the single point of contact for Virginia Department of Transportation. Mr. Patel will be vested with the authority to bind Fort Myer and speak on its behalf.

Quality Assurance Manager (QAM)

David Schoenwolf, PE

Haley & Aldrich, Inc.

Mr. Schoenwolf has more than 33 years of experience providing consulting engineering services. Since joining Haley & Aldrich in 1978, Mr. Schoenwolf has been officer-in-charge, quality assurance manager and project manager for geotechnical engineering and environmental evaluations for a broad range of projects. Mr. Schoenwolf has focused on providing services for the design and construction for roadways, bridges, tunnels, and other infrastructure projects. Mr. Schoenwolf is knowledgeable and experienced in working with VDOT's "Manual for the Procurement and Management of Professional Services," "Manual of Instructions," and has experience with the design and evaluation of interstate, primary and secondary roads.

Being from a completely independent firm, Haley & Aldrich, David Schoenwolf has no affiliation to the construction operations for the Project and will have the overall responsibility for the development of and adherence to the Design-Build QA/QC Plan. Mr. Schoenwolf will also full authority to initiate a work stoppage and be able to recommend to the Department to withhold payment for design and/or construction activities that are not acceptable.

Design Manager

Santiago Rodriguez, PE

T.Y. Lin International

Santiago Rodriguez' superb technical background combined with has 23 years of experience managing all kinds of transportation projects has enabled him to build a reputation for quick and accurate responses to time critical projects. Most



recently he served as Project Manager for the design and construction support of the I-64 Widening in Kanawha County, WV. This project includes thirteen short span bridges, the new Kanawha River Bridge and the rehabilitation of the existing Kanawha River Bridge. Rodriguez has also extensive experience with the Design-Build delivery method; both as a consultant to the owner and as designer within Design-Build teams. His most recent design-build project is the Indian River Inlet Bridge in Delaware currently under construction. His specific experience with VDOT includes bridges designed as part of the Rte 1 / I-495 Interchange in Alexandria, VA, and the Baron Cameron Avenue Bridge in Fairfax County, VA.

Santiago Rodriguez will be responsible for the coordination of the individual design disciplines and for ensuring the overall Project design is in conformance with the Contract Documents. As Design Manager, Mr. Rodriguez will establish and oversee a QA/QC program for all pertinent disciplines involved in the design of the Project, including review of design, working plans, shop drawings, specifications, and constructability of the Project. He will be responsible for implementing, monitoring and, as necessary, adjusting the processes to assure quality design work.

Construction Manager

Bijan H. Naderi

Fort Myer Construction Corporation

As the Construction Manager, Bijan Naderi will report directly to the Design-Build Project Manager. Mr. Naderi has over 40 years of construction management experience concentrating in bridge, structural, and roadway construction. Mr. Naderi will be responsible for managing all aspects of project construction. He will facilitate all constructability reviews, work closely with the Design Manager to plan for necessary utility relocations, and coordinate with the Right-of-Way Manager to prioritize and schedule the acquisition process to maintain the project schedule. Mr. Naderi will be responsible for coordinating with the QC Manager, Project Manager, and Superintendent to implement, examine and, as necessary, adjust the process to ensure all construction materials and activities are in accordance with the Contract Documents. Additionally, Mr. Naderi will communicate with the Design Manager to arrange for the design engineer's review of construction activities through the witness and hold points. Mr. Naderi has specific design-build experience with projects such as the Rehabilitation of New York Ave Bridge and Design-Build of Lakewood Pedestrian Bridge.



Lead Structural Engineer

Amir Arab, PE

T.Y. Lin International

Amir Arab has over 15 years of industry tenure with professional experience in structural engineering and managing various technical task groups, ranging from single span bridges to major landmark structures. He has worked on scores of bridge maintenance and repair projects in Northern Virginia. Amir's project management experience includes large and complex projects like the US301 Project in Delaware where he managed the review of numerous bridge structures as part of the GEC team, and the rehabilitation of the New York Avenue Bridge in Washington D.C. with Fort Myer Construction Corporation, utilizing precast concrete deck panels in order to minimize traffic impacts. Under the direction of Amir, the TYLI design team was able to provide an innovative design that would address issues such as improved and accelerated constructability and schedule compressions while achieving cost effectiveness.

Amir Arab has diverse experience which includes not only bridge structures but also retaining walls, sign structures and toll way configurations as well as vertical construction. This enables him to effectively sustain integrity among various structural sub-teams throughout the project. He will be the leader for structural design of the bridges, retaining walls, sound barrier walls, support structures and foundations for ITS devices and overhead signs.

Lead Traffic/ITS Designer

John Christman

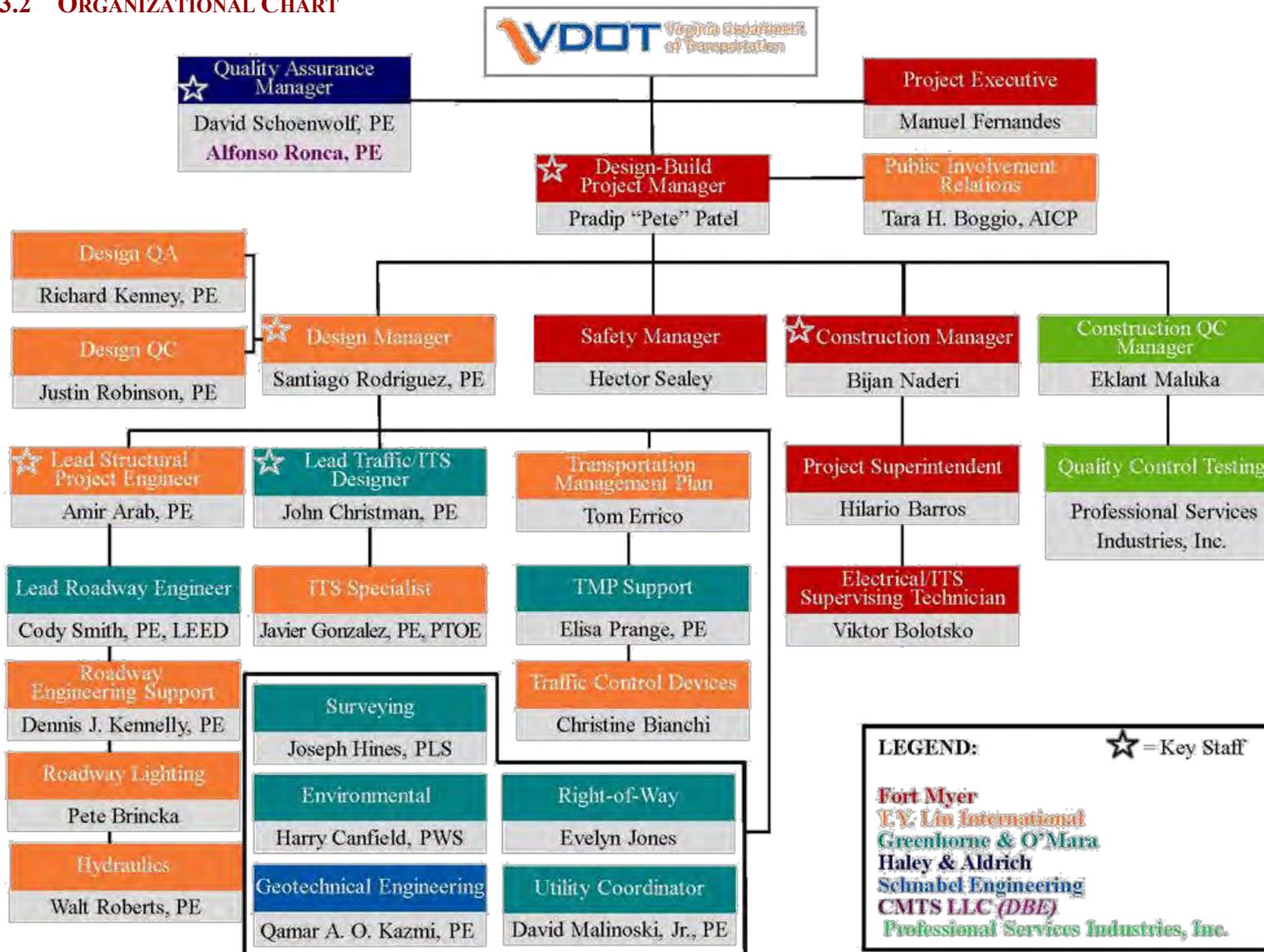
Greenhorne & O'Mara

John Christman is a Virginia Registered Professional Engineer with more than 40 years experience in performing and managing transportation engineering projects. Specializing in highway and traffic engineering, John has served as project manager or task manager on a multitude of highway and traffic open-ended contracts for local jurisdictions. He has directed and prepared designs and construction documents for a variety of roadway and bridge projects, including, maintenance of traffic plans, signal design, pavement marking, and signing and lighting plans all in accordance with state DOT, AASHTO, FHWA (including MUTCD) guidelines, policies and procedures.

John Christman will serve as the lead traffic designer for this Project. Ultimately, he is responsible for the design of traffic signals, transportation management plan, ITS Architecture, System Engineering and design, devices/systems acceptance tests, and preparation of working drawings and specifications.



3.3.2 ORGANIZATIONAL CHART



LEGEND: ★ = Key Staff

Fort Myer
E.Y. Lin International
Greenhome & O'Mara
Haley & Aldrich
Schnabel Engineering
CMTS LLC (DBE)
Professional Services Industries, Inc.

Functional Relationships among Participants

When identifying subconsultants Fort Myer Construction Corporation and T.Y. Lin International selected highly-qualified long-term partners. Our team members have experience working with one another, VDOT, Design-Build projects, and projects with similar scope. This team is comprised of members with complementary skills and experience and will continue to work together effectively.

VDOT will have one single point of contact through-out the contract duration ensuring clear communication. Other Key Personnel will be arranged in a ladder approach; all team members are aware of their counterpart on the design or construction side and open communication is encouraged.

FMC encourages partnering at all levels, and will implement a formal partnering process to establish goals, identify stakeholders, to generate buy-in and to develop a true level of commitment to the goals of the project. The partnering process will involve all employees, and will include subcontractors and VDOT. TYLI will coordinate the design information to the subconsultants. During the initial design phase, TYLI and subconsultants will work together to establish the level of coordination and communication desired to ensure this project’s success. The overall responsibility of the design, both from employees and subconsultants, lies with our Design Manager. Due to the fact that all members of the team have experience working together a rapport has been established and will prove to be advantageous.

The management team will be independently overseen by its Quality Assurance Manager; David Schoenwolf who is vested with the absolute authority to suspend work on the project should the work fall below applicable standards. Such authority will be communicated to all entities providing labor, materials and services to the Project through the inclusion of a contractual provision subordinating the entities to the regulation of the QAM. In addition to the QAM, the Fort Myer Safety Director will also have the authority to suspend the work of any entity providing labor, materials or services to the Project, should an unsafe condition be observed.

Experience among Design-Build Team

	FMC	TYLI	G&O	H&A	SE	CMTS	PSI
FMC		✓	✓				✓
TYLI	✓		✓	✓	✓	✓	
G&O	✓	✓		✓	✓		✓
H&A		✓	✓				
SE		✓	✓				
CMTS		✓					
PSI	✓		✓				

KEY:
 FMC - Fort Myer
 TYLI - T.Y. Lin International
 G&O - Greenhorne & O’Mara
 H&A - Haley & Aldrich
 SE - Schnabel Engineering
 CMTS - CMTS LLC
 PSI- Professional Services Industries, Inc.



3.4 Experience of Offeror's Team

3.4 EXPERIENCE OF OFFERORS TEAM

3.4.1 WORK HISTORY FORM

Experience		Roadway (SOV/HOV)	Structures / Bridge	QA / QC	Construction Management	ATM / ITS	Utilities	Right-of-Way	Environmental Compliance	HAZMAT	Noise	Permits	Hydraulics / SWM	MOT	Signal Modification	Signage	Public Involvement	Roadway Lighting	Geotechnical	Survey	Water Quality	Security Clearance	Coordination
• FMC	Reconstruction of Pennsylvania Ave Washington, DC	•	•	•	•		•		•		•		•	•	•	•	•	•	•	•	•	•	•
	"Award Winning" Reconstruction of Eastern Avenue Interchange Washington, DC	•	◊	◊	•		•	◊	•		•	◊	◊	◊	◊	◊	•	◊	◊	◊	•	◊	◊
* TYLI	New York Ave. NE Washington, DC	*	*	*	•		*	*			•		*	•	•	•	*		*	•	•	*	*
	SR 826 (Palmetto Expwy. Section 2) Miami, FL	*	*			*		*					*				*	*	*				*
	Veterans Memorial Bridge Replacement Portland, ME	*	*	*			*	*					*	*	*	*	*	*	*				*
◊ G&O	I-895 Pocahontas Pkwy 3P - Britton Road and Bridge Chesterfield & Henrico County, VA	◊	◊	◊		◊	◊	◊	◊			◊	◊	◊		◊	◊		◊	◊			◊
	I-495 Capital Beltway HOT/HOV Lanes, 3P Fairfax County, VA	◊					◊	◊												◊			◊
	I-595 Express Toll Lanes, Zone 6, 3P Broward County, FL	◊	◊	◊			◊	◊	◊		◊	◊	◊	◊	◊			◊		◊	◊		◊
	I-95 Express Toll Lanes, Segment 1 Baltimore City/County, MD	◊	◊	◊		◊	◊		◊	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊



3.5 Project Risks

3.5 PROJECT RISKS

RISK #1: MAINTENANCE OF TRAFFIC: Prince William County, Virginia, is the third largest jurisdiction in the Commonwealth with roughly 402,000 people. I-66 is the largest interstate serving this area. Maintenance of this flow of traffic becomes the principal risk associated with this project. The primary tasks impacting the maintenance of traffic are: 1) the required utility work including storm water management, 2) demolition and construction of the two bridges, and 3) widening of the existing ramps. These activities require extensive coordination with the general public and the requisite public agencies as well as impacts on other neighboring projects. All mitigation measures will be based on the AADT pursuant to the VDOT traffic analysis, incorporating emergency vehicle movements within the project site.

- **Lanes of Traffic:** During peak hours and at all other practicable times, FMC will ensure that two lanes of traffic in each direction of I-66 are maintained throughout the duration of the project. This will prevent unnecessary "bottlenecks" that often plague roadway construction sites and dramatically restrict the flow of traffic. Our team has reviewed the width of the existing lanes, and we are confident that we will be able to maintain two standard-width lanes while keeping the public and our workers safe during construction. FMC will also re-stripe roadway markings to provide a smooth transition and fluid flow of traffic in accordance with the approved MOT plan.
- **Narrow Lanes:** Lanes with sub-standard width act as a natural traffic-calming mechanism. However, they also present hazards due to their unusual nature. Motorists slow suddenly, have less "forgiveness" in remaining completely in their lane of travel and are otherwise uncomfortable in the operation of their vehicle. FMC intends to minimize this lack of comfort by exceeding the signage requirements suggested by standard maintenance of traffic planning guides and providing overhead lighting and roadway reflective devices to give the appearance of normalcy. Where possible, FMC will eliminate the use of "jersey barriers", as studies have shown that the claustrophobic feelings engendered by their implementation reduce their effectiveness as a safety device for workers and motorists.
- **Public Safety:** Similar to the work on our current project for VDOT on I-66 in Fairfax County, FMC will actively work with the Virginia State Police and local law enforcement to ensure that there is a visible police presence on the job site at all times. This will have the dual effect of calming traffic and facilitating immediate emergency response should any matters arise impacting worker, motorist or resident safety. Upon selection, FMC will meet with representatives of the Virginia State Police, Prince William County Sheriff and the Town of Haymarket to coordinate involvement and also to implement suggestions as to the optimum placement and usage of admittedly limited and precious law enforcement resources. Past practices that have proven effective included varying location of law enforcement vehicles to enhance traffic calming, varying jurisdictional participation to reduce burden on law enforcement, utilizing mobile traffic cameras for speed limit enforcement (currently being used with great success on the Capital Beltway project near the Prince George's County/Montgomery County border).



- **Fender-Benders:** FMC understands that so-called "fender benders", low impact/low property damage accidents cause problems to traffic inversely proportional to their severity. With the narrow lanes (and, if necessary, single lane travel), a "fender bender" on this project would significantly affect the flow of traffic. To alleviate this concern, FMC has employed several tactics on other projects including the current Route I-66 project, which have proven successful such as providing a tow truck per each bound and a mechanic on site at all times. This will eliminate potential delays should a car be immobilized due to accident or mechanical malfunction.
- **Site Constraints:** There is a distance of nearly 9 miles between the Route 15 exit and the Route 245 (Old Tavern Road) exit on I- 66, which can potentially present a unique risk for emergency rescue efforts. As a threshold matter, FMC will coordinate and partner with all local EMS departments to solicit and incorporate their suggestions in the risk abatement measures for this project. In addition, FMC proposes to construct several temporary turnaround thruways on the median separating the eastbound and westbound lanes at a frequency of one per approximately 1.5 miles to enable emergency vehicles to approach from different directions when needed. Given the site constraints in combination with the traffic intensity, FMC will work closely with the Design Team in order to develop innovative and alternative design schemes and construction methods to minimize potential impacts on the site. As an example, various techniques for accelerated construction will be evaluated and coordinated with VDOT, including but not limited to simple-span erection of (steel or concrete) girders to be made continuous at the piers to eliminate the need for shoring towers requiring partial closure of I-66, prestressed deck panels instead of conventional cast-in-place slab systems to reduce construction time-frame, and potential use of precast systems as substructure pier units. In addition to reducing traffic congestion on I-66, it will also ameliorate disruption to the local communities impacted by the bridge reconstruction.

RISK #2 THE WORKING ENVIRONMENT: The risks associated with the public outreach portion of this project are multifaceted with each element possessing the potential to delay the project for a significant period of time if not handled appropriately. As a result of our previous work in the neighborhoods of the District of Columbia and suburban Maryland and Virginia, public outreach and Right of Way acquisitions are not project risks that are daunting to FMC. It is rare to have a project where FMC superintendents, foremen and laborers do not experience frequent and direct interaction with the public. Either through alleyway reconstruction, utility improvements or roadway repairs, FMC has been exposed to the unique demands of working within residential areas as well as on major interstate highways. These locations are often in restricted space, requiring flexible and original means of staging work. We understand that the work we are performing is a service to the communities and our presence will present necessary but unfortunate delays or inconveniences. Our workers are respectful, thoughtful, polite and mindful that we are guests in the neighborhood in which we work. Our work methods have been developed through our extensive experience to minimize interruption to daily lives and get the work done efficiently so normal routines can continue. Furthermore, the members



of the design team have been handpicked according to their strength in risk assessment and required mitigation measures.

- **Public Outreach:** FMC/TYLI has jointly held citizens information meetings for past projects and will continue to do so for future projects. Our team has performed public hearing support along with proactive local community outreach to best identify and respond to local communities. We have identified Ms. Tara H. Boggio, a certified planner, in the organization chart as the team leader for this public outreach effort. She is a specialist in streamlining information to the public through a variety of media sources to ensure exposure to affected public. To ensure the public is kept informed during the process, monthly newsletters will be prepared and distributed with important information on schedule, detours, next steps, etc. The newsletter will also include a Question & Answer section, highlighting questions the design and construction team has received from the public, with comprehensive answers. This will help those who asked the questions feel heard, as well as provide answers to others who may have the same questions or concerns. Public meetings will also be held at key points in the project to allow the community to ask questions of the project team, see progress mapping, and understand next phases. We will hold these meetings “open house” style, to allow people to come in at their convenience during a 2-3 hour window, going around to various stations where team members from the construction team, design team, etc. will man stations highlighting various elements of the project and be prepared to answer any questions that arise.
- **Right-of-Way Acquisition:** Our team has reviewed the subdivision plans and plats of the proposed project corridor. The land adjacent to I-66 contains a mix of vacant, residential, and non-residential uses. Based on the Finding of Public Interest (FOPI), our team has noted those areas where right-of-way acquisition will be needed. However, should additional rights of way need to be acquired, which might implicate residential negotiation and relocation, FMC is prepared to address such contingencies. FMC has on staff, experienced real estate appraisers, developers and attorneys who have significant exposure to right-of-way acquisition procedures in the Commonwealth of Virginia. Early in the project design phase, FMC will order complete title reports for all parcels that will be impacted by Right of Way acquisitions. This will ensure the ownership information upon which FMC has relied is correct and will provide time to review the reports for any title issues, which may exist and hinder the acquisition/negotiation process. FMC is aware that offers cannot be made to owners if title reports are 60 days old. FMC therefore is prepared to obtain title updates as needed. In addition, FMC has the technological capability to ensure seamless coordination of information with the RUMS system to maintain the status of that system. We have identified Ms. Evelyn Jones in the organizational chart who is a VDOT prequalified ROW Fee and Review Appraiser to manage our ROW efforts.
- **Noise abatement:** With the proximity of residential areas to the work zone, FMC understands that noise abatement will be a key component to fostering an amicable working relationship with the public. FMC proposes to reduce the impact of this risk by scheduling the most noise-intensive activities during traditional work hours and by reducing the need for night work as much as possible. FMC will also experiment with



the usage of lower impact equipment that will serve the dual needs of efficient project completion and tolerable working conditions for the residents. Analysis and measure for noise abatements will be based on Virginia State Noise Abatement Policy as well as Highway Traffic Noise Impact Analysis Guidance Manual. In coordination with VDOT and through the public hearing sessions and other innovative means of communication such as twitter and facebook, the team will pursue an extensive and all-inclusive public relations strategy to educate the owners and residents regarding proposed remedial schemes. Additionally, the team will ensure that the proposed noise abatement measures do not adversely affect, but actually enhance the surrounding environment. All of the above will be compiled in a Noise Abatement Design Report (NADR) for the project record.

- **Safety:** Safety is a paramount concern on all projects. However, this particular project raises safety concerns unlike most heavy highway work due to the proximity of residents. Being accustomed to this presence, FMC has employed nontraditional safety practices to insure residential safety. Additional fencing will be utilized to cordon off work areas. Additional safety personnel will be deployed with the sole purpose of monitoring residential safety. Staging areas will be maintained far from residential dwellings, which will have the added benefit of additional noise abatement. The project site, and surrounding areas, will be monitored via 24-hour CCTV cameras, thereby ensuring security and prompt response to any emergencies, should they occur during off-hours. FMC will also employ a method that worked quite well during its renovation/repair of historic Main Street in Annapolis, Maryland: permitting the public limited access/observation to the worksite under controlled conditions to observe the workings of the machinery, observe the dangers and to have the opportunity to ask specific questions about dangers that might not otherwise be obvious. FMC will also have a full-time safety manager on site that has the authority to stop work if proper measures and practices are not followed.
- **Environmental Impact:** The Team will achieve total compliance with the project's environmental commitments through a rigorous compliance program, complete with multiple reviews, checks, and formal approvals. The timely acquisition of water quality permits will be a major area of focus for the Team during design of the project. The Team's general approach to the permitting process for this project will be proactive. Early and continuous coordination with the regulatory agencies is critical to secure the environmental permits and to achieve continuous compliance throughout the design-build process. A preconstruction meeting will be scheduled to present our organizational structure, compliance plan, communication protocols, sequence of construction, and design review procedures. The preconstruction meeting will include reviews of the project impacts and will include the Virginia Department of Environmental Quality (VDEQ), the Virginia Marine Resources Commission (VMRC) and the United States Corps of Engineers (COE) to solicit feedback on our avoidance and minimization strategies and initiate project review. We will discuss project schedules with the agencies and submit a "Joint Permit Application" to VMRC as soon as possible in the plan development process. Regular agency updates will be provided through meetings and quarterly compliance reports.



Our environmental team will perform regular design and construction reviews to ensure that environmental permits and NEPA commitments are maintained, all avoidance and minimization measures are considered, and that the selected controls are employed and maintained.

Design Phase – The Environmental Compliance Team will have four primary functions: design reviews; avoidance, minimization, and mitigation during design and construction; environmental construction monitoring; and compliance documentation. We will help identify, develop, and implement Best Management Practices (BMPs) within the project design to reduce environmental impacts and risks. During design we will perform field inspections to confirm and demarcate the environmental resources. We will assist with the stake-out of protective fencing adjacent to wetlands, streams and other sensitive features. We will continually track the project impacts with the commitments identified in the Categorical Exclusion and will maintain a database to track our compliance. We will design construction operations in ways to minimize the areas of disturbance, thereby reducing the need for redundant erosion and sediment control (ESC) measures, reduce sediment-laden runoff, and increase water infiltration. We will assess various methods to avoid and minimize impacts, including retaining walls, steeper fill slopes, increased headwall heights for culverts, and other approved BMP's.

Construction Phase - The Environmental Team will schedule regular compliance meetings, and meetings will be held at key points in the construction phases such as following installation of protective devices, prior to clearing, prior to removal of protective devices, and following storm events. We will regularly monitor construction activities to ensure that commitments are fulfilled, BMPs are implemented correctly and properly maintained, are functioning at high levels, and are providing the intended benefits. The Environmental Manager will report unsatisfactory conditions to the Project Manager for immediate resolution. We will monitor the installation and maintenance of protective fencing, stream diversions and dewatering operations to ensure environmental protections are in place.

The Environmental Team will respond to any unanticipated archeological resource discoveries or hazardous materials discoveries during construction. Our staff of cultural resources specialists will coordinate with VDOT immediately upon resource discoveries. Our hazardous materials specialist will develop a plan that includes procedures for the management and disposal of controlled hazardous materials and the protocol for handling and disposal of contaminated soil or groundwater, if encountered. If not previously completed by others, we will perform pre-demolition surveys of structures to be demolished as part of this project. We will also prepare a Hazardous Materials Management Plan and will perform additional sampling of potential hazardous sites identified in the RFP. Our Hazardous Material Specialist will inspect, sample, and analyze the structures to determine the presence of asbestos, lead-based paint, universal wastes, and other regulated materials. We will conduct post-demolition sampling to verify that hazardous materials have been properly removed and disposed of in



accordance with COMAR, including documentation of activities and manifests. We will provide a report of findings to the Administration and will request permission to proceed prior to any demolition activities.

RISK #3 UTILITIES: The numerous public and private utilities located within the work site present potential risks to the timely and safe completion of this project. Per our site visit, we have observed that some of the existing and planned future residential areas are extremely close to the work site, and it is possible that the public utilities serving those areas may be impacted by several components of the proposed work. In addition, installation of large diameter storm pipes across I-66 would be one of the major items that have to be addressed with great precaution due to the extent of excavation while maintaining the traffic.

- **Utility Relocation:** The extent of anticipated excavation may potentially conflict with some of the existing utilities. Our Team is well-acquainted with similar issues pertaining to utility relocation. FMC's experienced teams of civil pipe crews, electricians and other skilled laborers are capable of assisting utility owners to ensure that relocation and restoration work is completed with minimal delay. FMC has successfully employed this innovative teaming arrangement on prior utility relocation projects in the neighborhoods of the District of Columbia as well as suburban Virginia. Meanwhile, the Design Team can assist in innovative solutions to expedite remedies for potential difficulties with temporary relocation structures. Therefore, the utility providers can complete their relocation with minimal disturbance to local residents and businesses. FMC also appreciates the "personal" element of utility relocation work. We will work to develop a spirit of public cooperation by fostering a significant outreach effort to the affected communities in order to develop consensus by explaining the possible effects of utility relocations and the time elements involved in the potential disruption of service. FMC will address homeowner's associations, business groups and other public assemblies to provide significant advance notifications. Because of the extensive experience FMC has amassed working on major interstate highways where crews were working in close proximity (within 70 feet) of residential areas, as well as in the immediate vicinity of homes in the District of Columbia, our project managers and foremen are experienced with dealing with the public. FMC is uniquely positioned to meet and exceed the public expectations of direct worker-to-resident communication.
- **Sound and Retaining Wall:** The installation of the sound barriers and retaining walls might also impact existing utilities. In addition, installation of piles for sound walls might increase noise annoyance for the local neighborhoods. Risk is also present when dense structures are placed over old or decaying utility lines. FMC's Design Team is experienced in development of risk mitigation measures for the installation of sound barrier and retaining wall systems to ensure minimal delays and complete public satisfaction. Flexibility in installation location may also be needed to assist FMC in seamlessly adapting to unknown or unknowable geological site conditions, which could affect sound wall installation.



- **Stormwater Management:** The overall stormwater management of several communities, including the highway itself, will be impacted by the work contemplated by this project. With regard to the highway, there is a significant drainage system already in place along the project and specifically by the bridge structures. Excavation necessary to complete the project may result in the need for relocation of the existing large diameter storm pipes being used for this drainage system, which intersects with I-66 EB & WB. With regard to stormwater management for the various residential communities, that the existing systems may be impacted by the work to be performed. In addition, the proposed subdivision being constructed will be also impacted as the result of this project. Potential solutions to stormwater management disruption include the erection of temporary collection facilities or the implementation of temporary diverted runoff trenches to maintain existing stormwater collection. FMC is also prepared to address the necessity of an entirely new stormwater collection facility for I-66, if needed. Our team visited the site following a significant period of rain. During that visit, it was noticed that the existing stormwater management system was overwhelmed with significant ponding within the area of the proposed widening and water flowing away from the planned runoff points. It was apparent that without appropriate mitigation, the stormwater runoff could affect the suitability of the ground on which the widening was to occur. Furthermore, at specific locations, there were sizeable drop offs from the roadside leaving little or no room for regrading which will provide an opportunity for innovative solutions which this team is built to produce.
- **Site Utility:** Any site utility work, especially relocations, will have to anticipate the implementation of facilities for the proposed I-66 Active Traffic Management Design/Build Project. Stormwater management will need to be constructed in such a way to avoid drainage or other activities that might adversely impact the integrity of the land on which certain structures, such as CCTV cameras, Dynamic Message Signs and other gantry structures might be anchored. Furthermore, provision will need to be made for the paths for the electrical and fiber optic systems that will be used to operate the ITS devices. FMC can provide sufficient groundwork while appropriately mobilized and the relevant location is already disturbed to avoid additional disruption to commuters and residents when the ATM project begins. FMC has prepared contingency plans based on mobilization, equipment usage, crew deployment and material acquisition to ensure that the integration of the widening project with the ATM project can occur without delay to either endeavor. Meanwhile, the Design team is braced to support FMC to find safe and time saving alternatives to ensure the best results.
- **Pavement Repairs:** Should utility or pavement repairs be needed, FMC, at its main local facility and through its two asphalt plants, will have immediate access to all materials and equipment required to affect these repairs. By way of example, FMC maintains inventory of pipes, fitting, trench boxes, box culverts and other related materials. This will eliminate the delay often experienced when relying on third party suppliers.



Debarment Forms

Appendix A

ATTACHMENT NO. 3.2.5(a)

**CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS**

Project No.: 0066-076-003, P101, R201, C501, B674, B675

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.

Jose Rodriguez 2/13/2012 Jose Rodriguez, President
Signature Date Title

FORT MYER CONSTRUCTION CORPORATION

Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0066-076-003, P101, R201, C501, B674, B675

- 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

February 9, 2012

Date

Associate Vice President

Title

T.Y. Lin International

Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0066-076-003, P101, R201, C501, B674, B675

- 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.

	February, 10 2012	Senior Vice President
Signature	Date	Title

Haley & Aldrich, Inc
Name of Firm

ATTACHMENT NO. 3.2.5(b)

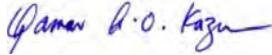
**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0066-076-003, P101, R201, C501, B674, B675

- 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

Title

Name of Firm

ATTACHMENT NO. 3.2.5(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: Interstate I-66 Widening

- 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.

	2/6/2012	Manager, D.C. Operations
Signature	Date	Title

CMTS LLC

Name of Firm

ATTACHMENT NO. 3.2.5(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

- 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.

Antie V. Olan 2/10/12 SENIOR PROJECT MANAGER
Signature Date Title

PROFESSIONAL SERVICE INDUSTRIES, INC.
Name of Firm

Contractor VDOT Prequalification

Appendix B



COMMONWEALTH OF VIRGINIA



CERTIFICATE OF QUALIFICATION

Fort Myer Construction Corporation

Vendor Number: F034

In accordance with the Regulations of the Virginia Department of Transportation, you are hereby notified that the following Rating and Classifications has been assigned to you by the Commissioner:

PREQUALIFIED

Work Classes: Major Structures, Asphalt Paving, Portland Cement Concrete, Utilities, Bridge Repair

Issue Date: May 2, 2011

This Rating and Classification will Expire: May 31, 2012

Suzanne FR Lucas Prequalification Officer

Don E. Silies, State Construction Contract Officer

Professional and Business Licenses

Appendix C

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That FORT MYER CONSTRUCTION CORPORATION is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is February 11, 1974;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
December 1, 2011*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, August 5, 2009

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

T.Y. Lin International, Incorporated (Used in VA by: T.Y. Lin International)

Qualification Date: June 29, 1981

a corporation organized under the laws of California 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. Beck

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, August 3, 2009

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

GREENHORNE & O'MARA, INC.

formerly known as: G & O VIRGINIA, INC. (USED IN VA BY:

GREENHORNE & O'MARA, INC.)

Date of qualification: May 30, 1986

a corporation organized under the laws of MARYLAND 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

Richmond, October 24, 1991

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

HALEY & ALDRICH, INC.

a corporation organized under the laws of MASSACHUSETTS 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:

William J. Bridge

F102918-3

Clerk of the Commission

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, August 12, 2009

This is to certify that the certificate of incorporation of

Schnabel Consultants, Inc.

was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date: August 12, 2009



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

**COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION**

AT RICHMOND, NOVEMBER 12, 2009

The State Corporation Commission has found the accompanying articles submitted on behalf of
**Schnabel Engineering Consultants, Inc. (formerly Schnabel Consultants,
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 November 12, 2009.

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

A handwritten signature in black ink, reading "Judith William Jagdmann". The signature is written in a cursive style with a large initial "J".

Commissioner

09-10-30-0071
AMENACPT
CIS0436

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, December 14, 2011

This certificate of registration to transact business in Virginia is this day issued for

CMTS LLC

a limited liability company organized under the laws of WYOMING and the said company is authorized to transact business in Virginia, subject to all Virginia laws applicable to the company and its business.



State Corporation Commission

Attest:

Joel H. Beck
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 PROFESSIONAL SERVICE INDUSTRIES, INC., a corporation incorporated under the law of Delaware, 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 23, 1984; 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:

October 26, 2011

Joel H. Peck

Joel H. Peck, Clerk of the Commission

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
~~08-31-2012~~

9960 Mayland Dr., Suite 400, Richmond, VA 23283
Telephone: (804) 367-8500

NUMBER
2701-045896A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

FORT MYER CONSTRUCTION CORP

2237 33RD ST NE

WASHINGTON DC 20018 1594

CLASSIFICATIONS ELE BLD H/H

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



Gordon N. Dixon
Gordon N. Dixon, Director

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-29-2012

9960 Mayland Dr., Suite 400, Richmond, VA 23283
Telephone: 1 (804) 367-8500

NUMBER
0410000192

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

PROFESSIONS: ENG

T.Y. LIN INTERNATIONAL
5285 SHAWNEE RD STE 210
ALEXANDRIA, VA 22312



Jimmy W. DeBoer
Jimmy W. DeBoer, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON
02-29-2012

NUMBER
0411000598

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

PROFESSIONS: ENG, LS

GREENHORNE & O'MARA INC
3635 CONCORDE PKWY STE 300
CHANTILLY, VA 20151



Jay W. DeBorja
Jay W. DeBorja, Director

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

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON
02-29-2012

NUMBER
0411000611

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

PROFESSIONS: ENG

GREENHORNE & O'MARA, INC.
10800 MIDLOTHIAN TNPK STE 310
RICHMOND, VA 23235



Jay W. DeBorja
Jay W. DeBorja, Director

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120 S CENTRAL AVE
ATTN: CT CORP
CLAYTON, MO 63105



Gordon N. Dixon
Gordon N. Dixon, Director

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PROFESSIONS: ENG

HALEY & ALDRICH, INC
7926 JONES BRANCH DRIVE
SUITE 870
MC LEAN, VA 22102



Jimmy W. DeBore
Jimmy W. DeBore, Director

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PROFESSIONS: ENG

SCHNABEL ENGINEERING CONSULTANTS, INC
46020 MANEKIN PLAZA
SUITE 110
STELING, VA 20166



Jimmy W. DeBore
Jimmy W. DeBore, Director

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PROFESSIONS: ENG

CMTS LLC
5028 WISCONSIN AVE NW STE 250
WASHINGTON, DC 20016



Gordon N. Dixon
Gordon N. Dixon, Director

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PROFESSIONS: ENG

PROFESSIONAL SERVICE INDUSTRIES INC
2930 ESKRIDGE RD
SUITE A
FAIRFAX, VA 22031



Jay W. DeBorja
Jay W. DeBorja, Director

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PROFESSIONAL ENGINEER LICENSE

DAVID A SCHOENWOLF
1 PLANTATION CT
ROCKVILLE, MD 20852



Gordon N. Dixon
Gordon N. Dixon, Director

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PROFESSIONAL ENGINEER LICENSE

SANTIAGO RODRIGUEZ-GOMEZ
T Y LIN INTERNATIONAL
5285 SHAWNEE ROADVE
SUITE 210
ALEXANDRIA, VA 22312



Gordon N. Dixon
Gordon N. Dixon, Director

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AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

AMIR AHMAD ARAB
13314 HOUND RUN DR
FAIRFAX, VA 22033



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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

NUMBER
0402023087

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

JOHN M CHRISTMAN
10810 TOPBRANCH LANE
COLUMBIA, MD 21044



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Key Personnel Resume Forms

Appendix D

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: PRADIP PATEL Project Manager
b. Project Assignment: Design-Build Project Manager
c. Name of Firm with which you are now associated: 
d. Years experience: With this Firm <u>12</u> Years With Other Firms <u>32</u> Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: 1995-2002 – Project Manager w/ John Driggs Company, Inc: As Project Manager his duties included scheduling, field reviews, facilitating periodic filed and management meetings; assisted in design changes; reviewed contractor’s submittals, analyzed and approved monthly contractor invoices; provided coordination among the owner’s representative and contractors. Throughout Mr. Patel’s tenure, he managed in excess of 160 million dollars. 2002-2006 – Senior Project Manager w/ American Infrastructure: As senior project manager, Mr. Patel’s responsibilities include but not limited to; facilitating weekly progress meetings with various stakeholders finalized selections of qualified construction teams and subcontractors; Schedule & Cost monitoring and updates, reviewed and finalized invoicing, change orders, and correspondences; and coordinated all pertinent information between the owner and project personnel. 2006-current - Project Manager w/ Fort Myer Construction Corporation (FMC) (Washington, DC): Responsibilities include estimating for the project to be bid, contract negotiations, preparation of schedule, submittals for the materials including material and subcontractors’ buyout, co-ordinate with the owner, utility companies, and subcontractor on the project. Preparation of cost proposal for the change order work, monthly billings and closeout documents.
e. Education: Degree(s)/Year/Specialization: BS / 1979 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: Certifications: 30 Hour OSHA Training Certificate 10 Hour OSHA Training Certificate Maintenance of Traffic – Work Zone Certificate Sediment and Erosion Control – Green Card

- g. Document the extent and depth of 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.)

Design Build I-66 Pavement Rehabilitation, Fairfax County, VA

The \$43M design-build rehabilitation project extending 6.5 miles on one of Virginia's most prominent interstates, I-66 included the construction of CIP concrete paving, asphalt overlay, installation of guardrails, concrete barriers, and coordination with Virginia Department Transportation Intelligent Transportation Systems ("ITS"). As design build project manager, Mr. Patel's duties included significant involvement in team selection, cost budgeting, and design approval. During construction he managed all schedule modifications and updates, finalized monthly billing draws, reviewed QA and QC reports, and coordinated all pertinent information between the client and project team as well as supervised periodic public hearings for project status and updates. Under Mr. Patel's management the project will be completed several months ahead of schedule deadline. (FMC, 2005 – 2006)

Ammendale Virginia Manor Road, Prince George County, MD

The \$17M design-bid-build project included miles of roadway widening with new alignment, 4 cast in place concrete retaining walls with form liner, an esthetic noise wall, 25,000LF of various wet utilities, 120,000 cy of excavation and 80,000 cy of borrow material. As project manager, Mr. Patel's responsibilities include but not limited to; facilitating weekly progress meetings with various stakeholders including Maryland Department of Transportation State Highway Administration (SHA), Powder Mill Community and Business Owners; Finalized selections of qualified construction teams and subcontractors; Schedule & Cost monitoring and updates, Mr. Patel posed the ability to make any necessary field adjustments to ensure adequate schedule recovery; reviewed and finalized invoicing, change orders, and correspondences; and coordinated all pertinent information between the owner and project personnel. As project manager, Mr. Patel value engineered the utility work to minimize critical schedule impacts due to unforeseen utility conflicts. Under Mr. Patel's redesign and recommendation a potential 3 month delay had been eliminated thus reducing critical traffic constraints for vehicular motorist on the 6 lane roadway. (American Infrastructure, 2005 – 2006)

US 50 & 301 Interchange, Maryland Department of Transportation

The \$50M design-bid-build project consisted of multiple structural improvements involving roadway, bridges and various walls. These improvements entailed the construction of 9 retaining walls, 2 miles of concrete sound walls, 2 new bridges, reconstruction of existing bridge, the widening of an existing bridge, and various utility improvements. As project manager, Mr. Patel's duties included producing a baseline schedule, monitoring and updates; providing schedule analysis; facilitate monthly progress meetings; assisted in critical design changes with the owner and contractor; reviewed submittals including QA/QC documentation, monthly invoices and monthly schedule updates; provided coordination among the owner's representative, construction teams, and corresponding team members. As project manager, Mr. Patel re-designed the project for a contract savings of \$7 million dollars through various construction phasing and critical schedule delays. (Maryland State Highway Administration, 1989 – 1992)

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: DAVID A. SCHOENWOLF, PE Senior Vice President
b. Project Assignment: Quality Assurance Manager
c. Name of Firm with which you are now associated: 
d. Years experience: With this Firm <u>33</u> Years With Other Firms <u>0</u> Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: 1978 - 1984 – Senior Geotechnical Engineer: Providing consulting engineering services. 1984 - 1988 – Project Manager: Providing consulting engineering and project management services. 1988 - 2002– Vice President: Providing consulting engineering and project management services. Acted in officer-in-charge role as needed in addition to providing consulting design and project management services. 2002– Present – Senior Vice President: Providing consulting engineering and project management services and acted as officer-in-charge / client leader as needed.
e. Education: Degree(s)/Year/Specialization: BS / 1976 / Civil Engineering MS / 1977 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1992 / Professional Engineer / VA Registration #0402 022802

- g. Document the extent and depth of experience and qualifications relevant to the Project.
1. *Note your specific responsibilities and authorities for each assignment, not those of the firm.*
 2. *Note whether experience is with current firm or with other firm.*
 3. *Provide beginning and end dates for each assignment.*

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

I-495 HOT Lanes Project, Northern, VA

Officer-in-charge of geotechnical engineering and Quality Assurance services for final design of certain aspects of the proposed 14-mile HOT lanes project that extends from the Springfield Interchange to just north of the Dulles Toll Road. Twelve key interchanges and two new access points will be created. This project was delivered as a Public-Private Partnership between Fluor-Transurban and VDOT. The scope of our work included planning and executing a subsurface exploration program and preparing design recommendations for retaining walls, sound walls, culverts and earthwork. Post-design phase services included responding to RFIs, submittal reviews, and construction-related design changes. Our scope also included performing Quality Assurance for the geotechnical engineering aspects of the project. The work had to conform to VDOT design standards. (H&A, 2008 – Present)

South Carolina Route 170, Beaufort, SC

Officer-in-charge of geotechnical evaluation, design, construction monitoring, and consultation for the design/build team. The project includes two new bridge structures and ten miles of widened highway. The bridges are to be supported on drilled shafts bearing on calcareous sand deposits below the scour depth. The approach embankments will be constructed on the existing marsh deposits and will require high strength geotextile, wick drains, stage construction and surcharge loads to meet the stringent settlement criteria. (H&A, 1999 -- 2008)

Largo Stations and Parking Facilities Project, Largo, MD

Officer-in-charge of the geotechnical investigation and design for the Washington Metropolitan Area Transit Authority (WMATA) Largo Town Center and Morgan Boulevard metro stations. The design-build project includes construction of two parking garages, mechanically stabilized earth (MSE) retaining walls, access roads, parking lots, and several stormwater management ponds. The subsurface exploration program consisted of drilling in excess of 50 test borings and 10 cone penetrometer soundings. Recommended foundation support systems for major structures include drilled shafts, driven piles, mat foundations and spread footings. Ground improvement consisting of closely spaced driven piles was used at the Morgan Station for the track slab mat foundation. Project responsibilities included planning and executing the subsurface exploration program, analyzing geotechnical and analytical laboratory test data, engineering analyses, report preparation, reviewing pile load test submittals and , and responding to contractors Requests for Information (RFIs). Engineering analyses included shallow and deep foundations, groundwater control, retaining walls, slope stability and pavement design. Construction monitoring responsibilities included reviewing pile load tests, reviewing submittals, and responding to RFIs. The project design and construction had to be performed in accordance with WMATA requirements. (H&A, 2002 – 2006)

I-95 Defense Access Road Ramp to Fort Belvoir, Springfield, VA

Officer-in-charge of the geotechnical engineering design for 1,300 foot long access ramp from a I-95 fly-over ramp to the Fort Belvoir. The bridge over I-95 and a small stream will be founded on end-bearing steel H-piles. Semi-integral abutments will be used at several abutment locations. Due to deep layer of fill, roadway embankments designed on Vibro-concrete Columns and grid-reinforced, stone pad. The ground improvement was required to transfer the load of the new 30 ft high roadway embankment to the more competent soil strata underlying the Fill. (H&A, 2008 – Present)

ATTACHMENT 4.3.1.6

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: SANTIAGO RODRIGUEZ, SE, PE Associate Vice President
b. Project Assignment: Design Manager
c. Name of Firm with which you are now associated: TYLIN INTERNATIONAL
d. Years experience: With this Firm <u>21</u> Years With Other Firms <u>4</u> Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: 1990-1992 - Design Engineer w/ TYLI: Responsible for aiding in the planning and design of Transportation related projects, including Project Studies and plans, specifications, and estimate (PS&E) documents. 1993-1997 - Project Engineer w/ TYLI: Responsible for planning and scheduling of engineering work and performing more advanced design in the field of bridge engineering. 1998 - 2004 - Senior Project Engineer w/ TYLI: Lead Design Engineer and Project Manager for transportation structures. Responsible for project delivery and technical expertise related to bridge design. Served as Lead QA/QC reviewer and Independent Checker for bridge projects. 2005 – Present - Senior Associate w/ TYLI: Structural Technical Leader and Project Manager for the Design of Transportation Projects. Supervisor and mentor for junior engineers. 2006 - Present - Associate Vice President w/ TYLI: Project Manager for multidisciplinary design teams including Design-Bid-Build and Design-Build procurement. Managed design teams and subconsultants working on accelerated design schedules. QA/QC Manager for bridge projects. Santiago Rodriguez has 23 years of design experience in transportation projects including concept development, type studies, and preparation of contract documents. During the last 13 years he has worked in Virginia and he is very familiar with VDOT's policies and procedures and he has managed the design of complex bridge and roadway projects. Mr. Rodriguez has also extensive experience with the Design-Build delivery method; both as a consultant to the owner and as designer within design build teams. His Design Management experience and knowledge of the VDOT procedures makes him well prepared to manage the design.
e. Education: Degree(s)/Year/Specialization: MSE / 1990, / Structural Engineering BS, MS / 1986 / Civil and Structural Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1992 / Professional Engineer / VA Registration #0402 034240

- g. Document the extent and depth of experience and qualifications relevant to the Project.
1. *Note your specific responsibilities and authorities for each assignment, not those of the firm.*
 2. *Note whether experience is with current firm or with other firm.*
 3. *Provide beginning and end dates for each assignment.*

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

I-64 Widening, Kanawha County, WV

Project Manager responsible for the widening of approx. 4.35 miles along I-64 near Charleston. The design and construction services included the ramp realignment of 3 interchanges, widening and redecking of 13 bridges, reconstruction in place of one bridge, study and design of a major bridge spanning the Kanawha River on a new alignment, rehabilitation of the existing Kanawha River Bridge, detailed maintenance of traffic plans, storm drainage, final signing and pavement marking plans, and right of way plans. The project is split into nine construction contract on a fast track schedule. Project subconsultants within the design team included geotechnical, surveying, lighting and electrical. The total construction cost for was \$150 Million. (TYLI, 2005-2011).

Indian River Inlet Bridge (Design-Build), Bethany Beach, Delaware

Mr. Rodriguez was the Project Manager for TYLI acting as the Owner's consultant for the Design-Build Procurement, Design and Construction of a 1,000-foot span cable-stayed concrete bridge. The project included the review or the RFP. Review of proposals from design-Build Teams, design review of the selected proposal and construction engineering and inspection during construction. The project scope included bridge engineering, roadway design, geotechnical and electrical engineering.

The current Indian River Inlet Bridge on SR 1 provides a critical link on the Eastern seaboard between Bethany Beach and Dewey Beach. Due to severe scour experienced in the area, the bridge was scheduled for replacement with a new structure that will have an overall length of 2,600 feet and a main span of 1,000 feet. The segmental cable-stayed main span unit allows the bridge to cross the inlet without any piers in the water and provides for the future potential widening of the inlet. (TYLI, 2006-2011)

Veteran's Memorial Bridge (Design-Build), Portland to South Portland, ME

Mr. Rodriguez served as QA/QC Manager for the independent design check of a seven span, dual-segmental box girder bridge replacement. This bridge replacement project was awarded through a design-build contract which included a new alignment, interchange coordination, widening of a separate bridge, and large coordination efforts among civil engineering disciplines. Primary responsibilities included managing the independent design team to verify compliance with the contract requirements. (TYLI, 2010 – 2011)

I-95 / Route 1 Interchange, Alexandria, VA

Design Manager for the I-95 / Route 1 Interchange segmental alternative. This interchange was part of the Woodrow Wilson Memorial Bridge replacement project, and included design improvements to the existing interchange to accommodate the new 12-lane Beltway configuration. The three-level interchange features extensive construction staging and requires maintenance of eight lanes of Beltway traffic at all times. Other project constraints included tight right-of-way restrictions and construction in wetlands, waterways, and tidal flats. Mr. Rodriguez led the design team that developed a segmental concrete alternate with more than 700,000 square feet of bridges. He was a Technical Advisor for the design of the girder bridges selected for construction. (TYLI, 1999-2008)

Bridges over Chechessee and Broad Rivers (Design-Build), Beaufort/Jasper Counties, SC

As Design Manager Mr. Rodriguez developed the preliminary design for these two bridges in this design build project. The bridges have a total of 73 spans designed with precast girders. Typical span length is 147 ft, the main span is 180 ft long. (TYLI, 1999)

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: BIJAN H. NADERI Senior Project Manager
b. Project Assignment: Construction Manager
c. Name of Firm with which you are now associated: 
d. Years experience: With this Firm <u>12</u> Years With Other Firms <u>32</u> Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: 1968 - 1996 - Assistant Project Manager: <ul style="list-style-type: none">• J.A.Boyd & Associates – Scheduler (proving CPM Service to contactors)• Jacobs Associates – Designer (design of temporary structure services to contractors)• Horn Construction Co. – Designer (designing temporary structure for projects)• Perini Corporation – Project Engineer (Field Engineer at Shady Grove Metro Station in MD)• Bavand Consultants Engineers – Project Manager (managing numerous project in Tehran) 1997 – 1999 - Project Manager w/ Industrial Construction Corporation (Gaithersburg, MD): Field Management of rehabilitation of Endor Bridge and related approach road project. 1999-current - Senior Project Manager w/ Fort Myer Construction Corporation (FMC) (Washington, DC): Responsible for providing managerial, technical, and administrative support for assigned projects. Also responsible to coordinate with regulatory agencies, sub-contractors, contract compliance, scheduling, change order negotiation and issuance, and invoicing.
e. Education: Degree(s)/Year/Specialization: BS / 1973 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: Bijan Nader will hold all necessary certifications prior to the commencement of construction.
g. Document the extent and depth of experience and qualifications relevant to the Project. <ol style="list-style-type: none">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.) Southwest Freeway, Washington, DC Project Manager for the large scale highway and bridge construction project which included reconstruction of 1.5 miles of divided highway, including six bridges and the construction of a new bridge. Project Management duties included scheduling, technical support, material submittals and ordering, and coordination with Subcontractors and field staff. (FMC, 1999 – 2002)

Rehabilitation of Anacostia Freeway, Washington, DC

Project Manager for 2 Phase construction of reconstruction of the 1 mile of roadway, rehabilitation of 2 bridges (substructures & superstructures) and construction of retaining walls (reinforced concrete with form liner) Other work included a new 16" water line and storm drain system, street lighting/traffic signal system, and three art structures with special lighting. As PM performed duties such as scheduling, technical support, material submittals and ordering, and coordination with Subcontractors and field staff which lead to minimized delays to nearly 130,000 daily commuters by employing a movable barrier system to maintain three lanes in one direction at any time during construction. (FMC, 2002 – 2004)

Reconstruction of Kenilworth Avenue, Washington, DC

Senior Project Manager for 5 Phase construction which included rehabilitation of 3 bridges (substructures & superstructures) and construction of over 1500 linear feet of cast-in-place concrete retaining walls with architectural stone liner finish, and full depth widening and resurfacing of nearly 2 miles of the Anacostia Freeway. Innovative roadway elements were utilized in this project, including overhead variable message signs and weigh-in-motion stations. As PM performed duties including scheduling, technical support, material submittals and ordering, and coordination with Subcontractors and field staff. (FMC, 2007 – 2009)

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: AMIR ARAB, PE Senior Structural Engineer
b. Project Assignment: Lead Structural Engineer
c. Name of Firm with which you are now associated: TYLIN INTERNATIONAL
d. Years experience: With this Firm <u>3</u> Years With Other Firms <u>12</u> Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: 1995 – 1997 – Graduate Research Assistance w/ Southern Illinois University - Edwardsville: Research assistance for development of a finite element procedure to investigate the rules and regulations of steel coil truck transport in the state of Illinois, using ABAQUS finite element modeling and nonlinear time history analysis. 1997 – 2004 – Project Engineer w/ Horner & Shifrin, Inc. (St. Louis, MO): Served as Project Engineer responsible for a variety of structural analysis and design tasks including design of bridges, buildings, and special structures in addition to finite element modeling and seismic design/retrofit of new and existing structures. 2004 – 2005 – Civil Engineer II w/ The Department of President - Board of Public Service (BPS) (City of St. Louis, MO): Served Civil Engineer II with the following responsibilities: i) Technical Review of design and construction bid documents prepared by engineering consultants, ii) Design and preparation of construction documents for civil and structural engineering projects completed by the BPS Design Division, iii) Performing feasibility studies and preparation of project reports during planning and programming phase, iv) Participating in development of quality control procedures for engineering projects, v) Performing routine and special bridge inspections, and vi) Performing structural evaluation of buildings and other facilities owned by the City of St. Louis, Missouri. 2005 – 2006 – Senior Structural Engineer w/ Site-Blauvelt Engineers, a TRC Company (Vienna, VA): Served as Senior Structural Engineer with the following responsibilities: i) National Practice Leader for Seismic Design firm wide, ii) Senior level technical management and execution of projects, iii) Performing finite element analysis of conventional and complex bridges and special structures, and iv) QA/QC Branch Manager . 2006 – 2009 – Senior Structural Engineer w/ HDR, Inc. (Alexandria, VA): Served as Senior Structural Engineer responsible for variety of tasks including: i) Seismic engineering, ii) Toll-Way structures, iii) Design, rating and rehabilitation of railroads structures including existing trusses, and iv) Design of various tasks pertaining to highway structures including sign structures and fiber reinforced concrete deck slabs. 2009 – current – Senior Structural Engineer w/ TYLI: The Senior Structural Engineer will perform and oversee structural design and analysis for bridge and transportation related structures in accordance with design specifications and guidelines and manage production of contract documents including plans, specifications, quantities, and cost estimates. 2009 – current - Project Manager w/ TYLI: Serve as lead staff person and provide management and coordination for the design and construction support phases of transportation projects. Amir Arab, PE joined T.Y. Lin in 2009 with 12 years of industry tenure with professional experience in structural engineering and managing various technical task groups, ranging from single span bridges to major landmark structures. Experienced with design, rating, and rehabilitation of vehicular and pedestrian bridges, including complex truss configurations, bascular bridges, and fracture critical structures.
e. Education: Degree(s)/Year/Specialization: PhD Candidate / 2012 / Structural Engineering with Minor in Engineering Mechanics and Applied Sciences MS / 2001 / Structural Engineering BS / 1995 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2006 / Professional Engineer / VA Registered #0402 042390

- g. Document the extent and depth of 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.)

Rehabilitation of New York Ave, Washington, DC

Project Manager for the superstructure replacement and substructure rehabilitation of the existing West and East Bound bridges located at New York Avenue, spanning over Amtrak, CSX transportation and WMATA railroads. TYLI provided an innovative design that would address issues such as improved constructability and schedule compressions while achieving cost effectiveness. The proposed design includes retrofitting and re-engaging the existing substructure and foundations units to support a new multi-girder superstructure system with post-tensioned precast concrete panels with deck cantilevers over 12 feet. In addition to the structural complexities, other challenges include the maintenance of traffic, coordination with railroad, and the complex geometric layout of the existing structure. (TYLI, 2010-2014 est.)

**US301 Corridor Development Project, General Engineering Consultant
New Castle County, Delaware**

Project Manager. TYLI provides design management as it related to structures for the US301 Corridor project. TYLI will prepare bridge aesthetic guidelines to be included in the Bridge Design Guidelines and will review the Bridge Plans for general conformance with those guidelines. TYLI also provides general support related to structures for the preparation of public workshops as well as presentations to Elected Officials and the FHWA. TYLI provides general support for Value Engineering issues related to bridges. Need for this project is founded in an existing roadway system that lacks capacity for current and future traffic volumes and that has had sections appear almost yearly on DelDOT's list of High Accident locations. The 3 key components that the US 301 Project is addressing are managing truck traffic, improving safety and reducing roadway congestion. (TYLI, 2009-2012 est.)

**VDOT, Proposed Bridge Replacement on CSX Transportation Railroad Over Route 340
(North Delphine Avenue)**

Sr. Structural Lead. Mr. Arab led a Value Engineering Team for Abernathy Construction Corporation for this project. The value engineering included reducing the three-span structure as originally proposed by the Engineer of Record to a single thru-plate girder system. The new abutments were constructed behind the existing abutment, eliminating any significant interruption to Delphine Avenue. (HDR, 2009)

Missouri Department of Transportation, Route 169 Improvements, Kansas City, MO

Served as Sr. Structural Engineer for the design and quality assurance of the proposed soil nail anchorage systems in accordance to the guidelines by U.S. Federal Highway Administration (FHWA). HDR provided engineering services including project scoping, surveying, geotechnical investigation, conceptual study, preliminary, right-of-way, and final roadway and retaining wall plans required for the rehabilitation and replacement of one mile of deteriorated metal bin walls supporting the northbound lanes of US-169 north of Downtown Kansas City and the Broadway Bridge. (HDR, Inc., 2008).

Missouri Department of Transportation, Route 367 Improvements PMC, St. Louis Co. MO

Served as Sr. Structural Engineer responsible for the design of the proposed highway signs in accordance to AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals. HDR functioned as the Project Management Consultant (PMC) for the Missouri Department of Transportation (MoDOT) on the Route 367 improvement project in north St. Louis county. (HDR, Inc., 2008).

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: JOHN M. CHRISTMAN, P.E. Branch Manager
b. Project Assignment: Lead Traffic Engineer
c. Name of Firm with which you are now associated:  GREENHORNE & O'MARA CONSULTING ENGINEERS
d. Years experience: With this Firm <u>13</u> Years With Other Firms <u>27</u> Years Please list chronologically your employment history, position and general experience or fields of practice for the last fifteen(15) years: 1995-1998 – Senior Traffic Engineer w/ A/E Group, Inc: Responsible for preparation of traffic impact studies, traffic studies including safety studies, signal warrant studies, signal design and signing and pavement marking plans. 1998 – current – Division Manager/Senior Traffic Engineer w/ G&O: Responsible for all transportation planning and traffic engineering projects performed in Maryland, including Signal design, traffic studies, safety studies, traffic management plans, maintenance of traffic plans, and signing and pavement marking plans. Clients include Maryland State Highway Administration, Maryland Transportation Authority, Montgomery County, Prince Georges County, Baltimore County, Baltimore City and other local and private clients.
e. Education: Degree(s)/Year/Specialization: BS / 1970 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1992 / Professional Engineer / VA Registration #0402 23087
g. Document the extent and depth of experience and qualifications relevant to the Project. <ol style="list-style-type: none">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> <p>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</p> <p>Hospital Road from Wagner Road to South Crater Road, City of Petersburg, Department of Public Works, Petersburg, VA Traffic Engineer for this mile long project of new alignment that will provide access to the new Regional Hospital. Project assignment involved providing the preliminary and final design of a new four-lane urban roadway on new alignment to serve a new 300-bed hospital and adjacent site development. Responsibilities included traffic impact analysis, weaving analysis, and signal designs. maintenance of traffic and sequence of construction plan; quantity take-offs and preparation of final construction plans to Virginia Department of Transportation specifications; lighting designs; landscaping; streetscape; signing and pavement marking plans. (G&O, 2008-2009).</p>

Garrison Road Improvements, - Rt. 610, Stafford County, VA

Traffic Engineer for the widening and safety improvements of Garrisonville Road to six lanes from Onville Road to Eustace Road. Performing traffic studies and analysis to this highly congested road along a busy congested corridor. (G&O, 2010-2011).

Eastern Avenue at Kenilworth Avenue (I-295) Interchange Improvement & Bridge Replacement, DDOT, Washington, DC

Lead Traffic Engineer for reconstruction of this tight diamond interchange. The project, in which Fort Myer Construction Company was Lead Contractor, includes replacement of the existing 160-foot-wide bridge, improvements to the interchange ramps and pedestrian/.bicycle access as well as reconstruction of a pump station on Eastern Avenue. In order to minimize the traffic impacts and closure times, John investigated alternative maintenance of traffic schemes, detour routes and construction phasing in conjunction with innovative construction techniques developed for the construction of the bridge. John prepared a Transportation Management Plan which included extensive traffic analysis for each phase of construction. The TMP included a public relations program to keep local and regional stakeholders informed. (G&O, 2008-2010). *The ACEC of Metro Washington recently awarded G&O's Transportation team with an honorary award. This project incorporates prefabrication techniques that have been little-used in this part of the country to date.*

Detail Build of MD 32 Airfield Road Interchange, Maryland State Highway Administration, Fort Meade, MD

Traffic Leader for Roundabout design for this design/build project, which includes design and construction of relocated MD 198/Airfield Road, four ramps from MD 32 to relocated MD 198/Airfield Road, two roundabouts at ramp intersections, and elimination of two existing at-grade intersections on MD 32 with MD 198 and Mapes Road. Served as lead Traffic Engineer responsible for preparing signing and pavement marking plans, Traffic Control Plans and Signal Design Plans. *Project won awards from both the Maryland Quality Initiative and Design/Build Institute of America, National Capital Chapter* (G&O, 2002-2003).

I-95 Express Toll Lanes (ETL), Section 100, Segment 1, Maryland Transportation Authority, Baltimore City/County, MD

Responsible for highway design and traffic engineering for the lead joint venture party for construction of ETL in the median of I-95 including the I-95/I-895 Interchange reconstruction. Segment 1 is 3.6-mile portion of this 10-mile project. He directed design and preparation of plans for maintenance of traffic (MOT) for the entire segment and was responsible for highway design of Contract KH 1503. A total of 12 construction contracts could be on going simultaneously; therefore, extensive phasing and coordination with adjacent segments was needed in order to maintain the existing number of lanes open to traffic during reconstruction of the widening, ETL and I95/I-895 interchange. MOT schemes for these contracts utilize existing pavement sections, rebuilt shoulder sections, new widening for MOT as well as several detour routes. (G&O, 2005-2011).

Work History Forms

Appendix E

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

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; Identify the Lead Contractor	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) Kenilworth Avenue NE & I-295 Washington, DC	Fort Myer Construction Corporation is the Contractor. DESIGNER: LD CA (Legion Design / Campbell & Associates)	District of Columbia Department of Transportation Infrastructure Project Management Admin. (IPMA) Mr. Ali Shakeri, PE Program Manager, Wards 7 & 8 64 New York Avenue, NE Washington, DC 20001 Phone: 202-671-4612	2009	2010	TOTAL: \$32,983	TOTAL: \$37,141	TOTAL: \$37,141
					PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES: FMC is responsible for reconstruction of three single-span bridges, one two-span bridge and 1/2 mile of roadway reconstruction and rehabilitation of Kenilworth Avenue NE and the adjacent east and west service roads.

This project included the reconstruction/construction of five bridge and the roadway reconstruction of Kenilworth Avenue (I-295) in northeast Washington, DC. Major work included three single-span bridges over Watts Branch Creek, one two-span bridge crossing over Nannie Helen Burroughs Avenue NE, and 1/2 mile of roadway reconstruction and rehabilitation of Kenilworth Avenue NE and the adjacent east and west service roads. Successful completion of this project required drilling caissons for bridge piers, driving steel H-piles for the abutment foundations, ground improvement by compaction grouting to stabilize bridge and retaining wall foundations, and constructing 1500 linear feet of Mechanically Stabilized Earth (MSE) walls. Other work included a new 16" water line and storm drain system, street lighting/traffic signal system, and three art structures with special lighting.

As construction had to be performed on one of D.C.'s busiest interstates, Maintenance of Traffic was a critical component. To reduce congestion for nearly 130,000 daily commuters, Fort Myer Construction utilized a movable barrier system to maintain three lanes in any one direction during peak hours. To avoid unnecessary congestion due to easily resolvable incidents, Fort Myer kept a tow truck on site. This proved effective in minimizing delays.

Fort Myer encountered a significant unforeseen site condition in a unmarked 48" sewer line that directly conflicted with the project work. Because Fort Myer possessed the material and supplies necessary to resolve this conflict it was able to complete this project with only minimal delay.

Project Significance:

- Multiple Bridge replacement
- Heavily traveled/highly congested roadway
- MSE walls and Utility relocation



ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

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; Identify the Lead Contractor	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) I-66 Pavement Rehabilitation Fairfax County, VA	Fort Myer Construction Corporation is the Contractor. Volkert & Associates, Inc as Lead Designer.	DDOT / Infrastructure Project Management Admin. (IPMA) Mr. Ali Shakeri, PE Program Manager, Wards 7 & 8 64 New York Avenue, NE Washington, DC 20001 Phone: 202-671-4612	November 2012	August 2012	TOTAL: \$38,000	TOTAL: \$44,000	TOTAL: \$38,000
					PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES: As the Design Builder, FMC managed and assisted Volkert & Associates, Inc with the design and constructed the \$38M design-build project.

The project which consisted of 40,00 square yards of full-depth concrete pavement patching, 140,000 tons of asphalt overlay associated geometric analysis and hydraulic design to maintain drainage and clearances for existing infrastructure, storm drainage, utilities, replacement of existing loop detection with non-intrusive traffic detection units, and coordination on I-66 between Route 50 and I-495, approximately 6.5 miles of interstate roadway.

A critical component of the project required pivotal coordination between, VDOT, Fort Myer, Washington Metro Area Transit Authority (WMATA) and Flour Lane to conduct critical lane closures and perform construction on two of Virginia's highly congested Interstates, I-495 and I-66. As this Design Build project integrated with the Hot Lanes project on I-495, Fort Myer coordinated with Flour-Lane to ensure that traffic restrictions, ramp and lane closures were minimized to reduce impediments to vehicular traffic.

Another component for this project is the integration with VDOT's Intelligent Transportation Systems ("ITS") device upgrade. VDOT's acceptance required testing of counts, speed, classification and alignment of the RTMS units. These units transmit data via the fiber optic cable to the VDOT Traffic Management System. In conjunction with VDOT, Fort Myer was also responsible for implementing the RTMS units into the "Open Roads" Software. "OpenTMS" is the version this project will be migrated into.

Fort Myer has performed all aspects of the construction under constraining work hours. This project is a testament to Fort Myer's commitment to safety. Fort Myer Construction is responsible for safely managing the high volumes of traffic through the extensive rehabilitation project.

Concluding this project showcases Fort Myer's ability to successfully coordinate with various agencies and existing projects to complete projects within a timely manner. Fort Myer is currently ahead of schedule and projected to complete the project three months ahead of the original completion date while constructing an additional 10,000 square yards of pavement.. Upon completion Fort Myer will have delivered the project ahead of schedules as well as \$12 million under VDOT's estimated contract budget.

Project Significance:

- Interstate Design
- Interstate Construction
- Significant Public Outreach
- Coordination with corresponding Design-Build projects
- Critical Maintenance of Traffic
- "ITS" Installation & Integration



ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

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; Identify the Lead Contractor	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) New York Avenue, NE from Florida Avenue/4th, Penn and Neal Streets Washington, DC	Fort Myer Construction Corporation is the Contractor. TYLI is the Prime Designer-of-Record. Greenhorne & O'Mara is a subconsultant.	DC Department of Transportation/ IPMA Mr. Ali Shakeri, P.E., Program Manager, Wards 5 & 6 64 New York Avenue, NE Washington, DC 20002 Phone: 202-671-4612	2012	2013 Estimated	TOTAL: \$25,000	TOTAL: \$32,000	TOTAL: \$32,000
					PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES: Fort Myer Construction is responsible for reconstruction of bridge spans and roadway approaches over electrified railroads along one of the highest traveled and congested major transportation corridors in DC.

New York Avenue, NE includes a value engineering alternative, completed by T.Y Lin International, consisting of superstructure replacement and substructure rehabilitation of the existing West and East Bound bridges located at New York Avenue, spanning over Amtrak, CSX transportation and WMATA railroads. With concurrent improvement projects occurring on other DC roads, limiting traffic impacts on the already-congested New York Avenue corridor is a top goal of DDOT. Additional goals of the project include upgrade of existing utility infrastructure, upgrade of superstructure, repair of bridge piers and abutments, improvements to approach roadways, improvements to pedestrian sidewalks and improvements to roadway lighting features.

Specifically this design-build project involves the demolition, removal, lowering and reconstruction of the twin-span New York Avenue bridge superstructure and piers, widening of existing abutments and construction of a new historic sidewalk rail. Construction includes removal of the existing bridge deck, barriers, lighting, girders, beams, bracing, piers and bearings; new beam seats backwall and pier columns; reinforced concrete deck and joints at each abutment; design, installation and removal of temporary structures to support construction and safety protection of construction personnel working over high-voltage wires and rail tracks. Electrical work includes rehabilitating or replacing bridge and roadway lighting; and pavement restoration to New York Avenue to match the elevation change of the bridge abutments.

FMCC engaged TYLI to provide an innovative design that would address issues such as improved constructability and schedule compressions while achieving cost effectiveness. The proposed value engineering includes retrofitting and re-engaging the existing substructure and foundations units to support a new multi-girder superstructure systems. In addition to the structural complexities, other challenges include the maintenance of traffic, coordination with railroad, and the complex geometric layout of the existing structure.

Project Significance:

- Bridge replacement
- Heavily traveled/highly congested roadway
- Concurrent adjacent improvement projects
- Public Awareness
- Teamed with T.Y. Lin International and Greenhorne and O'Mara



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

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; Identify the Lead Contractor	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) I-64 Widening South Charleston, West Virginia	TYLI was the Designer-of-Record. Brayman Construction Corporation held the largest contract. There were a total nine construction contracts.	Ahmed N. Mongi, PE West Virginia Department of Transportation Division of Highways 1900 Kanawha Boulevard, East Building 5 Charleston, WV 25305 (304) 558-9739	2011	2011	TOTAL: \$100,500,000	TOTAL: \$100,500,000	TOTAL: \$100,500,000
					PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES: TYLI performed design studies, prepared final design plans, construction documents and right-of-way plans, and provided construction services.



As the Design-of Record TYLI lead a multi-disciplinary team to provide expertise in a variety of fields including long-span and conventional bridge design and rehabilitation, complex roadway widening and re-alignment, retaining walls, hydraulics, maintenance-of-traffic, and Right-of-Way impacts. The subconsultants successfully managed included but not limited to surveyors, support civil engineers firms, cost engineers, support structural engineers, planning consultants, architectural consultants and material suppliers.

The project required adding a third travel lane in each direction to approximately 4.53 miles of an existing four-lane divided interstate highway. The roadway portion improved three interchanges by converting existing taper-type deceleration and acceleration ramps to parallel-type ramps and adding a fourth, auxiliary lane between two of the three interchanges. The additional third lane is accommodated in the 40-foot wide median area by constructing full-depth pavement, a concrete median, and introducing a closed drainage system. The fourth lane, an auxiliary lane, is being constructed outside of the existing four-lane interstate highway and requires a combination of retaining walls and reconstructed embankments. Due to the footprint of the existing bridges and the profile grade difference of the proposed redecked and new bridges within the three presently designed interchanges, a detailed maintenance of traffic plan was developed to ensure that all ramp movements remained open at all times.

Two of the four road projects were nominated for the Engineering Excellence Award for Small Bridge and Small Roadway Category and the other the WVDOT Engineering Excellence Award for Small Roadway Category and the West Virginia ACEC Gold Award in the Transportation Category.

The project also included design for the redecking and widening of 12 structures, reconstruction of two structures to provide clearances and widening, and a new bridge over the Kanawha River. Eastbound traffic will travel on the new bridge and westbound traffic will remain on the existing bridge after rehabilitation is complete. The new \$82M Kanawha River Bridge is a record-setting segmental box girder structure built as part of the I-64 Widening Project in Kanawha County, West Virginia. The bridge carries I-64 eastbound traffic consisting of three through lanes, one auxiliary lane, and shoulders. The overall bridge length is 2,975-ft, including a record 760-ft main span, which is the longest box girder span in the U.S. The structure crosses over railroad tracks, the Kanawha River back channel, Wilson Island, the Kanawha River main channel, and three roads.

The Kanawha River Bridge is a recipient of the National Recognition Award, 2011, American Council of Engineering Companies (ACEC); Grand Award, 2011, American Council of Engineering Companies of Metropolitan Washington (ACEC-MW); No. 1 in Top 10 Bridges List, 2009 Roads and Bridges; and Engineering Excellence Award for Large Bridges, 2007 West Virginia Division of Highways.

TYLI performed design studies, prepared final design plans, construction documents and right-of-way plans, and provided construction services for the widening of I-64 from west of the Institute Interchange to east of the McCorkle Interchange. Contracts completed within the project limits include

- Contract 02: Institute Interchange to Dunbar Interchange: Roadway median construction between interchanges
- Contract 05: Institute Interchange to Dunbar Interchange: Interchanges, bridges and unfinished roadway work
- Contract 05: Dunbar Interchange to Westmoreland Bridges roadway and Westmoreland Bridge
- Contract 06: Eastbound Kanawha River Bridge Retaining Walls, West abutment and partial mainline structure
- Contract 04: Davis Creek Bridge, mainline roadway and MacCorkle Interchange Ramps
- Contract 12: Demolition of a building within the Right-of-Way
- Contract 10: Eastbound Kanawha River Bridge, Concrete Alternative – contractor: Brayman Construction Corporation
- Contract 13: Eastbound Kanawha River Bridge, Steel Alternative



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

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; Identify the Lead Contractor	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) Annapolis Road Bridge over Baltimore Washington Parkway Baltimore, Maryland	TYLI was the Designer-of-Record. Contract has not yet been advertised for bid – contractor TBD.	City of Baltimore Department of Transportation Tony Grant, Project Manager 417 E. Fayette Street Baltimore, MD 21202 Phone: 410-396-6817	2012	2015	TOTAL: \$5,000	TOTAL: \$8,800	TOTAL: \$8,800
					PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES: TYLI led a team of consultants to design the replacement of Annapolis Road Bridge over the Baltimore/Washington parkway.

Route 648 (Annapolis Road) crosses MD 295 (Baltimore-Washington Parkway) in an urban area of Baltimore, Maryland. The existing structure was built in 1949 at the site of a former bridge that had been constructed in 1919. The existing bridge is an overpass allowing a divided highway, the MD 295, to cross below.

TYLI led a team of consultants to design the replacement of Annapolis Road Bridge over the Baltimore/Washington parkway (MD295). TYLI was responsible for coordinating subconsultants work as well as performing an existing conditions survey, developing an evaluation of alternatives, preparing a final design of the preferred alternative and finally contract advertisement and construction. Extensive coordination was necessary with Maryland Historic Trust, private consultants designing adjacent projects, a number of utilities in the corridor, and property owners in regards to temporary construction easements and other right of way concerns. TYLI led a team of consultants to collaborate on the development of the bridge design. The Project included Public information meetings with the purpose of meeting regulatory requirements and to solicit input from the community. The Team prepared technical drawings and renderings for the public meetings and TYLI presented concepts and explanations to the community in regards to the project purpose and key concerns of the community such as maintenance of traffic, aesthetics and project duration.

The general location of the proposed bridge will place the proposed abutments in generally the same place as the existing abutments. The alignment of the proposed bridge closely follows the existing alignment and the Team designed an alignment that ties into the existing alignment in as short a distance as feasible. The profile of the proposed bridge follows the profile of the existing bridge as close as feasible. This project consisted of a full detour, maintenance of traffic, utility coordination, drainage design, stormwater management treatment and approvals, erosion and sediment control, environmental permitting and community outreach. Maintenance of Traffic addressed a long-term full closure of Annapolis Road along with long-term single lane closures and temporary full closures of MD 295, a very busy corridor providing access from points south to the City of Baltimore.

Project Significance:

- Interstate Design
- Interstate Construction
- Significant Public Outreach
- Critical Maintenance of Traffic



ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

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; Identify the Lead Contractor	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) Route 1 / I-95 Interchange Structures Alexandria, Virginia	TYLI was the lead structural design firm.	Virginia Department of Transportation Percy Wilborn 1401 East Broad Street Phone: 804-786-2553	2009	2009	TOTAL:	TOTAL:	TOTAL:
	HNTB was Engineer-of-Record				VA5: \$38,400	VA5: \$46,500	VA5: \$46,500
	R.R. Dawson Bridge Company was the Contractor for VA5.				VA6/7: \$147,000	VA6/7: \$147,000	VA6/7: \$147,000
	Skanska was the Contractor for VA6/7.				PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES:	PRIMARY ACTIVITIES: TYLI is involved in the project as the lead structural design firm responsible for Stage I design studies as well as portions of two final design contracts.

In conjunction with the Woodrow Wilson Memorial Bridge replacement project, the I-95 / Route 1 Interchange project comprised design improvements to the existing interchange to accommodate the new 12-lane Beltway configuration. T.Y. Lin International was the lead structural design firm responsible for Stage I design studies as well as significant portions of two final design contracts. The project includes over 25,000 lineal feet of bridge and viaduct structure. The three-level interchange features extensive construction staging and requires maintenance of eight lanes of Beltway traffic at all times. Other project constraints include tight right-of-way restrictions and construction in wetlands, waterways, and tidal flats.

The Bridge Concept Report submitted to the Virginia Department of Transportation identified the structure types and details for the final design for 29 different structure locations. For the more visible high-level flyover structures, the chosen alternative was curved steel plate girders on hammerhead piers. For the less visible low-level structures, primarily located in wetland and waterway regions, the chosen alternative was pre-cast, prestressed concrete bulb-T girders on pile bents. Top-down construction for these concrete structures was utilized in many locations.

Final Design Considerations for VA5 Advance Bridge include:

- Constrained bridge construction because of MOT and environmental considerations
- The need to expedite construction to meet scheduling requirements for overall project
- Construction access restricted by adjacent contracts and neighborhoods.

Contract VA6/7, known as US Route 1 Interchange Contract included reconstruction and widening of US Route 1 from Fort Hunt Road to Huntington Avenue. Specifically, widening roadway mainline, constructing remaining bridges and interchange ramps, mainline roadway pavement, ground improvement, noise barriers, drainage systems, utility relocations, traffic systems, signs, roadway lighting and landscaping. TYLI was responsible for the design and construction services of one bridge structure and worked closely with other team members to develop MOT and final alignment.

Contract VA-5 2005 VDOT Construction Quality Award "for the quality and effectiveness of overall project design and plans and overall responsiveness to resolve construction related issues."

Project Significance:

- Interstate Design
- Interstate Construction
- Coordination with adjacent projects
- Critical Maintenance of Traffic
- Noise Barrier Systems

