LETTER OF SUBMITTAL

I-495 NORTHERN SECTION
SHOULDER USE

State Project No.: (FO) 0495-029-123, P101, C501
Federal Project No.: STP-495-5(094)
Contract ID No.: C00105130DB72

March 14, 2014

Submitted for:

Submitted by:

VDOT

LANE
Offerors shall furnish a copy of this Letter of Submittal Checklist, with the page references added, with the Letter of Submittal.

<table>
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<td>Letter of Submittal on Offeror’s letterhead</td>
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<td>Offeror’s full legal name and address</td>
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<td>Authorized representative’s original signature</td>
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<td>Declaration of intent</td>
<td>NA</td>
<td>Section 4.1.2</td>
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<tr>
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<td>NA</td>
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<td>NA</td>
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<td>NA</td>
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<td>Offeror’s Corporate Structure</td>
<td>NA</td>
<td>Section 4.1.6</td>
<td>2</td>
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<td>Full Legal Name of Lead Contractor and Lead Designer</td>
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<td>Offeror’s VDOT prequalification information</td>
<td>NA</td>
<td>Section 4.1.8</td>
<td>2</td>
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<td>DBE statement confirming Offeror is committed to achieving the required DBE goal</td>
<td>NA</td>
<td>Section 4.1.9</td>
<td>2</td>
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</table>
## ATTACHMENT 4.0.1.1

I-495 Northern Section Shoulder Use in Fairfax County, Virginia

**LETTER OF SUBMITTAL CHECKLIST AND CONTENTS**

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<td>Offeror's VDOT prequalification information</td>
<td>NA</td>
<td>Section 4.2.3</td>
<td>Appendix Attachment 4.2.3</td>
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<td>Evidence of obtaining bonding</td>
<td>NA</td>
<td>Section 4.2.4</td>
<td>Appendix Attachment 4.2.4</td>
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<tr>
<td>Full size copies of DPOR licenses and SCC registrations</td>
<td>NA</td>
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<td>SCC registration information - businesses</td>
<td>Attachment 4.2.5</td>
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## LETTER OF SUBMITTAL CHECKLIST AND CONTENTS

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<tr>
<td>Lead Contractor Work History Form</td>
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<td>Section 4.2.6</td>
<td>Appendix Attachment 4.2.6(a)</td>
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<tr>
<td>Lead Designer Work History Form</td>
<td>Attachment 4.2.6(b)</td>
<td>Section 4.2.6</td>
<td>Appendix Attachment 4.2.6(b)</td>
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<td>Conceptual Roadway Plans</td>
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<td>Appendix Attachment 4.2.7</td>
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<td>Offerers Technical Proposal Compliance</td>
<td>NA</td>
<td>Section 4.2.8</td>
<td>Appendix Attachment 4.2.8</td>
</tr>
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</table>
ATTACHMENT 3.4

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. \[C00105130DB72\]
PROJECT NO.: \[(FO) 0495-029-123, P101, C501\]

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

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

By signing this Attachment 3.4, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of \[February 6, 2014 – RFP\] (Date)
2. Cover letter of Addendum #1- March 6, 2014 (Date)
3. Cover letter of Addendum, March 11, 2014 (Date)

SIGNATURE [Signature]
DATE [Date]
March 14, 2014

Mr. Bryan W. Stevenson, P.E.
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219

RE: I-495 Northern Section Shoulder Use
State Project No.: (FO) 0495-029-123, P101, C501; Federal Project No.: STP-495-5(094);
Contract ID Number: C00105130DB72

Dear Mr. Stevenson:

The Lane Construction Corporation (LANE) is pleased to present this Letter of Submittal (Section 4.1) for the above referenced project to the Virginia Department of Transportation (VDOT). LANE was founded in 1890 and is one of the nation’s top-rated heavy civil construction companies. We specialize in high quality road, bridge, mass-transit and airport construction. LANE has a long and successful history of project completion in the Commonwealth of Virginia managed from our regional office in Chantilly.

As a leader in design-build methodology (ranked as the 38th Top Design-Build Firm by Engineering News-Record), we appreciate the importance of partnering and have constructed nearly $3 billion in design-build projects during the last decade. LANE’s teaming and leadership experience enable us to deliver the innovative and technically sound results that VDOT and Virginia residents deserve.

LANE is the Offeror and will be the overall authority on the project as well as the Lead Contractor. We have teamed with Sabra, Wang & Associates, Inc. (Sabra Wang) as the Lead Designer. Together, we provide VDOT with a reputable team capable of completing this project on time and budget.

LANE and Sabra Wang, in conjunction with hand-selected specialty firms experienced with VDOT processes and procedures, will provide design and construction of the I-495 Northern Section Shoulder Use project. We are confident in our team structure and experience, and have elaborated on our distinctive qualifications in the subsequent sections. The LANE team has assembled committed personnel, with proven delivery of VDOT’s requirements to meet the quality, safety and schedule demands of this Project.

4.1.1 Offeror’s Full Legal Name and Address:
The Lane Construction Corporation
90 Fieldstone Court
Cheshire, CT 06410

4.1.2 Declaration of Intent: It is the Offeror’s intent, if selected, to enter into a contract with VDOT for the Project in accordance with the terms of this respective RFP.

4.1.3 120 Day Declaration: Pursuant to Part 1, Section 8.2, we declare that the offer represented by this Price Proposal will remain in full force and effect for one hundred twenty (120) days following the date the Proposal is submitted to VDOT.
4.1.4 Offeror’s Point of Contact Information: Mr. Richard A. McDonough is the authorized representative and point of contact for the LANE team for all matters associated with this submittal.

Richard A. McDonough, Senior National Pursuits Manager
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (703) 222-5670  Fax: (703) 222-5960
Email: RAMdonough@lanestructure.com

4.1.5 Offeror’s Principal Officer Information: Mr. Mark A. Schiller is a Principal Officer of LANE.

Mark A. Schiller, Senior Vice President
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (703) 222-5670  Fax: (703) 222-5960
Email: MAschiller@lanestructure.com

4.1.6 Offeror’s Corporate Structure: LANE was founded in 1890 and was incorporated in the State of Connecticut on April 5, 1902. LANE will undertake the financial responsibility for the Project and has no known liability limitations. LANE’s pre-qualification status/capabilities with VDOT are well in excess of the requirements of this project. LANE’s co-sureties will furnish a single 100% performance bond and a single 100% payment bond.

4.1.7 Lead Contractor and Lead Designer: The full legal name of the Offeror is: The Lane Construction Corporation. The full legal name of the Lead Designer is: Sabra, Wang & Associates, Inc. LANE will serve as the prime/general contractor responsible for overall construction of the project and will serve as the legal entity who will execute the contract with VDOT. Sabra Wang will serve as the prime/lead design consulting firm responsible for the overall design of this Project under contract to Lane.

4.1.8 Offeror’s VDOT Prequalification Evidence: Evidence from VDOT’s online Prequalified List (L002/Active) is included in the Attachments to this Letter of Submittal and verifies that LANE is prequalified for this submission.

4.1.9 DBE Statement: LANE supports the Disadvantaged Business Enterprise (DBE) program and is committed to meeting the 11% goal for the design and construction of this Project utilizing Virginia certified DBE companies. LANE will take all necessary and reasonable steps to ensure that DBE firms have the maximum opportunity to compete for and perform services on this Design-Build contract.

4.1.10 Final Completion Date: In accordance with RFP Section 2.4.1, LANE proposes an Interim Milestone Date of December 31, 2014 and a Final Completion Date of June 30, 2015.

Through our proven performance, our team will deliver this Project on time and within budget. We appreciate the opportunity to submit our Letter of Submittal and look forward to working with VDOT on this important project.

4.2.8 Offeror’s Technical Proposal: The Lane Construction Corporation’s Technical Proposal is fully compliant with the Design Criteria Table included in the RFP Technical Requirements (Part 2) as Attachment 2.2 and all other requirements of this RFP.

The Lane Construction Corporation certifies the proposed limits of construction to include all stormwater management facilities are located within the right-of-way limits shown on the RFP Conceptual Plans with the exception of permanent and temporary easements.

The Lane Construction Corporation’s design concept does not require Design Exceptions and/or Design Waivers unless they are identified or included in the RFP or Addendum(s).
Respectfully submitted,

[Signature]

Mark A. Schiller
Senior Vice President
4.2 Attachments to the Letter of Submittal
ATTACHMENT

4.2.1

State Project No. (FO) 0495-029-123, P101, C501

Affiliated and Subsidiary Companies of The Lane Construction Corporation

Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

- **The Offeror does not have any affiliated or subsidiary companies.**
- **X** Affiliated and/ or subsidiary companies of The Lane Construction Corporation are listed below.

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARENT COMPANY</strong></td>
<td>Lane Industries Incorporated</td>
<td>90 Fieldstone Court Cheshire CT 06410</td>
</tr>
<tr>
<td><strong>AFFILIATE</strong></td>
<td>Lane Worldwide Infrastructure, Inc.</td>
<td>90 Fieldstone Court Cheshire CT 06410</td>
</tr>
<tr>
<td><strong>AFFILIATE</strong></td>
<td>Lane Infrastructure. Inc.</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td><strong>AFFILIATE</strong></td>
<td>Lane International, B.V.</td>
<td>Prins Bernhardplein 200 1097 JB Amsterdam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Netherlands</td>
</tr>
<tr>
<td><strong>AFFILIATE</strong></td>
<td>Lane Mideast Contracting, LLC</td>
<td>P.O. Box 35243 Abu Dhabi, UAE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Makeen Tower Corner of 9th and 10th Streets</td>
</tr>
<tr>
<td><strong>AFFILIATE</strong></td>
<td>Lane Mideast, Qatar, LLC</td>
<td>Grand Hamad Street Bin Al Sheikh Bldg.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3rd Floor Doha, Qatar</td>
</tr>
<tr>
<td><strong>SUBSIDIARY</strong></td>
<td>Lanecon Corporation</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
</tr>
<tr>
<td><strong>JOINT VENTURE (51% PARTNER)</strong></td>
<td>Virginia Guardrail Partners</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
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<tr>
<td>JOINT VENTURE (35% PARTNER)</td>
<td>Fluor-Lane 95, LLC</td>
<td>6700 Las Colinas Blvd. Irving, TX 75039</td>
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<td>----------------------------------------</td>
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<tr>
<td>JOINT VENTURE (20% PARTNER)</td>
<td>AGL Constructors</td>
<td>729 West Adams Street Chicago, IL 60607</td>
</tr>
<tr>
<td>JOINT VENTURE (25% PARTNER)</td>
<td>Gemma-Lane Liberty Partners</td>
<td>769 Hebron Avenue Glastonbury, CT 06033</td>
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<tr>
<td>JOINT VENTURE (25% PARTNER)</td>
<td>Gemma-Lane Patriot Partners</td>
<td>769 Hebron Avenue Glastonbury, CT 06033</td>
</tr>
</tbody>
</table>
Attachment 4.2.2(a)
Certification Regarding Debarment Forms
Primary Covered Transactions
ATTACHMENT 4.2.2(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

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

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

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

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

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

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

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

[Signature] March 5, 2014 [Senior National Pursuits Manager]
[Date] Title

[Name of Firm]

The Lane Construction Corporation
ATTACHMENT 4.2.2(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

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

__________________________
President

__________________________
Title


__________________________
Name of Firm
ATTACHMENT 4.2.2(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

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] 2/17/2014  [Vice President]  [Date]  [Title]

DMY Engineering Consultants Inc.

Name of Firm
ATTACHMENT 4.2.2(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

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] 3/10/14 [President]
[Signature] [Date] [Title]

[Name of Firm] Quinn Consulting Services, Inc.
ATTACHMENT 4.2.2(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: (FO) 0495-029-123, P101, C501

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] March 4, 2014 [Director of Transportation]
Signature Date Title

RINKER DESIGN ASSOCIATES, P.C.
Name of Firm
Attachment 4.2.3
VDOT Prequalification Supporting Documentation
L002
THE LANE CONSTRUCTION CORPORATION
PREQ. EXP : 06/30/2014

--PREQ ADDRESS ----------------- WORK CLASSES (LISTED BUT NOT LIMITED TO)
90 FIELDSTONE COURT 002 - GRADING
CHESHIRE, CT 06410-1212 003 - MAJOR STRUCTURES
PHONE : 203-235-3351 004 - ASPHALT CONCRETE PAVING
FAX : 203-237-4260 006 - PORTLAND CEMENT CONCRETE PAVING
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES

BUSINESS CONTACT: CAIOLA, VINCENT JAMES
EMAIL: VAPREQUAL@LANECONSTRUCT.COM

-----DBE INFORMATION-----
DBE TYPE : N/A
DBE CONTACT: N/A


Attachment 4.2.4
Surety Letter
March 7, 2014

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

RE: The Lane Construction Corporation
Request for Proposals
I-495 Shoulder-North Section (UPC 105130)
Project No.: (FO)0495-029-123, P101, C501 / Contract ID No. C00105130DB72
Estimated Value of Project: $20,000,000.00 - $30,000,000.00

To Whom It May Concern:

This letter will serve to confirm that The Lane Construction Corporation is a highly regarded and valued client of Aon Risk Services Northeast and the sureties, Zurich American Insurance Company (A.M. Best Financial Strength Rating of A+/Superior and Financial Size Category XV), Fidelity and Deposit Company of Maryland (A.M. Best Financial Strength Rating of A+/Superior and Financial Size Category XV) and Liberty Mutual Insurance Company (A.M. Best Financial Strength Rating of A/Excellent and Financial Size Category XV), the 'co-sureties'. Each surety company is licensed to conduct surety business in the state of Virginia, and each surety company holds a Certificate of Authority as listed in the Department of the Treasury's Listing of Approved Sureties (Department Circular 570) dated July 1, 2013.

The Lane Construction Corporation has developed a strong track record of completing complex construction projects on time and within the available budget. In the recent past, the co-sureties have executed bonds on behalf of The Lane Construction Corporation for individual projects with contract values approaching $350,000,000 and corresponding backlogs approaching $2,000,000,000. At this time, The Lane Construction Corporation is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

Naturally, as is customary within the surety industry, the issuance of any bonds is contingent upon a favorable underwriting review of project specifics including, but not limited to, the contract terms, conditions, documents, bond forms and confirmation of complete project financing by both The Lane Construction Corporation and its co-sureties at the time a request for bonds is made. We assume no liability to third parties or to you by issuance of this letter, should bid or final bonds not be issued.

Should you need additional assurance regarding the technical ability or bonding capacity of The Lane Construction Corporation, please do not hesitate to contact this office.

Sincerely,

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

Therese E. Rowedder
Attorney-in-Fact
KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by THOMAS O. MCCLELLAN, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Kevin A. WHITE, Mark P. HERENDEEN, Jean CORREIA, Maria CHAVES, Theresan E. ROWEDDER, Bryan HUFT, Jeffrey HENDRICKS and Jane GILSON, all of Boston, Massachusetts, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York, the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland, and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland, in their own proper persons.

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 30th day of May, A.D. 2013.

ATTEST:

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

By: Eric D. Barnes
Assistant Secretary

Vice President
Thomas O. McClellan

State of Maryland
City of Baltimore

On this 30th day of May, A.D. 2013, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, THOMAS O. MCCLELLAN, Vice President, and ERIC D. BARNES, Assistant Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeseth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2015

POA-F 063-0474
"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,

this 7th day of MARCH, 2014.

Geoffrey Delisio, Vice President
This Power of Attorney is not valid unless it is printed on red background.

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

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

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Brian Driscoll; Bryan Hutt; Jane Gilson; Jean Correia; Jeffrey Hendricks; Kevin A. White; Maria Chaves; Mark P. Herendeen; Theresean E. Rowder

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

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 31st day of May 2013

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

By: [Signature]

Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss
COUNTY OF KING

On this 31st day of May 2013, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

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

By: [Signature]

KD Riley, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 1st day of MARCH 2014

By: [Signature]

David M. Carey, Assistant Secretary
Attachment 4.2.5
SCC and DPOR Information
**ATTACHMENT 4.2.5**

**State Project No. (FO)0495-029-123, P101, C501**

**SCC and DPOR Information**

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 4.2.5 and that all businesses listed are active and in good standing.

<table>
<thead>
<tr>
<th>Business Name</th>
<th>SCC Number</th>
<th>SCC Type of Corporation</th>
<th>SCC Status</th>
<th>DPOR Registered Address</th>
<th>DPOR Registration Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Lane Construction Corporation</td>
<td>F0254476</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>90 Fieldstone Court Cheshire, CT 06410</td>
<td>Contractor (Class A)</td>
<td>2701011871</td>
<td>01/31/2016</td>
</tr>
<tr>
<td>Sabra, Wang &amp; Associates, Inc.</td>
<td>F1343203</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>101 W. Broad St., Suite 301 Falls Church, VA 22046</td>
<td>Business Entity</td>
<td>0407005636</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>Sabra, Wang &amp; Associates, Inc.</td>
<td>F1343203</td>
<td>Foreign Corporation</td>
<td>Active</td>
<td>7066 Samuel Morse Dr. Suite 100 Columbia, MD 21046</td>
<td>Business Entity Branch Office</td>
<td>0411000839</td>
<td>02/29/2016</td>
</tr>
<tr>
<td>DMY Engineering Consultants Inc.</td>
<td>07688955</td>
<td>Corporation</td>
<td>Active</td>
<td>45662 Terminal Drive, Suite 110 Dulles, VA 20166</td>
<td>Business Entity</td>
<td>0407005631</td>
<td>12/31/2015</td>
</tr>
<tr>
<td>Quinn Consulting Services Incorporated</td>
<td>04925517</td>
<td>Corporation</td>
<td>Active</td>
<td>4094 Majestic Ln. # 281 Fairfax, VA 22033</td>
<td>Business Entity</td>
<td>0407003733</td>
<td>12/31/2015</td>
</tr>
</tbody>
</table>
Attachment 4.2.5.1
SCC Supporting Documentation
### Details of license number 2701011871

| Name: | THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT VA PAVING COMPANY / VA SIGN AND LIGHTING COMPANY |
| License Number: | 2701011871 |
| License Description: | Contractor Class A |
| Business Type: | Corporation |
| Address: | 90 FIELDSTONE COURT CHESTER, CT 06410 |
| Specialties/Classifications: | Building (BLD) |
| Classification Definitions: | Highway / Heavy (H/H) |
| Specialty Definitions: |  |
| Initial Certification Date: | 1972-10-12 |
| Expiration Date: | 2016-01-31 |

### Details of license number 0407005636

| Name: | SABRA YING & ASSOCIATES INC |
| License Number: | 0407005636 |
| License Description: | Business Entity Registration CORP |
| Business Type: | |
| Address: | 101 W BROAD ST SUITE 301 FALLS CHURCH, VA 22046 |
| Initial Certification Date: | 2010-03-12 |
| Expiration Date: | 2016-12-31 |
Details of license number 0407003733

Name: 
License Number: 0407003733
License Description: 
Address: 4094 MAJESTIC LN # 281
Initial Certification Date: 1948-05-05
Expiration Date: 2015-12-31

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON 12-31-2015
NUMBER 0405000502

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

PROFESSIONS: ENG, LS

RINKER DESIGN ASSOCIATES PC
9385 DISCOVERY BOULEVARD
SUITE 200
MANASSAS, VA 20109
Attachment 4.2.6(a)
Lead Contractor Work History Form
## LEAD CONTRACTOR - WORK HISTORY FORM

### (LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement. (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-495 EXPRESS LANES</td>
<td>HNTB</td>
<td>Name of Client./ Owner: Virginia Department of Transportation Phone: 571.483.2600</td>
<td>Project Manager: John Lynch, P.E. Phone: 571.238.2970 Email: <a href="mailto:John.Lynch@vdot.virginia.gov">John.Lynch@vdot.virginia.gov</a></td>
<td>12/2012</td>
<td>11/2012 (early delivery)</td>
<td>$1,346,560</td>
</tr>
</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

### PROJECT SCOPE

Construction of four new general-purpose traffic lanes (two in each direction) outside of the existing lanes on the Capital Beltway. Work included the reconstruction of ramps, interchanges, frontage roads, overpasses and underpasses, bridges and other necessary crossings.

VDOT began studying short and long-term solutions to growing traffic congestion on the Capital Beltway in the late 1980s. By 1994 it had concluded High Occupancy Vehicle (HOV) lanes were needed. A private developer submitted plans for High Occupancy Toll (HOT) lanes in 2002 to the Commonwealth, which resulted in selecting that alternative in 2005.

The Express Lanes project is the most significant package of improvements to the Capital Beltway in a generation. It provides drivers with the option of paying a toll for a faster, more predictable trip. Drivers using the Express Lanes have access to (HOV) lanes usually limited to vehicles with multiple occupants.

### PROJECT DESCRIPTION

LANE constructed two new lanes in each direction on a 14-mile stretch of I-495 from the Springfield Interchange to just north of the Dulles Toll Road. The project encompassed the replacement of more than $260 million of aging infrastructure, including more than 50 bridges and overpasses. Three new access points to the Capital Beltway at Rte. 29/Lee Highway, Westpark Bridge and Jones Branch Drive were designed and constructed as well as upgrades to 12 key interchanges. LANE also built more than 70,000 linear feet of sound walls to double the existing protection for local neighborhoods.

LANE managed the ITS, communications and toll systems performed by subcontractors. LANE’s Virginia Sign and Lighting division performed significant electronic sign and highway electrical work.

### PROJECT BENEFITS

The new Express Lanes offer faster travel choices and congestion relief for motorists in the northern Virginia/Washington, D.C. region. Benefits to drivers, carpoolers, public transportation users and the business community already include:

- Less stop-and-go traffic
- Improved opportunities for reliable bus service for public transportation users
- Reduced cut-through traffic on local neighborhood streets
- Positive environmental impact because vehicles move through the area more quickly, reducing emissions

### EVIDENCE OF PERFORMANCE

“"A solid experienced company that has built to standard and worked well under difficult traffic and space constraints to minimize impact on travel.”  - Garrett Moore, P.E., VDOT Chief Engineer

“Project was built over four years under traffic as high as 200,000 vpd and achieved 5 million safe work hours as of September 2012 without a lost-time incident, making it among the safest heavy civil projects ever built in the U.S.” - Public Works Financing Newsletter, December 2012

The I-495 Express Lanes project has been the recipient of numerous awards including a safety award for more than 5,000,000 manhours without lost time incidents … and most recently was one of the Construction Management Association of America’s 2013 project award winners.
**ATTACHMENT 4.2.6(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

*(LIMIT 1 PAGE PER PROJECT)*

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
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<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
</table>
| NORTH AREA ROADS IMPROVEMENT | JMT                                                                                          | Name of Client/Owner: MWAA  
Phone: 703.417.8647  
Project Manager: David Swennes  
Phone: 703.417.8647  
Email: david.swennes@mwaa.com | 03/2008 | 11/2007 (early delivery) | $29,681 | $29,681 |

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

**PROJECT DESCRIPTION**

The North Area Roads Improvement project focused on the Dulles Area Access Highway (DIAAH) and associated areas and included:

- The construction of a new Collector-Distributor (C-D) Roadway system for the section of the DIAAH between Saarinen Circle and Route 28. The new C-D Roadway separates the Route 28 exiting traffic from DIAAH traffic destined for further on, thereby reducing the traffic congestion at three interchanges.
- Widening of the DIAAH from a four-lane to a six-lane highway to provide sufficient capacity for future DIAAH traffic.

The project included the existing roadway demolition and the reconstruction and widening of 1.25 miles of the DIAAH entering and exiting the airport including bituminous concrete roadways, a 60+ foot span steel girder bridge, drainage improvements and storm water management facilities, overhead sign structures, and related traffic control, lighting and safety features.

The project also included the widening of an existing bridge (inbound DIAAH over Horsepen Run) and the construction of a new bridge (inbound Collector-Distributor Road over Horsepen Run). The bridge required construction of a 60’, two-lane span with an integrated back wall and mechanically stabilized earth wall and included short and medium span steel plate girder designs. The project involved the construction of one large 8’ by 4’ by 295’ long concrete box culvert and a smaller 8’ by 4’ by 69’ long concrete box culvert. Two retaining walls were also included to allow the widening eastbound of the DIAAH and the construction of the inbound Collector-Distributor roadways to pass under existing bridges without reconstructing those bridges.

The ultimate goal of the North Area Roads Improvement project was to create a roadway system capable of providing efficient access to Dulles International Airport that is easy for airport patrons to understand and use.

**PROJECT BENEFITS**

- Provides airport passengers with better access to rental car facilities and long term parking lots
- Reduces traffic congestion and delays
- Improves traffic flow and roadway connectivity
- Improves passenger service

**EVIDENCE OF PERFORMANCE**

LANE completed this project four months ahead of schedule.

Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.

**SIMILARITIES IN SCOPE AND COMPLEXITY**

- Surveying
- Asphalt paving
- Underlying concrete joint repairs
- Signing and striping
- Overhead sign structures and associated lighting
- Dynamic message signs
- Overhead lane control system
- ITS devices/systems (DMS, CCTV, detection, video analytics, lane control)
- Electrical, communications, and fiber optic conduit, wiring, and hook-ups
- Configuring, integrating, and testing new ATM field devices
- Field support for system software integration and testing
- Drainage, erosion and sediment control
- Stormwater management
- Concrete barrier and pier protection
- Maintenance of traffic
- Inspection, testing, quality assurance and control

**KEY PERSONNEL**

- Ken Prince, DB Project Manager
- Nagy Abdelwahed, QC Manager

Dulles Airport presented the project with the “Outstanding Safety Record Award” for the fourth quarter of 2006.
### Lead Contractor - Work History Form

**ATTACHMENT 4.2.6(a)**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement. (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-66 SPOT IMPROVEMENTS</td>
<td>HNTB</td>
<td>Name of Client/Owner: VDOT  Phone: 703.259.3240  Project Manager: Charles Mel Harvey  Phone: 703.259.3240  Email: <a href="mailto:charles.harvey@vdot.virginia.gov">charles.harvey@vdot.virginia.gov</a></td>
<td>12/2011</td>
<td>12/2011</td>
<td>$10,200</td>
<td>$9,800</td>
</tr>
</tbody>
</table>

#### Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

**Project Scope**

This project consisted of the construction of a third lane on I-66 from the Fairfax Drive on ramp to the Sycamore Street off-ramp.

**Project Description**

LANE performed as the Lead Contractor on this first of three spot improvements on I-66 to reduce congestion and increase safety along westbound I-66 inside the Capital Beltway. This project added a third lane between the interchanges of the Fairfax Drive on-ramp (just west of George Mason Drive) to the existing deceleration lane at the Sycamore Street off-ramp (1.9 miles). The westbound acceleration and deceleration lane between Fairfax Drive and Sycamore Street was lengthened to form a continuous auxiliary lane between the two ramps.

A new 12-foot-wide shoulder was constructed with full-strength pavement capable of carrying traffic during emergencies. LANE integrated ATMS elements into the existing VDOT system. The work included: sight distance improvements, variable and static message signs, traffic management systems, roadway lighting and landscaping in selected areas. All work was performed within the existing right-of-way.

A multi-phased (three phases) construction approach was implemented to minimize the inconvenience to the traveling public through the area and get the completed road under traffic prior to inclement weather. Although motorists were expected to experience periodic lane closures until the project was complete, all lane closures were at night (no daytime, weekend or holiday closures) and the lack of disruption on this heavily-traveled interstate was notable.

This project included similar circumstances to the I-495 Shoulder Use project and added much needed capacity to a heavily congested commuter thoroughfare. This enhancement also served the local population well for their everyday access through the community. The project also included site access and egress challenges as well as tight work areas. In order to mitigate any impediments to the project, LANE worked closely with VDOT to establish MOTplans and conducted extensive orientation and training for supervisors and workers.

**Project Benefits**

This project added much needed capacity to this heavily congested commuter thoroughfare. This enhancement also serves the local population well for their everyday access through the community.

**Evidence of Performance**

The project was completed on time and the additional lane opened to traffic on December 5, 2011.

**Similarities in Scope and Complexity**

- Surveying
- Asphalt paving
- Underlying concrete joint repairs
- Signing and striping
- Overhead sign structures and associated lighting
- Dynamic message signs
- Overhead lane control system
- ITS devices/systems (DMS, CCTV, detection, video analytics, lane control)
- Electrical, communications, and fiber optic conduit, wiring, and hook-ups
- Configuring, integrating, and testing new ATM field devices
- Field support for system software integration and testing
- Drainage, erosion and sediment control
- Stormwater management
- Concrete barrier and pier protection
- Maintenance of traffic
- Inspection, testing, quality assurance and control

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*Image of project site*
Attachment 4.2.6(b)
Lead Designer Work History Form
LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Completion Date (Original)</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-95 SECTION 100 EXPRESS TOLL Lanes I-895 TO MD 43 DESIGN</td>
<td>Cherry Hill</td>
<td>Name of Client: Maryland Transportation Authority (MdTA) Phone: 410.537.7848 Project Manager: Dave LaBella, P.E. Phone: 410.537.7848 Email: <a href="mailto:dlabella@mdta.state.md.us">dlabella@mdta.state.md.us</a></td>
<td>Fall/2014</td>
<td>Fall/2014</td>
<td>$142,600</td>
<td>$3,200</td>
</tr>
</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.

Sabra, Wang & Associates, Inc. performed all of the design work out of their Falls Church, VA office.

PROJECT SCOPE
Construction of Express Toll Lanes (ETLs) on the most congested portion of I-95 north of Baltimore City. This 8-mile segment stretches from the I-895 (N) split in east Baltimore City, to north of MD 43 in White Marsh. When completed there will be two ETLs and four general-purpose lanes in each direction. Drivers traveling from north of MD 43 through to I-895 will have the choice of using the general-purpose lanes at no cost or paying a toll to use the ETLs. In addition, ETL access for drivers traveling on MD 43 will be provided to and from the south along I-95. The tolls will be managed to maintain relatively congestion-free traffic flow. The toll for using the ETLs will vary depending on the time of day and amount of traffic on the road.

PROJECT DESCRIPTION
As a subconsultant, Sabra, Wang & Associates, Inc. (SWA), prepared a multitude of ITS, highway design, traffic engineering design and traffic analyses.

I-95 Express Toll Lanes Planning and Preliminary Engineering: SWA performed Highway Capacity Manual analyses for the IAPA report including Basic Freeway Segments, Weaving, and Ramps. SWA prepared micro simulation using VISSIM of the proposed geometrics of I-95 Section 100. The simulation models consisted of eight interchanges and over 15 miles of interstate highways. The simulation was prepared for 2025 Build conditions and 2010 Build and No-Build conditions. SWA prepared the signing concept plans for I-95 section 100, which consists of eleven miles of highway (I-95) and five interchanges with both general purpose and managed (toll) travel lanes. The work included inventory and evaluation of existing signing, development of 24 base plans, development of conceptual layouts, meeting with MdTA and the GEC to refine the concepts, development of final plans including sign size layout, detailed location design and support type selection.

I-95 Final ITS Design: SWA prepared ITS design for I-95 Section 100 that included 20 DMS signs, 15 CCTV Cameras, 2 Automatic Traffic Recorders, 8 Toll Rate Signs, Over Height Vehicle Detection Systems, Road Weather Information Systems (RWIS), and prepared details for conduit layout for ITS devices on five Toll Gantries. The ITS design included power and communications design for the ITS devices, Automatic Gate Control Systems, Toll Gantries, Over Height Vehicle Detection Systems, RWIS, and HAR. SWA prepared lighting and sign lighting design along I-95 from I-695 to north of MD 43, including point by point calculations photometric analysis on the proposed pavement surface, light trespass calculations, and veiling lumiance calculations. SWA prepared traffic signalization design for two Baltimore City intersections. In addition, SWA developed the ITS standards, special provisions, and structural design and mounting details. SWA is also responsible for all signing analysis of all CCTV, DMSs, RWIS, and HARs designed under contract including coordination with various utility companies including electrical, telephone and fiber optic.

PROJECT BENEFITS
The addition of toll lanes addresses the capacity and safety needs on Section 100 and thereby improves access, mobility, and safety for local, regional, and inter-regional traffic, including passenger, freight, and transit vehicles.

EVIDENCE OF PERFORMANCE
The I-95 Express Toll Lanes Project has received 14 awards for the work on this project, ranging from National to Local awards for Quality in Engineering, Construction, Partnering in Planning, Structures, Pavement, and others. The full list is available here: http://www.i-95expressstolllanes.com/contractor/awards.asp

SIMILARITIES IN SCOPE AND COMPLEXITY
- Surveying
- Asphalt paving
- Underlying concrete joint repairs
- Signing and striping
- Overhead sign structures and associated lighting
- Dynamic message signs
- ITS devices/systems (DMS, CCTV, detection, video analytics, lane control)
- Electrical, communications, and fiber optic conduit, wiring, and hook-ups
- Configuring, integrating, and testing new ATM field devices
- Concrete barrier and pier protection
- Maintenance of traffic
- Inspection, testing, quality assurance and control

PROPOSED PERSONNEL FOR I-95 SHOULDER USE
Keith Rimiker, PE, PTOE
Bill Monteec, TSOS
Jyothi Paladugu, PE, PTOE

Images courtesy www.i-95expressstolllanes.com
## LEAD DESIGNER - WORK HISTORY FORM

### (LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Completion Date (Original)</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Contract Value (Original)</th>
<th>h. Design Fee for the Work (in thousands)</th>
<th>i. Design Fee for the Work (Actual or Estimated)</th>
<th>j. Design Fee for the Work (Estimated)</th>
<th>k. Design Fee for the Work (Performing the Lead Design)</th>
<th>l. Design Fee for the Work (Performing the Lead Design, as Lead Designer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERCOUNTY CONNECTOR (ICC) CONTRACT A</td>
<td>Montgomery County, MD</td>
<td>Name of Client: Maryland State Highway Administration Phone: 410.545.8772 Project Manager: Melinda Peters, P.E. Phone: 410.545.8772 Email: <a href="mailto:mpeters@sha.state.md.us">mpeters@sha.state.md.us</a></td>
<td>12/2010</td>
<td>12/2010</td>
<td>$478,700</td>
<td>$478,700</td>
<td>$2,400</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

### h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.

**PROJECT SCOPE**

Contract A was the first and westernmost portion of the ICC, extending seven miles from I-370 to just east of MD 97 in Montgomery County. The Intercounty Connector linked existing and developed areas between the I-270/I-370 and I-95/US 1 corridors within central and eastern Montgomery County and northwestern Prince George's County with a state-of-the-art, multi-modal east-west highway that limits access and accommodates the movement of passengers and goods.

**SIMILARITIES IN SCOPE AND COMPLEXITY**

- Design-Build
- Surveying
- Asphalt Paving
- Signing and Striping
- Overhead Sign Structures and Associated Lighting
- Dynamic Message Signs
- Overhead Lane Control System
- ITS Devices/Systems
- Electrical, Communications, Fiber Optic Conduit, Wiring and Hook-ups
- MOT
- Inspection, Testing, QA & C

**PROPOSED PERSONNEL FOR I-495 SHOULDER USE**

Keith Riniker, PE
Bill Monroe, TSOS

**PROJECT DESCRIPTION**

As a Subconsultant, Sabra, Wang & Associates, Inc. (SWA) was responsible for the preparation of traffic engineering design plans. The work included extensive coordination with the Contractor and the State Highway Administration General Engineering Consultant for design modifications to provide better value and increased safety, while facilitating construction activities and minimizing costs. A majority of the design work was done out of the Design-Build Team’s project office with some aspects being performed in SWA’s Columbia, MD office. SWA’s work on this project consisted of the following:

- A multi-staged MOT design with more than 90 plan sheets and included modifications to six miles of existing interstate roadway, construction of six miles of new interstate roadway with two new interchanges, modifications to four miles of arterial roadways, and seven bridges along roadways crossing over the ICC. The design included temporary channelization devices, signs, temporary roadways and markings and involved close coordination with the Contractor to improve constructability and reduce construction costs and duration.
- A Transportation Management Plan that evaluated MOT impacts to vehicular and pedestrian traffic, sequencing of construction, haul routes, impacts to/from nearby construction projects and impacts to emergency response. It included preparing conceptual MOT phasing in coordination with the contractor and MOT traffic analyses to evaluate traffic impacts during construction.
- Prepared more than 150 sheets of signing and marking plans for six miles of new interstate roadway, six miles of signing modifications to existing interstate roadways, six miles, and five miles of signing modifications to arterial roadways. SWA was also responsible for the structural design for several of the proposed overhead and cantilever sign structures where the use of standard sign structures was not possible.
- Traffic signal and interconnect design for six intersections on three corridors including temporary signal and interconnect designs for MOT.
- Signal warrant analyses based on MD MUTCD warrants for six intersections, corridor-wide CORSIM models for ICC and the intersecting arterials, intersection Level of Service and simulation analyses using Synchro/SimTraffic, and coordination of signal timing plans using Synchro and Montgomery County policies and traffic analyses for construction impacts.
- Temporary and permanent lighting designs, including lighting for two interchanges, continuous lighting along cross streets, underpass lighting, culvert lighting, tunnel lighting, and sign lighting. Including photometric analyses with point-by-point calculations on the proposed pavement surface, light trespass calculations and veiling luminance calculations.

**PROJECT BENEFITS**

This project provided a much-needed connection between MD 97 and the I-270 corridor reducing congestion on several local arteries and making them safer by removing conflicts between cross-county commuters, trucks and local residents.

**EVIDENCE OF PERFORMANCE**

The ICC team including Sabra, Wang & Associates, Inc. was awarded Engineering News Record’s (ENR) Northeast Region Best Project of 2011 for the successful completion of the ICC Contract A Project. Subsequent contracts B, C, and D/E, which SWA was designer on, have since won 16 major national awards to date.

![Image of the project site]
**PROJECT SCOPE**

Sabra, Wang & Associates, Inc. (SWA) provided a multitude of traffic engineering, planning and design services for the upgrade of the signal system, which is currently in operation and controlling 960 signals in the City. All design work was done out of SWA’s Baltimore, MD office (which has since moved to Columbia, MD) and consisted of the following:

**PROJECT DESCRIPTION**

**Traffic Signal System & Signal Timing Upgrades:** SWA provided functional specifications to replace 1,300 signal controllers, construction plans and specifications to replace 17 communication hubs, technical specifications to replace the existing Transportation Management Center, technical specifications for a professional services contract for system integration to replace the signal hardware software and software including electronic test equipment and test procedures, and construction management and inspection services for the replacement of signal controllers. Following the completion of the ATMS upgrade, SWA retimed the City traffic signals in two phases and included traffic data collection, traffic engineering analysis, signal timing design, and field implementation and fine tuning of the optimized signal timing plans.

**Transportation Management Center:** SWA performed TMC planning, procurement, and central signal system integration. Under the construction management services, SWA was responsible for the day-to-day reporting of construction activities, preparing daily inspection reports, reviewing and approving invoices on behalf of City staff, representing the City of Baltimore at meetings with contractors, acting as a liaison between City agencies and contractors, and coordinating and conducting progress meetings with contractors and City of Baltimore managers and subordinates.

**ITS Design & Communication Upgrades:** SWA prepared $6.5 M Federal Aid Job-Order-Contracts (bid book specifications) and final engineering plans for the construction of ten CCTV cameras and eleven Dynamic Message Signs in the City of Baltimore. SWA prepared the specifications for cameras, encoders, copper and fiber communication equipment, poles and cabinets, quantities and estimates. SWA also prepared CCTV design including bucket truck sighting analyses, photo renderings for DMS, location design, power and communication design, and design support during construction.

**Traffic Signal Design:** SWA prepared $4M Federal Aid Job-Order-Contracts (bid book specifications) for Signal Reconstruction, Signal Rewiring and Detector Replacement. Prepared 34 traffic signal designs and 20 detector replacements including wireless, video and inductive loops. Signal work included preparation of base plans including as-builts of signal equipment and surveys, field review of existing equipment, utility and ROW research, signal design and pedestrian detection, and ADA ramp design. SWA also prepared the City’s signal design checklist.

**PROJECT BENEFITS**

This project provided a new TMC to the City, new CCTV cameras, Dynamic Message Signs, new traffic signal infrastructure, and improved signal timings.

**EVIDENCE OF PERFORMANCE**

“Now that this project is concluded, we all feel the improvement in signal timing progression, lesser delays and the obvious reduction in stops in and around the City of Baltimore Central Business District and gateway arterials. The success of this project is attributed to the hard work, commitment, technical skills of your staff, and the leadership Sabra, Wang & Associates, Inc. has exhibited on this contract.”

– Raj Sharma, Engineering Supervisor, Signal Section Traffic Division, City of Baltimore

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**Similarities in Scope and Complexity**

- Surveying
- Signing and striping
- Dynamic message signs
- ITS devices/systems (DMS, CCTV, detection, video analytics, lane control)
- Electrical, communications, and fiber optic conduit, wiring, and hook-ups
- Configuring, integrating, and testing new ATM field devices
- Field support for system software integration and testing
- Inspection, testing, quality assurance and control

**Proposed Personnel for I-495 Shoulder Use**

Keith Riniker, PE, PTOE
Bill Monroe, TSOS
Jyothi Paladugu, PE, PTOE
Ziad Sabra, Ph.D., PE, PTOE
Dustin Schlipp, PE

---

**ATTACHMENT 4.2.6(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
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<th>f. Contract Value (in Original)</th>
<th>g. Design Fee for the Work (in Actual or Estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITY OF BALTIMORE ATMS CONTRACT NO. 880</td>
<td>MASTEC</td>
<td>Name of Client: City of Baltimore Phone: 443.984.2158 Project Manager: Raj Sharma Phone: 443.984.2158 Email: <a href="mailto:Raj.Sharma@baltimorecity.gov">Raj.Sharma@baltimorecity.gov</a></td>
<td>2013</td>
<td>Fall 2013</td>
<td>$42,500</td>
<td>$4,500</td>
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</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.
Attachment 4.2.7
Conceptual Roadway Plans
<table>
<thead>
<tr>
<th>Level</th>
<th>Annotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-30</td>
<td>CULVERT PIPES, CATCH BASINS, DROP INLETS &amp; DRAINAGE ITEMS</td>
</tr>
<tr>
<td>4-6</td>
<td>TANKS, MONITORING WELLS, VENT PIPES, ETC.</td>
</tr>
<tr>
<td>7-9</td>
<td>GAS PUMPS, GAS TANKS, FILLER CAPS, PERMANENT EASEMENT, PROPERTY PINS</td>
</tr>
<tr>
<td>10-12</td>
<td>GUARDRAIL &amp; JERSEY BARRIER</td>
</tr>
<tr>
<td>13-15</td>
<td>PAVED DITCHES, RIPRAP, POSTS, GAS ISLANDS &amp; PLAYSETS</td>
</tr>
<tr>
<td>16-17</td>
<td>WALKS (AROUND HOUSES &amp; BUILDINGS)</td>
</tr>
<tr>
<td>18-20</td>
<td>BUILDINGS, PORCHES, DECKS, PATIOS &amp; CURB &amp; CONCRETE ISLANDS</td>
</tr>
<tr>
<td>21-22</td>
<td>PROJECT NOTES, MINE INFORMATION</td>
</tr>
<tr>
<td>23-25</td>
<td>EDGE OF PAVEMENT, GRAVEL, CONCRETE</td>
</tr>
<tr>
<td>26-50</td>
<td>VDOT, NOT ASSIGNED, DIRECTIONAL ARROWS, PAVEMENT STRIPING</td>
</tr>
<tr>
<td>51-60</td>
<td>CURB, CURB AND GUTTER</td>
</tr>
<tr>
<td>61-70</td>
<td>TYPICAL DITCH DETAILS, UNDERDRAINS (CD-1 &amp; 2, UD-1, UD-2, ETC.)</td>
</tr>
<tr>
<td>71-80</td>
<td>SWM BASIN (PLAN VIEW/CONTOURS), SWM BASIN (DESCRIPTIONS/NOTES)</td>
</tr>
<tr>
<td>81-90</td>
<td>DROP INLETS DI-7 SERIES (CELLS), DROP INLETS DI-3 SERIES (CELLS), DROP INLETS DI-14 SERIES (CELLS)</td>
</tr>
<tr>
<td>91-100</td>
<td>PIPES FROM 4&quot; TO 42&quot; (CUSTOM LINE STYLES)</td>
</tr>
<tr>
<td>101-110</td>
<td>NOTE: ALL DRAINAGE STRUCTURE LABELS ON LEVEL 31</td>
</tr>
<tr>
<td>111-120</td>
<td>ANNOTATION FOR LEVELS 1 - 30</td>
</tr>
</tbody>
</table>

**General Notes**

- PHASE I - EROSION CONTROL ITEMS
- PHASE II - EROSION CONTROL ITEMS
- PHASE II - MISCELLANEOUS EROSION CONTROL
- PHASE II - SYMBOLS, LEGEND AND NOTES

**Project Notes**

- CONCEPT DESIGN PLANS
- SURVEY DESIGN
- LANE CONSTRUCTION PLANS
- LANE CONSTRUCTION
- CONCEPT DESIGN
- PHASE I - TEMPORARY DRAINAGE (PIPES)
- PHASE I - EROSION CONTROL ITEMS
- PHASE II - EROSION CONTROL ITEMS
- PHASE II - MISCELLANEOUS DRAINAGE (PIPES)
- PHASE II - MISCELLANEOUS EROSION CONTROL (DIVERSION DIKES & DITCHES)

**Traffic Engineering**

- VIDEO DETECTION ZONES, MICROLOOP PROBES
- EXISTING LOOPS/VIDEO DETECTION ZONES, LOOPS, CONDUIT, JUNCTION BOXES, MANHOLES
- EXISTING UNDERGROUND SIGNAL EQUIPMENT, POLE, MAST ARM, SPAN WIRE, SIGNAL HEADS, PEDESTRIAN
- EXISTING LETTERS/ARROWS/SYMBOLS, EXISTING SIGN FACES & NUMBERS
- PROPOSED AND EXISTING SIGNAL FACES & NUMBERS, PROPOSED SIGN LOCATIONS, INCLUDING STRUCTURES
- SIGNAGE, SIGNS ON SPANWIRE, MAST ARMS, POLES, NEW SIGN FACES & NUMBERS, EXISTING SIGN CALL-OUT, SIGN WORKING LEVEL, SIGNAL WORKING LEVEL
- PHASING DIAGRAM, PREEMPTION DIAGRAM, TIMING CHART

**Erosion Control**

- PHASE I - TEMPORARY DRAINAGE (PIPES)
- PHASE I - EROSION CONTROL ITEMS
- PHASE II - EROSION CONTROL ITEMS
- PHASE II - MISCELLANEOUS DRAINAGE (PIPES)
- PHASE II - MISCELLANEOUS EROSION CONTROL (DIVERSION DIKES & DITCHES)

**Traffic Engineering**

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- PHASING DIAGRAM, PREEMPTION DIAGRAM, TIMING CHART

**Erosion Control**

- PHASE I - TEMPORARY DRAINAGE (PIPES)
- PHASE I - EROSION CONTROL ITEMS
- PHASE II - EROSION CONTROL ITEMS
- PHASE II - MISCELLANEOUS DRAINAGE (PIPES)
- PHASE II - MISCELLANEOUS EROSION CONTROL (DIVERSION DIKES & DITCHES)
**GENERAL NOTES**

1. BARRIER GLARE SHIELDS SHALL BE REPLACED.

2. BARRIER MODIFICATIONS SHALL HAVE A TEMPORARY TIMBER RAIL PER TIA.

3. VARIABLE DEPTH MILL AND OVERLAY MAY BE NECESSARY FOR SLOPE CORRECTION.

4. FULL DEPTH MILL AND OVERLAY MAY BE NECESSARY FOR SLOPE CORRECTION.

5. MECHANICAL ANCHORS SHALL BE REPLACED.

6. FINAL SURFACE TO BE PLACED UNIFORMLY ACROSS THE ENTIRE PAVEMENT.

7. WHEN LIQUID ASPHALT IS USED AS A CURING MATERIAL FOR THE CEMENT STABILIZED BASE - 12" ASPHALT CONCRETE TYPE BM-25.0D +0.4 (HMHB, PG 70-22)

8. ON HIGH SIDE OF SUPERELEVATION THE SLOPE IS TO MATCH THE SUPERELEVATION THE SLOPE SHALL MATCH THE SHOULDER USE LANE SLOPE. ON THE HIGH SIDE OF SUPERELEVATION THE SLOPE SHALL MATCH EXISTING, BUT MAINTAIN MAXIMUM 5% ROLLOVER.

9. ON TANGENT AND LOW SIDE OF SUPERELEVATION THE SLOPE OF THE LATERAL OFFSET SHALL MATCH EXISTING, BUT MAINTAIN MAXIMUM 5% ROLLOVER.

10. HIGH FRICITION SURFACE COATING TO DELINEATE SHOULDER USE LANE

**FULL DEPTH PATCH/ JOINT REPAIR**

- Variable Depth Mill and Overlay (in 2.5'-8' increments)
- Hot Mix Asphalt (Type BM-25.0D +0.4 (HMHB, PG 70-22)
- Cold Plane
- Low Pressure Roller
- High Friction Surface Coating

**NOTE:**

- 1.0 GAL/SF WHERE NECESSARY FOR MAINTENANCE OF TRAFFIC, COVER MATERIAL WILL BE LIQUID ASPHALT CRS-1, CRS-1H OR CMS-2 APPLIED AT A RATE OF 0.2 GAL/SF. WITHOUT A ROLLOVER. ON TANGENT AND LOW SIDE OF SUPERELEVATION THE SLOPE OF 10 LB/SF.

**NOT TO SCALE**

- Median Barrier Bumpout Detail
- Reflective and Unreflective Clearing
- Median Striping
- Shoulder Use Lane

**TYPICAL SECTIONS**

- Not to Scale

- 4'-5' Ex. Asphalt
- 9' Ex. PCC
- 6' Ex. CTA
- Sawcut (PCC only)

- Existing Concrete Barrier
- Proposed Finished Grade
- New Single-Slope Face
- Existing Face of Barrier

- Variable 0% - 2.00%

- Variable 9:1 - 10.8:1 Taper


- STA 115+77.64 TO STA 123+27.00

- STA 123+27.00 TO STA 123+62.49

- OLD DOWNING DRIVE

- OLD DOWNING DRIVE

- Route 495 Northbound

- Route 495 Northbound

**NOTES:**

- See Note 8

- See Note 9

**REFERENCES:**

- Whitman Requardt & Associates (703) 293-9717

**DESIGN BY:**

**SURVEYED BY, DATE**

**PROJECT MANAGER**

**EXISTING CONCRETE BARRIER**

**MEDIAN BARRIER BUMPOUT DETAIL**

**FULL DEPTH PATCH/ JOINT REPAIR**

**LATEX CONSTRUCTION CONCEPT DESIGN PLANS**

**EXHIBIT 2A(1)**
TYPICAL SECTIONS

NOT TO SCALE

1. For limits of work and display full depth pavement, refer to plan sheets.
2. Refer to subsurface engineering data report for pavement design.
3. Variable depth, fill, and display will be necessary for slope connection.
4. All depth and joint repairs are to be performed on the full width of pavement and shoulder prior to the placement of final surface layers of asphalt.
5. All cracks shall be sealed by all means after milling and scaled with type B crack sealant in accordance with the special provisions for sealing cracks in AC or PCC pavement.
6. Full surface to be placed uniformly across the entire pavement.
7. Trench (W) is defined as a retaining wall for the cement stabilized shoulder, containing high density base of 100% material necessary for prevention of traffic from entering.
8. Top edge of the slope shall maintain maximum 5% rollover at the edge of the shoulder use lane.
9. Horizontal high side of super-elevation the slope is to match the super-elevation without a roller on tangent and low side of super-elevation the slope shall match existing shoulder minimum rollover.
10. On tangent and low side of super-elevation the slope of the lateral offset shall match the shoulder use lane. Slope for the slope of the lateral offset shall maintain minimum 5% rollover at the edge of the shoulder use lane.
11. Minimum 5% rollover existing expansion joint to be replaced where impacted due to pavement bays.

NOTES:
- Full depth sawcut at edge of existing mainline pavement to expose existing pavement tie-in.

LANE CONSTRUCTION
CONCEPT DESIGN PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
TYPICAL SECTIONS

NOT TO SCALE

I-495 NORTHBOUND

STA 148+50.00 TO STA 154+52.40

PROPOSED FINISHED GRADE

EXISTING ELEVATION

SHOULDER USE LANE

STA 150+00 TO 162+00

STA 148+50.00 TO STA 164+52.40

PROPOSED FINISHED GRADE

EXISTING ELEVATION

SHOULDER USE LANE

NOTES:
1. FOR LIMITS OF MILL AND OVERLAY AND FULL DEPTH PAVEMENT, REFER TO PLAN SHEETS.
2. REFER TO RESPECTIVE ENGINEERING DATA REPORT FOR PAVEMENT DESIGN.
3. VARIABLE DEPTH MILL AND OVERLAY MAY BE NECESSARY FOR SLOPE CORRECTION.
4. FULL DEPTH JOINT REPAIRS ARE TO BE PERFORMED ON THE FULL WIDTH OF PAVEMENT AND SHOULDER PRIOR TO THE PLACEMENT OF FINAL SURFACE LAYERS OF ASPHALT.
5. ALL CRACKS SHALL BE CLEANED OF ALL DEBRIS AFTER MILLING AND SEALED WITH TYPE B CRACK SEALANT IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR SEALING AND SHOULDER PRIOR TO THE PLACEMENT OF FINAL SURFACE LAYERS OF ASPHALT.
6. FINAL SURFACE TO BE PLACED UNIFORMLY ACROSS THE ENTIRE PAVEMENT.
7. VARIABLE DEPTH MILL AND OVERLAY MAY BE NECESSARY BY THE DEPARTMENT.
8. MILLING (4" MIN.)
9. MILLING (5" MIN.)

10. Full Strength Pavement with PCC or expose existing edge of PCC pavement

11. High Friction Surface Coating To Delineate Shoulder Use Lane

12. Mill and Overlay Existing Pavement Minimum Depth of 4"

13. Subbase - 6" Aggregate Base Material, Type I, Size No. 21A pugmill mixed

14. Base - 14" Asphalt Concrete Type BM-25.0D +0.4 (HMHB, PG 70-22)

15. Surface - 1.5" Stone Matrix Asphalt, SMA-9.5 (PG 76-22)

16. Joint - 0.67" Asphalt Concrete Type BM-9.0D (HMHB, PG 70-22)


20. Prop. UD-4

21. Prop. UD-4


23. Tear Down Marker Aggregate LPS (SF-10) Cov.

24. aggregate - 10 lb/sq.yd. consisting of No. 10 aggregate or grading B sand shall be applied at a rate of 0.5 sq.ft.

25. High Friction Surface Coating To Delineate Shoulder Use Lane

26. Full depth removal of existing AC or PCC pavement.

LAWN CONSTRUCTION
CONCEPT DESIGN PLANS

LANE TEAM

THE LANE TEAM

EXHIBIT 2A(3)
NOTE:
1. FOR LIMITS OF MILL AND OVERLAY AND FULL DEPTH PAVEMENT, REFER TO PLANT SHEETS.
2. REFER TO GEOTECHNICAL ENGINEERING DATA REPORT FOR PAVEMENT DESIGN.
3. VARIABLE DEPTH MILL AND OVERLAY MAY BE NECESSARY FOR SLOPE CORRECTION.
4. FULL DEPTH/JOINT REPAIRS ARE TO BE PERFORMED ON THE FULL WIDTH OF PAVEMENT AND SHOULDER PRIOR TO THE PLACEMENT OF FINAL SURFACE LAYERS OF ASPHALT.
5. ALL CRACKS SHALL BE CLEANED OF ALL DEBRIS AFTER MILLING AND SEALED.
6. FINAL SURFACE TO BE PLACED UNIFORMITY ACROSS THE ENTIRE PAVEMENT.
7. VARIABLE DEPTH ASPHALT IS USED AS A CURING MATERIAL FOR THE CEMENT STABILIZED COURSE. IT SHALL BE USED ADVISE CUTION OR CALL APPLIED AT A RATE OF 0.5% TO 1.5% DEW. NEEDED, INCREASE FOR MAINTENANCE OF THERMAL CHAIN MATERIALS CONSISTING OF WASHED AGGREGATE OR GRADE B SAND SHALL BE APPLIED AT A RATE OF 0.5 LBS.
8. ON HIGH SIDE OF SUPERELEVATION THE SLOPE IS TO MATCH THE SUPERELEVATION WITHOUT A REDUCED OR TANGENT AND ON LOW SIDE OF SUPERELEVATION THE SLOPE SHALL MATCH ELEVATION MAXIMUM 5% ROLLOVER.
9. TANGENT AND LOW SIDE OF SUPERELEVATION THE SLOPE OF THE LANE LIMITS SHALL MATCH THE SHOULD USE LANE SLOPE. ON THE HIGH SIDE OF SUPERELEVATION THE SLOPE SHALL MATCH ELEVATION MAXIMUM 5% ROLLOVER AT THE END OF THE SHOULDER USE LANE.
Notes:
1. Full depth patches/joint repairs shall be performed prior to grading and subbase.
2. Supplemental survey was performed in 2005 and is shown for reference purposes only.
3. The old Dominion Bridge shown from supplemental survey.
4. Foil transverse pavement tie-in details see typical section.
5. Pavement thicknesses shall be placed at a location approved by VDOT; see special provisions.

GENERAL NOTES

In Pl. E/O I
In Pl. 6" Plastic Pipe
In v. Out = 233.63'
150' Min.

SCALE
1" = 20'0" (50mm = 600mm)

CONCEPT DESIGN PLANS

LANE CONSTRUCTION

DESIGN FEATURES RELATING TO CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
LANE CONSTRUCTION
CONCEPT DESIGN PLANS

NOTES:
1. Full depth patches/repairs shall be performed prior to milling and capping.
2. Supplemental surveys were performed in 2005 and is shown for reference purpose only.
3. For transverse pavement tie-in detail see typical section sheet E-1.
4. Final full depth shoulder width to be determined at time of construction.
5. Moveable median barrier shall be placed at a location approved by VDOT.  See Special Provision.

The LANE Team

EXHIBIT 6

LANE

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.
1. FULL DEPTH PATCHES/JOINT REPAIRS SHALL BE PERFORMED PRIOR TO MILLING AND OVERLAY.

2. SUPPLEMENTAL SURVEY WAS PERFORMED IN 2005 AND IS SHOWN FOR REFERENCE PURPOSES ONLY.

3. THE GEORGEWASH PIKE BRIDGE IS SHOWN FROM SUPPLEMENTAL SURVEY.

4. FOR TRANSVERSE PAVEMENT TIE-IN DETAIL SEE TYPICAL SECTION 495-029-007.

5. REMOVABLE MEDIAN BARRIER SHALL BE PLACED AT A LOCATION APPROVED BY VDOTmoil SPECIAL PROVISION.

NOTES:

- The legend indicates the following:
  - Solid: Gavel Shoulder
  - Gray: Existing R/W & L/A Line
  - Light Gray: Proposed MB-7D Buildings
  - Red: Complete Demolition
  - Orange: Complete Resurfacing
  - Yellow: Asphalt Shoulder
  - Green: Existing R/W & L/A Line

- The drawing shows the approximate location for wide shoulder area and the location for median bumpout for sign structure.

- The scale at the bottom of the drawing indicates the size of the plan.

- The drawing is a concept design plan for Interstate 495, Capital Beltway Northbound.

- The plan includes notes for the construction of the project, including details for the movement of median barrier and the placement of sign structures.

- The drawing also includes a legend for the different types of markings and features shown on the plan.
1. Full depth patches/joint repairs shall be performed prior to milling and overlay.
2. Supplemental survey was performed in 2005 and is shown for reference purposes only.
3. The George Washington Memorial Parkway bridge is shown for reference purposes only.
4. Supplemental survey was performed in 2005 and is shown for reference purposes only.
5. Movable median barrier shall be placed at a location approved by VDOT. See Special Provision.

NOTES:
- These plans are unfinished and unapproved and are not to be used for any type of construction or the acquisition of right of way.
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY
FAIRFAX COUNTY
I-495 NORTHERN SECTION SHOULDER USE PROJECT
FROM: SOUTH OF OLD DOMINION DRIVE
TO: GEORGE WASHINGTON MEMORIAL PARKWAY

Fairfax County Population 1,109,725 (2012 Census)

Project Lengths are based on Construction Baseline.

The complete electronic version of the Plan Assembly as provided and used by the Virginia Department of Transportation includes all original signatures and the official plan assembly in electronic format. It is stored in the VDOT Central Office Plan Library, including all subsequent revisions. IT IS THE OFFICIAL CONSTRUCTION.plans. For information relating to electronic files and layered plans, see the General Notes.

Design features relating to Construction or to Regulation and Control of Traffic may be subject to change as deemed necessary by the Department.

The project is to be constructed in accordance with the Department's 2007 Road and Bridge Standards, 2008 Road and Bridge Standards, VDOT General Engineering Standards, 2011 Virginia Work Area Protection Manual, and Virginia Department's 2007 Road and Bridge Specifications. The MUTCD, 2011 Virginia Supplement to the Complete Streets Plan, is also referenced. These plans are unfinished and unapproved and are not to be used for any type of construction or the acquisition of Right of Way.
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<td>LOCATION MAP</td>
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### LANE CONSTRUCTION

**CONCEPT DESIGN PLANS**

- **GENERAL NOTES**
  - Whitman Requardt & Associates (703) 293-9717
  - 0495-029-123
  - 495
  - VDOT
  - Paul Nishimoto (571) 483-2622

- **EXHIBIT**
  - The LANE Team

**THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.**
**SURVEY ALIGNMENT DATA SHEET**

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**LANE CONSTRUCTION CONCEPT DESIGN PLANS**

The LANE Team

**THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.**
CONSTRUCTION ALIGNMENT DATA SHEET

LI-495 NORTHBOUND

PI = 131+87.79
T = 861.46'
L = 1,704.54'
R = 4,770.00'

123+26.33
PC = 
PT =

140+30.87

PI = 160+34.88
T = 1,163.27'
L = 2,283.06'
R = 4,830.00'

148+71.61
PC = 
PT =

E = 4.23%
V = 70 MPH
E = 4.18%
V = 70 MPH

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

The LANE Team
CONSTRUCTION ALIGNMENT DATA SHEET

I-495 NORTHBOUND CONSTRUCTION BASELINE

Beginning chain 495REV2 description

<table>
<thead>
<tr>
<th>Curve</th>
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<th>End Chain</th>
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</tbody>
</table>

These plans are unfinished and unapproved and are not to be used for any type of construction or the acquisition of right-of-way.

The LANE Team

Exhibit 1E(5)
3. A SHOULDER LANE MONITORING SYSTEM (SLMS) SHALL BE PROVIDED.

2. THE DESIGN BUILDER SHALL BE RESPONSIBLE FOR VERIFYING 100% SIGN/ITS NOTES:
REQUIREMENTS OF THE RFP AND SPECIFICATIONS. SLMS CCTV ENSURE THAT THE COVERAGE AND DETECTION MEETS THE
LOCATIONS OF THE FIXED CCTV CAMERAS FOR THE SLMS TO
THE SOUTH END OF THE PROJECT TO THE END OF THE
OF THE SHOULDER USE LANE (FROM THE THEORETICAL GORE AT
FOR OBSTRUCTION AND INCIDENT DETECTION ALONG THE LENGTH
AND ALL LANE USE CONTROL SIGNALS AND DMSs WITHIN THE
CCTV CAMERA VIEWING COVERAGE OF I-495 NB AND SB TRAFFIC
SIGN & ITS REQUIREMENTS.

THE DESIGN-BUILDER SHALL REFER TO THE RFP TECHNICAL
CCTV-1045:

135.17'
+20.80 C

EXIST. FAA R/W
EXIST. VDOT R/W & L/ALINE
EXIST. FAA R/W

CONCEPT ISLAND
+17.46
152.99'

EXIST. FAA R/W
EXIST. VDOT R/W & L/ALINE
EXIST. FAA R/W

EXHIBIT 11(2)

R M -1 Fd.
R M -1 Fd.

SIGN & ITS SUPPORT LEGEND

SUPPORTS
Proposed
Existing

PROPOSED
EXISTING

SIGN

Proposed Sign Panel
Proposed Shoulder Lane Control Signal (CLSS)

EXISTING SIGN TO REMAIN OR TO BE RELOCATED
EXISTING SIGN TO BE REMOVED

Radar Traffic Detector (Express Lanes) - OL:
- (2) DETECTORS
- (1) PTZ
- (1) FIXED (POINTING SOUTH - HOT)
- (2) FIXED (POINTING SOUTH - GP)

Radar Traffic Detector (Express Lanes) - NL:
- (1) DETECTOR

Traffic Detector Site (Express Lanes) or VDOT Owned
City Camara Site

The LANE Team

LANE CONSTRUCTION
CONCEPT DESIGN PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Lane

EXHIBIT 11(1)
PROJECT MANAGER

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SURVEYED BY, DATE

DESIGN BY

GENERAL NOTES

Whitman Requardt & Associates (703) 293-9717

EXHIBIT

LANE CONSTRUCTION CONCEPT DESIGN PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

The LANE Team
PAVEMENT MARKING LEGEND

- Type B, Class VI, White Pavement Line Marking, 6” Width
- Type B, Class VI, Yellow Pavement Line Marking, 6” Width
- Type B, Class VI, White Pavement Line Marking, 8” Width
- Type B, Class VI, White Pavement Line Marking, 12” Width
- Type B, Class VI, White Pavement Line Marking, 18” Width
- Type B, Class I, White Pavement Line Marking, 24” Width

LANE CONSTRUCTION CONCEPT DESIGN PLANS

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PAVEMENT MARKING LEGEND

1. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 6' WIDTH
2. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 8' WIDTH
3. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 12' WIDTH
4. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 24' WIDTH
5. TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 4' WIDTH
6. TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 6' WIDTH
7. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 6' x 2' x 4' SPACING
8. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 6' x 3' x 6' SPACING
9. TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 6' x 4' x 9' SPACING

LANE CONSTRUCTION CONCEPT DESIGN PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT-OF-WAY.

The LANE Team
PAVEMENT MARKING LEGEND

- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 6" WIDTH
- TYPE B, CLASS VI, YELLOW PAVEMENT LINE MARKING, 6" WIDTH
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 8" WIDTH
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 12" WIDTH
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, (3' LINE, 9' SPACE)
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, (2' LINE, 4' SPACE)
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, (10' LINE, 30' SPACE)
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, 6" WIDTH
- TYPE B, CLASS VI, WHITE PAVEMENT LINE MARKING, (45 DEGREES)

GENERAL NOTES

- These plans are unfinished and unapproved and are not to be used for any type of construction or the acquisition of right of way.

Lane Construction Concept Design Plans

The LANE Team
LANE CONSTRUCTION
CONCEPT DESIGN PLANS

THESE PLANS ARE UNFINISHED
AND UNAPPROVED AND ARE NOT
TO BE USED FOR ANY TYPE
OF CONSTRUCTION OR THE
ACQUISITION OF RIGHT OF WAY.

The LANE Team

EXHIBIT 11(1)
Attachment 4.2.8
Offeror’s Technical Proposal Compliance
4.2.8 Technical Proposal Compliance

I-495 Northern Section Shoulder Use
State Project No.: (FO) 0495-029-123, P101, C501
Federal Project No.: STP-495-5(094)
Contract ID Number: C00105130DB72

The Lane Construction Corporation’s Technical Proposal is fully compliant with the Design Criteria Table included in the RFP Technical Requirements (Part 2) as Attachment 2.2 and all other requirements of this RFP.

The Lane Construction Corporation certifies the proposed limits of construction to include all stormwater management facilities are located within the right-of-way limits shown on the RFP Conceptual Plans with the exception of permanent and temporary easements.

The Lane Construction Corporation’s design concept does not require Design Exceptions and/or Design Waivers unless they are identified or included in the RFP or Addendum(s).
PRICE PROPOSAL

I-495 NORTHERN SECTION SHOULDER USE

State Project No.: (FO) 0495-029-123, P101, C501
Federal Project No.: STP-495-5(094)
Contract ID No.: C00105130DB72

March 14, 2014

Submitted for:

Submitted by:
DESIGN-BUILD PRICE PROPOSAL CHECKLIST

Project Name: I-495 Northern Section Shoulder Use in Fairfax County, Virginia
Contract ID Number: C00105130DB72
The LANE Construction Corporation

➢ Contents of Price Proposal:

X Proposal Price, in both numbers and words (Attachment 4.3.1)

☐ Schedule of Items itemized in accordance with Part 1, Section 4.4.6, including material quantities and costs of each proposed work package To be submitted in accordance with Section 4.4 Post Notice of Intent to Award Submittals

☐ Proposed Monthly Payment Schedule showing the anticipated schedule on which funds will be required and associated value of work in accordance with Part 1, Section 4.4.7 To be submitted in accordance with Section 4.4 Post Notice of Intent to Award Submittals

X Price Adjustment Information and Forms for Fuel, Asphalt and Steel, including identification of pay items and associated quantities eligible for adjustment (Part 3, Section 6.3, Attachments 6.3)

X Proposal Guaranty (C-24) required by Section 102.07 of Part 5, Division I Amendments to the Standard Specifications

X Sworn Statement Forms (C-104, C-105, Attachments 4.3.4(a) and 4.3.4(b))

X DBE Requirements Forms (C-111, C-49 and C-112) as applicable (Attachments 4.3.5(a), 4.3.5(b) and 4.3.5(c))

X CD-ROM containing the entire Price Proposal in a single cohesive Adobe PDF file
Attachment 4.3.1
Cost Breakdown Summary
ATTACHMENT 4.3.1
PRICE PROPOSAL FORM

4.3.1 Offeror shall specify the pricing information for the items below, the dollars amount shall be in whole numbers:

Price Proposal Cost Breakdown Summary:

Design Services, LS $1,850,000
Mobilization (Construction), LS $1,104,123
Quality Assurance (QA) (Construction), LS $550,000
Quality Control (QC) (Construction), LS $550,000
Earthwork, LS $963,935
Roadway Incidentals, LS $158,292
Drainage (Structures), LS $1,151,830
Utilities, LS $4,000
Pavement, LS $6,953,840
Full Depth Transverse Joint Repair, LS $552,000
Permanent Traffic Control/Signage, LS $1,440,060
Maintenance of Traffic, LS $2,490,230
ITS Components, LS $2,255,300
Barrier Modification, LS $1,933,405
Bridge Mounted signs Removal and Replacement, LS $597,250
All Others Costs, LS $2,235,500

Proposal Price; (Specify the Total Lump Sum price in both numbers and words, this price shall equal to the total sum of the items listed above)

Lump Sum (LS): TWENTY FIVE MILLION SEVEN HUNDRED EIGHT THOUSAND EIGHT HUNDRED SEVENTY FIVE DOLLARS ($25,708,875.00)

Signature: [Signature]
Date: March 14, 2014

Design-Builder: The LANE Construction Corporation

Vendor No.: L 002
Attachment 4.3.2
Adjustments to Asphalt, Fuel and Steel Prices
Exhibit 6.3(b)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
ASPHALT PRICE ADJUSTMENT (PG76-22 or PG 70-28)
DESIGN-BUILD PROJECTS

INSTRUCTIONS - This form is to be completed and returned ONLY when asphalt concrete items containing PG 76-22 or PG 70-28 is being utilized on the project.

PROJECT NUMBER:  (FO) 0495-029-123, P101, C501

DISTRICT:  Northern Virginia

Bid Prices in this contract for items containing PG 76-22 or PG 70-28 asphalt cement were developed using an f.o.b. price of $____ per IMPERIAL ton for PG 76-22 or PG 70-28. This quote is project specific.

Price quotes signed by each supplier from which the Design-Builder proposes to obtain PG 76-22 or PG 70-28 shall be maintained by the Design-Builder. These quotes shall be retained on site during the life of the Contract for review by the Engineer upon request.

DATE:  March 14, 2014

SIGNATURE:  

The LANE Construction Corporation
(Firm or Corporation)

L 002
(Vendor No.)
EXHIBIT 6.3 (c)
ADJUSTMENT FOR FUEL

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
OPTIONAL ADJUSTMENT FOR FUEL
DESIGN-BUILD PROJECTS

November 5, 2012

In the event the Design-Builder elects to seek adjustment for fuel items designated in the Price Proposal\Contract as Price Adjustment Items such items will be subject to price adjustment as set forth herein. Other items will not be adjusted, except as otherwise specified in the contract.

The Design-Builder will submit their monthly application for payment associated with eligible work packages with an adjustment up or down as appropriate for cost changes in fuel used on specific items of work identified in this provision. A master listing of standard items eligible for fuel adjustment is provided by the Department on its website at the following link http://www.virginiadot.org/business/resources/masteroptionalfuelitems.pdf. The listing on the web site also includes the corresponding fuel factor for each item. The fuel usage factor for each item is considered inclusive of all fuel usage.

The amount of adjustment will be computed from the change in the indexes and the on-site fuel use as shown in the Department's master listing of eligible items.

In order to be eligible for fuel adjustment under this provision, the Design-Builder shall clearly identify in within the Schedule of Values those pay items and the associated quantities it chooses to have fuel adjustment applied to in its work packages. Items the Design-Builder claims in its application of payment for fuel adjustments must be properly designated in order to be considered for adjustment. Items not properly designated or left out of the Design-Builder's Schedule of Values will automatically not be considered for adjustment.

The monthly index price to be used in the administration of this provision will be calculated by the Department from the Diesel fuel prices published by the U. S. Department of Energy, Energy Information Administration on highway diesel prices, for the Lower Atlantic region. The monthly index price will be the price for diesel fuel calculated by averaging each of the weekly posted prices for that particular month.

For the purposes of this provision, the base index price will be calculated using the data from the month preceding the receipt of bids. The base index price will be posted by the Department at the beginning of the month for all bids received during that month.

The current index price will be posted by the Department and will be calculated using the data from the month preceding the particular estimate being vouchered for payment.

The current monthly quantity for eligible items of work selected by the Design-Builder for fuel adjustment in its work packages will be multiplied by the appropriate fuel factor to determine the gallons of fuel to be cost adjusted. The amount of adjustment per gallon will be the net difference between the current index price and the base index price. Computation for adjustment will be made as follows:

\[
S = (E - B) QF
\]

Where; 
- \( S \) = Monetary amount of the adjustment (plus or minus)
- \( B \) = Base index price
- \( E \) = Current index price
- \( Q \) = Quantity of individual units of work
F = Appropriate fuel factor

Adjustments will not be made for work performed beyond the original contract time limit unless the original time limit has been changed by an executed Work Order.

If new pay items are added to this contract by Work Order and they are listed in the Department's master listing of eligible items, the Work Order must indicate which of these individual items will be fuel adjusted; otherwise, those items will not be fuel adjusted. If applicable, designating which new pay items will be added for fuel adjustment must be determined during development of the Work Order and clearly shown on the Work Order form. The Base Index price on any new eligible pay items added by Work Order will be the Base Index price posted for the month in which bids were received for that particular project. The Current Index price for any new eligible pay items added by Work Order will be the Index price posted for the month preceding the estimate on which the Work Order is paid.

When quantities differ between the last monthly application of payment prepared upon final acceptance and the final application of payment, adjustment will be made using the appropriate current index for the period in which that specific item of work was last performed.

In the event any of the base fuel prices in this contract increase more than 100 percent (i.e. fuel prices double), the Department will review each affected item of work and give the Design-Build written notice if work is to stop on any affected item of work. The Department reserves the right to reduce, eliminate or renegotiate the price for remaining portions of affected items of work.

Any amounts resulting from fuel adjustment will not be included in the total cost of work for determination of progress or for extension of contract time.

X I elect to use this provision  Date: March 14, 2014
 I elect not to use this provision

Signature:  
Design-builder: The LANE Construction Corp.
Vendor No.: L 002
EXHIBIT 6.3(d)
ADJUSTMENT FOR STEEL

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PRICE ADJUSTMENT FOR STEEL
DESIGN-BUILD PROJECTS

June 30, 2011

In the event the Design-Builder elects to seek adjustment for steel items designated in the Price Proposal/Contract as Price Adjustment Items such items will be subject to price adjustment as set forth herein. If new pay items which involve steel are established by Work Order, they will not be subject to Price Adjustment unless specifically designated in the Work Order to be subject to Price Adjustment.

The Design-Builder will submit their monthly application for payment associated with eligible work packages with an adjustment up or down as appropriate for cost changes in steel used on specific items of work identified in the Price Proposal/contract in accordance with this provision. Provided at the end of this provision is a master listing of standard bid items the Department has determined are eligible for steel price adjustment. Inventoried materials from the listing of eligible items are specifically excluded for consideration. In addition, concrete items where reinforcing steel is normally included in the unit bid price for the item such as (but not limited to) drop inlets, median barriers, sound barrier walls, bridge railings and parapets, are not eligible for consideration under this provision.

The requirements of this provision shall apply only to material cost changes that occur between the date of the opening of the Price Proposal and the date the material is shipped to the fabricator. To be eligible for this price adjustment, Design-Builder is required to fill out the accompanying Form for Price Adjustment for Eligible Steel Items on Design-Build Projects and submit the same with its Price Proposal for the Project. By signing the Form and submitting it with its Price Proposal Design-Builder declares its intention to participate in the price adjustment in its contract with the Department. For the purposes of this provision, the prices listed on the Form for Price Adjustment for Eligible Steel Items on Design-Build projects are fixed for cost and adjustment calculations regardless of quantities incorporated into final design. Further, in order for steel items to be eligible for adjustment, once shipped to the fabricator, the items shall be specifically stored, labeled, or tagged, recognizable by color marking, and identifiable by project for inspection and audit verification.

Design-Builder shall upon request furnish documentation supporting the price per pound for eligible steel items as shown on the Form for Price Adjustment for Eligible Steel Items on Design-Build Projects furnished with its Price Proposal. Design-Builder must use the format as shown with this Form; no other format for presenting this information will be permitted. Design-Builder shall certify that all items of documentation are original and were used in the computation of the price per pound amount for the represented eligible pay items for the month the Price Proposal was opened. This documentation shall support the base line material price ("Base Price") of the steel item only. Base price per pound shall not include the following cost components: fabrication, shipping, storage, handling, and erection.

Failure to submit all documentation required or requested supporting the per pound prices on eligible steel items will result in Design-Builder being ineligible for a price adjustment of any or all steel items.

Price adjustment of each qualifying item under consideration will be subject to the following condition:

There is an increase or decrease in the cost of eligible steel materials in excess of 10 percent up to a maximum of 60 percent from the Base Price when compared with the latest published price index ("Price Index") in effect at the time material is shipped to the fabricator.

The Price Index the Department is using is based on The U.S. Department of Labor, Bureau of Labor Statistics, Producers Price Index (PPI) which measures the average price change over time of the specific
steel eligible item from the perspective of the seller of goods. The Master List table provided at the end of this provision indicates the Producers Price Index (PPI) steel category index items and the corresponding I.D. numbers to which VDOT items will be compared. Please note: The Producers Price Index (PPI) is subject to revision 4 months after original publication, therefore, price adjustments and payments will not be made until the index numbers are finalized.

The price adjustment will be determined by computing the percentage of change in index value beyond 10 percent above or below the index on the date of opening of Design-Builder's Price Proposal to the index value on the date the steel material is shipped to the fabricator (Please see included sample examples). Weights and date of shipment must be documented by a bill of lading provided to the Department. The final price adjustment dollar value will be determined by multiplying this percent increase or decrease in the index (after 10%) by the represented quantity of steel shipped, by the Base Price per pound subject to the limitations herein.

**Price increase/decrease will be computed as follows:**

\[
A = B \times P \times Q
\]

Where:

- **A** = Steel price adjustment in lump sum dollars
- **B** = Average weighted price of steel submitted in Design-Builder's Price Proposal for project in price per pound as listed on the Form for Price Adjustment for Eligible Steel Items on Design-Build Project
- **P** = Adjusted percentage change in PPI average from shipping date to date of opening of Price Proposal minus 10% (0.10) threshold
- **Q** = Total quantity of steel in pounds shipped to fabricator for specific project

The need for application of the adjustments herein to extra work will be determined by the Engineer on an individual basis and, if appropriate, will be specified on the Work Order.

This price adjustment is capped at 60 percent. This means the maximum "P" value for increase or decrease that can be used in the above equation is 50% (60%-10% threshold).

Calculations for price adjustment shall be shown separate from the monthly progress payment for work packages and will not be included in the total cost of work for determination of progress or for extension of contract time.

Upon Department review and due process consideration for recross by Design-Builder, any apparent evidence to unbalance the price supplied by Design-Builder in favor of items subject to price adjustment will result in ineligibility for Department participation under this provision.
FORM FOR PRICE ADJUSTMENT FOR ELIGIBLE STEEL ITEMS ON DESIGN-BUILD PROJECTS
Must be supplied with Price Proposal for Department Participation

(All prices to be supported by project-specific quotes)

DATE FOR RECEIPT OF PRICE PROPOSAL  March 14, 2014

Note: All prices (costs) are to include any surcharges on materials quoted. Vendors must include this surcharge with their cost. All prices (costs) are F.O.B. from the originating mill.

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We/II, the undersigned, understand that by supplying prices for the steel items listed above and signing this form we are declaring our desire to apply the Special Provision For Steel Adjustment for Design-Build Projects to this Price Proposal and contract. The terms and conditions for participation are as stated in the Special Provision For Steel Adjustment for Design-Build Projects.

The LANE Construction Corporation  March 14, 2014
Design-Builder  Date
Sample Calculation of a Price Adjustment (increase)


Project has 450,000 lb. of eligible structural steel.

Design Builder’s *f.o.b. supplier price for structural steel submitted in the Price Proposal is $0.2815 per pound.

Adjusted** BLS Producers Price Index (PPI) most recently published average at time of opening of the Price Proposal is 139.6.

All eligible steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 161.1

Adjustment formula is as follows:

\[ A = B \times P \times Q \]

Where,

- \( A \) = Steel price adjustment in lump sum dollars
- \( B \) = Average weighted price of steel submitted in the Price Proposal for Design-Build project in $ per pound
- \( P \) = Adjusted percentage change in PPI average from shipping date to date of submitted Price Proposal minus 10% (0.10) threshold
- \( Q \) = Total quantity of eligible steel shipped to fabricator in October 2004 for this project in pounds

\[ B = 0.2816 \]
\[ P = (161.1 - 139.6)/139.6 - 0.10 = 0.054 \]
\[ Q = 450,000 \text{ lb.} \]

\[ A = 0.2816 \times 0.054 \times 450,000 \]
\[ A = $6,842.88 \] pay adjustment to Design-Builder
Sample Calculation of a Price Adjustment (decrease)


Project has 450,000 lb. of eligible structural steel.

Design-Builder's *f.o.b. supplier price for structural steel submitted in the Price Proposal is $0.2816 per pound.  *free on board

Adjusted BLS Producers Price Index (PPI) most recently published average at time of opening of the Price Proposal is 156.6.

All eligible steel shipped to fabricator in same month, October 2004.

Adjusted BLS Producers Price Index (PPI) most recently published average for month of October is 136.3

Adjustment formula is as follows:

\[ A = B \times P \times Q \]

Where;

- \( A \) = Steel price adjustment in lump sum dollars
- \( B \) = Average weighted price of steel submitted in the Price Proposal for Design-Build project in $ per pound
- \( P \) = Adjusted percentage change in PPI average from shipping date to date of submitted Price Proposal minus 10% (0.10) threshold
- \( Q \) = Total quantity of eligible steel shipped to fabricator in October 2004 for this project in pounds

\[ B = 0.2816 \]
\[ P = (156.6 - 136.3)/156.6 - 0.10 = 0.030 \]
\[ Q = 450,000 \text{ lb.} \]

\[ A = 0.2816 \times 0.030 \times 450,000 \]
\[ A = $3,801.60 \text{ credit to Department} \]
# MASTER LISTING

**STANDARD BID ITEMS ELIGIBLE FOR STEEL PRICE ADJUSTMENT**

March 18, 2009

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Commonwealth of Virginia
Virginia Department of Transportation
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<td>69104</td>
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<td>101704</td>
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<td>69110</td>
<td>STEEL PILE 10&quot;</td>
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<td>DRIVING TEST FOR 12&quot; STEEL PILE</td>
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<td>avg. 1017 &amp; 101</td>
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</tbody>
</table>

I elect to use this provision

X I elect not to use this provision

Date: March 14, 2014

Signature: [Signature]

Design-Builder: The LANE Construction Corporation

Vendor No.: L 002
Attachment 4.3.3
Proposal Guaranty
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSAL GUARANTY

KNOW ALL MEN BY THESE PRESENTS, THAT WE

The Lane Construction Corporation As principal, and Zurich American Insurance Company and Fidelity and Deposit Company of Maryland and Liberty Mutual Insurance Company Surety, are held and firmly bound unto the Commonwealth of Virginia as obligee, in the amount of FIVE PERCENT OF THE DOLLAR VALUE OF THE BID, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly by these presents.

SIGNED, sealed and dated this 26th Day of February, 2014

WHEREAS, the above said principal is herewith submitting its proposal for: I-495 Shoulder - North Section (UPC 105130)
PROJECT NUMBER: 0495-029-123, P101, C501

NOW, THEREFORE, the condition of the above obligee is such, that if the aforesaid principal shall be awarded the contract upon said proposal and shall within the time specified in the Specifications after the notice of such award enter into a contract and give bond for the faithful performance of the contract, then this obligation shall be null and void; otherwise to remain in full force and effect and the principal and surety will pay unto the obligee the difference in money between the amount of the bid of the said principal and the amount for which the obligee may legally contract with another party to perform the said work if the latter amount be in excess of the former; but in no event shall the liability exceed the penal sum hereof.

The Lane Construction Corporation

By: JIM M. FERRELL

EXEC. VICE PRESIDENT & CFO

Zurich American Insurance Company and Fidelity and Deposit Company of Maryland

By: Theresa E. Rowedder

(Principals) (Seal)

(Officer, Partner or Owner)

(Officer, Partner or Owner) (Seal)

Suresy Company)

(Officer, Partner or Owner) (Seal)

(Address)

(Address)

*Note: If the principal is a joint venture, each party thereof must be named and execution made by same hereon. If there is more than one surety to the bid bond, each surety must be named and execution shall be made by same hereon.

Electronic Bid Only: In lieu of completing the above section of the Contract Performance Bond, the Principal shall file an Electronic Bid Bond when bidding electronically. By signing below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the Commonwealth of Virginia under the same conditions of the bid bond as shown above.

Electronic Bid Bond ID# Company/Bidder Name Signature and Title

**Attach copy of Power of Attorney
KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by THOMAS O. MCCLELLAN, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Kevin A. WHITE, Mark P. HERENDEEN, Jean CORREIA, Maria CHAVES, Therese E. ROWEDDER, Bryan HUFT, Jeffrey HENDRICKS and Jane GILSON, all of Boston, Massachusetts, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York, the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland, and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland, in their own proper persons.

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 30th day of May, A.D. 2013.

ATTEST:

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

By: 
Eric D. Barnes 
Assistant Secretary

By: 
Thomas O. McClellan 
Vice President

State of Maryland
City of Baltimore

On this 30th day of May, A.D. 2013, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, THOMAS O. MCCLELLAN, Vice President, and ERIC D. BARNES, Assistant Secretary, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposed and sworn, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

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

Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2015

POA-F 003-0474
EXTRACT FROM BY-LAWS OF THE COMPANIES

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

CERTIFICATE

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,

this fourteenth day of February, 2014.

[Signature]

Geoffrey Delisio, Vice President
POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: The American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (hereinafter collectively called the "Companies").

Pursuant to and by authority hereinafter set forth, does hereby name, constitute and appoint, Breit Crichton, Bryan Hunt, John Gibson, Jean Corriss, Jeffrey Hendricks, Kevin A. White, Maria Chavez, Mark P. Harrington, Therese E. Fawcett

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

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed hereunto this 31st day of May, 2013

By:

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

Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON
COUNTY OF KITSAP

On this 31st day of May, 2013, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the same on behalf of the Corporations by him as a duly authorized officer.

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

By:

KD Riley, Notary Public

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

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 27th day of February, 2014

By:

David M. Carey, Assistant Secretary
Resolution unanimously approved by the Board of Directors of The Lane Construction Corporation effective January 1, 2014:

VOTED: That effective January 1, 2014, rescinding all previous authorizations, the following be and hereby are authorized to sign proposals and bid bonds on behalf of this Corporation:

R. E. Alger, President & Chief Executive Officer
D. P. Dobbs, Executive Vice President Administration & Secretary
J. M. Ferrell, Executive Vice President & Chief Financial Officer
K. D. Junco, Chief Operating Officer & Executive Vice President
D. F. Benton, Executive Vice President Operational Support
M. M. Cote, Executive Vice President & Chief Development Officer
J. S. Cruickshank, Executive Vice President & General Counsel
V. J. Calola, Vice President, Treasurer & Assistant Secretary
A. M. Falsey, Tax Director, Assistant Treasurer & Assistant Secretary
J. P. Lark, Senior Vice President & Assistant Secretary
D. J. Rankin, Senior Vice President & Assistant Secretary
M. A. Schiller, Senior Vice President & Assistant Secretary
L. G. Hurley, Vice President & Assistant Secretary
T. R. Larson, Assistant Vice President, Engineering
M. J. Tomkalski, Assistant Vice President & Controller
M. R. Hindt, Senior District Manager
J. O. Hughes, Senior District Manager
D. A. Luzier, Senior District Manager
R. A. Bean, District Manager
J. G. Brown, District Manager
M. C. Cullik, District Manager
C. M. Curran, District Manager
D. J. Eudy, District Manager
G. A. Hassfurter, District Manager
G. F. Jerabek, District Manager
R. P. Lane, District Manager
J. P. McLear, District Manager
D. S. Mason, Jr., District Manager
D. B. O’Connor, District Manager
R. L. Portley, District Manager
K. K. Prince, District Manager
J. F. Roddy, District Manager
W. H. Tomlinson, District Manager
K. P. Cates, Assistant District Manager
C. E. DuBois, Assistant District Manager
J. E. Kristensen, Assistant District Manager
P. J. Paul, Assistant District Manager
D. J. Phillips, Assistant District Manager
E. G. Ritchie, Assistant District Manager
J. A. Sherman, Assistant District Manager
D. W. Grey, Senior National Pursuit Manager
R. A. McDonough, Senior National Pursuit Manager
R. Burton, Senior Plant Manager

I hereby certify that the above is a true copy of the Resolution unanimously approved by the Board of Directors of The Lane Construction Corporation effective January 1, 2014, and that the above vote has not been rescinded and stands in full force and effect as of this date.

February 27, 2014

Date

State of Connecticut
County of New Haven

Personally appeared before me, Ann M. Falsey, Assistant Secretary, and made oath that the above is a true copy of the December 4, 2013 meeting minutes of the Board of Directors of The Lane Construction Corporation.

Patricia A. Delekta, Notary Public
An Equal Opportunity Employer M/F/D/V
My Commission Expires July 31, 2014
Attachment 4.3.4(a)
Sworn Statement Forms
C-104
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROJECT: (FO) 0495-029-123, P101, C501

FHWA: STP-495-5(094)

This form must be completed, signed and returned with bid; and failure to do so may result in the rejection of your bid. THE CONTRACTOR SHALL AFFIRM THE FOLLOWING STATEMENT EITHER BY SIGNING THE AFFIDAVIT AND HAVING IT NOTARIZED OR BY SIGNING THE UNSWORN DECLARATION UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES. A SEPARATE FORM MUST BE SUBMITTED BY EACH PRINCIPAL OF A JOINT VENTURE BID.

STATEMENT. In preparation and submission of this bid, I, the firm, corporation or officers, agents or employees thereof did not, either directly or indirectly, enter into any combination or arrangement with any persons, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Article 1.1 or Chapter 12 of Title 18.2 (Virginia Governmental Frauds Act), Sections 59.1-9.17 or Sections 59.1-9.17 or Sections 59.1-66.6 through 59.1-68.8 of the Code of Virginia.

AFFIDAVIT
The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at Fairfax County, VA, this 14th day of March, 2014

The LANE Construction Corporation
(Name of Firm)

By: ____________________________ Regional Vice President
(Signature)

STATE of Virginia

COUNTY (CITY) of Fairfax

To-wit:

Michael L. Howes, ____________________________, a Notary Public in and for the State and

County(City) aforesaid, hereby certify that this day M. A. Schiller

personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this 14th day of March, 2014

My Commission expires May 31, 2016

Notary Public

UNSWORN DECLARATION
The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at ____________________________, this _____ day of __________________, 20 ___

(Name of Firm)

By: ____________________________
(Signature)

Title (print)

MICHAEL L. HOWES
Notary Public
Commonwealth of Virginia
119749
My Commission Expires May 31, 2016
Attachment 4.3.4(b)
Sworn Statement Forms
C-105
COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
AFFIDAVIT

PROJECT: (FO) 0495-029-123, P101, C501

FHWA: STP-495-5(094)

This form must be completed, signed, notarized and returned with bid; and failure to do so, may result in the rejection of your bid. A separate form must be submitted by each principal of a joint venture bid.

1. I, the firm, corporation or officers, agents or employees thereof have neither directly nor indirectly entered into any combination or arrangement with any person, firm or corporation or entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract, the effect of which is to prevent competition or increase the cost of construction or maintenance of roads or bridges.

During the preceding twelve months, I (we) have been a member of the following Highway Contractor's Associations, as defined in Section 33.1-33b of the Code of Virginia (1970). (If none, so state).

<table>
<thead>
<tr>
<th>NAME</th>
<th>Location of Principal Office</th>
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<tbody>
<tr>
<td>VTCA</td>
<td>Richmond, VA</td>
</tr>
<tr>
<td>ARTBA</td>
<td>Washington, D.C.</td>
</tr>
<tr>
<td>AGC of America</td>
<td>Washington, D.C.</td>
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</table>

2. I (we) have , have not , participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that , have not , filed with the joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 CFR 60-1.7(b)(1)], and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contract or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contract and subcontract unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Continued)
ORDER NO.: 
CONTRACT ID. NO.: 

3. The bidder 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 offence in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation 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 above; and

(d) Where the bidders is unable to certify to any of the statements in this certification, the bidder shall show an explanation below.

Explanations will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any explanation noted, indicate below to whom it applies, initiating agency, and dates of action. Providing false information may result in federal criminal prosecution or administration sanctions. The bidder shall provide immediate written notice to the Department if at any time the bidder learns that its certification was erroneous when submitted or has become erroneous by reason of change circumstances.

The undersigned is duly authorized by the bidder to make the foregoing statements to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at Fairfax County, VA this 14th day of March 2014

The LANE Construction Corporation (Name of Firm) By: ____________________________ Regional Vice President (Signature) (Title, print)

STATE of Virginia COUNTY (CITY) of Fairfax

I, ____________________________, a Notary Public in and for the State and County(City) aforesaid, hereby certify that this day M. A. Schiller

personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

SUBSCRIBED and sworn to before me this 14th day of March 2014

My Commission expires May 31, 2016

Notary Public

MICHAEL L. HOWES
Notary Public
Commonwealth of Virginia
119749
My Commission Expires May 31, 2016
Attachment 4.3.5(a)
Minimum DBE Requirements
Form C-111
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
MINIMUM DBE REQUIREMENTS

PROJECT NO. (FO) 0495-029-123, P101, C501
FHWA NO. STP-495-5(094)

*** INSTRUCTIONS ***
THIS FORM CAN BE USED BY THE CONTRACTOR TO SUBMIT THE NAMES OF DBE FIRMS TO BE UTILIZED ON THE PROJECT. THE CONTRACTOR SHALL INDICATE THE DESCRIPTION OF THE CATEGORY (S, M, SP or H) AND THE TYPE OF WORK THAT EACH DBE WILL PERFORM AND THE ALLOWABLE CREDIT PER ITEM(S). ADDITIONAL SHEETS TO SHOW THE ALLOWABLE CREDIT PER ITEM MAY BE ATTACHED IF NECESSARY. PLEASE NOTE: THE AMOUNT OF ALLOWABLE CREDIT FOR A DBE SUPPLIER IS 80% OF THE TOTAL COST OF THE MATERIALS OR SUPPLIES OBTAINED AND 100% FOR A DBE MANUFACTURER OF THE MATERIALS AND SUPPLIES OBTAINED. A CONTRACTOR MAY COUNT 100% OF THE FEES PAID TO A DBE HAULER FOR THE DELIVERY OF MATERIALS AND SUPPLIES TO THE PROJECT SITE, BUT NOT FOR THE COST OF THE MATERIALS AND SUPPLIES THEMSELVES.

DBE REQUIREMENT 11 %
PERCENT ATTAINED BY BIDDER 11 %

<table>
<thead>
<tr>
<th>NAMES(S) AND CERTIFICATION NO. OF DBE(S) TO BE USED</th>
<th>USED AS</th>
<th>TYPE OF WORK AND ITEM NO(S)</th>
<th>$ AMOUNT OF ALLOWABLE CREDIT PER ITEM</th>
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<tbody>
<tr>
<td>See attached listing</td>
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</table>

TOTAL $2,718,000.00

TOTAL CONTRACT VALUE $24,708,875.00 x REQUIRED DBE 11.0 % = $2,717,976.25

I/WE CERTIFY THAT THE PROPOSED DBE(S) SUBMITTED WILL BE USED ON THIS CONTRACT AS STATED HEREON AND ASSURE THAT DURING THE LIFE OF THE CONTRACT, I/WE WILL MEET OR EXCEED THE PARTICIPATION ESTABLISHED HEREON BY THE DEPARTMENT.

The LANE Construction Corporation
BIDDER
Regional Vice President
TITLE

BY ___________________ SIGNATURE ___________________

BY ___________________ DATE ___________________

March 14, 2014
The LANE Construction Corporation
90 Fieldstone Court
Cheshire, CT 06410

I-495 Northern Section Shoulder Use
(FO) 0495-029-123, P101, C501
Fairfax County, VA

DBE PROGRAM

<table>
<thead>
<tr>
<th>Firm Name</th>
<th>Used As</th>
<th>DMBE Certification No.</th>
<th>Type of Work</th>
<th>Item Numbers</th>
<th>Total Anticipated Contract</th>
<th>Allowable Credit Percentage</th>
<th>DBE Amount</th>
<th>DBE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tavarez Concrete Co., Inc.</td>
<td>Sub</td>
<td>626436</td>
<td>Furnish and install Site Concrete</td>
<td>134,151,341,613,478</td>
<td>$1,260,000.00</td>
<td>100%</td>
<td>$1,260,000.00</td>
<td>5.10%</td>
</tr>
<tr>
<td>Sabra, Wang &amp; Associates, Inc.</td>
<td>Sub</td>
<td>000962</td>
<td>Design Services</td>
<td>25591</td>
<td>$1,458,000.00</td>
<td>100%</td>
<td>$1,458,000.00</td>
<td>5.90%</td>
</tr>
</tbody>
</table>

$ 2,718,000.00 11.00%

Contract Total $ 24,708,875.00
DBE Required 11%

REQUIRED DBE $$ $ 2,717,976.25
Attachment 4.3.5(c)
Certification of Binding Agreement
Form C-112
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CERTIFICATION OF BINDING AGREEMENT
WITH
DISADVANTAGED BUSINESS ENTERPRISE FIRMS

Project No.: (FO) 0495-029-123, P101, C501
Federal Project No.: STP-495-5(094)

This form is to be submitted in accordance with the Department's Special Provision for Section 107.15.

It is hereby certified by the below signed Contractor that there exists a written quote, acceptable to the parties involved preliminary to a binding subcontract agreement stating the details concerning the work to be performed and the price which will be paid for the aforementioned work. This document is not intended to, nor should it be construed to, contain the entire text of the agreement between the contracting parties. This document does not take the place of, nor may it be substituted for, an official subcontracting agreement in those situations that may require such an agreement. A copy of the fully executed subcontract agreement shall be submitted to the Engineer within fourteen (14) business days after contract execution.

It is further certified that the aforementioned mutually acceptable quote and fully executed subcontract agreement represent the entire agreement between the parties involved and that no conversations, verbal agreements, or other forms of non-written representations shall serve to add to, delete, or modify the terms as stated.

The prime Contractor further represents that the aforementioned mutually acceptable quote and fully executed subcontract agreement shall remain on file for a period of not less than one year following completion of the prime's contract with the Department or for such longer period as provisions of governing Federal or State law or regulations may require. For purposes of this form, the term Prime Contractor shall refer to any Contractor utilizing a DBE subcontractor, regardless of tier, in which they are claiming DBE credit toward the contract goal.

Contractors further jointly and severally represent that said binding agreement is for the performance of a "commercially useful function" as that term is employed in 49 C.F.R. Part 26.55 (c). (d).

TO BE SIGNED BY THE SUBCONTRACTOR TO THE PRIME CONTRACTOR, AND ANY LOWER TIER SUBCONTRACTORS HAVING A CONTRACT WITH THE BELOW NAMED DBE FIRM

Prime Contractor
The LANE Construction Corporation

By: ________________________________
Signature

Regional Vice President
Title
Date: March 14, 2014

First Tier
Subcontractor if Applicable

By: ________________________________
Signature

Date: ________________________________
Title
Second Tier Subcontractor if Applicable

By: ___________________________ Signature ___________________________ Title ___________________________
   Date: ___________________________

Third Tier Subcontractor if Applicable

By: ___________________________ Signature ___________________________ Title ___________________________
   Date: ___________________________


By: ___________________________ Signature ________________ Principal ___________________________
   Date: 03/5/2014
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CERTIFICATION OF BINDING AGREEMENT
WITH
DISADVANTAGED BUSINESS ENTERPRISE FIRMS

Project No.: (PO) 0495-029-123, P101, C501

Federal Project No.: STP-495-5(094)

This form is to be submitted in accordance with the Department’s Special Provision for Section 107.15.

It is hereby certified by the below signed Contractors that there exists a written quote, acceptable to the parties involved preliminary to a binding subcontract agreement stating the details concerning the work to be performed and the price which will be paid for the aforementioned work. This document is not intended to, nor should it be construed to, contain the entire text of the agreement between the contracting parties. This document does not take the place of, nor may it be substituted for, an official subcontracting agreement in those situations that may require such an agreement. A copy of the fully executed subcontract agreement shall be submitted to the Engineer within fourteen (14) business days after contract execution.

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The prime Contractor further represents that the aforementioned mutually acceptable quote and fully executed subcontract agreement shall remain on file for a period of not less than one year following completion of the prime’s contract with the Department or for such longer period as provisions of governing Federal or State law or regulations may require. For purposes of this form, the term Prime Contractor shall refer to any Contractor utilizing a DBE subcontractor, regardless of tier, in which they are claiming DBE credit toward the contract goal.

Contractors further jointly and severally represent that said binding agreement is for the performance of a “commercially useful function” as that term is employed in 49 C.F.R. Part 26.55 (c), (d).

TO BE SIGNED BY THE SUBCONTRACTOR TO THE PRIME CONTRACTOR, AND ANY LOWER TIER SUBCONTRACTORS HAVING A CONTRACT WITH THE BELOW NAMED DBE FIRM

Prime Contractor ________________________________

The LANE Construction Corporation

By: 

Signature ________________________________

Regional Vice President ________________________________

Title ________________________________

Date: March 14, 2014

First Tier
Subcontractor if Applicable

By: 

Signature ________________________________

Title ________________________________

Date: ________________________________
Second Tier
Subcontractor if Applicable

By: ____________________________
Signature: ____________________________
Title: ____________________________
Date: ____________________________

Third Tier
Subcontractor if Applicable

By: ____________________________
Signature: ____________________________
Title: ____________________________
Date: ____________________________

DBE Contractor

TAVARES CONCRETE COMPANY, INC.

By: ____________________________
Signature: ____________________________
Title: PRESIDENT
Date: 8/7/14