

**FUNDING AND ADMINISTRATION AGREEMENT RELATING TO THE
EXTENSION OF PACIFIC BOULEVARD**

Economic Development Authority of Loudoun County
PROJECT NUMBER 1036-053-074
Pacific Boulevard Widening and Extension
UPC (T14454)

THIS AGREEMENT, made and executed in triplicate on this the ____ day of _____, 2013, between the COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION (hereinafter referred to as the "DEPARTMENT"), the Economic Development Authority of Loudoun County (hereinafter referred to as the "EDA"), and NA Dulles Real Estate Investor LLC (hereinafter referred to as the "Borrower").

WITNESSETH:

WHEREAS, the EDA and the Borrower have expressed their desire to have the DEPARTMENT administer work for (i) the expansion of Pacific Boulevard to the south of the intersection with Gloucester Parkway from two to four lanes and (ii) construction of a four lane extension of Pacific Boulevard from the intersection with Gloucester Parkway north to an intersection with Russell Branch Parkway in Loudoun County, Virginia (hereinafter referred to as the "Project"), as further described in Appendix A;

WHEREAS, the Project has been identified as a high priority highway construction project by Loudoun County and the Project is included in Loudoun County's transportation plan;

WHEREAS, the Project, together with a separate priority highway construction project being undertaken by Loudoun County to extend Gloucester Parkway, are expected to reduce congestion along Route 7, Route 28, and Waxpool Road by providing alternative east-west routes of travel within the Route 28 corridor;

WHEREAS, following construction, the Project will be a public road operated and maintained by the Department;

WHEREAS, in order to fund construction of the Project, the EDA intends to issue and sell a bond in the original principal amount of \$36,000,000 (the "Bond") to the Virginia Resources Authority (hereinafter referred to as the "VRA"), as manager of the Virginia Transportation Infrastructure Bank (hereinafter referred to as the "VTIB"), pursuant to that certain Bond Purchase and Loan Agreement among the EDA, the VRA, and the Borrower dated [●], 2013 (hereinafter referred to as the "Loan Agreement"), attached hereto as Appendix B;

WHEREAS, [following sale of the Bond, the EDA will assign the proceeds of the Bond to the VRA, and the VRA, as manager of VTIB, will cause the VTIB to use the proceeds of the Bond to make a loan to the Borrower, the proceeds of which will be used to, among other things, finance, design, and construct the Project]; [Note – Bracketed language to be conformed to the BPLA]

WHEREAS, this innovative financing arrangement will enable the DEPARTMENT to greatly accelerate delivery of the Project as the DEPARTMENT currently lacks funding for the Project;

WHEREAS, the funds as shown in Appendix C to this Agreement will be made available by the Borrower to pay for the design and construction of the Project, pursuant to the Loan Agreement;

WHEREAS, the DEPARTMENT has agreed to administer the design and construction of the Project;

WHEREAS, such design and construction work will be performed pursuant to a change order to that certain comprehensive agreement to develop, design, and construct the Route 28 corridor improvements dated September 25, 2002 (as amended or otherwise modified from time to time) (hereinafter referred to as the “Change Order” and attached hereto as Appendix A), as the Project is within the scope of the Route 28 corridor improvements;

WHEREAS, the EDA and the Borrower concur in the DEPARTMENT's administration of the Project in accordance with applicable federal, state, and local laws and regulations; and

WHEREAS, the EDA's governing body has, by resolution, which is attached hereto as Appendix D, authorized its Chairman or Vice Chairman to execute this Agreement; and

WHEREAS, the DEPARTMENT, the EDA, and the Borrower desire herein to set forth additional terms related to the Project, including the responsibility for the payment of all costs for the design and construction of the Project.

NOW THEREFORE, in consideration of the promises and mutual covenants and agreements contained herein and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the DEPARTMENT, the EDA, and the Borrower hereto agree as follows:

- A. The DEPARTMENT shall:
 1. Complete or cause to be completed the design and construction of the Project in accordance with the schedule for such work as further described in Appendix A to this Agreement.

2. Perform or have performed, and remit all payments for, all preliminary engineering, right-of-way acquisition, construction, contract administration, and inspection services activities for the Project as required.
 3. Provide a summary of the progress of the Project once per month to the EDA, the VRA, and the Borrower.
 4. Submit invoices monthly to the EDA, the VRA, and the Borrower for the full reimbursement of the DEPARTMENT's costs and expenses incurred in performing the work related to the Project described herein.
 5. Notify the EDA, the VRA, and the Borrower of any additional costs and expenses related to the Project resulting from unanticipated or unforeseen circumstances and provide, or cause to be provided, detailed estimates of any such additional costs and expenses; *provided however*, that the DEPARTMENT will not expand the scope of the Project as described in the Change Order to the extent such expanded scope would effectively increase the cost of the Project above the proceeds available under the Bond without the prior agreement of the EDA, the VRA, and the Borrower with respect to how such expanded scope will be funded.
 6. Return any unexpended funds to the Borrower, on behalf of the EDA, no later than 90 days after the Project has been completed and all final costs and expenses for the Project have been paid in full in accordance with this Agreement.
- B. The Borrower, on behalf of the EDA, shall:
1. Provide all necessary funds to the DEPARTMENT for preliminary engineering, right of way acquisition, construction, contract administration, and inspection services as set forth in Appendix C.
 2. Pay to the DEPARTMENT any and all additional costs and expenses related to the Project resulting from unanticipated or unforeseen circumstances including, but not limited to, any additional costs and expenses for preliminary engineering, right-of-way acquisition, construction, contract administration, and inspection services.
 3. Provide to the DEPARTMENT a payment bond or irrevocable standby letter of credit (in a form acceptable to the DEPARTMENT) as payment security for any cost overruns equal to ten percent of the lesser of (i) the total cost of the Project, including estimated costs for the acquisition of right-of-way, as set

forth in the Change Order and (ii) the amount of the Bond. If the payment security provided to the Department is an irrevocable standby letter of credit, the DEPARTMENT shall be entitled to draw such letter of credit if the Borrower fails to make payment for additional costs and expenses within 90 days of the DEPARTMENT submitting an invoice for such additional costs and expenses.

- C. The DEPARTMENT shall not be required to undertake any activities related to the design and construction of the Project until the Borrower, on behalf of the EDA, has provided the payment security described in subparagraph B(3) above. The DEPARTMENT agrees to release any such payment security promptly upon the Borrower's request therefor, such request having been made with the concurrence of the EDA and the VRA, *provided* a final determination has been made by the DEPARTMENT that: (i) the right-of-way for the Project has been acquired; (ii) there remains sufficient undisbursed proceeds under the Loan Agreement to pay all costs and expenses related to the acquisition of such right-of-way; and (iii) there remains sufficient undisbursed proceeds under the Loan Agreement to pay for all costs and expenses to be incurred with respect to the Project. In no event shall the DEPARTMENT's release of any such payment security pursuant to this subparagraph C be deemed a release or waiver of the Borrower's indemnity obligation set forth in subparagraph D below.
- D. Notwithstanding any other provision of this Agreement, the Borrower, on behalf of the EDA, shall indemnify, defend, and hold harmless the DEPARTMENT and the EDA against any losses or liabilities incurred by the DEPARTMENT or the EDA in addition to or in excess of the total amount recovered by the DEPARTMENT from the payment security described in paragraph B(3) above in carrying out its obligations under this Agreement, including but not limited to any third-party claims relating to financing, design, and construction of the Project.
- E. [The EDA's total financial and administrative responsibility to the DEPARTMENT and to the Borrower with respect to this Agreement is limited solely to assigning the proceeds of the Bond in the amount of \$36 million to VTIB, to ultimately be made available to the Borrower, pursuant to and as provided in the Loan Agreement.] [Note – Bracketed language to be conformed to the BPLA]
- F. The DEPARTMENT, the EDA, and the Borrower mutually agree and acknowledge, in entering this Agreement, that the individuals acting on behalf of the Parties are acting within the scope of their official authority and the parties agree that no party will bring a suit or assert a claim against any official, officer, or employee of any party, in their individual or personal capacity, for a breach or violation of the terms of this Agreement or to otherwise enforce the terms and conditions of this Agreement. The

foregoing notwithstanding and subject to subparagraph G below, nothing in this subparagraph shall prevent the enforcement of the terms and conditions of this Agreement by or against any party in a competent court of law.

- G. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia. All litigation between the parties arising out of or pertaining to this Agreement will be heard and decided in the Circuit Court for the City of Richmond, John Marshall Courts Building, Richmond, Virginia, which will have exclusive jurisdiction and venue.
- H. If any term or provision of this Agreement, the deletion of which would not adversely affect the receipt of any material benefit by either party hereunder, will be held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement will be valid and enforceable to the fullest extent permitted by applicable law.
- I. The DEPARTMENT, the EDA, and the Borrower acknowledge and agree that this Agreement has been prepared jointly by the parties, that each party has been given the opportunity to review this Agreement with legal counsel, and that each party has the requisite experience and sophistication to understand, interpret, and agree to the particular language of the provisions hereof. Accordingly, this Agreement will not be interpreted or construed against the party preparing it. The language in all parts of this Agreement will in all cases be construed simply and in accordance with its fair meaning and not strictly for or against any party.
- J. This Agreement, when properly executed, shall be binding upon the parties, their successors, and assigns.
- K. This Agreement may be modified in writing upon mutual agreement of the DEPARTMENT, the EDA, and the Borrower.

[THE REMINDER OF THIS PAGE INTENTIONALLY LEFT BLANK, SIGNATURE
PAGE(S) TO FOLLOW]

IN WITNESS WHEREOF, the parties, intending to be legally bound, have executed this Agreement on the date first written above.

ECONOMIC DEVELOPMENT AUTHORITY OF LOUDOUN COUNTY,
VIRGINIA:

Date

Typed or Printed Name of Signatory Date

Signature of Witness Date

NA DULLES REAL ESTATE INVESTOR LLC:

Date

Typed or Printed Name of Signatory Date

Signature of Witness Date

COMMONWEALTH OF VIRGINIA, DEPARTMENT OF
TRANSPORTATION:

Commissioner of Highways
Commonwealth of Virginia
Department of Transportation Date

Signature of Witness Date

APPENDIX A

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER

Contract ID. No.: Route 28 Corridor Improvements FHWA No.: NONE Work Order No.: 75
 State Project No.: 1036-053-074 (Associated With) 0028-053-114, PE101, RW201, C501 Category: "ADD"
 Original Contract Value \$ 188,984,970 Total of Other Work Orders \$ 187,483,363

NOTE: If additional space is needed, use an additional sheet(s) and label as Supplemental Attachment #.

I. LOCATION AND DESCRIPTION OF PROPOSED WORK:

See Supplemental Attachment # 1

II. RESPONSIBLE CHARGE ENGINEER'S EXPLANATION OF NECESSITY FOR PROPOSED WORK:

See Supplemental Attachment # 1

III. FUNDING SOURCE/CHARGE UPC 105331

IV. THE FIXED DATE TIME LIMIT FOR THIS CONTRACT PRIOR TO APPROVAL OF THIS WORK ORDER IS 7/23/2014

V. THE FIXED DATE TIME LIMIT FOR THIS CONTRACT UPON APPROVAL OF THIS WORK ORDER IS 12/31/2015

VI. ESTIMATE OF PROPOSED WORK:

ITEM CODE	SPEC. NO.	PCN NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	INCREASE	DECREASE
			Phase I Nokes Blvd. to Fire Station	1	L.S.	\$338,000	\$338,000	
			Phase II Fire Safety Center to Broad One	1	L.S.	\$11,081,500	\$11,081,500	
			Phase III Broad Run to Russell Branch Pkwy.	1	L.S.	\$15,080,500	\$15,080,500	
			Phase IV Nokes Blvd. to Severn Way	1	L.S.	\$1,447,000	\$1,447,000	
			Payment and Performance Bond	1	L.S.	\$137,000	\$137,000	
NET Increase/Decrease:							\$28,084,000	
NET TOTAL							\$28,084,000	

I/WE hereby agree to perform and/or non-perform as indicated, the work described herein and at the unit prices set forth and that such work shall be performed in accordance with the contract provisions and specifications and/or other provisions incorporated herein. Further I/WE hereby agree that the quantities set forth herein will be subject to adjustment and, unless otherwise stated, the unit prices set forth herein will be applicable to the adjusted quantities.

Contractor Route 28 Corridor Improvements, LLC BY [Signature] 10/20/13
 (Firm's Name) (Officer of the Firm) Date

RECOMMENDED FOR APPROVAL:

Susan Law Project Mgr. 11-1-13 [Signature] DCE 11-1-13
 RECOMMENDED BY TITLE DATE RECOMMENDED BY TITLE DATE

APPROVED:

APPROVED BY* (VDOT) TITLE DATE

APPROVED:

APPROVED BY (FHWA) DATE

* See CD-2010-01 for Process and Authorities

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
WORK ORDER

Supplemental Attachment # 1

Contract ID. No.: Route 28 Corridor Improvements FHWA No.: NONE Work Order No.: 75

State Project No.: 1036-053-074 (Associated With) 0028-053-114, PE101, RW201, C501

LOCATION AND DESCRIPTION OF PROPOSED WORK:

This work is being accomplished in accordance with the Comprehensive Agreement to Develop, Design and Construct Route 28 Corridor Improvements dated September 25, 2002. Project funding will be provided through a Virginia Transportation Infrastructure Bank loan through Virginia Resources Authority.

This work will include the following work:

- a. Pacific Boulevard Phase I: Complete all remaining work on the phase I portion of the existing contract agreement described in Change Order No. 69;
- b. Pacific Boulevard Phase II: Construct a 4-lane divided roadway, from the northern end of the phase I project limits to approximate Station 69+84 as shown on approved Urban Engineering Plans dated July 6, 2011;
- c. Pacific Boulevard Phase III: Design and construct a 4-lane undivided roadway, from phase II northern limits (approximate Station 69+84) north across Broad Run and connecting with existing Russell Branch Parkway at Richfield Way;
- d. Pacific Boulevard Phase IV: Design and construct the remaining 2 lanes of the ultimate 4-lane divided roadway, from the intersection of Nokes Boulevard/Pacific Blvd. south to existing Severn Way.

Please see attachment 1 "Scope of Work" on Route 28 Corridor Improvements, LLC proposal letter dated September 5, 2013.

The work shall be done in accordance with 2007 Road and Bridge Specifications, 2008 R&B Standards, contract Special Provisions and/or as directed by the Engineer. The unit price specified shall be considered full compensation for all labor, equipment, materials, incidentals, overhead and profit necessary to fully complete the work as outlined.

RESPONSIBLE CHARGE ENGINEER'S EXPLANATION OF NECESSITY FOR PROPOSED WORK:

This scope for the extension of Pacific Boulevard is included in Part C-2 Section A of Appendix 6 of the Comprehensive agreement.

The Notice of Proceed for this work will be given once funding availability has been obtained.

The Route 28 Corridor Improvements, LLC and VDOT agree that this Work Order fully resolves and settles all claims, demands, damages of any kind relating to or arising out of the work set forth in this Work Order, including, but not limited to, delay, impact and acceleration for Route 28 Corridor Improvements, LLC and their subcontractors.

Attachment:
SCC Letter Dated September 5, 2013
Attachment 1-A



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VA 22030

GREGORY A. WHIRLEY
COMMISSIONER

October 21, 2013

Mr. Jon Harmon
Route 28 Corridor Improvements, LLC
45240 Business Court, Suite 150
Dulles, VA 20166

**Subject: Route 28 Corridor Improvements
Fixed Price Change Orders No. 75**

Dear Mr. Harmon:

Attached is the above noted change order, please have it signed by an officer of your company and return for further processing.

If you have any questions or need additional information, please contact me at (703) 259-2939.

Sincerely,

A handwritten signature in blue ink that reads "William H. Atkins, CCM".

William H. Atkins, CCM
Construction Manager

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
WORK ORDER

Supplemental Attachment # 1

Contract ID. No.: Route 28 Corridor Improvements FHWA No.: NONE Work Order No.: 75

State Project No.: 1036-053-074 (Associated With) 0028-053-114, PE101, RW201, C501

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- b. Pacific Boulevard Phase II: Construct a 4-lane divided roadway, from the northern end of the phase I project limits to approximate Station 69+84 as shown on approved Urban Engineering Plans dated July 6, 2011;
- c. Pacific Boulevard Phase III: Design and construct a 4-lane undivided roadway, from phase II northern limits (approximate Station 69+84) north across Broad Run and connecting with existing Russell Branch Parkway at Richfield Way;
- d. Pacific Boulevard Phase IV: Design and construct the remaining 2 lanes of the ultimate 4-lane divided roadway, from the intersection of Nokes Boulevard/Pacific Blvd. south to existing Severn Way.

Please see attachment 1 "Scope of Work" on Route 28 Corridor Improvements, LLC proposal letter dated September 5, 2013.

The work shall be done in accordance with 2007 Road and Bridge Specifications, 2008 R&B Standards, contract Special Provisions and/or as directed by the Engineer. The unit price specified shall be considered full compensation for all labor, equipment, materials, incidentals, overhead and profit necessary to fully complete the work as outlined.

RESPONSIBLE CHARGE ENGINEER'S EXPLANATION OF NECESSITY FOR PROPOSED WORK:

This scope for the extension of Pacific Boulevard is included in Part C-2 Section A of Appendix 6 of the Comprehensive agreement.

The Notice of Proceed for this work will be given once funding availability has been obtained.

The Route 28 Corridor Improvements, LLC and VDOT agree that this Work Order fully resolves and settles all claims, demands, damages of any kind relating to or arising out of the work set forth in this Work Order, including, but not limited to, delay, impact and acceleration for Route 28 Corridor Improvements, LLC and their subcontractors.

Attachment:
SCC Letter Dated September 5, 2013
Attachment 1-A

September 5, 2013

Virginia Department of Transportation
4975 Alliance Drive
Fairfax, Virginia 22030

ROUTE 28
PUBLIC/PRIVATE PARTNERSHIP

CLARK SHIRLEY

Attention: Ms. Susan Shaw
Program Manager

Reference: **ROUTE 28 CORRIDOR IMPROVEMENTS PROJECT**
Subject: Pacific Boulevard Extension Project

Dear Ms. Shaw:

As contemplated in the scope of the Route 28 Comprehensive Agreement, we are pleased to present this Proposal for the completion of the design and construction of segments of the extension of Pacific Boulevard.

The following is a summary of the Attachments included:

- Attachment 1: Scope of Work
- Attachment 1-A: Revisions to Standards
- Attachment 2: Contract Price
- Attachment 3: Allowance for Right of Way Acquisition Costs
- Attachment 4: *(not used)*
- Attachment 5: Projected Cash Flow
- Attachment 6: Preliminary Schedule
- Attachment 7: *(not used)*
- Attachment 8: *(not used)*

These improvements are proposed in anticipation of the upcoming approval of the Virginia Transportation Infrastructure Bank (VTIB) loan between the Virginia Resources Authority (VRA) and the Kincora development.

Should you have any questions, please contact me.

Sincerely,



Ron F. Harman
Vice President

cc:
File
CO File 91059

Attachment 1 – Scope of Work

Appendix 6 of the Design-Build Contract dated September 25, 2002 is revised as follows:

This proposal includes and is based on the following:

General:

1. All terms, conditions and requirements of the *Comprehensive Agreement to Develop, Design and Construct Route 28 Corridor Improvements* dated September 25, 2002, unless specifically modified herein.
2. This Proposal includes the work necessary to perform the following:
 - a. Pacific Boulevard Phase I: Complete all remaining work on the Phase I portion of the existing Contract Agreement with NA Dulles Real Estate Investor, LLC dated November 28, 2011 and described in Work Order No. 69;
 - b. Pacific Boulevard Phase II: Construct a 4-lane divided roadway, from the northern end of the Phase I project limits to approximate Station 69+84 as shown on approved Urban Engineering Plans dated July 6, 2011;
 - c. Pacific Boulevard Phase III: Design and construct a 4-lane undivided roadway, from the Phase II northern limits (approximate Station 69+84) north across Broad Run and connecting with existing Russell Branch Parkway at Richfield Way;
 - d. Pacific Boulevard Phase IV: Design and construct the remaining 2 lanes of the ultimate 4-lane divided roadway, from the intersection of Nokes Blvd./Pacific Blvd. south to existing Severn Way.
3. Based on a Notice to Proceed (NTP) of October 1, 2013, Substantial Completion will be achieved by September 7, 2015 and Final Completion by December 31, 2015.
4. All existing commitments to various review and approval timeframes by VDOT in the Comprehensive Agreement. These commitments are critical to the successful completion of the project and are therefore specifically incorporated in this proposal.
- * 5. Replacement of the “Standards” section of Appendix 6 of the Design-Build Agreement by the enclosed Attachment 1-A.
6. Continuing the public relations program established on the current project including the website, newsletters, notices, events, and public information meetings.
7. Perform Development Management services as necessary to provide overall management and oversight of the work included in this Proposal.
8. Proposal includes the cost to plan and hold one (1) Public Hearing for the scope of work included herein as Phase III. Additional scope resulting from the Public Hearing process is not included.
9. Perform geotechnical investigations and recommendations as needed to obtain approved construction plans. Proposal includes earthwork as unclassified; however, unusual subsurface features that could not be reasonably anticipated (ie: caverns, trash dump, etc.) are not included.
10. Provide aerial mapping; field surveys; Phase I cultural resource reviews; wetland/stream permitting and mitigation outside of current NA Dulles property;

and H&HA. All permitting and mitigation required within NA Dulles property will be provided by NA Dulles at no cost to the Project.

11. Final alignment of the Phase III scope of work will be resolved in the Public Hearing process. Proposal includes an ultimate alignment that does not impact the Toll House property, does not impact the existing residential buildings on Parcels 002 and 004, maintains the "backyard" area of Parcel 002, and remains within the limits of the "envelope" previously approved by the Loudoun County Board of Supervisors. Access to all properties, via the existing driveways, will be maintained at all times.
12. Administration of the right-of-way process as necessary for Phase III including title reports, appraisals, offers, negotiations, settlements, and preparation of the certificate of take documents. Actual costs for right-of-way, easements, relocations, damages, or any other cost(s) paid directly to landowners are not included. Proposal assumes that all right-of-way and easements required on NA Dulles property will be provided at no cost to the Project and in a timeframe necessary to meet the Project Schedule.
13. Temporary striping only as necessary to open completed portions of Pacific Boulevard prior to the completion of Gloucester Parkway (to be completed by others outside of this Work Order).
14. Provide two (2) Loudoun County standard bus shelters, one each in Phases II and III.
15. Perform relocation of existing utilities in conflict with the work.
16. Completion of a LOMR for Phase I.
17. Pavement Section for Phase III shall match the approved Phase I & II pavement sections. Phase IV pavement section shall match the section constructed for the interim 2-lanes previous completed as part of the Route 28/Nokes Boulevard Interchange.
18. Proposal includes Loudoun Water inspection and water usage fees, but excludes bonding requirements, if any.
19. The following scope issues are excluded from this Proposal:
 - a. The realignment, reconstruction, milling or overlay of any existing roadway at the tie-in point(s) for the scope of this work; noise barrier walls; lighting; signalization; overhead signage; traffic studies; environmental permitting for any work on current NA Dulles property; and hazardous materials (other than those specifically listed).
 - b. Payment and performance bonds.
 - c. VDOT administration, plan review, or any other costs and fees by any other party.
 - d. Any work resulting from or related to DCWASA including protection, relocation or other accommodations of any kind.

Attachment 1-A

Revisions to Design-Build Agreement Appendix 6 – Standards:

- AASHTO A Policy on Geometric Design of Highways and Streets (2004).
- VDOT Road Design Manual, Vol. I (2005)
- VDOT Survey Manual – April 2010 Edition
- VDOT Manual of Instructions for Material Division
- AASHTO LRFD Bridge Design Specifications, 4th Edition 2007, with 2008 and 2009 Interims and VDOT Modifications
- VDOT Manual of Structure and Bridge Division, Vol. V (all current)
- AASHTO's Manual of Bridge Evaluation, 1st Edition, 2008
- USDOT FHWA Standard Highway Signs (2004)
- AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement), 1993 Edition
- VDOT Guidelines for 1993 AASHTO Pavement Design, Revised – May 2003
- Special Provision for Density Control of Embankments and Backfill
- Special Provision for Construction of Deep Foundation Systems
- 2011 Virginia Work Area Protection Manual,
- National Electric Code (NEC),
- 2003 Manual of Uniform Traffic Control Devices (MUTCD)
- VA Supplement to MUTCD
- VDOT Traffic Engineering Design Manual, 2006
- VDOT Right of Way and Utilities Division Manuals, Vol. I (July 1999) and II (November 2003)
- VDOT Land Use Permit Manual, 1983
- VDOT Policy Manual for Public Participation in Transportation Projects (Revised January 22, 2010)
- VDOT Instructional & Information Memorandums (I&IM) All Divisions
- VDOT Road and Bridge Standards, Vol. 1 and Vol. 2 (2008)
- VDOT Road and Bridge Specifications (2007), including all revisions
- Virginia Stormwater Management Handbook (First Edition – 1999)
- DCR Stormwater Management, 1st Edition, 1999
- Virginia Erosion and Sediment Control Handbook (Third Edition – 1992)
- VDOT Stormwater and Erosion and Sediment Control Program Manual, March 2004
- VDOT 2002 Drainage Manual (Revised 2009)
- VDOT Hydraulic Design Advisories (all current)
- VDOT CADD Manual, Version 2009
- VDOT Construction Manual, 2005
- VDOT Post Construction Manual, 2009
- VDOT Construction Inspection Manual, April 2008

- **Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities**
- **Transportation Research Board Highway Capacity Manual, Fourth Edition, 2000**
- **Mobility Management Division Memoranda**

Attachment 2 - Contract Price

Appendix 2 of the Design-Build Contract dated September 25, 2002 is revised as follows:

PART C-2

Section B - Pacific Boulevard Segments

Phase I - Nokes Boulevard to Fire Safety Center (FSC)

Hard Costs:		
Construction	\$	300,000
Utility Relocation Construction	\$	-
Subtotal Hard Costs:	\$	300,000
Soft Costs:		
Right of Way Administration	\$	-
Utility Relocation Administration	\$	-
Design and Engineering	\$	5,500
QA/CIP	\$	32,500
Wetland and Stream Mitigation	\$	-
Development Management	\$	-
Construction Management	\$	-
Mobilization	\$	-
Subtotal Soft Costs:	\$	38,000
TOTAL FIXED PRICE:	\$	338,000
Allowances:		
Right of Way Acquisitions	\$	-
Subtotal Allowances:	\$	-
TOTAL - Phase I:	\$	338,000

Attachment 2 - Contract Price

Appendix 2 of the Design-Build Contract dated September 25, 2002 is revised as follows:

PART C-2

Section B - Pacific Boulevard Segments

Phase II - Fire Safety Center (FSC) to Broad Run

Hard Costs:

Construction	\$	9,442,000
Utility Relocation Construction	\$	800,000
Subtotal Hard Costs:	\$	10,242,000

Soft Costs:

Right of Way Administration	\$	-
Utility Relocation Administration	\$	20,000
Design and Engineering	\$	39,500
QA/CIP	\$	560,000
Wetland and Stream Mitigation	\$	-
Development Management	\$	-
Construction Management	\$	25,000
Mobilization	\$	175,000
Subtotal Soft Costs:	\$	819,500

TOTAL FIXED PRICE: \$ 11,061,500

Allowances:

Right of Way Acquisitions	\$	-
Subtotal Allowances:	\$	-

TOTAL -Phase II: \$ 11,061,500

Phase III - Broad Run to Russell Branch Parkway

Hard Costs:

Construction	\$	12,388,000
Utility Relocation Construction	\$	145,000
Subtotal Hard Costs:	\$	12,533,000

Soft Costs:

Right of Way Administration	\$	70,000
Utility Relocation Administration	\$	10,000
Design and Engineering	\$	805,000
QA/CIP	\$	962,500
Wetland and Stream Mitigation	\$	275,000
Development Management	\$	175,000
Construction Management	\$	25,000
Mobilization	\$	225,000
Subtotal Soft Costs:	\$	2,547,500

TOTAL FIXED PRICE: \$ 15,080,500

Allowances:

Right of Way Acquisitions	\$	307,809
Subtotal Allowances:	\$	307,809

TOTAL -Phase III: \$ 15,388,309

Attachment 2 - Contract Price

Appendix 2 of the Design-Build Contract dated September 25, 2002 is revised as follows:

PART C-2

Section B - Pacific Boulevard Segments

Phase IV - Nokes Boulevard to Severn Way

Hard Costs:

Construction	\$	1,140,000
Utility Relocation Construction	\$	-
Subtotal Hard Costs:	\$	1,140,000

Soft Costs:

Right of Way Administration	\$	-
Utility Relocation Administration	\$	-
Design and Engineering	\$	137,000
QA/CIP	\$	125,000
Wetland and Stream Mitigation	\$	-
Development Management	\$	40,000
Construction Management	\$	5,000
Mobilization	\$	-
Subtotal Soft Costs:	\$	307,000

TOTAL FIXED PRICE: \$ 1,447,000

Allowances:

Right of Way Acquisitions	\$	-
Subtotal Allowances:	\$	-

TOTAL -Phase IV: \$ 1,447,000

SUMMARY - PHASES I-IV:		
TOTAL - FIXED PRICE:	\$	27,927,000
TOTAL - ALLOWANCES:	\$	307,809
GRAND TOTAL:	\$	28,234,809

Parcel No.	GPIN No.	Landowner Name	DAMAGES TO PROPERTY							Subtotal	Comments	
			Qty	Cost	Building Reconst. Cost	Relocation Cost	Total	Other Damages				
								QTY	Cost/ per space			Total
7A	040-39-0661-000	Murphy, Alfred E. & Mary C.	1	\$ 55,000	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	
8A	040-39-5426-000	Pabbant, Mark & F Citizen	1	\$ 55,000	\$ -	\$ -	\$ 55,000	1	\$ -	\$ -	\$ 55,000	Tennis Court & Out bldg.
SUBTOTALS:			1	\$ -	\$ -	\$ 55,000	\$ 55,000	2	\$ -	\$ -	\$ 55,000	

TOTAL \$55,000

Appendix 12 of the Design-Build Contract dated September 27, 2012 is revised as follows:

Projected Cash Flow

Description	Period Ending		January	February	March	April	May	June	July	August	September	October	November	December	January
	2013	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2015
Total Value	#1	#2	#3	#4	#5	#6	#9	#10	#10	#11	#12	#13	#14	#15	#16
A. COSTS INCLUDED IN PROPOSAL:															
1. HARD COSTS															
1.1. CONSTRUCTION COSTS															
Phase I	\$ 6,100.00	\$ 50.00	\$ 10,000.00	\$ 192,000.00	\$ 94,000.00	\$ 1,810,000.00	\$ 5,910,000.00	\$ 1,500,000.00	\$ 1,500,000.00	\$ 2,500,000.00	\$ 1,000,000.00	\$ 500,000.00	\$ 50,000.00	\$ 20,000.00	\$ 50,000.00
Phase II	\$ 2,388,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 1,400,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 3,200,000.00	\$ 5,000.00	\$ 10,000.00	\$ 250,000.00	\$ 600,000.00	\$ 1,000,000.00	\$ 1,500,000.00	\$ 2,000,000.00	\$ 2,500,000.00	\$ 3,000,000.00	\$ 3,500,000.00	\$ 4,000,000.00	\$ 4,500,000.00	\$ 5,000,000.00	\$ 5,500,000.00
Subtotal:	\$ 13,088,000.00	\$ 55,000.00	\$ 20,000.00	\$ 442,000.00	\$ 1,644,000.00	\$ 2,910,000.00	\$ 9,910,000.00	\$ 5,010,000.00	\$ 5,010,000.00	\$ 8,000,000.00	\$ 7,500,000.00	\$ 4,500,000.00	\$ 500,000.00	\$ 200,000.00	\$ 500,000.00
1.2. UTILITIES, RELOCATION, CONSTRUCTION															
Phase I	\$ 800,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 18,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal:	\$ 818,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL HARD COSTS:	\$ 13,906,000.00	\$ 55,000.00	\$ 20,000.00	\$ 442,000.00	\$ 1,644,000.00	\$ 2,910,000.00	\$ 9,910,000.00	\$ 5,010,000.00	\$ 5,010,000.00	\$ 8,000,000.00	\$ 7,500,000.00	\$ 4,500,000.00	\$ 500,000.00	\$ 200,000.00	\$ 500,000.00
2. SOFT COSTS:															
2.1. ROW ADMINISTRATION															
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 70,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal:	\$ 70,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.2. UTILITIES, RELOCATION, ADMINISTRATION															
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 35,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Subtotal:	\$ 35,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
2.3. DESIGN & ENGINEERING															
Phase I	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Phase II	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00	\$ 9,000.00
Phase III	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Phase IV	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
Subtotal:	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00	\$ 44,000.00
2.4. PERMITS															
Phase I	\$ 32,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 900,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 15,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal:	\$ 1,007,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.5. METEOROLOGICAL AND STREAM MITIGATION															
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 215,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal:	\$ 215,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.6. REDEVELOPMENT MANAGEMENT															
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
Subtotal:	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
2.7. MOBILIZATION															
Phase I	\$ 24,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00	\$ 32,000.00
Phase II	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
Phase III	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Phase IV	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
Subtotal:	\$ 109,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00	\$ 117,000.00
TOTAL SOFT COSTS:	\$ 3,172,000.00	\$ 265,000.00	\$ 141,489.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00	\$ 137,000.00
TOTAL HARD AND SOFT COSTS:	\$ 17,078,000.00	\$ 320,000.00	\$ 134,489.00	\$ 579,000.00	\$ 1,781,000.00	\$ 3,047,000.00	\$ 11,047,000.00	\$ 6,147,000.00	\$ 6,147,000.00	\$ 9,370,000.00	\$ 8,637,000.00	\$ 5,837,000.00	\$ 637,000.00	\$ 337,000.00	\$ 637,000.00
CASH FLOW (Costs Included in Proposal)															
MONTHLY TOTALS:	\$ 316,098.00	\$ 699,196.00	\$ 693,489.00	\$ 643,092.00	\$ 607,294.00	\$ 1,060,174.00	\$ 1,760,497.00	\$ 1,964,445.00	\$ 2,058,848.00	\$ 2,202,313.00	\$ 2,058,848.00	\$ 1,739,026.00	\$ 668,857.00	\$ 870,786.00	\$ 837,786.00
CUMULATIVE TOTALS:	\$ 27,927,000.00	\$ 316,098.00	\$ 912,294.00	\$ 1,618,783.00	\$ 2,261,274.00	\$ 3,321,448.00	\$ 5,081,945.00	\$ 7,046,390.00	\$ 9,005,238.00	\$ 11,207,551.00	\$ 13,266,399.00	\$ 15,325,425.00	\$ 16,994,282.00	\$ 18,865,068.00	\$ 20,702,854.00

Attachment 5 - Projected Cash Flow

Appendix 2 of the Design-Build Contract dated September 25, 2002 is revised to show

Projected Cash Flow

Description	Period Ending		October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January
	2013	2013	2013	2013	2013	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2015
	8	15	22	29	5	12	19	26	2	9	16	23	30	6	13	20	27	3

B. COSTS EXCLUDED FROM PROPOSAL:

Description	Phase I	Phase II	Phase III	Subtotal
Phase I	\$ 307,809			\$ 307,809
Phase II				
Phase III				
Subtotal	\$ 307,809			\$ 307,809

MONTHLY ADMINISTRATION	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January
MONTHLY ADMINISTRATION (NET OF ESTIMATE @ 2.75%)	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322
Subtotal	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322

TOTAL EXCLUDED FROM PROPOSAL: \$ 866,349

CASH FLOW (Costs Excluded from Proposal)	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January
MONTHLY TOTALS	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322	\$ 6,322
CUMULATIVE TOTALS	\$ 6,322	\$ 12,644	\$ 18,966	\$ 25,288	\$ 31,610	\$ 37,932	\$ 44,254	\$ 50,576	\$ 56,898	\$ 63,220	\$ 69,542	\$ 75,864	\$ 82,186	\$ 88,508	\$ 94,830	\$ 101,152

CASH FLOW TOTAL	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January
MONTHLY TOTALS	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028	\$ 322,028
CUMULATIVE TOTALS	\$ 322,028	\$ 644,056	\$ 966,084	\$ 1,288,112	\$ 1,610,140	\$ 1,932,168	\$ 2,254,196	\$ 2,576,224	\$ 2,898,252	\$ 3,220,280	\$ 3,542,308	\$ 3,864,336	\$ 4,186,364	\$ 4,508,392	\$ 4,830,420	\$ 5,152,448

Appendix 12 of the Bid (in-Bid) Contract dated September 25, 2012 is revised as follows:

Projected Cash Flow

Account Name	Period Ending		March	April	May	June	July	August	September	October	November	December
	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
	#17	#19	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27
A. COSTS INCLUDED IN PROPOSAL:												
1. HARD COSTS:												
1.1. CONSTRUCTION COSTS:												
Phase I	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 142,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 1,000,000	\$ 600,000	\$ -	\$ -	\$ 2,100,000	\$ 2,300,000	\$ 900,000	\$ 1,000,000	\$ 700,000	\$ 10,000	\$ -	\$ -
Phase IV	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 1,482,000	\$ 600,000	\$ -	\$ -	\$ 2,100,000	\$ 2,300,000	\$ 900,000	\$ 1,000,000	\$ 700,000	\$ 10,000	\$ -	\$ -
1.2. UTILITIES, RELOCATION, CONSTRUCTION:												
Phase I	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 48,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 418,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 1,266,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL HARD COSTS:	\$ 2,748,000	\$ 600,000	\$ -	\$ -	\$ 2,100,000	\$ 2,300,000	\$ 900,000	\$ 1,000,000	\$ 700,000	\$ 10,000	\$ -	\$ -
2. SOFT COSTS:												
2.1. OFFICE ADMINISTRATION:												
Phase I	\$ 5,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 1,000	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 15,500	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.2. UTILITIES, RELOCATION, ADMINISTRATION:												
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.3. DESIGN & ENGINEERING:												
Phase I	\$ 5,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 1,000	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 15,500	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.4. DESIGN & ENGINEERING:												
Phase I	\$ 15,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 1,000	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 53,500	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.5. LAND AND STREAM MITIGATION:												
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.6. DEVELOPMENT MANAGEMENT:												
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 115,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.7. CONSTRUCTION MANAGEMENT:												
Phase I	\$ 24,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 2,000	\$ 3,250	\$ -	\$ -	\$ 4,000	\$ 4,000	\$ 3,000	\$ 2,000	\$ 1,000	\$ 300	\$ -	\$ -
Phase IV	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 50,000	\$ 3,250	\$ -	\$ -	\$ 4,000	\$ 4,000	\$ 3,000	\$ 2,000	\$ 1,000	\$ 300	\$ -	\$ -
2.8. MOBILIZATION:												
Phase I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase II	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase III	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Phase IV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL SOFT COSTS:	\$ 377,000	\$ 7,000	\$ 46,337	\$ 72,343	\$ 159,428	\$ 159,428	\$ 119,478	\$ 79,714	\$ 59,786	\$ 1,435	\$ 797	\$ 797
TOTAL HARD AND SOFT COSTS:	\$ 3,125,000	\$ 607,000	\$ 46,337	\$ 72,343	\$ 2,259,428	\$ 2,459,428	\$ 1,019,478	\$ 1,079,714	\$ 809,786	\$ 19,435	\$ 10,797	\$ 10,797

CASH FLOW (Costs Included in Proposal):	\$ 376,929	\$ 546,857	\$ 1,772,543	\$ 2,159,428	\$ 2,159,428	\$ 1,619,428	\$ 1,619,428	\$ 1,079,714	\$ 809,786	\$ 19,435	\$ 10,797	\$ 10,797
MONTHLY TOTALS:	\$ 27,927,000	\$ 17,782,643	\$ 18,338,590	\$ 20,058,843	\$ 22,317,471	\$ 24,376,900	\$ 25,996,471	\$ 27,076,185	\$ 27,895,971	\$ 27,965,406	\$ 27,916,263	\$ 27,927,000
CUMULATIVE TOTALS:												

Appendix 12 of the Design-Build Contract dated September 25, 2002, as revised has (all)

Projected Cash Flow

Description	Inward Ending		March		April		May		June		July		August		September		October		November		December	
	2015	Total Value	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
Phase I																						
Phase II																						
Phase III																						
Phase IV																						
Subtotal	\$ 37,219	\$ 37,219	\$ 18,110	\$ 18,110	\$ 17,819	\$ 17,819	\$ 43,897	\$ 43,897	\$ 43,189	\$ 43,189	\$ 43,391	\$ 43,391	\$ 21,594	\$ 21,594	\$ 16,196	\$ 16,196	\$ 389	\$ 389	\$ 216	\$ 216	\$ 216	\$ 216

B. COSTS EXCLUDED FROM PROPOSAL:

ALLOWANCE	
Phase I	\$ -
Phase II	\$ -
Phase III	\$ -
Phase IV	\$ -
Subtotal	\$ -

NET ADMINISTRATION

Net Administration	\$ 43,897
Subtotal	\$ 43,897
TOTAL EXCLUDED FROM PROPOSAL:	\$ 43,897

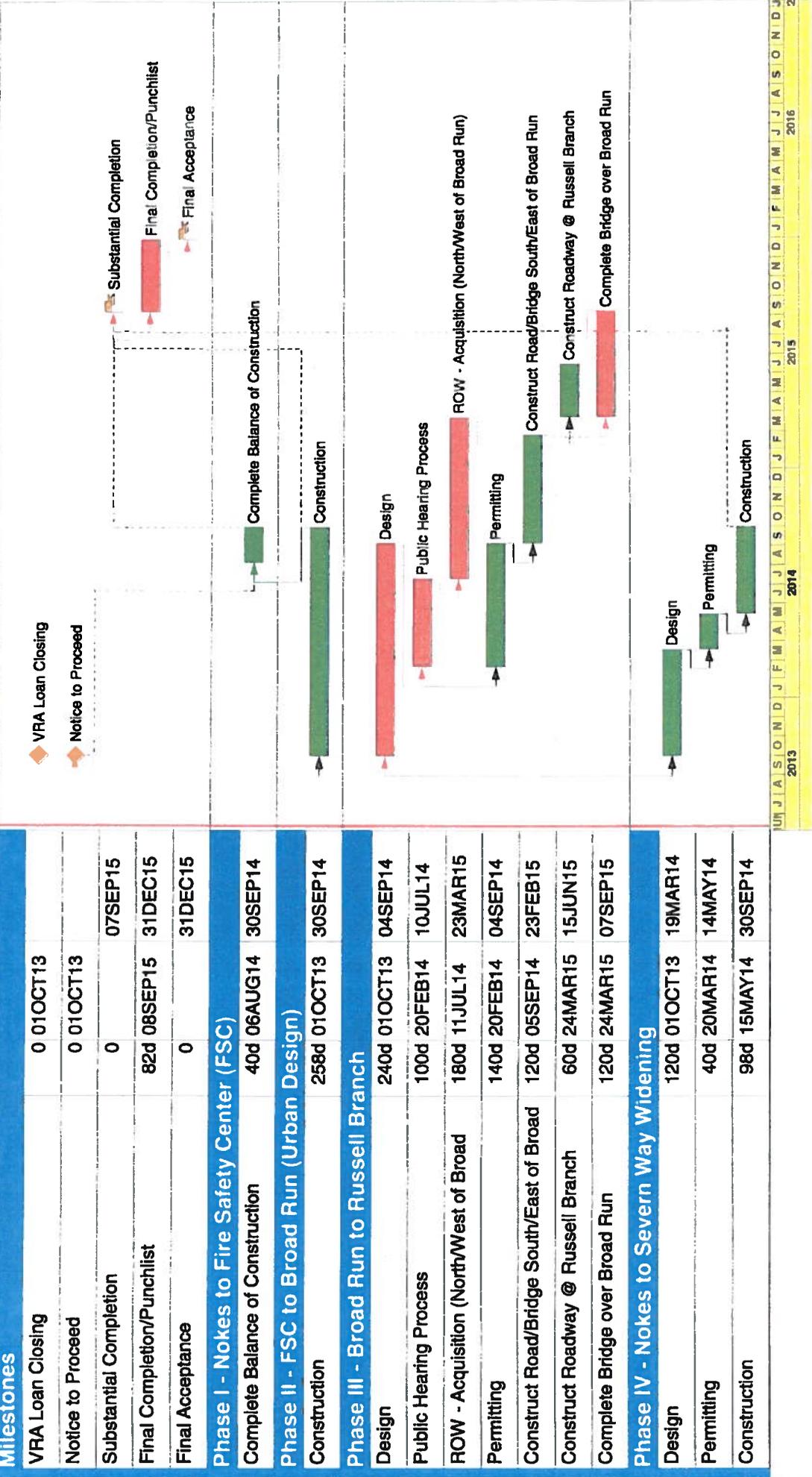
CASH FLOW (Costs Excluded from Proposal):

Phase I	\$ -
Phase II	\$ -
Phase III	\$ -
Phase IV	\$ -
Subtotal	\$ -
CUMULATIVE TOTALS:	\$ -

CASH FLOW TOTAL:

Phase I	\$ 37,219
Phase II	\$ -
Phase III	\$ -
Phase IV	\$ -
Subtotal	\$ 37,219
CUMULATIVE TOTALS:	\$ 37,219

Description	Dur	Start	Finish
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2013 2014 2015 2016

U P J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J

Legend:

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
- Finish milestone point

Attachment 6 - Preliminary Schedule
Pacific Boulevard Extension Project
Route 28 Corridor Improvements, LLC

Start date: 12 JUN 13
 Finish date: 31 DEC 15
 Data date: 12 JUN 13
 Run date: 05 SEP 13
 Page number: 1A
 © Primavera Systems, Inc.

PACIFIC BOULEVARD EXTENSION PROJECT @ KINCORA
ROUTE 28 CORRIDOR IMPROVEMENTS PROJECT
 Route 28 Corridor Improvements, LLC

COST ESTIMATE SUMMARY - ALTERNATE ALIGNMENT

APPROX.	QTY.	UNIT	INDUSTRY REFERENCE	INDUSTRY REFERENCE	PAGE	INDUSTRY REFERENCE	INDUSTRY REFERENCE	VDOT HISTORIC	INDUSTRY REFERENCE	TOTAL COST	TOTAL COST	TOTAL COST	VDOT
								UNIT RATES	UNIT RATES		HISTORIC		
I. DESIGN AND ENGINEERING:													
1	1.0	LS	\$	-	-	\$	-	\$	-	\$	50,000	\$	50,000
2	1.0	LS	\$	-	-	\$	-	\$	-	1,178,753	\$	1,415,145	
3	1.0	LS	\$	-	-	\$	-	\$	-	40,000	\$	40,000	
4													50,000
II. RIGHT-OF-WAY ADMINISTRATION:													
5	4.0	EA	\$	-	-	\$	-	\$	-	-	\$	-	50,000
6	1.0	EA	\$	-	-	\$	-	\$	-	-	\$	-	1,600,000
7													350,000
8													
III. UTILITIES:													
9	1.0	LS	\$	-	-	\$	-	\$	-	30,000	\$	30,000	10,000
10	2,000.0	LF	\$	-	-	\$	-	\$	-	250	\$	500,000	500,000
11	4.0	POLES	\$	-	-	\$	-	\$	-	20,000	\$	80,000	80,000
12	1.0	LS	\$	-	-	\$	-	\$	-	1,000	\$	1,000	1,000
IV. ENVIRONMENTAL PERMITTING:													
13	1.0	LS	\$	-	-	\$	-	\$	-	-	\$	-	50,000
14	1.5	ACRES	\$	-	-	\$	-	\$	-	-	\$	-	150,000
14a	250.0	LF								25,000	\$	25,000	25,000
V. CONSTRUCTION:													
12	1.0	LS								221,115	\$	221,115	221,115
13	24.0	MO								2,250	\$	54,000	54,000
14	35.0	ACRE			217				4,375	\$	153,125	153,125	157,500
15	1.0	EA			38				5,250	\$	5,250	5,250	5,250
15a	1.0	EA								10,000	\$	10,000	10,000
16	1.0	LS			38				5,250	\$	5,250	5,250	5,250
17	1.0	EA			38				5,250	\$	5,250	5,250	5,250
18	31,563.0	CY			219				1	\$	24	24	24
19	125,617.0	CY			454				11	\$	15	15	15
20	1,500.0	LF			226				14	\$	20	20	20
21	1,700.0	LF			226				10	\$	22	22	22
22	14,986.0	CY			236				2	\$	2,992	2,992	2,992
23	11,168.0	CY			236				24	\$	359,664	359,664	359,664
24	209,007.0	CY			236				24	\$	268,032	268,032	268,032
25		EA			219				1	\$	175,556	175,556	175,556
26	1.0	LS								200,000	\$	200,000	200,000
27	14,520.0	CY			236				24	\$	348,480	348,480	348,480
28	6,621.0	LF			226				22	\$	244,977	244,977	244,977
29	1,855.0	LF			355				55	\$	102,750	102,750	102,750
30	2,427.0	LF			355				46	\$	84,403	84,403	84,403
31	85.0	LF			355				52	\$	126,204	126,204	126,204
32	882.0	LF			355				89	\$	7,565	7,565	7,565
33	311.0	LF			355				100	\$	87,759	87,759	87,759
34	145.0	LF			355				59	\$	30,945	30,945	30,945
35	303.0	LF			355				106	\$	17,545	17,545	17,545
36	218.0	LF			355				142	\$	44,844	44,844	44,844
37	666.0	LF			355				132	\$	50,358	50,358	50,358
38	160.0	LF			355				195	\$	117,882	117,882	117,882
39									195	\$	28,320	28,320	28,320
40									195	\$	31,176	31,176	31,176

COST ESTIMATE SUMMARY - ALTERNATE ALIGNMENT

APPROX.	QTY.	UNIT	INDUSTRY REFERENCE	CREW	PAGE	INDUSTRY REFERENCE	INDUSTRY REFERENCE	UNIT RATES	VDOT HISTORIC	INDUSTRY REFERENCE	TOTAL COST	HISTORIC	TOTAL COST	VDOT
	76.0	LF	B-13B		355			177	400		\$ 13,452	\$ 30,400	\$ 13,452	\$ 30,400
41	54"	STORM DRAIN												
42	66"	STORM DRAIN	B-13B		355			335	375		\$ 56,280	\$ 63,000	\$ 56,280	\$ 63,000
43	24"	ES-1	B-13B		355			335	717		\$ 717	\$ 717	\$ 717	\$ 717
44	36"	ES-1							600		\$ 600	\$ 600	\$ 600	\$ 600
45	54"	EW-1							600		\$ 600	\$ 600	\$ 600	\$ 600
46	66"	EW-1							600		\$ 600	\$ 600	\$ 600	\$ 600
47	33"	EW-6S (DOUBLE)							1,200		\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
48	DI-3/4	L=2.5 INLET	B-29		357			1,275	3,515		\$ 3,515	\$ 3,515	\$ 3,515	\$ 3,515
49	DI-3/4	L=4 INLET	B-29		357			1,275	3,788		\$ 3,788	\$ 3,788	\$ 3,788	\$ 3,788
50	DI-3/4	L=6 INLET	B-29		357			1,275	3,830		\$ 3,830	\$ 3,830	\$ 3,830	\$ 3,830
51	DI-3/4	L=8 INLET	B-29		357			1,275	3,351		\$ 3,351	\$ 3,351	\$ 3,351	\$ 3,351
52	DI-3/4	L=10 INLET	B-29		357			1,275	4,096		\$ 4,096	\$ 4,096	\$ 4,096	\$ 4,096
53	DI-3/4	L=12 INLET	B-29		357			1,275	4,153		\$ 4,153	\$ 4,153	\$ 4,153	\$ 4,153
54	DI-3/4	L=14 INLET	B-29		308			1,275	4,655		\$ 4,655	\$ 4,655	\$ 4,655	\$ 4,655
55	DI-7	INLET	B-29		308			1,275	3,674		\$ 3,674	\$ 3,674	\$ 3,674	\$ 3,674
56	MH-1		D-1		360			1,525	4,200		\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200
57	JB-1		D-1		360			1,525	1,000		\$ 3,050	\$ 3,050	\$ 3,050	\$ 3,050
58	EXTEND EXIST DBL 7*6 BOX CULVERT		B-69		355			425			\$ 27,625	\$ 70,000	\$ 27,625	\$ 70,000
59	SWIM POND WEIR STRUCTURE		B-13		268			3,350	40		\$ 27,360	\$ 38,400	\$ 27,360	\$ 38,400
60	CL.1 RIP RAP		B-13		268			414	414		\$ 1,242	\$ 1,242	\$ 1,242	\$ 1,242
61	CL.2 RIP RAP		B-13		268			1,000	1,250		\$ 1,250	\$ 1,250	\$ 1,250	\$ 1,250
62	TIE-IN EXISTING STORM DRAIN								3		\$ 3	\$ 3	\$ 3	\$ 3
63	TEST PIT EXISTING UTILITIES								3		\$ 3	\$ 3	\$ 3	\$ 3
64	TV-VIDEO STORM DRAIN								3		\$ 3	\$ 3	\$ 3	\$ 3
65	TV-VIDEO DCWASA SEWER								3		\$ 3	\$ 3	\$ 3	\$ 3
66	8" DR-25 PVC SANITARY SEWER		B-20		349			9	160		\$ 8,579	\$ 15,1680	\$ 8,579	\$ 15,1680
67	10" DR-25 PVC SANITARY SEWER		B-20		349			12	162		\$ 3,623	\$ 51,030	\$ 3,623	\$ 51,030
68	SANITARY SEWER MANHOLE		B-6		357			575	5,745		\$ 2,875	\$ 28,725	\$ 2,875	\$ 28,725
69	CORE EXISTING MANHOLE		B-6		357			575	26		\$ 1,150	\$ 1,000	\$ 1,150	\$ 1,000
70	REMOVE EXISTING SANITARY SEWER		B-13B		29			47	500		\$ 15,531	\$ 8,684	\$ 15,531	\$ 8,684
71	REMOVE EXISTING SANITARY MANHOLE		B-6		30			222	500		\$ 444	\$ 1,000	\$ 444	\$ 1,000
72	SANITARY SEWER TESTING		B-6		30			1	1		\$ 1,263	\$ 1,263	\$ 1,263	\$ 1,263
73	24" CL.52 DIP WATER MAIN		B-13		337			157	179		\$ 904,006	\$ 1,030,682	\$ 904,006	\$ 1,030,682
74	TIE-IN EXISTING WATER MAIN								525		\$ 1,050	\$ 1,050	\$ 1,050	\$ 1,050
75	24" BUTTERFLY VALVE		B-6		344			11,900	7,418		\$ 119,000	\$ 74,180	\$ 119,000	\$ 74,180
76	12" GATE VALVE		B-6		345			2,025	2,804		\$ 6,075	\$ 8,413	\$ 6,075	\$ 8,413
77	24" MJ BEND		B-6		345			2,025	3,683		\$ 36,830	\$ 36,830	\$ 36,830	\$ 36,830
78	24" MJ TEE		B-21		345			1,805	1,805		\$ 18,050	\$ 18,050	\$ 18,050	\$ 18,050
79	FIRE HYDRANT		B-21		345			1,875	4,900		\$ 3,750	\$ 9,800	\$ 3,750	\$ 9,800
80	AIR RELEASE								1,870		\$ 5,610	\$ 5,610	\$ 5,610	\$ 5,610
81	BLOWOFF								2,182		\$ 10,910	\$ 10,910	\$ 10,910	\$ 10,910
82	24" SLEEVE (FUT.MAIN)		B-21		344			4,475	143		\$ 67,924	\$ 67,924	\$ 67,924	\$ 67,924
83	30" SLEEVE (FUT.MAIN)		B-21		344			4,475	276		\$ 38,615	\$ 38,615	\$ 38,615	\$ 38,615
84	42" JACK AND BORE		B-42		336			430	992		\$ 247,008	\$ 247,008	\$ 247,008	\$ 247,008
85	42" STEEL SLEEVE								950		\$ 152,000	\$ 152,000	\$ 152,000	\$ 152,000
86	TEST PIT AND TUNNEL STORM SEWER FOR W/L								100		\$ 200	\$ 200	\$ 200	\$ 200
87	WATER MAIN TESTING								1		\$ 5,758	\$ 5,758	\$ 5,758	\$ 5,758
88	LOUDDOWN WATER INSPECTION FEES								0		\$ 702	\$ 702	\$ 702	\$ 702
89	21-B AGGREGATE BASE STONE		B-36		298			29	26		\$ 840,750	\$ 764,935	\$ 840,750	\$ 764,935
90	21-B AGGREGATE CURB STONE		B-36		298			29	35		\$ 79,515	\$ 97,845	\$ 79,515	\$ 97,845
91	BM-25 0-BASE ASPHALT		B-25		299			76	76		\$ 1,481,430	\$ 1,610,250	\$ 1,481,430	\$ 1,610,250
92	IM-19 0A INTERMED.ATE ASPHALT		B-25		299			81	78		\$ 605,811	\$ 512,264	\$ 605,811	\$ 512,264
93	SM-9 5D SURFACE ASPHALT		B-25		299			91	82		\$ 833,016	\$ 658,569	\$ 833,016	\$ 658,569

COST ESTIMATE SUMMARY - ALTERNATE ALIGNMENT

DESCRIPTION	APPROX. QTY.	UNIT	CREW	INDUSTRY REFERENCE	PAGE	INDUSTRY REFERENCE	INDUSTRY REFERENCE	UNIT RATES		TOTAL COST		TOTAL COST		
								VDOT HISTORIC	INDUSTRY REFERENCE	HISTORIC	INDUSTRY REFERENCE	HISTORIC	VDOT	
94 MILL EXISTING ASPHALT	4,450.0	SY	B-71		289			3	\$	2	\$	13,408	\$	8,633
95 10FT ASPHALT TRAIL	9,330.0	SY	B-37		296		11	\$	10	\$	120,170	\$	93,300	
96 SWM POND ACCESS ROADS	2,840.0	SY					9	\$	10	\$	28,400	\$	28,400	
97 UD-4 UNDERDRAIN	15,923.0	LF	C-2A		307		9	\$	10	\$	148,880	\$	166,555	
98 CG-6 CURB AND GUTTER	15,813.0	LF	C-2A		307		14	\$	19	\$	221,382	\$	302,819	
99 CG-2 CURB AND GUTTER	8,604.0	LF	C-2A		307		9	\$	23	\$	80,447	\$	196,085	
100 5FT CONC SIDEWALK	601.0	SY	B-24		296		75	\$	95	\$	45,075	\$	56,819	
101 MS-1 CONCRETE MEDIAN	907.0	SY	B-29		382			\$		\$	69,670	\$	69,670	
102 MS-2 GRASS MEDIAN	400.0	SY	C-2A		308		13	\$	38	\$	5,340	\$	15,240	
103 CG-12 APRON	1,100.0	LF	B-80C		312		5	\$	19	\$	5,940	\$	20,944	
105 CONSTRUCTION ENTRANCE	5.0	EA					1,000	\$		\$	5,000	\$	5,000	
106 SILT FENCE	14,705.0	LF	2 Clab		261		1	\$	3	\$	12,058	\$	37,204	
107 DIVERSION DIKE	4,900.0	LF					6	\$	6	\$	29,792	\$	29,792	
108 SUPER SILT FENCE	6,300.0	LF	2 Clab		261		1	\$	5	\$	5,166	\$	28,350	
109 15FT X 30FT SEDIMENT TRAP	9.0	EA					1,551	\$	2,500	\$	13,959	\$	13,959	
110 TEMPORARY STREAM CROSSING	2.0	EA					1,250	\$	5,888	\$	9,238	\$	9,238	
111 EC-3	320.0	SY			494		18	\$	29	\$	84,000	\$	8,400	
112 SEDIMENT TRAP WITH PIPE OUTLET	6.0	EA					1,000	\$	5,000	\$	5,000	\$	5,000	
113 SEDIMENT BASIN	5.0	EA					1,000	\$	5,000	\$	5,000	\$	5,000	
114 INLET PROTECTION	88.0	EA					110	\$	9,659	\$	9,659	\$	9,659	
115 PERMANENT SEEDING/MULCHING 24 ACRES	117,707.0	SY	1 Clab		323		4	\$	110	\$	63,360	\$	50,000	
115a Landscaping	191,332.0	SY	1 Clab		323		4	\$	3,500	\$	24,000	\$	24,000	
116 TEMPORARY SEEDING/MULCHING 40 ACRES	1.0	LS					12,342	\$	419,628	\$	419,628	\$	419,628	
117 MAINTAIN AND REMOVE EROSION CONTROLS	715.0	LF	B-79		309		2	\$	5	\$	1,080	\$	3,275	
118 CLEARING & EROSION CONTROLS - STOCKPILE/FILL AREAS	16,590.0	LF	B-79		309		1	\$	0.45	\$	8,793	\$	7,466	
119 PAVEMENT MARKING TY B CL 1 2 4"	14,915.0	LF	B-79		309		3	\$	3	\$	7,905	\$	38,779	
120 PAVEMENT MARKING TY B CL 1 4"	2,160.0	LF	B-79		310		3	\$	5	\$	6,480	\$	10,800	
121 PAVEMENT MARKING TY B CL IV 4"	366.0	EA	B-79		311		9	\$	9	\$	3,111	\$	3,111	
122 PREFORMED TAPE - CONTRASTING 6"	55.0	EA	B-80		142		75	\$	97	\$	4,125	\$	5,326	
123 PAVEMENT MARKERS	88.0	LF					13	\$	1,174	\$	1,174	\$	1,174	
124 ELONGATED SINGLE ARROW	192.0	LF	B-80		142		39	\$	22	\$	13,884	\$	7,939	
125 WOOD 4x4 POST	356.0	SF	1 Clab		309		1	\$	1	\$	3,168	\$	1,276	
126 SIGN POST STEEL 3"	2,200.0	LF					10,000	\$	10,000	\$	10,000	\$	10,000	
127 SIGN PANEL	500.0	LF	B-29		382		66	\$	25	\$	32,750	\$	12,500	
128 ERADICATE PAVEMENT MARKINGS	1,700.0	LF	B-29		382		66	\$	50	\$	111,350	\$	85,000	
129 MAINTENANCE OF TRAFFIC	2.0	EA	B-16		382		595	\$	8,500	\$	17,000	\$	17,000	
130 TEMP. BARRICADE TYPE III	4,200.0	SF	B-62		318		2,000	\$	50	\$	159,600	\$	210,000	
131 TEMPORARY CONCRETE BARRIER	100.0	LF	1-Clab		83		3	\$	145	\$	58,000	\$	200,000	
132 TEMPORARY IMPACT ATTENUATOR	400.0	LF					175	\$	70,000	\$	70,000	\$	70,000	
133 MSE RETAINING WALL	400.0	LF					175	\$	25,000	\$	25,000	\$	25,000	
133A Concrete Retaining Wall	1,250.0	CY	B-12C		225		28	\$	66	\$	35,000	\$	82,213	
134 MSE MOMENT SLAB/COPING	1,320.0	LF	B-19		273		31	\$	41	\$	59,520	\$	78,682	
135 MSE PARAPET	901.0	CY	C-20		70		500	\$	689	\$	450,500	\$	620,537	
136 BRIDGE CONSTRUCTION ACCESS	124,000.0	LBS					1.03	\$	130,200	\$	130,200	\$	130,200	
137 STRUCTURAL EXCAVATION/ROCK KEY/BACKFILL		EA					23,100	\$	18,000	\$		\$		
138 H-PILES	1,400,000.0	lbs					1.1	\$	1,540,000	\$	1,540,000	\$	1,540,000	
139 SUBSTRUCTURE CONCRETE CLASS A3	1,720.0	CY	C-6		71		550	\$	859	\$	936,100	\$	1,462,699	
140 REINFORCING STEEL (BLACK)	960.0	LF	C-22		320		167	\$	250	\$	160,320	\$	240,000	
141 PCBT GIRDERS														
141a Structural Steel Girders														
142 SUPERSTRUCTURE CONCRETE CLASS A4														
143 PARAPET W/ BR27C RAIL														

PACIFIC BOULEVARD EXTENSION PROJECT @ KINCORA
ROUTE 28 CORRIDOR IMPROVEMENTS PROJECT
 Route 28 Corridor Improvements, LLC

COST ESTIMATE SUMMARY - ALTERNATE ALIGNMENT

DESCRIPTION	QTY.	UNIT	APPROX.	INDUSTRY REFERENCE		PAGE	INDUSTRY REFERENCE		VDOT-HISTORIC	TOTAL COST		TOTAL COST	TOTAL COST	VDOT
				INDUSTRY REFERENCE	INDUSTRY REFERENCE		INDUSTRY REFERENCE	INDUSTRY REFERENCE		HISTORIC	VDOT			
144 CRSS REINFORCING STEEL (MMPX)	391,460.0	TONS		4 Rodm		370	\$	2	\$	598,934	\$	688,970		
145 PEDESTRIAN FENCE 10 VINYL	960.0	LF		B-1		315	\$	32	\$	30,720	\$	78,173		
146 DECK GROOVING	2,860.0	SY		B-71		289	\$	4	\$	11,440	\$	14,958		
147 BRIDGE CONDUIT SYSTEM	960.0	LF		1 Elec		201	\$	4	\$	3,840	\$	6,509		
148 APPROACH SLAB CONCRETE	148.0	CY		C-14E		68	\$	228	\$	33,744	\$	74,000		
149 APPROACH SLAB REINFORCING STEEL (BLACK)	11.8	TONS		4 Rodm		64	\$	2,625	\$	31,080	\$	78,144		
150 BRIDGE BACKFILL ZONE (CBR-30)	3,225.0	TON		B-10A		234	\$	10	\$	31,283	\$	112,875		
151 RIPRAP SLOPE PROTECTION	2,200.0	SY		B-13		268	\$	125	\$	275,000	\$	299,200		
152 ROADWAY CONDUIT CROSSINGS	1.0	LS					\$	200,000	\$	200,000	\$	200,000		
153 PUNCHLIST/DEMobilIZATION	1.0	LS					\$	100,000	\$	100,000	\$	100,000		
VI. O&M:														
154 COMPLETE PHASE 1	1.0	LS	\$				\$		\$		\$			
155 PHASES II, III, & IV	1.0	LS	\$				\$		\$	1,800,000	\$	2,100,000	\$	1,000,000
VII. DEVELOPMENT MANAGEMENT:														
156 DESIGN/BUILD PROJECT MANAGEMENT	1.0	LS	\$				\$		\$	240,000	\$	240,000	\$	200,000
157 INSURANCE & TAXES	1.0	LS	\$				\$		\$	198,108	\$	237,814	\$	
TOTALS:										\$ 23,988,745		\$ 28,504,701		\$ 3,270,000.00

VDOT R/W \$ 310,000
 VDOT Staff \$ 1,320,000

TOTALS: \$ 27,258,744.79 \$ 31,774,700.88

Attachment 1-A

Revision to Design-Build Agreement Appendix 6 – Standards

- AASHTO A Policy on Geometric Design of Highways and Streets 6th Edition, 2011
- VDOT Road Design Manual, Vol. I, including all revisions
- VDOT Survey Manual – April 2010 Edition, Including 2011 revisions
- VDOT manual of Instructions for Material Division
- AASHTO LRFD Bridge Design Specifications 5th edition 2010, with Interim Specifications audits and VDOT modifications
- VDOT Manual of Structure and Bridge Division, Vol. V (all Current)
- AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement), 1993 edition
- AASHTO's Manual of Bridge evaluation, 2nd edition, 2010 and 2011
- FHWA Standard Highway signs (2004 Edition and 2012 supplemental interim resolutions)
- VDOT Guidelines for 1993 AASHTO Pavement Design, Revised – May 2003
- Special Provisions for Construction of Deep Foundation Systems
- 2011 Virginia Work Area Protection Manual
- National Electric Code (NEC)
- 2009 Manual of Uniform Traffic Control Devices (MUTCD)
- 2011 VA Supplement to 2009 MUTCD
- VDOT Traffic Engineering Design Manual 2011
- VDOT Right of Way Manual August 2011, including all revisions
- VDOT Land Use Permit Regulations March 2010
- VDOT Manual for Public Participation in Transportation Projects (Revised August 2011)
- VDOT Instructional & Information Memorandums (I&IM) All Divisions
- VDOT Road and Bridge Standards, VOL. 1 and Vol. 2 (2008) including all revisions
- VDOT Road and Bridge Specifications 2007 including all revisions
- DCR Storm-water Management Handbook
- VA Erosion and Sediment Control Handbook (Third Edition – 1992)
- VDOT Storm-water and Erosion and Sediment Control Program Manual, March 2004
- VDOT Drainage Manual July 2012
- VDOT Hydraulic Design Advisories (all current)
- VDOT CADD Manual, Version 2009
- VDOT Construction Manual, 2005 including 2008 revision
- VDOT Post Construction Manual May 2011
- VDOT Construction Inspection Manual, April 2008
- Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities 2010
- Transportation Research Board Highway Capacity Manual 2010 edition
- Mobility Management Division Memoranda

APPENDIX B

[To be attached when finalized]

APPENDIX C

[To be attached when finalized]

APPENDIX D

[To be attached when finalized]