

**COMPREHENSIVE AGREEMENT
TO DESIGN, CONSTRUCT AND WARRANT
ROUTE 288 PROJECT**

DATED AS OF DECEMBER 18, 2000

BY AND AMONG

Virginia Department of Transportation,

a Department of the Commonwealth of Virginia,

APAC-VIRGINIA, INC.

AND

KOCH PERFORMANCE ROADS, INC.

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE I RECITALS	1
ARTICLE II DEFINITIONS	3
ARTICLE III ESTABLISHMENT OF PUBLIC-PRIVATE TRANSACTION	3
Section 3.1 Basic Agreement	3
Section 3.2 Parties to Transaction; Roles and Responsibilities	4
Section 3.3 Project Agreements	5
Section 3.4 Nature of Parties' Interests Under Certain Project Agreements	6
Section 3.5 Right to Cross Navigable Water Courses	7
ARTICLE IV NOT USED	7
ARTICLE V REGULATORY APPROVALS	7
Section 5.1 Developer Obligation to Obtain Regulatory Approvals	7
Section 5.2 NEPA Compliance	7
Section 5.3 Federal Project Status	7
ARTICLE VI DEPARTMENT PAYMENT OPTION	8
Section 6.1 Notice of Payment Method	8
Section 6.2 Delayed Payment Method	8
Section 6.3 Optional Payment Termination	9
Section 6.4 Resulting Work Delays	9
Section 6.5 Department Obligations Subject to Appropriation	9
ARTICLE VII DESIGN, ACQUISITION AND CONSTRUCTION	10
Section 7.1 APAC Obligation to Design	10
Section 7.2 APAC Obligation to Construct	10
Section 7.3 Right of Way Acquisition	10
Section 7.4 APAC Draws	10
ARTICLE VIII PAVEMENT WARRANTY	10
ARTICLE IX DIRECTED CHANGES	11
ARTICLE X DEPARTMENT OVERSIGHT AND OTHER SERVICES	11
Section 10.1 Right to Oversee Work	11
Section 10.2 Right to Oversee Warranty Services	11
ARTICLE XI CONTRACTING PRACTICES-OBLIGATION TO REFRAIN FROM DISCRIMINATION	11
ARTICLE XII INTERRELATIONS AMONG TRANSPORTATION FACILITIES	12
Section 12.1 Coordination Regarding Certain Transportation Facilities	12
Section 12.2 ITS Activities	12
ARTICLE XIII RELIANCE, INDEMNIFICATION AND INSURANCE	13
Section 13.1 Limitations on Developer's Right to Rely	13
Section 13.2 Indemnities from APAC and Association	14
Section 13.3 Responsibilities Regarding Insurance	14
ARTICLE XIV NOT USED	14
ARTICLE XV REPRESENTATIONS, WARRANTIES AND FINDINGS	15
Section 15.1 Department Representations and Warranties	15
Section 15.2 APAC Representations and Warranties	15

Section 15.3 Association Representations and Warranties	16
Section 15.4 Survival of Representations and Warranties.....	17
Section 15.5 Department's Findings Under PPTA	17
ARTICLE XVI TERMINATION	18
Section 16.1 Termination for Public Convenience	18
Section 16.2 Other Unilateral Rights to Terminate.....	18
Section 16.3. Liability after Termination	19
Section 16.4 Exclusive Termination Remedies	19
ARTICLE XVII DEFAULTS AND REMEDIES	19
Section 17.1 Developer Defaults.....	19
Section 17.2 Developer Cure Periods.....	19
Section 17.3 Department Remedies for Developer Default	20
Section 17.4 Department Defaults	20
Section 17.5 Department Cure Periods	21
Section 17.6 Developer Remedies (not used)	22
Section 17.7 Dispute Resolution; No Declaratory Judgment Procedure.....	22
ARTICLE XVIII RECORDS, REPORTS, WORK PRODUCT.....	22
Section 18.1 Maintenance of Records	22
Section 18.2 Public Records.....	22
Section 18.3 Reporting Requirements and Inspection and Audit Rights.....	24
ARTICLE XIX RESERVED RIGHTS.....	24
Section 19.1 Exclusions from Developer's Interests	24
Section 19.2 Department Reservation of Rights	25
Section 19.3 Disgorgement.....	25
ARTICLE XX MISCELLANEOUS	25
Section 20.1 Assignment	25
Section 20.2 No Gift or Dedication.....	26
Section 20.3 Notices	26
Section 20.4 Binding Effect.....	28
Section 20.5 Relationship of Parties; No Partnership	28
Section 20.6 No Third Party Beneficiaries	28
Section 20.7 Waiver.....	28
Section 20.8 No Brokers	29
Section 20.9 Governing Law and Venue.....	29
Section 20.10 Use of Police Power.....	29
Section 20.11 Survival	30
Section 20.12 Subpoena.....	30
Section 20.13 Construction and Interpretation of Agreement	30
Section 20.14 Counterparts	31
Section 20.15 Entire Agreement; Amendment.....	31

LIST OF EXHIBITS

<u>EXHIBIT</u>	<u>DESCRIPTION</u>
A	Definitions
B	Map of Project
C	Design-Build Contract

COMPREHENSIVE AGREEMENT TO DESIGN, CONSTRUCT AND WARRANT ROUTE 288 PROJECT

This **COMPREHENSIVE AGREEMENT TO DESIGN, CONSTRUCT AND WARRANT ROUTE 288 PROJECT** ("Agreement") is made and entered into as of December 18, 2000, by and among the **VIRGINIA DEPARTMENT OF TRANSPORTATION** ("Department"), a department of the Commonwealth of Virginia, the address of which Department is 1401 East Broad Street, Richmond, Virginia 23219, **APAC-VIRGINIA, INC.**, a Delaware corporation ("APAC"), the address of which is 239 Eastwood Drive, Danville, Virginia 24543 and **KOCH PERFORMANCE ROADS, INC.**, a Delaware corporation ("Koch"), the address which is 4111 East 37th Street North, Wichita, Kansas 67220, (APAC and Koch, collectively the "Developer").

ARTICLE I

RECITALS

Section 1.1. On March 25, 1995 the Governor of Virginia signed into law, effective July 1, 1995, the Public-Private Transportation Act (as amended, the "PPTA").

Section 1.2. In enacting the PPTA, the Virginia General Assembly found and declared, among other things, that:

- (a) there is a public need for timely acquisition or construction of and improvements to transportation facilities within Virginia that are compatible with state and local transportation plans;
- (b) such public need may not be wholly satisfied by existing ways in which transportation facilities are acquired, constructed or improved; and
- (c) authorizing private entities to acquire, construct, improve, maintain, and/or operate one or more transportation facilities may result in the availability of such transportation facilities to the public in a more timely or less costly fashion, thereby serving the public safety and welfare.

Section 1.3. The PPTA grants the Department the authority to allow private entities to construct and/or operate qualifying transportation facilities if the Department determines there is a need for the facilities and private involvement would provide the facilities to the public in a timely and cost-effective fashion.

Section 1.4. The PPTA allows for both solicited and unsolicited project proposals.

Section 1.5. On July 1, 1995, the Department adopted Implementation Guidelines developed by the Commonwealth Transportation Commissioner (the "Commissioner") for the selection of solicited and unsolicited proposals for negotiation under the PPTA.

Section 1.6. Pursuant to the PPTA, on November 18, 1999, Koch and CH2 MHill submitted an unsolicited conceptual proposal (the "Initial Conceptual Proposal") to the Department for the design, construction and warranty of certain transportation facilities which collectively the Department refers to as a portion of State Route 288.

Section 1.7. The proposed transportation facilities have been the subject of long-term State environmental planning and design, and solely with respect to the I-64 Interchange, the only portion of the Project receiving federal funding, an Environmental Impact Statement (the "EIS").

Section 1.8. The proposed transportation facilities constitute an approximately 17.5 mile portion of State Route 288, consisting of the I-64 Interchange and the state projects connecting the I-64 Interchange and State Route 76 including bridges over the James River.

Section 1.9. In accordance with the Implementation Guidelines, the Department duly posted and published notice of the Initial Conceptual Proposal and referred it to the Initial Review Committee for preliminary review. Two other competing proposals were received in response to the posted and published notice.

Section 1.10. The Initial Conceptual Proposal was revised by a Revised Conceptual Proposal dated July 26, 2000 (as revised, the "Conceptual Proposal"), which identified an APAC affiliate as the design-build contractor.

Section 1.11. Following a determination by the Initial Review Committee that the Conceptual Proposal and the two competing proposals merited further review, on September 21, 2000, the Commonwealth Transportation Board adopted a resolution approving the Conceptual Proposal and the other competing proposals for further evaluation and inviting detailed proposals for consideration by the Public-Private Transportation Advisory Panel ("Advisory Panel") in accordance with the Implementation Guidelines.

Section 1.12. On October 13, 2000, the three proposers submitted their detailed proposals to the Advisory Panel for consideration.

Section 1.13. After proposal clarification, the Advisory Panel evaluated the detailed proposals using the "Proposal Evaluation and Selection Criteria" set forth in the Implementation Guidelines. Based on such evaluation, the Advisory Panel, on October 26, 2000, recommended the detailed proposal for the Project submitted by APAC, Koch and CH2 MHill to the Commissioner for development pursuant to the PPTA, subject to the successful negotiation, execution and delivery of a comprehensive agreement.

Section 1.14. On November 17, 2000, negotiations with APAC, Koch and CH2 MHill for a comprehensive agreement, consisting of this Agreement and the other Project Agreements, commenced at the direction of the Commissioner. During those negotiations the obligations of APAC and Koch with respect to the Project have been described in the Project Agreements, and it was determined that the obligations of co-proposer CH2 MHill with respect to the Project will be solely as a subcontractor.

NOW, THEREFORE, in consideration of the covenants contained herein and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Department, APAC and Koch agree as follows:

ARTICLE II

DEFINITIONS

All capitalized terms used in this Agreement but not expressly defined in this Agreement have the respective meanings set forth in **Exhibit A** attached to this Agreement.

ARTICLE III

ESTABLISHMENT OF PUBLIC-PRIVATE TRANSACTION

Section 3.1. Basic Agreement.

(a) The Department and Developer agree that the Project, as generally shown on the map attached as **Exhibit B** hereto and as more particularly identified in the Scope of Work appended to the Design-Build Contract attached as **Exhibit C** hereto, shall be designed, constructed and warranted in a transaction involving, together, a series of agreements setting forth distinct roles and responsibilities of several public and private sector participants.

(b) This **Article III** identifies and establishes the basic roles and responsibilities of such participants. This **Article III** is not intended, and shall not be construed, to impose any obligations on any party, or provide any party with any rights, that are in addition to any rights or obligations set forth elsewhere in this Agreement and the other Project Agreements in connection with the subject matter thereof.

(c) APAC's rights, obligations and liabilities with respect to the design and construction of the Project (the "Design-Build Duties") shall be as stated in, or arising from, the Design-Build Contract. Notwithstanding any description of design and construction activities of the Design-Build Contract appearing in this Agreement, this Agreement shall neither add to nor diminish from APAC's Design-Build Duties.

(d) Koch's rights, obligations and liabilities under this Agreement with respect to the Project (the "Warranty Duties") shall be as stated in, or arising from, the Pavement Warranty. Notwithstanding any description of the Pavement Warranty

appearing in this Agreement, this Agreement shall neither add to nor diminish from the Warranty Duties.

Section 3.2. Parties to Transaction; Roles and Responsibilities.

(a) The parties to the transaction and the Project Agreements under which the Project shall be designed, constructed and warranted, are the Department, APAC and Koch.

(b) The Department:

(i) shall establish, pursuant to the Project Agreements, the terms and conditions under which the Project will be implemented;

(ii) hereby grants APAC the right to design and construct the Project and Koch the right to warrant the Project on the terms and conditions set forth in this Agreement, the Design-Build Contract and the other Project Agreements;

(iii) may perform Oversight Services with respect to Project implementation;

(iv) shall acquire title to, and as necessary and appropriate condemn, all Project Rights of Way, shall acquire all Regulatory Approvals, shall undertake all Utility Relocation for the Project and, subject to appropriation and legislative authorization therefor and Article VI hereof, shall secure funding when and as needed to make payments due to APAC as provided in the Design-Build Contract;

(v) shall take acceptance of the Work upon satisfactory completion thereof; and

(vi) shall operate and maintain the Project following its completion, subject to certain provisions of the Pavement Warranty.

(c) APAC:

(i) shall have the right and obligation to design, construct and perform all Work respecting the Project as and when provided in the Design-Build Contract;

(ii) shall cause the Project to be insured, as and when provided in the Design-Build Contract;

(iii) shall provide the Payment Bond and the Performance Bond for the Work, as and when provided in the Design-Build Contract; and

(iv) shall comply with and perform all the duties and obligations of an operator under the PPTA and of the Developer under this Agreement and the

other Project Agreements, including, to the extent applicable, the duties listed in Section 56-565(F) of the PPTA.

(d) Koch:

(i) shall have the right to perform all services that Koch determines are necessary to assure that the project pavement meets the Pavement Performance Criteria as defined in the Pavement Warranty appended to the Design-Build Contract;

(ii) shall be responsible for pavement design, mix design, pavement quality assurance, and independent assurance of the quality assurance program;

(iii) shall be responsible for public relations during Project construction; and

(iv) shall provide, or cause Koch Materials Company, a Delaware corporation that is an affiliate of Koch to provide, a performance bond to secure the performance of the Pavement Warranty.

Section 3.3. Project Agreements. The Project Agreements and their content are briefly described below. The Project Agreements are to be read and construed together, and together constitute the comprehensive agreement under the PPTA (notwithstanding the fact that this Agreement is entitled "Comprehensive Agreement").

(a) Comprehensive Agreement. The Department, APAC and Koch are entering into this Agreement to establish the general structure and arrangements for implementing the Project.

(b) Design-Build Contract. Concurrently with execution of this Agreement, the Department and APAC are entering into the Design-Build Contract, in the form attached to this Agreement as Exhibit C, pursuant to which APAC shall have, among other things:

(i) the obligation to use diligent efforts to satisfy all conditions precedent to the start of construction work set forth in the Design-Build Contract;

(ii) the right and obligation to complete the design of, construct pursuant to the Design-Build Contract and arrange for the Pavement Warranty described in Section 3.3(c) below, all for a lump sum, fixed Contract Price of \$236,000,000, as may be adjusted and shall be payable as provided in the Design-Build Contract;

(iii) the obligation to post the Payment Bond and the Performance Bond as provided by the Design-Build Contract;

(iv) the obligation to substantially complete the Project within the 29 month period as described in Article 17 of the Design-Build Contract or to pay Liquidated Damages for every day substantial completion and Final Acceptance of the Project is delayed, subject to Section 6.4 hereof, extension due to Force Majeure, Department-Caused Delays and to specified caps on Liquidated Damages as described in Section 25.6 of the Design-Build Contract;

(v) the obligation to satisfy and to carry out Department standards, Department-approved preliminary design and specifications for the Project and applicable Laws, Regulations and Ordinances;

(vi) the obligation to provide specified warranties against design and construction defects, as described in the Design-Build Contract;

(vii) the obligation to insure the Project as and when provided in the Design-Build Contract; and

(viii) the right to enter onto the Project Right of Way as reasonably necessary to carry out the Work.

(c) Pavement Warranty. The Department and Koch have agreed to the terms of a Pavement Warranty, a copy of which is appended to and incorporated into the Design-Build Contract. The Pavement Warranty's effectiveness (and continued effectiveness) shall be subject to satisfaction of each of the following conditions:

(i) the Department remains current on all payment obligations to APAC in accordance with the Design-Build Contract;

(ii) with each invoice submitted for payment to the Department, APAC has certified to the Department that APAC has paid Koch in full all amounts due and owing at that time;

(iii) as part of the payment procedures set forth in Article 14 of the Design-Build Contract, Koch has certified to the Department its satisfaction with implementation of Koch's Quality Assurance Plans for both the pavement and asphalt binder;

(iv) the Department has not issued Directed Changes affecting Koch's prescribed pavement or mix design; and

(v) no activities of the Department as set forth in the Pavement Warranty have occurred to void certain provisions of the Pavement Warranty.

Section 3.4. Nature of Parties' Interests Under Certain Project Agreements. The Department and the Developer intend and agree that:

(a) the Developer has no fee title, leasehold estate, easement or other real property interest of any kind in or to the Project or the Project Right of Way by virtue of this Agreement, any of the other Project Agreements or otherwise; and

(b) the Department will be the sole owner of fee simple title to the Project and the Project Right of Way and all improvements constructed, all tangible personal property installed, with full power and authority to possess, control and utilize the Project and Project Right of Way, subject only to the terms and conditions of the Project Agreements.

Section 3.5. Right to Cross Navigable Water Courses. Subject to Laws, Regulations and Ordinances and other requirements set forth in this Agreement, APAC shall have the right to construct the Project across any canal or navigable water course so long as the crossing does not unreasonably interfere with then current navigation and use of the waterway.

ARTICLE IV – NOT USED

ARTICLE V

REGULATORY APPROVALS

Section 5.1. Department Obligation to Obtain Regulatory Approvals. The Department shall obtain Regulatory Approvals. The Developer shall have no responsibility for securing any Regulatory Approvals except as provided in the Design-Build Contract. The Department shall pay all charges and fees incident to obtaining Regulatory Approvals except as provided in the Design-Build Contract.

Section 5.2. NEPA Compliance. The parties acknowledge that the EIS has been obtained and a Record of Decision issued for the portion of the Project for which the same is required.

Section 5.3 Federal Project Status. The Department represents that the only portion of the Project that is subject to federal requirements due to use of federal funds is the I-64 Interchange. The Department further represents that it has taken no action, and covenants not to take any action, that would subject any portion of the Project other than the I-64 Interchange to federal requirements due to use of federal funds thereon.

ARTICLE VI

DEPARTMENT PAYMENT OPTION

Section 6.1. Notice of Payment Method. The Department represents and acknowledges that funds necessary for it to pay the Contract Price are set forth in the Virginia Transportation Development Plan for Fiscal Years 2001 through 2006. However, a portion of such funds are subject to appropriation for fiscal years after the time or times required for payments to APAC in accordance with the CPM/Payment Schedule. To provide assurances to APAC that sufficient funds will be available to APAC for progress payments in accordance with the CPM/Payment Schedule, the Department shall notify APAC and Koch on or before April 30, 2001, that the Department either (a) will have access to sufficient appropriated funds to pay the Contract Price in accordance with the CPM/Payment Schedule, or (b) does not then expect to have access to sufficient appropriated funds available as and when required to pay the Contract Price in accordance with the CPM/Payment Schedule, in which case, such notice shall be deemed a "Notice of Optional Payment."

The Notice of Optional Payment shall specify the approximate date through which the Department then expects to have sufficient appropriated funds available to pay APAC in accordance with the CPM/Payment Schedule based solely upon the expenditure by the Department of appropriated funds expected to be available for the Project as and when payable in accordance with the CPM/Payment Schedule (the "Interim Payment Date"). Funds then appropriated and available for the Project shall continue to be expended by the Department for such purpose, before the effective date of any "termination for convenience" described in Section 6.3(a), and for any termination settlement provided for in Article 26 of the Design-Build Contract

Section 6.2 Delayed Payment Method. In the event of delivery by the Department of a Notice of Optional Payment as described in Section 6.1(b), the Department and APAC agree to continue to prosecute the Work, and Koch, or its designated agent, agrees on terms and conditions acceptable to Koch: (a) to evaluate the provision of such internal financing as shall provide payments in accordance with the CPM/Payment Schedule, after the Interim Payment Date, in an aggregate amount not to exceed \$150,000,000, or (b) in cooperation with the Department, to evaluate options for external third party financing as shall provide payments to APAC in accordance with the CPM/Payment Schedule in an aggregate amount not to exceed \$150,000,000, such as industrial development authority or "63-20" corporation financing.

Either option (a) or (b) shall result in payments by the Department of amounts, appropriated and available for the Project, as and when acceptable to the Department and Koch, or its designated agent, representing delayed payments. Such Department payments shall equal the amounts previously paid to APAC in accordance with the CPM/Payment Schedule as a result of effecting such option plus costs of carry, financing or otherwise with respect to such option. In the event the Department and

Koch, or its designated agent, agree to pursue any options described in this Section 6.2, the Department and Koch agree to use good faith efforts to facilitate consummation of the same.

Section 6.3. Optional Payment Termination. (a) If the Department and Koch, or its designated agent, after a good faith effort in accordance with Section 6.2 are unable to agree on or before 90 Days prior to the Interim Payment Date (or such other date as the Department, APAC and Koch may agree in writing), to effect any such delayed payment option, the Department may terminate the Design-Build Contract as a "termination for convenience" in accordance with Article 26 thereof. In the event the Department and Koch, or its designated agent, are unable to agree on or before such date to effect any such delayed payment option, the Department agrees that Koch, or its designated agent, shall be entitled to recover from the Department up to \$350,000, or such higher amount as may be agreed to by the Department in writing, of audited costs reasonably incurred prior to delivery of a Notice of Termination under such Article 26 by Koch, or its designated agent, related to its good faith effort to pursue the options described in Section 6.2. Any dispute as to amounts payable by the Department hereunder shall be resolved solely in accordance with Section 105.16 of the Standard Specifications.

(b) At any time prior to such date on which the Department and Koch, or its designated agent, may agree in writing to effect any such delayed payment option, the Department may revoke the Notice of Optional Payment by notice to APAC and Koch that the Department will have access to sufficient appropriated funds to pay the Contract Price in accordance with the CPM/Payment Schedule. In the event of any such revocation, the Department agrees that Koch, or its designated agent, shall be entitled to recover costs described in and in accordance with the last two sentences of Section 6.3(a).

Section 6.4. Resulting Work Delays. In the event the Department and Koch, or its designated agent, undertake to pursue options in accordance with Section 6.2 and such undertaking causes delays in the Work because payments are not made to APAC in accordance with the CPM/Payment Schedule, the Department and APAC acknowledge and agree that APAC shall be entitled to a day-for-day extension of the Guaranteed Completion Date and Final Acceptance. In addition, such delays shall not be deemed to be Department Caused Delays pursuant to Section 19.2.3 of the Design-Build Contract. The intent of this Article VI is to allow all parties to work cooperatively to pursue such options enabling the Department to make delayed payments and to complete the Work in a timely fashion.

Section 6.5. Department Obligations Subject to Appropriation. Subject to the provisions of Section 6.1, notwithstanding anything otherwise contained in the Project Agreements the parties hereto acknowledge that the Department shall not be obligated by the Project Agreements or otherwise to issue, provide or arrange for any financing of the Project or the Contract Price, and the parties hereto further

acknowledge that any amounts payable by the Department under any Project Agreement are subject to appropriation therefor by the Virginia General Assembly.

ARTICLE VII

DESIGN, ACQUISITION AND CONSTRUCTION

Section 7.1. APAC Obligation to Design.

(a) APAC shall design the Project in accordance with the terms, conditions, standards and schedule set forth in the Design-Build Contract.

(b) The Department shall terminate or assign to APAC or its designee the contracts under which the current design engineering was carried out as soon as practicable and as mutually agreed to by the Department and APAC. If terminated, APAC shall have the right to rehire such contractors under new subcontracts with APAC.

Section 7.2. APAC Obligation to Construct.

(a) APAC shall construct the Project in accordance with the terms, conditions, standards, requirements and schedule set forth in or provided by the Design-Build Contract.

(b) APAC shall not commence construction within a Construction Segment until all conditions precedent thereto, as set forth in the Design-Build Contract, have been satisfied.

Section 7.3. Right of Way Acquisition. The Department shall cause the acquisition of the Project Right of Way and the Utility Relocations in accordance with the provisions of the Design-Build Contract.

Section 7.4. APAC Draws.

(a) APAC shall have no right to any draws for payment of costs until all conditions precedent to such draws, as set forth in the Design-Build Contract, have been satisfied.

(b) No draws from the Department for design, construction or any other Work shall be permitted or valid unless and until the Department has received and approved the draw request by signing a requisition in the form attached to the Design-Build Contract, appropriately completed.

ARTICLE VIII

PAVEMENT WARRANTY

Koch's Pavement Warranty, as generally described in Section 3.3(c), is attached as an Appendix to the Design-Build Contract.

ARTICLE IX

DIRECTED CHANGES

The parties agree that Directed Changes may be undertaken with respect to the Project only in accordance with provisions of the Design-Build Contract.

ARTICLE X

DEPARTMENT OVERSIGHT AND OTHER SERVICES

Section 10.1. Right to Oversee Construction. The Department shall have the right at all times prior to Final Acceptance to carry out Oversight Services respecting all aspects of the design and construction of the Project. APAC shall fully cooperate with the Department to facilitate its conduct of such Oversight Services.

Section 10.2 Right to Oversee Warranty Services. The Department shall have the right at all times during the Term to carry out Oversight Services respecting the services related to the Pavement Warranty. Koch shall fully cooperate with the Department to facilitate its conduct of such Oversight Services.

ARTICLE XI

CONTRACTING PRACTICES - OBLIGATION TO REFRAIN FROM DISCRIMINATION

The Developer covenants and agrees that it shall not discriminate and it shall require all contractors not to discriminate against any person, or group of persons, on account of age, sex, marital status, race, creed, color, national origin, religion or the presence of any sensory, mental or physical handicap in the permitting, design, acquisition, construction, maintenance, operation or management of the Project, nor shall the Developer establish or permit any such practice or practices of discrimination or segregation with reference to the selection, use, hiring, firing, promotion or termination of employees, contractors, subcontractors and vendors or with reference to the use, occupancy or enjoyment of or access to the Project; provided, however, that the prohibition against discrimination on the basis of sensory, mental or physical

handicap shall not apply if the particular disability prevents the proper performance of the particular person involved.

The Developer shall conduct its activities in connection with the Project in compliance with all other requirements imposed pursuant to Title 2.1, Chapter 25, Sections 374 et seq., Code of Virginia; Titles VI and VII of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973, as amended; Americans With Disabilities Act of 1990; and, with respect solely to the I-64 Interchange, applicable rules and regulations including but not limited to provisions of Title 23, Code of Federal Regulations and Title 49, Code of Federal Regulations, Subtitle A, Office of the Secretary of Transportation, Part 1 (49 C.F.R. Part 21), which are applicable by reason of use of federal funds for non-construction activities (such as design, Project Right of Way acquisition and Utility Relocation), and as said Regulations may be amended.

ARTICLE XII

INTERRELATIONS AMONG TRANSPORTATION FACILITIES

Section 12.1. Coordination Regarding Certain Transportation Facilities. Subject to provisions of the Design-Build Contract and the Pavement Warranty, the Department shall have the right at any time (and without liability to Developer for any damages it may suffer) to modify existing facilities, to construct new facilities, and to perform planned and emergency maintenance, renewal and replacement, safety and repair activities on existing and new facilities adjacent to or near the Project regardless of the impact of such activities on the Project; provided that the Pavement Warranty provides that certain activities with respect to the Project may void certain provisions of the Pavement Warranty.

Section 12.2. ITS Activities. The Department shall have the right to perform ITS research and install ITS equipment on the Project Right of Way for public, non-revenue generating purposes as well as for commercial, revenue-generating purposes; provided that the Pavement Warranty provides that certain activities with respect to the Project may void certain provisions of the Pavement Warranty.

ARTICLE XIII

RELIANCE, INDEMNIFICATION AND INSURANCE

Section 13.1. Limitations on Developer's Right to Rely.

(a) APAC and Koch expressly acknowledge and agree that the Department's rights under the Project Agreements are to reasonably (i) review, comment on, approve, disapprove and/or accept designs, plans, specifications, work plans, construction, equipment, installation, plans for maintenance, traffic management, policing and/or Project management, books, records, reports or statements, (ii) review,

comment on and approve or disapprove qualifications and performance of, and to communicate with, contractors, subcontractors, architects, engineers or other consultants of APAC and/or Koch, and (iii) perform Oversight Services, and that such rights (A) exist solely for the benefit and protection of the Department, (B) do not create or impose upon the Department any standard or duty of care toward any Developer Party, all of which are hereby disclaimed, (C) may not be relied upon, nor may the Department's exercise or failure to exercise any such rights be relied upon, by APAC and/or Koch in determining whether APAC or Koch has satisfied the standards and requirements set forth in this Agreement or any other Project Agreement and (D) may not be asserted, nor may the Department's exercise or failure to exercise any such rights be asserted, against the Department by APAC and/or Koch as a defense, legal or equitable, to Developer's respective obligations to fulfill the standards and requirements of the Project Agreements by which they are bound; provided that the Pavement Warranty provides that certain activities of the Department with respect to the Project may void certain provisions of the Pavement Warranty. Regardless of the Department's exercise or failure to exercise any such rights, regardless of the issuance of permits or certificates of completion or acceptance, and regardless of Final Acceptance, APAC and Koch at all times shall have an independent duty and obligation and otherwise manage the Project and Project Right of Way in accordance with the standards and requirements set forth in the Project Agreements.

(b) To the maximum extent permitted by law, APAC hereby releases and discharges the Department from any and all duty and obligation to cause design, construction, or other management of or for the Project or Project Right of Way, by APAC, to satisfy the standards and requirements set forth in the Project Agreements.

(c) No rights of the Department described in subsection (a) above, no exercise or failure to exercise such rights, no failure of the Department to meet any particular standard of care in the exercise of such rights, or certificates of completion or acceptance and no Final Acceptance shall:

(i) relieve APAC of its responsibility for the selection and the competent performance of all contractors, subcontractors, architects, engineers and other consultants (except those hired by the Department);

(ii) relieve APAC or Koch of any of their respective obligations or liabilities under the Project Agreements;

(iii) be deemed or construed to waive any of the Department's rights and remedies under the Project Agreements; or

(iv) be deemed or construed as any kind of representation or warranty, express or implied, by the Department.

(d) Notwithstanding subsections (a), (b), and (c) above, (i) APAC and Koch shall be entitled to rely on specific written deviations and interpretative engineering decisions the Department gives under the Design-Build Contract or the

Pavement Warranty, respectively, (ii) the Department is not relieved from any liability arising out of a knowing, intentional misrepresentation under any written statement the Department delivers and (iii) the Department is not relieved from its obligations under the Design-Build Contract, the Pavement Warranty or any other Project Agreements.

Section 13.2. Indemnities.

(a) APAC shall indemnify each State Indemnitee to the extent provided in the Design-Build Contract.

(b) Koch shall indemnify each State Indemnitee to the extent provided in the Pavement Warranty.

(c) The indemnities of APAC and Koch shall survive the expiration or earlier termination of this Agreement and the other Project Agreements.

Section 13.3. Responsibilities Regarding Insurance.

(a) APAC shall carry or cause to be carried the insurance policies and satisfy or cause to be satisfied the insurance covenants set forth in the Design-Build Contract.

(b) The Department may, but is not obligated to, purchase other and additional policies of insurance respecting the Project.

ARTICLE XIV – NOT USED

ARTICLE XV

REPRESENTATIONS, WARRANTIES AND FINDINGS

Section 15.1. Department Representations and Warranties. The Department hereby represents and warrants to the Developer as follows:

(a) The Department is a department of the executive branch of the State and has full power, right and authority to execute, deliver and perform its obligations under, in accordance with and subject to the terms and conditions of this Agreement and other Project Agreements to which the Department is a party.

(b) Each person executing this Agreement or any other Project Agreement on behalf of the Department to which the Department is a party has been or at such time will be duly authorized to execute each such document on behalf of the Department.

(c) Neither the execution and delivery by the Department of this Agreement and the other Project Agreements executed concurrently herewith to which the Department is a party, nor the consummation of the transactions contemplated hereby or thereby, is in conflict with or will result in a default under or violation of any other agreements or instruments to which it is a party or by which it is bound.

(d) There is no action, suit, proceeding, investigation or litigation pending and served on the Department which challenges the Department's authority to execute, deliver or perform, or the validity or enforceability of, this Agreement and the other Project Agreements to which the Department is a party, or which challenges the authority of the Department official executing this Agreement or the other Project Agreements, and the Department has disclosed to the Developer any pending and unserved or threatened action, suit, proceeding, investigation or litigation with respect to such matters of which the Department is aware.

(e) When executed by the Department the Project Agreements will be valid and binding agreements of the Department and enforceable against it in accordance with the terms thereof.

(f) The Department has complied with provisions of the PTTA and the Implementation Guidelines applicable to the Developer's proposal, the Project and the Project Agreements.

Section 15.2. APAC Representations and Warranties. APAC hereby represents and warrants to the Department and Koch as follows:

(a) APAC is a duly organized corporation created under the laws of the state of Delaware, has the requisite power and all required licenses to carry on its present and proposed activities, and has full power, right and authority to execute and deliver this Agreement and the other Project Agreements to which APAC is a party and to perform each and all of the obligations of APAC provided for herein and therein.

(b) APAC has taken or caused to be taken all requisite action to authorize the execution and delivery of, and the performance of its obligations under, this Agreement and the other Project Agreements to which APAC is a party.

(c) Each person executing this Agreement or any other Project Agreement on behalf of APAC has been or will at such time be duly authorized to execute each such document on behalf of APAC.

(d) Neither the execution and delivery by APAC of this Agreement and the other Project Agreements to which APAC is a party, nor the consummation of the transactions contemplated hereby or thereby, is in conflict with or will result in a default under or a violation of the governing instruments of APAC or any other agreements or instruments to which it is a party or by which it is bound.

(e) There is no action, suit, proceedings, investigation or litigation pending and served on APAC which challenges APAC's authority to execute, deliver or

perform, or the validity or enforceability of, this Agreement and the other Project Agreements to which APAC is a party, or which challenges the authority of the APAC official executing this Agreement or the other Project Agreements; and APAC has disclosed to the Department any pending and unserved or threatened action, suit, proceeding, investigation or litigation with respect to such matters of which APAC is aware.

(f) APAC is in material compliance with all Laws, Regulations and Ordinances applicable to APAC or its activities in connection with this Agreement and the other Project Agreements.

Section 15.3. Koch Representations and Warranties. By executing and delivering this Agreement, Koch represents and warrants to the Department and APAC as follows:

(a) Koch is a Delaware corporation created under the laws of the state of Delaware has the requisite power and all required licenses to carry on its present and proposed activities, and has full power, right and authority to execute and deliver the other Project Agreements to which it is a party and to perform each and all of its obligations provided for herein and therein.

(b) Koch has taken or caused to be taken all requisite action to authorize the execution and delivery, and the performance of its obligations under, this Agreement and the other Project Agreements to which Koch is a party.

(c) Each person executing any Project Agreement on behalf of Koch has been duly authorized to execute each such document on behalf of Koch.

(d) Neither the execution or delivery by Koch of this Agreement and the other Project Agreements to which Koch is a party, nor the consummation of the transactions contemplated hereby or thereby, is in conflict with or will result in a default under or a violation of the governing instruments of Koch or any other agreements or instruments to which it is a party or by which it is bound.

(e) There is no action, suit, proceeding, investigation or litigation pending and served on Koch which challenges Koch's authority to execute, deliver or perform, or the validity or enforceability of, this Agreement and the other Project Agreements to which Koch is a party, or which challenges the authority of the Koch's official executing the Project Agreements; and Koch has disclosed to the Department any pending and unserved or threatened action, suit, proceeding, investigation or litigation with respect to such matters of which Koch is aware.

(f) Koch is in material compliance with all Laws, Regulations and Ordinances applicable to Koch or its activities in connection with this Agreement and the other Project Agreements.

Section 15.4. Survival of Representations and Warranties. The representations and warranties of the Department, APAC and Koch contained herein

shall survive expiration or earlier termination of this Agreement and the other Project Agreements.

Section 15.5. Department's Findings Under PPTA. The Department, as the Responsible Public Entity with respect to the Project under the PPTA, makes the following findings:

- (a) the actions taken by the Department pursuant to the PPTA facilitate the timely construction and operation of the Project;
- (b) there is a public need for a transportation facility of the type of the Project;
- (c) the Project, and its interconnections with existing transportation facilities, are reasonable and compatible with the State transportation plan and with local comprehensive plans;
- (d) the estimated cost of the Project is reasonable in relation to similar facilities;
- (e) APAC's plans will result in the timely construction of the Project;
- (f) the Agreement Date shall be the date established for the beginning of construction of the Project as a Qualifying Transportation Facility for purposes of the PPTA and execution of this Agreement by the Department shall constitute the Notice to Proceed with design and construction of the Project pursuant to the Design-Build Contract;
- (g) the Project will be owned by the Department as a public road;
- (h) the design, construction and warranting of the Project as provided by the Project Agreements serves the public purpose of the PPTA;
- (i) the terms and conditions of this Agreement serve the public purpose of the PPTA;
- (j) the Contract Price, as the same may be adjusted pursuant to the Design-Build Contract, reflects a reasonable maximum rate of return on investment for the Developer for the purpose of the PPTA; and
- (k) no user fees are being provided with respect to the Project by the Project Agreements.

ARTICLE XVI

TERMINATION

Section 16.1. Termination for Public Convenience.

(a) The Department may at any time after the Notice to Proceed, when the Department determines in its sole discretion that such action is in the best interests of the State, terminate Developer's rights and obligations under this Agreement and the other Project Agreements, subject to subsection (b) below.

(b) If the Department exercises its right of termination under subsection (a) above, the Department shall deliver to APAC and Koch a Notice of Termination and thereafter the Department and APAC shall comply with the provisions of Article 26 of the Design-Build Contract.

(c) If the Department exercises its right of termination under subsection (a) above, the provisions of the Pavement Warranty shall govern the relationship between the parties with respect to the warranty contained therein.

Section 16.2. Other Unilateral Rights to Terminate.

(a) The Department shall have the right to terminate the Design-Build Contract due to an Event of Default by APAC thereunder as set forth in the Design-Build Contract. Upon any such termination, Developer's rights under this Agreement shall automatically terminate. The Department's remedies against APAC following any such termination are fully set forth in the Design-Build Contract.

(b) If the Department exercises its right of termination under subsection (a) above, then the Department shall deliver to APAC the notice set forth in Section 25.2.2 of the Design-Build Contract, with a copy to Koch, and thereafter the Department and APAC shall comply with the provisions of said Section 25.2.2.

Section 16.3. Liability After Termination.

(a) In the event this Agreement or any other Project Agreement is terminated by reason of a material default, such termination shall not excuse the defaulting party from any liability arising out of such default as provided in the Project Agreements.

(b) In the event this Agreement or any other Project Agreement is terminated by reason other than a default, no party shall have any further obligation or liability except for performance of their respective obligations which are either expressly stated in a Project Agreement to survive termination or by their sense and context are intended to survive termination.

Section 16.4. Exclusive Termination Remedies. This Article XVI, together with the express provisions on termination set forth the Design-Build Contract and the

Pavement Warranty, set forth the entire and exclusive provisions and rights of the Department, APAC and Koch regarding termination of the Project Agreements, and any and all other rights to terminate at law or in equity are hereby waived to the maximum extent permitted by law.

ARTICLE XVII

DEFAULTS AND REMEDIES

Section 17.1. Developer Defaults. Each of the following events shall constitute a Developer Default under this Agreement:

- (a) any event of default by APAC under the Design-Build Contract;
- (b) any event of default by Koch under the Pavement Warranty; and
- (c) any representation or warranty made by APAC or Koch herein or in any other Project Agreement shall be inaccurate or misleading in any respect on the date made or deemed made and a material adverse effect upon the Project or the Department's rights or obligations under the Project Agreements results therefrom.

Section 17.2. Developer Cure Periods. The Developer shall have the following cure periods with respect to the following Developer Defaults:

- (a) respecting any Developer Default under Section 17.1(a), the cure period, if any, in the Design-Build Contract;
- (b) respecting any Developer Default under Section 17.1(b), the cure period, if any, in the Pavement Warranty; and
- (c) respecting any Developer Default under Section 17.1(c), a period of 15 Days after Developer receives written notice of the Developer Default, provided that if the Developer Default is of such a nature that the cure cannot with diligence be completed within such time period and Developer has commenced meaningful steps to cure immediately after receiving the default notice, then Developer shall have such additional period of time, up to a maximum cure period of 180 Days, as is reasonably necessary to diligently effect cure.

Section 17.3. Department Remedies for Developer Default. Upon the occurrence of any Developer Default and expiration, without full cure, of any applicable cure period, the Department may exercise any one or more of the following remedies as the Department in its sole and absolute discretion shall determine:

- (a) in the event of any Developer Default under Section 17.1(a), any applicable remedies set forth in the Design-Build Contract;

(b) in the event of any Developer Default under Section 17.1(b), any applicable remedies set forth in the Pavement Warranty;

(c) in the event of a Developer Default under Section 17.1(c), any and all remedies available at law or in equity, including but not limited to recovery of damages to the extent provided by law; provided that in no event shall Developer be liable for, and the Department waives all Claims for, (i) any damages of any kind arising out of Developer's breach of its obligation under this Agreement, including but not limited to reasonable attorneys' fees, of enforcing such obligation by means of action for specific performance or other equitable relief against APAC or Koch, as the case may be, and (ii) indirect, incidental or consequential damages of any nature, whether in contract, tort (including negligence) or other legal theory, unless arising out of the fraud or intentional misrepresentation of APAC or Koch, as the case may be, or any of its members, managers, partners, directors, officers, employees or agents; and

(d) the Department may offset any sums the Department owes to Developer by any sums owing to the Department from Developer, including but not limited to Liquidated Damages or other undisputed or finally adjudicated monetary damages owing the Department under the Design-Build Contract.

Section 17.4. Department Defaults.

(a) Each of the following events shall constitute a Department Default:

(i) the Department shall fail to observe or perform any covenant, agreement, term or condition required to be observed or performed by the Department under this Agreement;

(ii) any representation or warranty made by the Department herein or in any other Project Agreement shall be inaccurate or misleading in any respect on the date made and a material adverse effect upon the Project or APAC's or Koch's rights or obligations under the Project Agreements results therefrom;

(iii) an event of default by the Department occurs under any other Project Agreement; or

(iv) the Virginia General Assembly shall enact legislation which (A) the State intends to impact, and does impact, only the Developer, this Agreement, the Project or the class of operators, agreements or transportation facilities established pursuant to the PPTA; and (B) materially impairs Developer's rights under this Agreement to design, construct and warrant the Project, all as provided for in this Agreement and the other Project Agreements.

(b) Except as set forth in subsection (a)(iv) above and as described in the definition of Force Majeure, Developer acknowledges that no act or omission of any federal, State, regional or local government or agency thereof, other than the Department, shall constitute a Department Default hereunder.

Section 17.5. Department Cure Periods. The Department shall have the following cure periods with respect to the following Department Defaults:

(a) respecting a Department Default under Section 17.4(a)(i) or (ii), a period of 30 Days after the Department receives written notice of the Department Default, provided that if the Department Default is of such a nature that the cure cannot with diligence be completed within such time period and the Department has commenced meaningful steps to cure immediately after receiving the default notice, the Department shall have such additional period of time, up to a maximum cure period of 180 Days, as is reasonably necessary to diligently effect cure;

(b) respecting a Department Default under Section 17.4(a)(iii), the cure period, if any, set forth in the relevant Project Agreement; and

(c) respecting a Department Default under Section 17.4(a)(iv), a period of 180 Days after the date the subject legislation becomes law; provided that, if the effectiveness of such legislation is stayed by a court of law, the running of such 180 day cure period shall be suspended for the duration of any such stay.

Section 17.6. Not Used

Section 17.7. Dispute Resolution; No Declaratory Judgment Procedure.

(a) All disputes between the Department and APAC arising under or relating to the Design-Build Contract (or arising out of or relating to obligations under this Agreement which are duplicative of obligations under the Design-Build Contract) shall be resolved in accordance with the dispute resolution provisions set forth in the Design-Build Contract.

(b) All litigation between the parties arising out of or pertaining to this Agreement or its breach shall be filed, heard and decided in the Circuit Court for the City of Richmond, Virginia, Division I, which shall have exclusive jurisdiction and venue; provided that the foregoing does not affect any claims or matters which are governed by a different dispute resolution procedure set forth in any other Project Agreement.

(c) Each party shall bear its own attorneys' fees and costs in any dispute or litigation arising out of or pertaining to this Agreement or any other Project Agreement, and no party shall seek or accept an award of attorneys' fees or costs.

(d) As permitted by Section 56-568 of the PPTA, the parties agree that any requirement that the State Corporation Commission issue a declaratory judgment regarding a material default (as defined in Section 56-565 of the PPTA) pursuant to such Section 56-568, as a prerequisite to exercising any remedy set forth in this Agreement, any other Project Agreements or such Section 56-568, shall not apply to this Agreement or any other Project Agreement.

ARTICLE XVIII

RECORDS, REPORTS AND WORK PRODUCT

Section 18.1. Maintenance of Records. APAC and Koch shall file and maintain books, records, documents and information as provided in the Design-Build Contract and the Pavement Warranty, respectively.

Section 18.2. Public Records.

(a) Any Work Product the Department owns pursuant to the Design-Build Contract or otherwise, and any document of which the Department obtains a copy, may be considered public records under the Virginia Public Records Act, Section 42.1-76 through 42.1-91 of the Virginia Code or Section 11-52 of the Virginia Code or official records under the Virginia Freedom of Information Act, Section 2.1-340 through 2.1-346.1 of the Virginia Code, and as such may be subject to public disclosure. The Department recognizes that certain Work Product the Department owns pursuant to the Design-Build Contract and certain documents of which the Department obtains a copy may contain information exempt from disclosure under Section 11-52 or 2.1-342(B) of the Virginia Code, may constitute trade secrets as defined in Section 59.1-336 of the Virginia Code, and may include confidential information which is otherwise subject to protection from misappropriation or disclosure. Should such records become the subject of a request for public disclosure, the Department shall respond as follows:

(i) The Department shall use reasonable efforts to immediately notify APAC or Koch as the case may be of such request and the date by which it anticipates responding.

(ii) APAC or Koch, as the case may be, must then assert in writing to the Department any claim that such records contain proprietary information that is exempt from disclosure under Section 11-52 or 3.1-342(B) of the Virginia Code, or is subject to protection pursuant to Section 59.1-339 of the Virginia Code, or other State law so that the Department may consider such assertion in responding to the requester.

(iii) If APAC or Koch, as the case may be, fails to make such assertion within two Days after the date the Department notifies APAC or Koch, as the case may be, of its intended response, the Department shall have the right to make such disclosure.

(iv) If APAC or Koch, as the case may be, makes a timely assertion and the Department in its sole and absolute discretion believes APAC or Koch as the case may be, has a valid claim that the requested records contain proprietary information, trade secrets or confidential information, and thus are exempt from disclosure or otherwise protected under State law, the Department will deny the

request for disclosure of such records or, upon consultation with APAC or Koch, as the case may be, to agree upon a reasonable effort and legal cost, at the expense of APAC or Koch, as the case may be, seek judicial declaration of the rights of the parties.

(v) If the Department's denial of a request for disclosure of records is challenged in court and the Department agrees to a request by the Developer to defend its position, APAC or Koch as the case may be shall assist the Department in its defense and shall indemnify the Department for any and all damages assessed and costs (including the fees and costs of the Department's attorneys) the Department incurs in such defense, including any attorneys' fees assessed against the Department under Section 59.1-333.1 or 2.1-346 of the Virginia Code.

(vi) If at any time, including prior to, during or after judicial consideration, the Department in its sole and absolute discretion believes APAC or Koch, as the case may be, does not have a valid claim that the requested records contain proprietary information, trade secrets or confidential information, and thus are not exempt from disclosure or otherwise protected under State law, it shall so notify APAC or Koch, as the case may be, no less than two Days prior to the date the Department intends to make the disclosure to allow it to take such action as it deems appropriate prior to disclosure. In no event shall the Department be liable to APAC or Koch, as the case may be, as a result of any disclosure of such records by the Department pursuant to this Section 18.2.

(b) If APAC or Koch, as the case may be, believes that any Work Product or any document subject to transmittal to or review by the Department under the terms of this Agreement or any other Project Agreement contains proprietary or confidential information or trade secrets that are exempt or protected from disclosure pursuant to State law, APAC or Koch, as the case may be, shall use its best efforts to identify such information prior to such transmittal or review and it and the Department shall confer on appropriate means of ensuring compliance with applicable laws prior to transmittal or review. Upon the written request of any party, APAC, Koch and the Department shall mutually develop a protocol for the transmittal, review and disclosure of Work Product or other documents produced or obtained by APAC, Koch, as the case may be, so as to avoid violations of any applicable law.

Section 18.3. Reporting Requirements and Inspection and Audit Rights.

(a) APAC shall deliver to the Department financial and narrative reports, statements, certifications, budgets and information as and when required under the Design-Build Contract.

(b) The Department shall have audit rights respecting APAC as set forth in Section 12.1 of the Design-Build Contract.

(c) The Department or its agents, auditors, attorneys and consultants, at the Department's own expense, at any time upon 48 hours prior written notice (or unannounced and without prior notice where there is good faith suspicion of

fraud), may examine, copy, take extracts from and audit all the books and records of the Developer related to the Project. In addition, the Department or its agents, auditors, attorneys and consultants, at the Department's own expense, at any time upon 48 hours prior written notice (or unannounced and without prior notice where there is good faith suspicion of fraud), may conduct a re-audit and observe the business operations of the Developer to confirm the accuracy of books and records.

(d) Nothing contained in this Agreement or any other Project Agreement shall in any way limit the constitutional and statutory powers, duties and rights of elected state officials, including the independent rights of the State Auditor of Public Accounts, in carrying out his or her legal authority.

ARTICLE XIX

RESERVED RIGHTS

Section 19.1. Exclusions from Developer's Interests. Developer's rights and interests in the Project and Project Right of Way shall be specifically limited only to such rights and interests which are necessary and required for design, construction and warranting of the Project, pursuant to the Project Agreements, as applicable. Developer's rights and interests specifically exclude all Reserved Rights.

Section 19.2. Department Reservation of Rights.

(a) All rights to own, lease, sell, assign, transfer, utilize, develop or take advantage of the Reserved Rights are hereby reserved to the Department; and APAC and Koch shall not engage in any activity infringing upon the Reserved Rights. The Department at any time may devote, use or take advantage of the Reserved Rights for any public purpose without any participation whatsoever by APAC or Koch. The Department hereby reserves to itself all ownership, development, maintenance, repair, replacement, operation, use and enjoyment of, and access to, the Reserved Rights. No Department activity or improvement respecting Reserved Rights shall materially interfere with the design, construction or warranting of the Project.

(b) Notwithstanding subsection(a), the Department acknowledges that the Pavement Warranty provides that certain activities with respect to the Project may void certain provisions of the Pavement Warranty.

Section 19.3. Disgorgement. If a Developer Default concerns a breach of the provisions of Section 19.1 or 19.2, in addition to any other remedies under this Agreement, the Department shall be entitled to disgorgement of all profits from the prohibited activity and to sole title to and ownership of the prohibited assets and improvements.

ARTICLE XX

MISCELLANEOUS

Section 20.1. Assignment.

(a) Except as otherwise provided in the applicable Project Agreement, neither APAC nor Koch may, without the prior written consent of the Department, voluntarily or involuntarily assign, convey, transfer, pledge, mortgage or otherwise encumber its rights or interests under this Agreement or the other Project Agreements.

(b) Any transfer of the right or practical ability to control the policies and decisions of APAC (except transfers occurring after the Final Acceptance Date) or Koch, whether due to transfer of partnership or membership interests, shares, beneficial interests or otherwise, shall constitute an assignment prohibited under subsection (a) above without the Department's prior written consent.

(c) The Department may transfer and assign its interests in the Project, this Agreement and any other Project Agreements to any other public agency or public entity as permitted by law, provided that the successor or assignee has assumed all of the Department's obligations, duties and liabilities under this Agreement and the Project Agreements then in effect, and has provided Developer with reasonable assurance of its legal and financial authority to honor and perform the same.

(d) If any party changes its name, such party agrees to promptly furnish the other parties with written notice of change of name and appropriate supporting documentation.

Section 20.2. No Gift or Dedication. Nothing contained in this Agreement shall be deemed to be a gift or dedication of any portion of the Project, Project Right of Way or Work Product to the Department or the general public or for any public use or purpose whatsoever, or be deemed to create any rights in the Project, Project Right of Way or Work Product except as expressly set forth herein.

Section 20.3. Notices.

(a) Whenever under the provisions of this Agreement it shall be necessary or desirable for one party to serve any notice, request, demand, report or other communication on another party, the same shall be in writing and shall not be effective for any purpose unless and until actually received by the addressee or unless served:

- (i) personally;
- (ii) by independent, reputable, overnight commercial courier;
- (iii) by facsimile transmission:

(A) where the transmitting party includes a cover sheet identifying the name, location and identity of the transmitting party, the phone number of the transmitting device, the date and time of transmission and the number of pages transmitted (including the cover page),

(B) where the transmitting device or receiving device records verification of receipt and the date and time of transmission receipt and the phone number of the other device, and

(C) where the facsimile transmission is immediately followed by service of the original of the subject item in the manner provided in subsections (a)(i), (ii) or (iv) hereof; or

(iv) by deposit in the United States mail, postage and fees fully prepaid, registered or certified mail, with return receipt requested, addressed as follows:

If to APAC:

APAC-Virginia, Inc.
P. O. Box 779
239 Eastwood Drive
Danville, Virginia 24543
Attn: President William R. Hinds, Jr.
Fax: 804-792-5403

With a copy to:

William B. Miller, Esquire
900 Ashwood Parkway, Suite 700
Atlanta, Georgia 30338
Fax: 770-392-5305

If to Koch:

Koch Performance Roads, Inc.
4111 East 37th Street, North
Wichita, Kansas 67220
Attn: President
Fax: (316) 828-4841

With a copy to:

Koch Performance Roads, Inc.
4111 East 37th Street, North
Wichita, Kansas 67220
Attn: Legal
Fax: (316) 828-2214

And to:

McGuire Woods, LLP
901 E. Cary Street
Richmond, Virginia 23219
Attn: John V. Cogbill, Esquire
Fax: (804) 775-1061

If to the Department:

Virginia Department of Transportation
Attn: Commissioner
1401 East Broad Street
Richmond, Virginia 23219
Fax: (804) 786-6250

And to:

Thomas F. Boyd
Assistant Commissioner for Finance
1401 East Broad Street, 3rd Floor
Richmond, Virginia 23219
Fax: (804) 786-2940

With a copy to:

James F. Hayes, Esquire
Senior Assistant Attorney General
900 E. Main Street
Richmond, Virginia 23219
Fax: (804) 786-9136

And to:

Charles P. Shimer, Esquire
Christian & Barton, L.L.P.
909 E. Main Street, Suite 1200
Richmond, Virginia 23219
Fax: (804) 697-6149.

(b) Any party may, from time to time, by notice in writing served upon the other party as aforesaid, designate an additional and/or a different mailing address in Virginia or an additional and/or a different person to whom all such notices, requests, demands, reports and communications are thereafter to be addressed. Any notice, request, demand, report or other communication served personally shall be deemed delivered upon receipt, if served by mail or independent courier shall be deemed delivered on the date of receipt as shown by the addressee's registry or certification receipt or on the date receipt at the appropriate address is refused, as shown on the records or manifest of the U.S. Postal Service or independent courier, and if served by facsimile transmission shall be deemed delivered on the date of receipt as shown on the received facsimile (provided the original is thereafter delivered as aforesaid).

Section 20.4. Binding Effect. Subject to the limitations of Section 20.1, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective legal representatives, successors and permitted assigns, and wherever a reference in this Agreement is made to any of the parties hereto, such reference also shall be deemed to include, wherever applicable, a reference to the legal representatives, successors and permitted assigns of such party, as if in every case so expressed.

Section 20.5. Relationship of Parties; No Partnership.

(a) The relationship of APAC and Koch to the Department shall be one of independent contractors, not an agent, partner, joint venturer or employee, and the Department shall have no rights to direct or control the activities of APAC and Koch or any Person related to APAC or Koch.

(b) Officials, employees and agents of the Department shall in no event be considered employees, agents, partners or representatives of Developer.

(c) Although APAC and Koch are referred to herein collectively as "Developer," APAC and Koch are not partners or co-venturers and nothing in this Agreement shall be construed to establish or imply the establishment of a partnership or joint venture relationship between them. It is expressly acknowledged that any liabilities of APAC and Koch arising under or relating to this Agreement are independent, and not joint and several.

Section 20.6. No Third Party Beneficiaries. Nothing contained in this Agreement is intended or shall be construed as creating or conferring any rights, benefits or remedies upon, or creating any obligations of the parties hereto toward, any person or entity not a party to this Agreement.

Section 20.7. Waiver.

(a) No waiver by any party of any right or remedy under this Agreement or the other Project Agreements shall be deemed to be a waiver of any other or subsequent right or remedy under this Agreement or the other Project Agreements. The consent by one party to any act by the other party requiring such consent shall not be deemed to render unnecessary the obtaining of consent to any subsequent act for which consent is required, regardless of whether similar to the act for which consent is given.

(b) No act, delay or omission done, suffered or permitted by one party or its agents shall be deemed to waive, exhaust or impair any right, remedy or power of such party under this Agreement or any other Project Agreement, or to relieve the other party from the full performance of its obligations under this Agreement and the other Project Agreements.

(c) No waiver of any term, covenant or condition of this Agreement shall be valid unless in writing and signed by the obligee party.

(d) The acceptance of any payment or reimbursement by a party shall not: (i) waive any preceding or then-existing breach or default by the other party of any term, covenant or condition of this Agreement, other than the other party's prior failure to pay the particular amount or part thereof so accepted, regardless of the paid party's knowledge of such preceding or then-existing breach or default at the time of acceptance of such payment or reimbursement; or (ii) continue, extend or affect (A) the service of any notice, any suit, arbitration or other legal proceeding or final judgment,

(B) any time within which the other party is required to perform any obligation or (C) any other notice or demand.

(e) No custom or practice between the parties in the administration of the terms of this Agreement shall be construed to waive or lessen the right of a party to insist upon performance by the other party in strict compliance with the terms of this Agreement.

Section 20.8. No Brokers. Each party represents and warrants that it has not dealt with any real estate or business opportunity broker or agent or any finder in connection with this Agreement. Each party agrees to indemnify, protect, defend with counsel acceptable to the other party and hold harmless the other party against any claim for commission, finder's fee or like compensation asserted by any real estate or business opportunity broker, agent, finder or other person claiming to have dealt with the indemnifying party in connection with this Agreement.

Section 20.9. Governing Law and Venue. This Agreement shall be governed and construed in accordance with the laws of the State applicable to contracts executed and to be performed within the State. Venue for any legal action arising out of this Agreement shall lie in the Circuit Court in the City of Richmond, Virginia, Division I.

Section 20.10. Use of Police Power. Nothing in this Agreement limits the authority of the Department to exercise its regulatory and police powers granted by law, including but not limited to its powers of condemnation with respect to all or any part of the Project, the Project Right of Way and any of Developer's rights hereunder. The parties waive any requirement by the State Corporation Commission to issue a declaratory judgment regarding condemnation pursuant to Title 56, Chapter 22, Section 56-568 of the Virginia Code.

Section 20.11. Survival. All covenants, agreements, representations and warranties made in or pursuant to this Agreement shall be deemed continuing and made at and as of the date of this Agreement and at and as of all other applicable times during the Term. All covenants, agreements, representations and warranties made in or pursuant to this Agreement shall survive the expiration or earlier termination of this Agreement and shall not be waived by the execution and delivery of this Agreement, by completion of construction, by any investigation by the Department or by any other event except a specific written waiver by the party against whom waiver is asserted.

Section 20.12. Subpoena. Except as provided for in Virginia Code Section 33.1-4, APAC or Koch may subpoena any Department personnel provided that the party causing such subpoena to be issued shall pay for such personnel's time at its fully burdened rate (including overhead and fringe benefits), together with all out-of-pocket expenses incurred, no later than 30 Days after receipt of an invoice reasonably documenting the amount of such time provided.

Section 20.13. Construction and Interpretation of Agreement.

(a) The language in all parts of this Agreement shall in all cases be construed simply, as a whole and in accordance with its fair meaning and not strictly for or against any party. The parties hereto acknowledge and agree that this Agreement has been prepared jointly by the parties and has been the subject of arm's length and careful negotiation, that each party has been given the opportunity to independently 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, in the event of an ambiguity in or dispute regarding the interpretation of this Agreement, this Agreement shall not be interpreted or construed against the party preparing it, and instead other rules of interpretation and construction shall be utilized.

(b) 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, shall be held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and each other term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. It is the intention of the parties to this Agreement, and the parties hereto agree, that in lieu of each clause or provision of this Agreement that is illegal, invalid or unenforceable, the parties in good faith shall supply as a part of this Agreement an enforceable clause or provision as similar in terms to such illegal, invalid or unenforceable clause or provision as may be possible.

(c) The captions of the articles, sections and subsections herein are inserted solely for convenience and under no circumstances are they or any of them to be treated or construed as part of this instrument.

(d) References in this instrument to this "Agreement" mean, refer to and include this instrument as well as any riders, exhibits, addenda and attachments hereto (which are hereby incorporated herein by reference) or other documents expressly incorporated by reference in this instrument. Any references to any covenant, condition, obligation and/or undertaking "herein," "hereunder" or "pursuant hereto" (or language of like import) mean, refer to and include the covenants, conditions, obligations and undertakings existing pursuant to this instrument and any riders, exhibits, addenda, attachments or other documents affixed to or expressly incorporated by reference in this instrument. All terms defined in this instrument shall be deemed to have the same meanings in all riders, exhibits, addenda, attachments or other documents affixed to or expressly incorporated by reference in this instrument unless the context thereof clearly requires the contrary. Unless expressly provided otherwise, all references to Articles and Sections refer to the Articles and Sections set forth in this Agreement. Unless otherwise stated in this Agreement or the Project Agreements, words which have well-known technical or construction industry meanings are used in this Agreement or the Project Agreements in accordance with such recognized meaning. All references to a subsection "above" or "below" refer to the denoted subsection within the Section in which the reference appears.

(e) As used in this Agreement and as the context may require, the singular includes the plural and vice versa, and the masculine gender includes the feminine and vice versa.

(f) This Agreement, its exhibits and the other Project Agreements are intended to be complementary and consistent with each other and shall, to the maximum extent possible, be construed according to such intent. In the event of an irreconcilable conflict or inconsistency between the terms and conditions of this Agreement, the exhibits to this Agreement and/or the executed Project Agreements, the conflict or inconsistency shall be resolved by applying the following order of document precedence:

- | | | |
|----------|----|--|
| Highest: | A. | Design-Build Contract, including Appendices thereto, and Exhibit A hereto; |
| | B. | other executed Project Agreements; and |
| Lowest: | C. | this Agreement. |

Section 20.14. Counterparts. This instrument may be executed in three or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Section 20.15. Entire Agreement; Amendment.

(a) THIS AGREEMENT AND THE PROJECT AGREEMENTS CONSTITUTE THE ENTIRE AND EXCLUSIVE AGREEMENT BETWEEN THE PARTIES RELATING TO THE SPECIFIC MATTERS COVERED HEREIN AND THEREIN. ALL PRIOR OR CONTEMPORANEOUS VERBAL OR WRITTEN AGREEMENTS, UNDERSTANDINGS, REPRESENTATIONS AND/OR PRACTICES RELATIVE TO THE FOREGOING ARE HEREBY SUPERSEDED, REVOKED AND RENDERED INEFFECTIVE FOR ANY PURPOSE. THIS AGREEMENT MAY BE ALTERED, AMENDED OR REVOKED ONLY BY AN INSTRUMENT IN WRITING SIGNED BY EACH PARTY HERETO, OR ITS PERMITTED SUCCESSOR OR ASSIGNEE.

(b) This Agreement and the other Project Agreements attempt to set forth in full all requirements applicable under the PPTA as to the design, construction, and warranting of the Project and attempt to define in full the rights and responsibilities of each party in connection therewith. To the extent requirements and rights and responsibilities have not been addressed in this Agreement and the other Project Agreements, the parties agree to carry out their respective responsibilities in the spirit of cooperation contemplated by the PPTA, recognizing that they may not have defined in a sufficient detail or anticipated fully all activities necessary for the full implementation of the Project.

(c) If any provisions of this Agreement are rendered obsolete or ineffective in serving their purpose by change in law, passage of time, financing

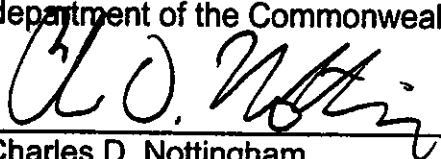
requirements or other future events or circumstances, the parties agree to negotiate in good faith appropriate amendments to or replacements of such provisions in order to restore and carry out the original purposes thereof to the extent practicable; provided, however, that neither party is obligated to agree to any amendment or replacement which would reduce its rights or enlarge its responsibilities under this Agreement in any material respect.

(d) Within 60 Days after the Agreement Date, the parties hereto shall meet and confer regarding any perceived inconsistencies, omissions or irregularities between any of the Project Agreements. Thereafter, at any time during the Term, any party hereto (i) shall apply to the other parties hereto for any explanation as may be necessary with respect to the provisions of any Project Agreement, and (ii) shall promptly notify the other parties hereto of all errors, omissions, inconsistencies or other defects (including inaccuracies) which it may discover in the Project Agreements, shall provide written recommendations regarding changes or corrections to resolve any such error, omission, inconsistency or other defect.

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

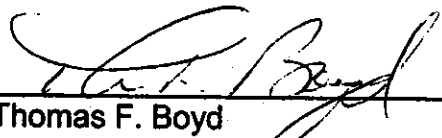
**VIRGINIA DEPARTMENT OF
TRANSPORTATION,**

a department of the Commonwealth of Virginia

By: 

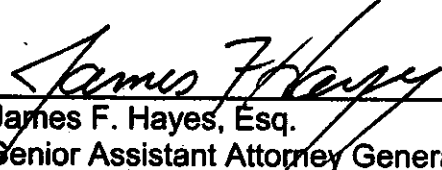
Charles D. Nottingham
Commonwealth Transportation Commissioner

Fiscal Review:

By: 

Thomas F. Boyd
Assistant Commissioner for Finance

Legal Review:

By: 

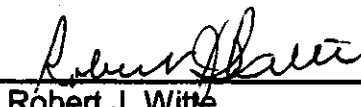
James F. Hayes, Esq.
Senior Assistant Attorney General

APAC-VIRGINIA, INC.,
a Delaware corporation

By: 

William R. Hinds, Jr.
President

KOCH PERFORMANCE ROADS, INC.,
a Delaware corporation

By: 

Robert J. Witte
President

EXHIBIT A

DEFINITIONS

Agreement Date means the date written on the cover page of the Comprehensive Agreement.

APAC means APAC-Virginia, Inc., a Delaware corporation, and its permitted successors and assigns.

APAC Indemnatee means and includes APAC and all of its parents affiliates and subsidiaries, and each of their respective managers, directors, officers, employees, authorized agents and authorized representatives.

Authorized Department Representative means any person designated to act on behalf of the Department by a certificate signed by the Commissioner and filed with APAC and Koch.

Authorized Contractor Representative means any person designated to act on behalf of APAC by a certificate signed by its President and filed with the Department.

Business Day means any Day other than a Saturday, Sunday or other day on which the New York Stock Exchange or banks are authorized or required to close in New York, New York or Richmond, Virginia.

Change Order means a written amendment to the terms and conditions of the Contract Documents issued in accordance with Article 19 of the Design-Build Contract.

Claims means any and all claims, disputes, disagreements, causes of action, demands, suits, proceedings, damages, injuries, liabilities, obligations, losses, costs and expenses.

Commissioner means the Commonwealth Transportation Commissioner or any successor in function.

Comprehensive Agreement means the Comprehensive Agreement to Design, Construct and Warrant Route 288 Project among APAC, Koch and the Department dated as of the Agreement Date, and all exhibits thereto, as supplemented or amended from time to time.

Construction Documents means all Shop Drawings and Working Drawings, catalog cuts and samples necessary for construction of the Project in accordance with the Contract Documents and to inspect that construction.

Construction Segment means each or any segment of the Project which the Department and APAC designate pursuant to Article 13 of the Design-Build Contract for the purpose of scheduling construction.

Construction Traffic Management Plan means the plan for traffic management submitted and approved in accordance with Section 9.1 of the Design-Build Contract.

Contract Documents means the Design-Build Contract, including all appendices, the Scope of Work, the Standard Specifications, the Preliminary Engineering (subject to Contractor's obligation to provide the Plans and Specifications free of any errors, omissions, inconsistencies and other defects which may be contained in the Preliminary Engineering) and the Plans and Specifications, including all amendments to any of the foregoing and all Change Orders issued.

Contractor means APAC and its permitted successors and assigns.

Contractor Claim means a separate demand by APAC for (a) a time extension which is disputed by the Department, or (b) payment of money or damages arising from work done by or on behalf of APAC in connection with the Design-Build Contract which is disputed by the Department. A Contractor Claim will cease to be a Contractor Claim upon resolution thereof, including resolution by withdrawal or release thereof or delivery of a Change Order or Design-Build Contract amendment signed by all parties.

Contractor Party means and includes APAC, any related party thereto, including its parent, affiliate and subsidiary companies, and any member company, manager, partner, director, officer, employee, agent, contractor (other than the Department), subcontractor (other than the Department) at any tier or any representative of APAC or any such related party.

Contract Price shall have the meaning set forth in Section 3.3(b)(ii) of the Comprehensive Agreement and Section 14.1.1 of the Design-Build Contract.

CPM/Payment Schedule means the most current schedule for the Project approved by the Department as described in Section 13.3 of the Design-Build Contract.

Critical Path means the longest non-intermittent path between the first and the last event of the Project shown on the CPM/Payment Schedule (or, if more than one such path exists, each such path).

CTB means the Commonwealth Transportation Board, a state board of the State affiliated with the Department.

Cultural Resources means historic buildings, structures, physical remains of a people's way of life and any significant archaeology sites.

Days means calendar days, unless otherwise designated.

Defect means, with respect to each element or aspect of the Work for which acceptable tolerances are specified in the Contract Documents or Reference Documents, any such element or aspect as of the Final Acceptance Date not conforming to such specified tolerances, and with respect to each element or aspect of the Work for which acceptable tolerances are not specified in the Contract Documents or Reference Documents, any such element or aspect not conforming to industry standards applicable thereto as of the time such element or aspect of the Work is undertaken; provided that in all instances "Defect" includes any element or aspect of the Work not conforming to the Design-Build Contract, Plans and Specifications, Laws, Regulations and Ordinances or Regulatory Approvals.

Department means the Virginia Department of Transportation, a department of the State, and any other State agency succeeding to the powers, authorities and responsibilities of the Department invoked by or under the Comprehensive Agreement.

Department-Caused Delays means unavoidable delays, to the extent that they affect a Critical Path, arising from the following matters and no others: (a) a suspension order pursuant to Section 20.1 of the Design-Build Contract (but not exceeding 24 hours), (b) Directed Changes, (c) failure of the Department to provide responses to submittals and matters for which response by such Person is required, within the time periods indicated in the Contract Documents, (d) uncovering, removing and restoring Work, to the extent provided in Section 5.2.2.5 of the Design-Build Contract, (e) any improper failure to act by the Department within a reasonable time after delivery of notice by Contractor to the Department requesting such action, and (f) a Department Default. Any court order to suspend Work shall not be considered a Department-Caused Delay (although it may qualify as a Force Majeure event) despite the fact that the Department may specifically direct Contractor to comply with the court order.

Department Default shall have the meaning set forth in Section 17.4 of the Comprehensive Agreement.

Department Standards means the requirements applicable to performance of the Work contained in the manuals, standards and procedures set forth in the Reference Documents.

Design-Build Contract means the Design-Build Contract between the Department and APAC dated as of the Agreement Date, a copy of which is attached to the Comprehensive Agreement as Exhibit C, and any and all amendments and supplements thereto.

Developer shall have the meaning assigned to the term "operator" in Section 56-557 of the PPTA and, for purposes of the Comprehensive Agreement, means APAC and Koch, collectively.

Developer Indemnitee means and includes APAC and/or Koch, as the case may be, and all of its affiliates and subsidiaries, and each of its respective members, partners, managers, directors, officers, employees, authorized agents and authorized representatives.

Developer Party means and includes APAC and/or Koch, as the case may be, and any director, officer, employee, agent, contractor (other than the Department), subcontractor (other than the Department) or any authorized representative of APAC and/or Koch, as the case may be.

Differing Site Condition means any permanent condition on, within, under or of the Project Right of Way (such as but not limited to presence of Hazardous Substances or archaeological, paleontological, biological or Cultural Resources) which is materially different from (a) that represented by the data and information provided or reasonably available to Contractor as of the Agreement Date or (b) that which would have been discoverable by reasonable site investigation prior to the Agreement Date in accordance with recognized industry standards. A Differing Site Condition shall be deemed to include all manifestations of the same condition.^{1/}

Directed Change means any change in the Work (including changes in the standards applicable to the Work) which the Department has directed Contractor to perform by Directive Letter pursuant to Section 19.3.1 of the Design-Build Contract or by Change Order under Section 19.3.2 of the Design-Build Contract. The term shall also include changes in the Work which are directly attributable to delays caused by bad faith actions, active interference, gross negligence or comparable tortious conduct by the Department. The fact that the Department has delivered a Directive Letter does not necessarily mean that a change in the Work has occurred.

Directive Letter means each letter issued by the Department pursuant to Section 19.3.1 of the Design-Build Contract.

Draft Plans and Specifications means all drawings (including plans, elevations, sections, details and diagrams) furnished by Contractor showing the sizes, shapes and location of component elements comprising the Project and all specifications, reports, calculations, records and submittals necessary for design

1/ For example, if a given geologic formation is continuous and affects the Project Right of Way in more than one location, all such locations are together part of the same "condition." Conversely, if, for example, a location is affected by a geologic fault and a nearby location is affected by a rock formation, each would be a separate "condition." Similarly, each and every discrete archeological site would be a separate "condition."

of the Project furnished by Contractor as described in Article 3 of the Design-Build Contract.

Draw Request means a draw request by APAC on the Draw Request and Certificate form attached as Appendix 3 to the Design-Build Contract.

EIS means that certain signed final environmental impact statement, Record of Decision and re-evaluation for the I-64 Interchange portion of the Project prepared and approved by FHWA.

Environmental Laws means all Laws, Regulations and Ordinances now or hereafter in effect relating to the environment or to emissions, discharges, releases or threatened releases of Hazardous Substances into the environment including into the air, surface water or ground water or onto land, or relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Substances or otherwise relating to the protection of public health, public welfare or the natural environment (including protection of nonhuman forms of life, land, surface water, groundwater and air) including the statutes listed in the definition of Hazardous Substances; the National Environmental Policy Act, as amended, 42 U.S.C. §§ 4321 et seq.; the Occupational Safety and Health Act, as amended, 29 U.S.C. §§ 651 et seq.; the Hazardous Materials Transportation Act, as amended, 49 App. U.S.C. § 1801 et seq.; the Endangered Species Act, as amended, 16 U.S.C. §§ 1531 et seq.; the Clean Water Act, as amended, 33 U.S.C. §§ 1251 et seq.; and the Migratory Bird Treaty Act, 16 U.S.C. §§ 703 et seq.

Environmental Monitoring Program means the Contractor's environmental monitoring program meeting the requirements set forth in Section 10.5 of the Design-Build Contract.

Final Acceptance means the occurrence of the events described in subsections (a) through (g) inclusive of Section 18.2.1 of the Design-Build Contract.

Final Acceptance Date means the date on which Final Acceptance occurs under the Design-Build Contract.

Force Majeure means any of the following events (provided such events are beyond the control of Contractor and are not due to an act or omission of Contractor) which materially and adversely affects Contractor's obligations hereunder and which event (or the effects of which event) could not have been avoided by due diligence and use of reasonable efforts by Contractor:

(a) any tidal wave, hurricane force wind, flood, tornado or earthquake or significantly abnormal weather conditions that, in the reasonable determination of the Department's Chief Engineer, prevent work on the Critical Path in excess of 14 consecutive Days;

(b) any epidemic, blockade, rebellion, war, riot or act of sabotage or civil commotion;

(c) any strike, labor dispute, work slowdown, work stoppage, secondary boycott, walkout or other similar occurrence, except as excluded under subsection (iii) below;

(d) any unreasonable delay by a Utility Owner in connection with a Utility Relocation;

(e) any change in or new enactment of any written Laws, Regulations and Ordinances, or change in the judicial or administrative interpretation of, or adoption of any new Laws, Regulations and Ordinances which is materially inconsistent with Laws, Regulations and Ordinances in effect on the Agreement Date (subject to the exclusions set forth below);

(f) any suspension of the Work to the extent permitted under Section 25.4 of the Design-Build Contract; and

(g) any court order which restrains, enjoins, challenges or delays performance of the Work or the granting or renewal of any Regulatory Approval.

The term "Force Majeure" shall be limited to the matters listed above and specifically excludes from its definition the following matters which might otherwise be considered force majeure:

(i) fire or other physical destruction or damage, including lightning, explosion, drought, rain, storm or action of the elements or other acts of God not caused by or resulting from the events listed in subsection (a) above;

(ii) except as caused by or resulting from the events listed in subsection (b) above, explosion, malicious or other acts or similar occurrence;

(iii) strike, labor dispute, work slowdown, work stoppage, secondary boycott, walkout or other similar occurrence particular to a Contractor Party or the Project;

(iv) Differing Site Conditions;

(v) a change in any Laws, Regulations and Ordinances (such as increases in tax rates) which causes an increase in amounts payable by Contractor for deliverables but which does not change the obligations to be performed by Contractor under the Design-Build Contract;

(vi) Directed Changes;

(vii) any delay or cost risk for which coverage is to be provided through insurance required under the Design-Build Contract; and

(viii) all other matters not caused by the Department or beyond the control of the Department and not listed in subsections (a) through (g) above.

Governmental Person means any federal, state, local or foreign government and any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body or entity.

Guaranteed Completion Date shall have the meaning set forth in Section 17.2.1 of the Design-Build Contract.

Hazardous Substance means (a) any substance, product, waste or other material of any nature whatsoever which is or becomes listed, regulated, or addressed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq., the Hazardous Materials Transportation Act, 49 U.S.C. Section 1801 et seq., the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq., the Clean Water Act, 33 U.S.C. Section 1251 et seq., the Clean Air Act, 42 U.S.C. Section 7401 et seq., the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. Section 136 et seq., Virginia Waste Management Act, §10.1-1400 et seq., Code of Virginia (1950) as amended, all as amended or as may be amended, or any other federal, state or local statute, law, ordinance, resolution, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic or dangerous waste, substance or material, as now or at any time hereafter in effect, (b) any substance, product, waste or other material of any nature whatsoever which may give rise to liability under any of the above statutes, (c) petroleum or crude oil or products thereof other than petroleum and petroleum products which are contained within regularly operated motor vehicles, (d) asbestos and (e) radioactive wastes and substances.

I-64 Interchange means the federal portion of the Project which is designated as Department Project Nos. 0064-037-108, C501, B601, B602, B603, B614 and B615 (generally including the interchange of Route 288 with Interstate 64 and the portion of State Route 288 continuing south from such interchange to the intersection with U.S. Route 250).

Implementation Guidelines means the Implementation Guidelines under the PPTA adopted by the Commissioner on July 1, 1995, governing the selection of Qualifying Transportation Facilities under the purview of the Department, as such Implementation Guidelines may be amended or supplemented.

Inspection means the act of viewing or looking carefully at construction, manufacturing and design and maintenance practices, processes and products, including document control and Shop Drawing review, to ensure the practices,

processes and products comply with the quality requirements contained in the Contract Documents.

ITS means any application of computer, electronics and/or telecommunications equipment and software and supporting fixtures and equipment whose function is to provide information, data and/or services to the traveling public or the Department or to manage and control traffic, all items listed in the Federal Highway Administration Intelligent Transportation Systems Summary Report dated January 19, 1995, and any future systems or services conceived or developed for the same or similar purposes.

Koch means Koch Performance Roads, Inc., a Delaware corporation, and its permitted successors and assigns.

Koch Indemnitee means and includes Koch and all of its parents, affiliates and subsidiaries and each of their respective managers, directors, officers, employees, authorized agents and authorized representatives.

Laws, Regulations and Ordinances means all applicable laws, codes, rules, ordinances, restrictions and regulations of the federal, State, regional or any local government (including those resulting from the initiative or referendum process) and judicial or administrative orders.

Lien means any pledge, lien, security interest, mortgage, deed of trust or other charge or encumbrance of any kind, or any other type of preferential arrangement (including any agreement to give any of the foregoing, any conditional sale or other title retention agreement, any lease in the nature of a security instrument and the filing of or agreement to file any financing statement under the Virginia Uniform Commercial Code).

Liquidated Damages shall have the meaning set forth in Section 25.6 of the Design-Build Contract.

NEPA means the National Environmental Policy Act, 42 U.S.C. § 4321 et seq., as amended and as it may be amended from time to time.

Notice of Proposed Change/Direction means a notice issued by the Department concerning a possible Change Order, as specified in Section 19.3.2 of the Design-Build Contract.

Notice of Termination means a notice issued by the Department to terminate the Design-Build Contract and the performance of the Work by Contractor pursuant to Article 26 of the Design-Build Contract.

Notice to Proceed means the authorization in Section 15.5(f) of the Comprehensive Agreement to APAC to proceed with design and construction for the Project as of the Agreement Date.

Opening Date means the first date on which a Construction Segment of the Project (other than overpasses and underpasses) is opened for regular public use.

Oversight Services means those services and functions the Department has the right or obligation to perform or to cause to be performed under the Laws, Regulations and Ordinances or any Project Agreement in order to monitor, review, manage or administer the Project Agreements or the work or performance of the Developer under the Project Agreements.

Pavement Warranty means the Pavement Warranty of Koch appended to the Design-Build Contract.

Payment Bond means the payment bond described in Section 22.6 of the Design-Build Contract.

Performance Bond means the performance bond described in Section 22.6 of the Design-Build Contract.

Person means any individual, public or private corporation, county, district, authority, municipality, political subdivision or other entity of the State or the United States of America, and any corporation, limited liability company, partnership, association, firm, trust, estate, or any other entity whatsoever.

Plans and Specifications means the 100% completed maps, plans, drawings and specifications for different components of the Work as approved by the Department's Chief Engineer and bearing the seal of a Virginia licensed engineer.

PPTA means the Public-Private Transportation Act of 1995, which is codified as Title 56, Chapter 22, Section 56-556 et seq., of the Virginia Code.

Pre-Existing Hazardous Substances means any Hazardous Substance that was present within the Project Right of Way limits prior to acquisition of the property for the Project, and which was not placed or deposited there by either Contractor or the Department.

Preliminary Engineering means the preliminary plan and specifications dated December 15, 2000, produced pursuant to the VDOT design contracts identified in the Scope of Work.

Project means (a) all improvements constituting the Project as generally shown on the map attached as Exhibit B to the Comprehensive Agreement and as more particularly identified in the Scope of Work, and (b) all other improvements and other Work Product to be provided by Contractor as a condition to Final Acceptance in accordance with the Contract Documents.

Project Agreement means any of the Comprehensive Agreement, the Contract Documents and the Pavement Warranty, including any appendices or exhibits thereto. The term "Project Agreements" means all such agreements and documents in the aggregate, including any appendices or exhibits thereto.

Project Manager shall have the meaning set forth in Section 2.2.3 of the Design-Build Contract.

Project Right of Way or Right of Way or right of way means, with respect to the Project, all real property (which term is inclusive of all estates and interests in real property) which is necessary for ownership and operation of the Project by the Department. The term specifically includes all property within the access control line for the Project. The term specifically excludes any temporary easements or other real property interests which Contractor deems necessary or advisable in connection with construction of the Project.

Punch List means the list of Work which remains to be completed after achievement of Substantial Completion, and shall be limited to minor incidental items of Work necessary to correct imperfections which have no adverse effect on the safety or operability of the Project.

Qualifying Transportation Facility shall have the meaning assigned to such term in Section 56-557 of the PPTA.

Quality Assurance (QA) means all those planned and systematic actions necessary to provide confidence that all Work fully complies with the Contract and that all materials incorporated in the Work, all equipment and all elements of the Work will perform satisfactorily for the purpose intended. Actions include design checks and reviews; document control; Shop Drawing review and approval; materials sampling and testing at the production site and the Project site; inspection of manufacturing/processing facilities and equipment; inspection of on-site equipment, calibration of test equipment, documentation of QA activities.

Quality Assurance Manager means the independent consultant responsible for inspecting and testing in accordance with the Quality Assurance and Control Inspection Program as described in Appendix C attached to the Scope of Work.

Quality Assurance and Control Inspection Program means the program described in Appendix C attached to the Scope of Work.

Quality Control (QC) means the total of all activities performed by Contractor, designer, producer, or manufacturer to ensure that a product meets Contract requirements. For highway design, construction and maintenance this includes design procedures and checking, materials handling and construction procedures, calibration and maintenance of equipment, Shop Drawing review,

document control, production process control, and any sampling, testing, and inspection done for these purposes. QC also includes documentation of QC efforts.

Reference Documents means those documents listed in the Scope of Work.

Regulatory Approvals means all local, regional, state and federal agreements, studies, findings, permits, approvals, authorizations, certifications, consents, decisions, exemptions, filings, leases, licenses, registrations, rulings and other governmental authorizations required to be obtained or completed under applicable Laws, Regulations and Ordinances prior to undertaking any particular activity contemplated by the Comprehensive Agreement or the Design-Build Contract. The term "Regulatory Approvals" includes the EIS.

Reserved Rights means all of the following:

(a) in accordance with Article XIX of the Comprehensive Agreement, the Department's right to use, possess and enjoy any real and personal property over, on, under or adjacent to the Project Right of Way for other transportation and transit facilities, including but not limited to tunnels, flyovers, interchanges and fixed guideways; and

(b) all right to use, and use of:

(i) all electrical, fiber optic and wireless conduit, cable, capacity, towers, antennas and associated equipment or other telecommunications equipment, hardware and capacity existing over, on, under or adjacent to any Project Right of Way installed by anyone, whether before or after the Agreement Date;

(ii) any area or space over, on, under or adjacent to the Project Right of Way for development and operation of any office, commercial, industrial or mixed use real estate project, such as but not limited to revenue-generating service or rest areas;

(iii) any equipment, facilities or capabilities for ITS studies or applications installed by the Department and the right to install any such equipment, facilities or capabilities; and

(iv) any area or space over, on, under or adjacent to the Project Right of Way for any other commercial or non-commercial development or use.

Responsible Public Entity shall have the meaning assigned to such term in Section 56-557 of the PPTA and, for purposes of the Comprehensive Agreement, means the Department.

Retainage shall have the meaning set forth in Section 14.2.6 of the Design-Build Contract.

RFC Notice shall have the meaning set forth in Section 19.4.2.1 of the Design-Build Contract.

Safety Program means Contractor's approved safety program meeting the requirements set forth in Section 5.1.2 of the Design-Build Contract.

Scope of Work means the document attached to the Design-Build Contract as Appendix 6.

Section means any of Sections A through G of the Project as designated in the Scope of Work.

Shop Drawings means drawings showing the sizes, shapes and locations of component elements comprising the Project.

Site means those areas designated in writing by the Department for performance of the Work and such additional areas as may, from time to time, be designated in writing by the Department for Contractor's use in performance of the Work. The Site initially includes the area within the Project Right of Way limits. For purposes of insurance, indemnification, safety and security requirements and payment for use of equipment the term "Site" also includes any areas on which Utility Relocation Work is performed and any property being temporarily used by Contractor for storage of equipment and/or construction Work.

Standard Specifications means the Virginia Department of Transportation Metric Road and Bridge Specifications dated January 1997, provided that the document attached to the Design-Build Contract as Appendix 9 shall be substituted for Division I thereof. Divisions II through VII will not apply to the Work except in connection with any design furnished by Contractor which references the Standard Specifications.

State means the Commonwealth of Virginia.

State Indemnitee means and includes the Department, the Commissioner, the CTB, the State and all elected representatives, appointed officials, commissioners, officers, members, employees, authorized agents and authorized representatives of any of them.

Subcontract means any agreement by Contractor with any other Person to perform any part of the Work or provide any materials, equipment or supplies for any part of the Work, or any such agreement at a lower tier, between a Subcontractor and its lower tier Subcontractor.

Subcontractor means any Person with whom Contractor has entered into any Subcontract to perform any part of the Work or provide any materials, equipment or supplies for the Project on behalf of Contractor (and any other Person with whom any Subcontractor has further subcontracted any part of the Work).

Substantial Completion shall have the meaning set forth in Section 17.3 of the Design-Build Contract.

Surety means each properly licensed surety company, insurance company or other Person approved by the State Corporation Commission to do business in the State, listed in the U.S. Treasury Department Circular 570 and with an A.M. Best and Company rating level of A- or better, Class VII or better, or as otherwise approved by the Department, at its sole discretion, which has issued the Payment Bond or Performance Bond.

Term means the time period commencing on the Agreement Date and expiring 20 years after the latest Opening Date with respect to any portion of the Project warranted by the Pavement Warranty.

Utility or **utility** means a public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, sewage, storm water not connected with the highway drainage and similar substances that directly or indirectly serve the public. The term "Utility" specifically excludes (a) storm water lines connected with the highway drainage, and (b) traffic signals, street lights, and electrical systems for roadways.

Utility Owner or **utility owner** means the owner or developer of any Utility (including both privately held and publicly held entities, cooperative utilities, and municipalities and other governmental agencies).

Utility Relocation means the removal, relocation and/or protection in place (including provision of temporary services as necessary) of any and all utility facilities that have to be removed, relocated and/or protected in place in order to permit construction of the Project.

Virginia Code means the Code of Virginia of 1950, as amended from time to time.

Warranties means the warranties made by Contractor in Article 11 of the Design-Build Contract.

Work means all of the administrative, design, engineering, Utility Relocation, procurement, professional, manufacturing, supply, installation, construction, supervision, management, testing, verification, labor, materials,

equipment, maintenance, documentation and other duties and services to be furnished and provided by APAC as required by the Contract Documents, including all efforts necessary or appropriate to achieve Final Acceptance except for those efforts which such Contract Documents specify will be performed by Persons other than a Contractor Party.

Working Drawings means drawings needed to show things associated with the construction of something to be constructed, but which will not be part of the permanent construction, e.g. formwork.

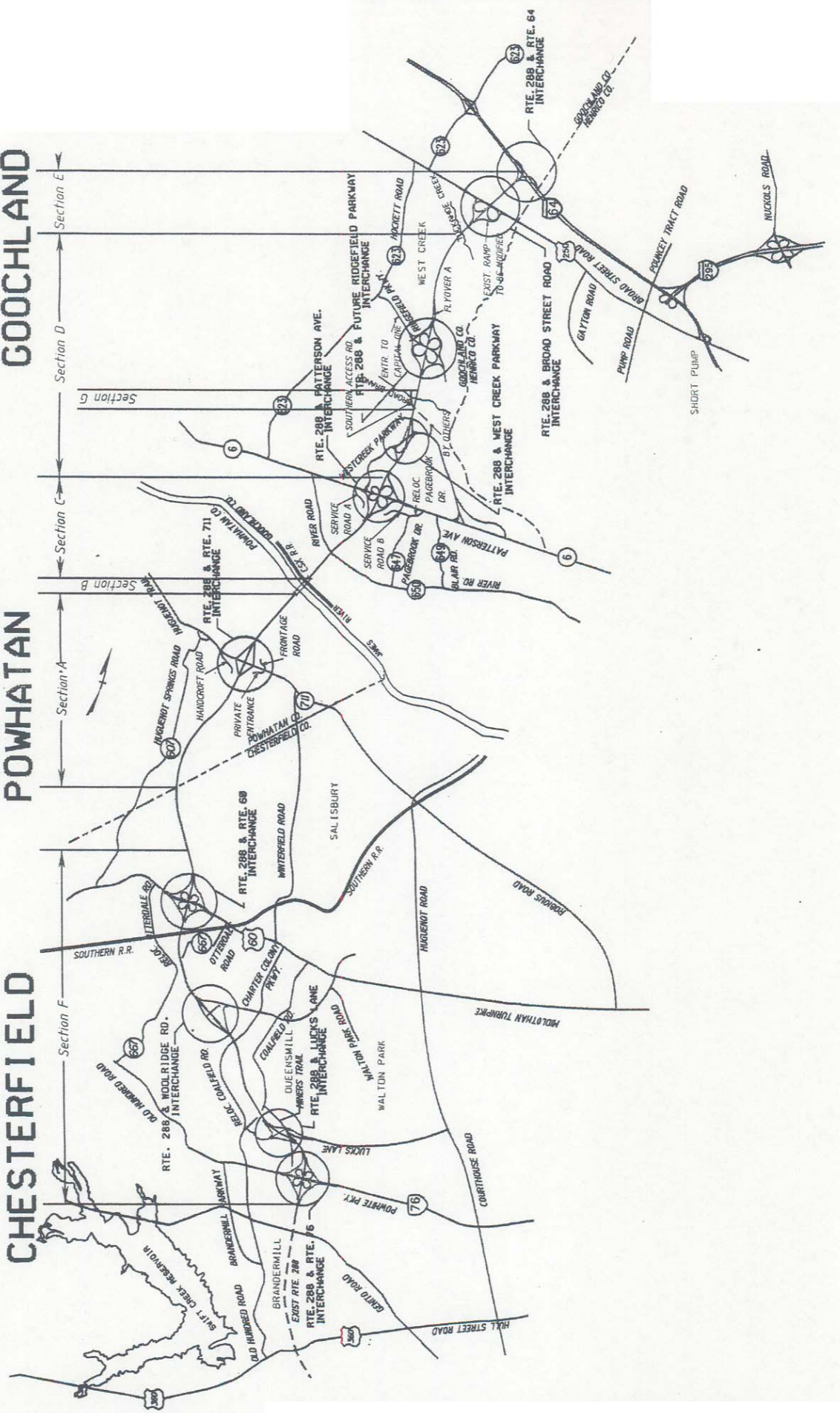
Work Product means all the data, information, documentation and other work product produced, prepared, obtained or deliverable by or on behalf of any Contractor Party and in any way related to the Project or Project Right of Way, including but not limited to Shop Drawings, Working Drawings, Draft Plans and Specifications, Plans and Specifications, record and as-built plans and specifications, engineering documents, geotechnical soils and soil boring data, analyses, reports and records, the Right of Way Plan, property acquisition files, agreements and documents (including records of payment and related correspondence, title policies, parcel diaries and all documents described in Section 6.4.2 of the Design-Build Contract), engineers' and inspectors' diaries and reports, utility relocation plans and agreements, right of way record maps and surveys, Change Orders, final quantities, pile driving records, records of accidents and traffic management, field test records and reports, concrete pour records, surfacing depth check records, grade and alignment books, cross-section notes, drainage notes, photographs, false work and form plans, records of construction materials, and any other documents which can be reasonably described as technical or engineering documents. Work Product expressly excludes, however, documents and information which APAC, Koch and the Department mutually agree in writing, or which a court determines, to be exempted or protected from public disclosure under Section 18.2 of the Comprehensive Agreement and which is not conceived or first reduced to practice for the Project, such as but not limited to proprietary information, technical and engineering data, formulas, analysis and calculations concerning the Pavement Warranty and other proprietary financial and pricing information of either APAC or Koch.

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ROUTE 288 POWHTAN

CHESTERFIELD

GOOCHLAND



DESIGN-BUILD CONTRACT
ROUTE 288 PROJECT

Dated as of December 18, 2000

By and between

VIRGINIA DEPARTMENT OF TRANSPORTATION,
a Department of the Commonwealth of Virginia

And

APAC-VIRGINIA, INC.,
a Delaware Corporation

TABLE OF CONTENTS

ARTICLE 1 - DEFINITIONS; CONTRACT DOCUMENTS; ACCEPTANCE OF PRELIMINARY DESIGN AND PROJECT SITE	1
1.1 Certain Definitions.....	1
1.2 Recitals.....	2
1.3 Order of Precedence.....	2
1.4 Acceptance of Preliminary Engineering and Site Conditions.....	2
ARTICLE 2 - CONTRACTOR'S DESIGN, PROCUREMENT AND CONSTRUCTION RESPONSIBILITIES	3
2.1 Design and Construction.....	3
2.2 Contractor Obligations.....	3
ARTICLE 3 - PLANS AND SPECIFICATIONS	4
3.1 Commencement of Design Work.....	4
3.2 In-Progress Review	4
3.3 Design Approval	5
3.4 Review Deadlines	5
3.5 Status of Design at Commencement of Work.....	5
3.6 Preliminary Engineering	5
3.7 Exceptions are Deviations from Department Standards	5
ARTICLE 4 - CONSTRUCTION WORK	7
4.1 Conditions Precedent to commencement of Construction Work.....	7
4.2 Conditions Precedent to Construction of Portion of Project.....	8
4.3 Conditions Precedent for Department's Benefit.....	8
ARTICLE 5 - PROJECT MANAGEMENT	8
5.1 Supervision and Construction procedures	8
5.1.1 Responsibility	8
5.1.2 Safety Program.....	9
5.1.3 Security	9
5.1.4 Adjoining Property.....	9
5.1.5 Differing Site Conditions.....	9
5.1.5.1 Notification to Department; Work Stoppage.....	9
5.1.5.2 Assumption of Risk	10
5.2 Department Oversight.....	10
5.2.1 Effect of Reviews, Inspections, Tests and Approvals.....	10
5.2.2 Inspection and Testing	10

ARTICLE 6 - PROJECT RIGHT OF WAY ACQUISITION	11
ARTICLE 7 - UTILITIES.....	12
7.1 Coordination of Work.....	12
ARTICLE 8 - NOT USED	13
ARTICLE 9 - TRAFFIC CONTROL AND RESTRICTIONS	13
9.1 Construction Traffic Management Plan.....	13
9.2 Traffic Control	13
ARTICLE 10 - APPLICABLE LAW AND REGULATORY APPROVALS.....	14
10.1 Obligation to comply with Laws, Regulations and Ordinances and Regulatory Approvals.....	14
10.2 Obligation to Obtain Regulatory Approvals.....	14
10.3 Payment for Regulatory Approvals	14
10.4 Acknowledgement Regarding Environmental Commitments	16
10.5 Construction Environmental Monitoring Program	17
ARTICLE 11 - WARRANTIES	18
11.1 Warranties.....	18
11.2 Extension of Warranties.....	19
11.3 Subcontractor and Pass-Through Equipment Warranties	19
11.4 Assignment of Warranties.....	19
11.5 Damages for Breach of Warranty	19
11.6 Exclusive Remedy	20
11.7 Habitat and Landscaping Maintenance.....	20
11.8 Pavement Warranty.....	20
ARTICLE 12 - RECORDS	20
12.1 Maintenance of, Access to, and Audit of Records.....	20
12.2 Retention of Records.....	21
12.3 Public Records	22
12.4 Reporting Requirements	22
12.5 Title to Work Product	23
ARTICLE 13 - CRITICAL PATH METHOD SCHEDULE.....	23
13.1 CPM/Payment Schedule	23
13.2 Allocation of Contract Price	23

13.3 Initial CPM/Payment Schedule; Monthly Updates.....	23
13.4 CPM/Payment Schedule Requirements	24
ARTICLE 14 - COMPENSATION.....	24
14.1 Contract Price.....	24
14.1.1 Contract Amount	24
14.1.2 Items Included in Contract Price	24
14.2 Payments	24
14.2.1 Payment of Contract Price	25
14.2.2 Delivery of Draw Request and Certificate.....	25
14.2.3 Optional Delayed Payment Method.....	25
14.2.4 Payment.....	25
14.2.5 Continued Performance during Disputes	26
14.2.6 Retainage.....	26
14.3 Not Used	26
14.4 Offset, Reduction, Waiver	26
ARTICLE 15 – NOT USED	26
ARTICLE 16 - QUALITY ASSURANCE AND QUALITY CONTROL	26
ARTICLE 17 - TIME FOR COMPLETION; SUBSTANTIAL COMPLETION.....	27
17.1 Time of Essence.....	27
17.2 Guaranteed Completion	27
17.2.1 Deadlines for Substantial Completion and Final Acceptance	27
17.2.2 No Time Extensions	27
17.3 Substantial Completion.....	27
ARTICLE 18 - ACCEPTANCE OF USEFUL SEGMENTS; FINAL ACCEPTANCE	28
18.1 Acceptance of a Completed Segments.....	28
18.2 Final Acceptance.....	28
ARTICLE 19 - CHANGES IN THE WORK.....	30
19.1 Acknowledgement and Waiver; Matters Not Eligible for Change Orders	30
19.1.1 Acknowledgment and Waiver.....	30
19.1.2 Matters Not Eligible for Change Orders	30
19.2 Right to Receive Additional Payment and Extension of Time	31
19.3 Department Directed Changes and Procedures.....	32
19.3.1 Directive Letter	32
19.3.2 Notice of Proposed Change/Direction	32
19.3.3 Payment for Directed Changes	33
19.4 Eligible Contractor Initiated Change Orders and Procedures.....	33

19.4.1 Eligible Changes	33
19.4.2 Procedures.....	34
19.4.2.1 RFC Notice	35
19.4.2.2 Delivery of Request for Change Order	35
19.4.2.2.1 Information Regarding Effect of Change	35
19.4.2.2.2 Justification.....	36
19.4.2.2.3 Contractor Representation	36
19.4.2.2.4 Cost Proposal	36
19.4.2.2.5 Structural or Capacity Reductions as a Result of a Discretionary Directed Change.....	36
19.4.2.3 Incomplete Requests for Change Orders	36
19.4.2.4 Importance of Timely Response	37
19.4.2.5 Review of Subcontractor Claims	37
19.5 Pricing.....	38
19.5.1 Limitations	38
19.5.1.1 Limitation on Contract Price Increases.....	38
19.5.1.2 Limitation on Delay Costs	38
19.5.2 Pricing Methodologies	39
19.6 Limitation on Time Extensions.....	40
19.7 Change Order Records.....	40
19.7.1 Daily Work Reports and Data Collection	41
19.7.2 Supplies Invoices	41
19.7.3 Execution of Reports.....	42
19.8 Disputes.....	42
ARTICLE 20 - SUSPENSION OF ALL OR PART OF WORK.....	42
20.1 Suspension for Convenience.....	42
20.2 Not Used	42
20.3 Suspension for other Reasons	42
20.4 Project Safety.....	42
ARTICLE 21-INDEMNITY; HAZARDOUS SUBSTANCE LIABILITY AND CULTURAL RESOURCES; INDEMNIFICATION PROCEDURES	43
21.1 Indemnifications by Contractor	43
21.2 No Indemnity Regarding Pre-Existing Hazardous Substances or Cultural Resources.....	44
21.3 Defense and Indemnification Procedures	44
ARTICLE 22 - INSURANCE AND BONDS.....	46
22.1 General and Auto Liability Insurance.....	46
22.2 Performance and Payment Bonds	46

ARTICLE 23 - CONTRACTING PRACTICES	46
23.1 Obligation to Refrain from Discrimination.....	46
23.2 Disadvantaged Business Enterprises.....	46
23.3 Minority Employment and Contracting Procedures	47
23.4 Subcontracts.....	47
ARTICLE 24 - REPRESENTATIVES	48
24.1 Designation of Representatives; Cooperation with Representatives	48
ARTICLE 25 - DEFAULT	48
25.1 Default of Contractor	48
25.2 Remedies for Contractor Event of Default	49
25.3 Certain Limitations on Department Remedies.....	50
25.4 Failure to Deliver Payment; Unavailability of Funds	51
25.5 Limitation on Contractor Remedies.....	51
25.6 Liquidated Damages	51
25.6.1 Amount	52
25.6.2 Payment Terms	52
25.7 Limitation on Consequential Damages.....	52
ARTICLE 26 - TERMINATION FOR CONVENIENCE	53
26.1 Notice of Termination.....	53
26.2 Contractor's Responsibilities after Receipt of Notice of Termination.....	53
26.3 Inventory.....	54
26.4 Settlement Proposal	54
26.5 Amount of Termination Settlement	54
26.6 No Agreement as to Amount of Claim	55
26.7 Reduction in Amount of Claim.....	55
26.8 Payment.....	56
26.9 Inclusion in Subcontracts.....	56
26.10 No Consequential Damages.....	56
26.11 No Waiver.....	56
26.12 Dispute Resolution.....	56
ARTICLE 27 - DISPUTE RESOLUTION.....	56
ARTICLE 28 - MISCELLANEOUS PROVISIONS	57
28.1 Incorporation of Miscellaneous Provisions in Comprehensive Agreement	57
28.2 Entire Agreement; Amendment	57
28.3 Explanations, Omissions, Misdescriptions, Inclusions without Limitation.....	58
28.4 Computation of Periods	58

28.5 Approvals.....	59
28.6 Not Used	59
28.7 Correspondence.....	59
28.8 Standard Specifications.....	59

Appendices

Appendix 1 - Definitions

Appendix 2 – Not Used

Appendix 3 - Form of Draw Request and Certificate

Appendix 4 - Form of Payment Bond

Appendix 5 - Form of Performance Bond

Appendix 6 - Scope of Work

Appendix 7 – Not Used

Appendix 8 - Designation of Authorized Department and Contractor Representatives

Appendix 9 - Division I, Standard Specifications

Appendix 10- Outstanding Land Rights and Relocations

Appendix 11- Utilities

Appendix 12- Pavement Warranty

This **DESIGN-BUILD CONTRACT** ("Contract") is made and entered into Contract dated as of December 18, 2000, by and between the **VIRGINIA DEPARTMENT OF TRANSPORTATION**, a department of the Commonwealth of Virginia ("Department"), and **APAC- VIRGINIA, INC.**, a Delaware corporation ("Contractor"), with reference to the following facts:

RECITALS

A. Concurrently herewith, Department, Contractor and Koch Performance Roads, Inc. ("Koch") have entered into a Comprehensive Agreement to Design, Construct, and Warranty the Route 288 Project (the "Comprehensive Agreement"). This Contract is entered into pursuant to the Comprehensive Agreement.

B. The parties intend for this Contract to be a lump sum design-build contract obligating Contractor to perform all Work necessary to obtain completion of the Project by the deadlines specified herein, for the Contract Price, subject only to certain specified exceptions set forth herein. Department has determined, and Contractor has acknowledged, that this approach is necessary due to the fact that limited funds are available for the Project.

C. If Contractor fails to complete the Project in accordance with the time limitations set forth in the Contract Documents, then Department and the Commonwealth will suffer losses and damages which are extremely difficult, if not impossible, to ascertain. This Contract thus provides that Contractor shall be liable for Liquidated Damages in the event such completion is delayed.

D. Department has provided Preliminary Engineering, dated December 15, 2000 by electronic form, to Contractor, a printed copy of Preliminary Engineering will be provided to the Contractor by the Department within five Business Days after the execution of this agreement, which is to be the basis for the design to be furnished by Contractor. It is intended that Contractor will assume full responsibility and liability with respect to design of the Project, including the obligation to ensure that the Plans and Specifications are free from any errors, omissions, inconsistencies or other defects which may have been contained in the Preliminary Engineering, except as provided in Article 3.5.

NOW, THEREFORE, in consideration of the foregoing premises and the covenants and agreements set forth herein, the parties hereby agree as follows:

ARTICLE 1. DEFINITIONS; CONTRACT DOCUMENTS; ACCEPTANCE OF PRELIMINARY DESIGN AND PROJECT SITE

1.1 Certain Definitions

Appendix 1 contains the meaning of certain terms used in the Contract Documents. Division 1 of the Standard Specifications, attached hereto as Appendix 9, contains the meaning of certain technical terms.

1.2 Recitals

Recitals A through D are hereby incorporated by reference herein.

1.3 Order of Precedence

Each of the Contract Documents is an essential part of this Contract, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are intended to be complementary and to describe and provide for a complete contract. In the event of any conflict among the Contract Documents, this Contract and all Change Orders shall in all events control. With respect to the other Contract Documents the order of precedence shall be as set forth below.

(a) For design Work:

1. Scope of Work
2. Standard Specifications
3. Preliminary Engineering

(b) For all other matters:

1. Plans and Specifications excluding any deviations from requirements of the other Contract Documents contained therein which have not been approved in writing as such by Department. For purposes of the order of precedence, it is understood that the pavement design documents and Quality Assurance Plans provided by Koch and approved by Department shall be considered to be part of the Plans and Specifications.

2. Scope of Work
3. Standard Specifications

Unless otherwise specified by Department any reference in the Contract Documents to a described publication affecting any portion of the Project shall be deemed to mean the latest edition or revision thereof and amendments and supplements thereto in effect on the Agreement Date. Referenced standards and Regulatory Approvals obtained by Department which constitute Contract requirements shall have the same order of precedence as the Contract Document which references them.

1.4 Acceptance of Preliminary Engineering and Site Conditions

1.4.1 Contractor has reviewed the Preliminary Engineering and the Scope of Work and carefully evaluated the feasibility of performing the Work within the deadlines specified herein

and for the Contract Price, without relying on any matter other than the Contract Documents, and has reasonable grounds for believing and does affirmatively believe that such performance is feasible and practicable.

1.4.2 Contractor has, prior to the Agreement Date, reviewed the preliminary geotechnical, hydrology and environmental reports included in the Scope of Work, inspected and examined the Site and surrounding locations and undertaken other appropriate activities sufficient to familiarize itself with surface conditions and subsurface conditions discernible from the surface affecting the Project to the extent Contractor deemed necessary or advisable for pricing the Project, and as a result of such review, inspection, examination and other activities Contractor is familiar with and accepts the physical requirements of the Work. Contractor further acknowledges and agrees that changes in conditions at the Site may occur after the Agreement Date, and that Contractor shall not be entitled to any Change Order in connection therewith except as specifically permitted under Article 19.

ARTICLE 2. CONTRACTOR'S DESIGN, PROCUREMENT AND CONSTRUCTION RESPONSIBILITIES

2.1 Design and Construction

Contractor shall furnish the design of the Project, shall construct the Project as designed in accordance with all professional engineering principles and construction practices generally accepted as standards of the industry in the State, in a good and workmanlike manner, free from Defects and in accordance with the terms and conditions set forth in the Contract Documents. Except as otherwise specifically provided in this Contract, Contractor shall be solely responsible for providing all equipment, materials, labor, services and efforts necessary to achieve Substantial Completion and Final Acceptance on or before the deadlines set forth herein; and, subject only to the terms of Article 19, the cost of all such equipment, materials, labor, services and efforts, as well as the Pavement Warranty, is included in the Contract Price.

2.2 Contractor Obligations

Contractor hereby covenants as follows:

2.2.1 Contractor shall furnish all design and other services, provide all materials, equipment and labor and undertake all efforts necessary or appropriate (excluding only those materials, equipment, labor, services and efforts which this Contract specifies will be undertaken by other Persons) to construct the Project in accordance with the requirements of the Contract Documents, the Reference Documents, the CPM/Payment Schedule, all Regulatory Approvals, the approved Quality Assurance and Control Inspection Program, the approved Safety Program, the approved Construction Traffic Management Plan and all other applicable safety, environmental and other requirements, taking into account the Project Right of Way limits and other physical limits resulting from constraints affecting the Project so as to achieve Substantial

Completion and Final Acceptance by the deadlines specified herein, and otherwise to do in a timely manner everything required by and in accordance with the Contract Documents.

2.2.2 All design and engineering Work shall be performed by or under the supervision of Persons licensed to practice architecture, engineering or surveying (as applicable) in the State, by personnel with demonstrated competence, integrity, responsibility and professional qualifications necessary for the satisfactory performance of the Work in accordance with the Contract Documents. Such Persons shall assume professional responsibility for the accuracy and completeness of the Construction Documents prepared by them and shall exercise their skill, ability and judgment reasonably for Department's benefit.

2.2.3 Contractor shall at all times provide a Project Manager approved by Department who will have responsibility for the prosecution of the Work and who will act as a single point of contact in all matters on behalf of Contractor. Contractor shall not change the Project Manager without the prior written approval of Department.

2.2.4 Contractor shall undertake and properly perform all actions required by and all actions necessary to maintain in full force and effect all Regulatory Approvals, providing all necessary information to facilitate permit acquisition, including performance of all environmental mitigation measures required of the Contractor by the Contract Documents. This is to include any renewals.

2.2.5 Contractor shall cooperate with Department and local agencies in all matters relating to the Project, including review of the design of the Project and conducting inspections during the construction of the Project.

2.2.6 Contractor shall supervise and be responsible to Department for acts and omissions of Contractor's employees, agents, officers and Subcontractors and other Persons performing portions of the Work, as though all such Persons were directly employed by Contractor.

2.2.7 Contractor waives any right to file or enforce any mechanics liens. Contractor acknowledges that consideration for such waiver is reflected in the Contract Price. Contractor shall require each Subcontractor to waive its right to file or enforce any mechanics liens against the Department.

ARTICLE 3. PLANS AND SPECIFICATIONS

3.1 Commencement of Design Work

Contractor shall commence performance of design and design verification promptly following the Notice to Proceed.

3.2 In-Progress Review

Contractor shall provide Department with the opportunity to perform continuous review and overview of the design through a series of design reviews incorporated into an agreed upon schedule. Contractor shall furnish a schedule for provision and review of design submittals which shall be subject to approval by Department.

3.3 Design Approval

Department shall have the right to review and comment on all Draft Plans and Specifications for compliance with the requirements of the Contract Documents and Reference Documents. Contractor acknowledges that it is responsible for satisfying all such requirements and that Department will have the right to disapprove any design approach that is not consistent with the Preliminary Engineering or that is not in compliance with the requirements of the Contract Documents and Reference Documents unless said approach was previously approved in writing by Department. Provided that Department has the opportunity to perform continuous review and overview of the design as provided in Section 3.2, Department's Chief Engineer's review of the completed Draft Plans and Specifications shall be conducted within 15 Business Days after receipt thereof. Contractor shall revise and modify all such documents or materials so as to fully reflect all comments and shall deliver to Department the revised submittal for review and comment. Department's right to review and comment, and Contractor's responsibility to comply with the requirements of the Contract Documents and Reference Documents, shall be subject to the provisions of Section 13.1 of the Comprehensive Agreement.

3.4 Review Deadlines

Department shall commit to 10 Days for a quick turnaround of specific design submittals. Contractor acknowledges that expediting the review of prioritized submittals may result in a delay in review of lower priority submittals. Department and Contractor shall work cooperatively to prioritize the different submittals and achieve an acceptable review schedule. Contractor shall bear full responsibility for obtaining approvals from local agencies and others, provided that Department will use reasonable efforts to expedite critical approvals from such entities, if and as requested by Contractor.

3.5 Status of Design at Commencement of Work

Contractor shall have no right to rely on any of the documentation or information provided by Department or other Persons, other than the Contract Documents. Contractor shall have full responsibility for the design of the Project. Department represents that the Preliminary Engineering presents a feasible and appropriate concept and alignment for the Project. Contractor shall use the Preliminary Engineering as the basis for the design to be furnished by Contractor, and agrees that it shall have no right to seek additional compensation or a time extension, except as specifically permitted by Article 19.

NO OTHER REPRESENTATION OR WARRANTY IS MADE TO ANY CONTRACTOR PARTY BY DEPARTMENT OR ANY OTHER PERSON THAT THE INFORMATION CONTAINED IN THE PRELIMINARY ENGINEERING OR REFERENCE DOCUMENTS IS CORRECT, SUFFICIENT, COMPLETE OR ACCURATE OR THAT SUCH INFORMATION IS IN CONFORMITY WITH THE REQUIREMENTS OF THE EIS OR THE OTHER CONTRACT DOCUMENTS, NOTWITHSTANDING THE FACT THAT DEPARTMENT'S CHIEF ENGINEER SIGNED THE PRELIMINARY ENGINEERING. SUCH SIGNATURE IS SOLELY FOR THE PURPOSE OF INDICATING THAT DEPARTMENT HAS COMPLETED ITS REVIEW OF THE PRELIMINARY ENGINEERING AND DEMANDS NO CHANGES THERETO. WITH RESPECT TO THE PRELIMINARY ENGINEERING AND REFERENCE DOCUMENTS DEPARTMENT SHALL HAVE THE FULL BENEFIT OF SECTION 13.1 OF THE COMPREHENSIVE AGREEMENT.

3.6 Preliminary Engineering

Except as provided in Section 3.5, the Contractor understands and agrees that Department shall not be responsible or liable in any respect for any loss, damage, injury, liability, cost, expense or cause of action whatsoever suffered by Contractor, its employees, agents, officers or Subcontractors or any other Persons for whom Contractor may be legally or contractually responsible, by reason of any use of any information contained in the Preliminary Engineering or any action or forbearance in reliance thereon, except to the extent that Article 19 provides for an increase in the Contract Price and/or extension of the Guaranteed Completion Date with respect to such matter. Contractor further acknowledges and agrees that Contractor is capable of conducting and is obligated hereunder to conduct any and all studies, analyses and investigations as it deems advisable to verify or supplement said information, and that any use of said information is entirely at Contractor's own risk and at its own discretion.

3.7 Exceptions and Deviations from Department Standards

3.7.1 Department will reasonably consider Contractor's requests for exceptions to the Standard Specifications, in addition to the modifications already reflected in Appendix 9, as they relate to means and methods of construction that are not necessary or appropriate for design-build implementation.

3.7.2 Contractor may apply for deviations from applicable Standard Specifications. All applications shall be in writing and shall include justification for the request, addressing safety, environmental and cost considerations. Department shall consider in good faith, but has no obligation to approve, any such application, and Contractor shall bear the burden of persuading Department that the deviation sought constitutes sound and safe engineering and achieves or substantially achieves Department's applicable safety standards, environmental commitments specified in Article 10 and criteria. No deviation shall exist or be effective unless and until stated in writing signed by Department. Department's failure to issue a written approval of a requested deviation within 21 Days after Contractor applies therefor in writing shall be deemed an approval of such application. Department's determination regarding Contractor's application for a deviation shall be final and shall not be subject to dispute resolution hereunder.

3.7.5 The Department acknowledges that the Quality Assurance and Control Inspection Program (Appendix C of the Scope of Work) is subject to modification or variation due to Koch's Pavement Warranty requirements. Koch has submitted for Department three Quality Assurance Plans which as of the date of execution of this Agreement the Department has not had sufficient opportunity to review for approval. The Department shall provide Contractor the approved Quality Assurance Plans, after consultation with Koch and Contractor, within 60 Days of execution of this Agreement. The approved Quality Assurance Plans shall take precedence over the Quality Assurance and Control Inspection Program attached as Appendix C.

3.8 Contractor has procured Koch's commitment to provide a Pavement Warranty the form of which is set forth in Appendix 12 hereto. Contractor has required Koch to deliver its Pavement Warranty to the Department prior to the date the Warranty is to take effect. The Pavement Warranty shall indicate the start and completion dates for the 20 year warranty period. Koch shall have the right to provide, in lieu of the Pavement Warranty, a policy of insurance providing coverage which is in all material respects the same as the coverage of the Pavement Warranty attached hereto as Appendix 12, provided that such option shall not relieve Koch of providing security for such insurance, whether through bonding in such form as may be required by the Department.

ARTICLE 4. CONSTRUCTION WORK

4.1 Conditions Precedent to Commencement of Construction Work

Except as provided otherwise in Section 7.1, Contractor shall have no right to commence construction Work unless and until the following conditions, in addition to the conditions set forth in Section 4.2, are satisfied or unless Department, in its sole discretion, waives any such condition in writing:

4.1.1 the Notice to Proceed shall have occurred;

4.1.2 Not Used

4.1.3 Department shall have approved the CPM/Payment Schedule, Quality Assurance and Control Inspection Program, Safety Program, Environmental Monitoring Program and Construction Traffic Management Plan;

4.1.4 Contractor shall not then be in breach of any material requirement of the Contract Documents or the other Project Agreements to which it is a party, including requirements regarding non-discrimination, minority employment and disadvantaged business enterprises;

4.1.5 all required insurance policies and bonds shall have been received by Department;
and

4.1.6 there exists no court order which restrains, enjoins, challenges or delays performance of the Work or the granting or renewal of any Regulatory Approval.

4.2 Conditions Precedent to Construction of Portion of Project

Contractor shall have no right to commence construction of any portion of the Project unless and until all of the following conditions, in addition to the conditions set forth in Section 4.1, are satisfied or unless Department in its sole discretion waives any such condition in writing, and Contractor shall commence such construction promptly following satisfaction of all such conditions and the conditions set forth in Section 4.1:

4.2.1 Department's Chief Engineer shall have approved in writing the Plans and Specifications for such portion of the Project;

4.2.2 all Regulatory Approvals necessary for construction of the applicable portion of the Project shall have been obtained and all conditions of such Regulatory Approvals which are a legal prerequisite to commencement of such construction shall have been satisfied; and

4.2.3 all necessary rights to access, Right of Way and Utility Relocation shall have been obtained for such portion of the Project.

4.3 Conditions Precedent for Department's Benefit

Any condition precedent may be waived by Department; provided, however, that no person or entity shall be entitled to assume that Department will waive or refuse to waive any condition precedent in the absence of strict compliance therewith. No waiver of any condition precedent shall be enforceable unless in writing signed by Department unless Department waives a condition precedent which requires action by Contractor to be satisfied, Contractor shall remain bound to use diligent efforts to satisfy the condition precedent.

ARTICLE 5. PROJECT MANAGEMENT

5.1 Supervision and Construction Procedures

5.1.1 Responsibility

Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures and Site safety and for coordinating all portions of the Work under the Contract Documents, subject, however, to all requirements contained in the Contract Documents.

5.1.2 Safety Program

Contractor shall have full responsibility for jobsite safety, including provision of and compliance with a Safety Program satisfactory to Department. Department will advise Contractor of situations which Department deems unsafe and shall have the right to require Work to be stopped as specified in Section 20.3. Contractor shall take all reasonable precautions and be responsible for the safety of and shall provide protection to prevent damage, injury or loss to: (a) all employees of Contractor and its Subcontractors performing the Work and other persons (including employees of Department) who are on Site or would reasonably be expected to be affected by the Work; (b) the Work and materials and equipment to be incorporated therein; and (c) other property at or adjacent to the Site.

5.1.3 Security

Until the Final Acceptance Date, Contractor shall provide full-time security for the Site.

5.1.4 Adjoining Property

Contractor shall ensure that all of its activities and the activities of its employees, agents, officers and Subcontractors and all other Persons for whom Contractor may be legally or contractually responsible are undertaken in a manner that will reasonably minimize the effect on surrounding property and the public.

5.1.5 Differing Site Conditions

The procedures set forth in this Section 5.1.5 shall apply in the event of Contractor's discovery of any Differing Site Conditions.

5.1.5.1 Notification to Department; Work Stoppage

In the event of any such discovery, Contractor shall, within the close of the second Business Day following such discovery, notify Department thereof by telephone or E-Mail or in person, to be followed immediately by written notification. Contractor shall immediately stop work in and secure the affected area. In such event, Department shall have the right, but not the obligation, to view the location. Following the close of the second Business Day following written notice to Department, Contractor may proceed with the Work, provided it can do so in compliance with all applicable requirements of the Contract Documents and Reference Documents. Contractor shall keep Department apprised regarding actions which it is taking to assure compliance with all such requirements. The notification and work stoppage described above constitute a condition precedent to Contractor's right to file a Request for Change Order. The Contractor shall upon request of the Department provide complete digital photographic coverage of all site conditions that would be relevant in making the determination of changed conditions.

5.1.5.2 Assumption of Risk

Contractor acknowledges and agrees that it shall not be entitled to any increase in the Contract Price for additional costs of performing the Work associated with any of the above-described conditions, except to the extent of any Change Order issued under Article 19. Contractor acknowledges and agrees that Contractor's right to obtain a time extension with respect to delays caused by such conditions is subject to the limitations and conditions contained in Article 19.

5.2 Department Oversight

5.2.1 Effect of Reviews, Inspections, Tests and Approvals

Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents by reviews, tests, inspections or approvals performed by any Persons, or by any failure of any Person to take such action. Subject to Section 3.7.4, the reviews, inspections, tests and approvals conducted by Department, Governmental Persons and others do not constitute acceptance of the materials or Work reviewed, tested or inspected, and Department may reject or accept any Work or materials, request changes and/or identify additional Work which must be done at any time prior to the Final Acceptance Date, whether or not previous reviews, inspections, tests or approvals were conducted by any such Persons.

5.2.2 Inspection and Testing

5.2.2.1 Contractor shall perform whatever inspection, sampling and testing Contractor deems appropriate in order to comply with its obligations under the Contract Documents.

5.2.2.2 The QA Manager shall be responsible for inspecting and testing in accordance with the Quality Assurance and Control Inspection Program.

5.2.2.3 During the construction of the Project and until the Final Acceptance Date. Department shall designate two qualified staff engineers to perform Oversight Services and to provide necessary coordination with Contractor. Such Department representatives shall have full and complete access to the Project, the Work in progress, the "daily diaries," and to other technical documents and Project records associated with quality control, materials verification, materials installation and testing. Contractor shall give such Department representatives not less than two Business Days prior notice of and opportunity to participate in any meetings described in the Quality Assurance and Control Inspection Program attached to the Scope of Work.

5.2.2.4 All materials and each part or detail of the Work shall also be subject to inspection and testing by Department. Contractor shall not be entitled to any additional compensation or time so long as any such inspection and testing reasonably conforms to the CPM/Payment Schedule. Such inspection does not make such Person a party to this Contract nor will it change the rights of the parties hereto. Contractor hereby consents to such inspection and

testing. Upon request from Department, Contractor shall furnish information to such persons as are designated in such request and shall permit such persons access to all parts of the Work.

5.2.2.5 At all times before Final Acceptance, Contractor shall remove or uncover such portions of the finished construction Work as directed by Department. After examination by any Persons designated by Department, Contractor shall restore the Work to the standard required by the Contract Documents. If the Work exposed or examined is not in conformance with the requirements of the Contract Documents, then uncovering, removing and restoring the Work and recovery of any delay to any Critical Path occasioned thereby shall be at Contractor's cost. Furthermore, any Work done or materials used without adequate notice to and opportunity for prior inspection by Department may be ordered uncovered, removed or restored at Contractor's cost, even if the Work proves acceptable after uncovering. Except with respect to Work done or materials used as described in the foregoing sentence, if Work exposed or examined under this Section 5.2.2.5 is in conformance with the requirements of the Contract Documents, then any delay in any Critical Path from uncovering, removing and restoring Work shall be considered a Department-Caused Delay, and Contractor shall be entitled to a Change Order for the cost of such efforts and recovery of any delay to any Critical Path occasioned thereby.

ARTICLE 6. PROJECT RIGHT OF WAY ACQUISITION

The Department will be responsible for acquiring the Project Right of Way as specified in the plans that are necessary for the construction. Any additional Right of Way or easements need for the convenience of the Contractor shall be acquired by the Contractor. This includes but is not limited to: construction easements, borrow sites, waste sites and staging areas or detours.

The Department will prosecute with good faith the acquisition of all right of way, however there will be parcels that the Contractor will not have the right of entry until acquisition is completed and displaces have been relocated. Once a parcel has been vacated and the Department has taken possession, the Department shall conclude all hazardous materials investigations within 120 Days. The Department anticipates completing rights of way acquisition in accordance with Appendix 10. Delay that that are caused by failure to have right of way cleared in accordance with the Appendix 11 will be handled under Article 19 of this document.

The schedule of Right of Way acquisition completion is as follows:

A. From Chesterfield County to south end of the James River Bridge. There are nineteen (19) parcels of rights of way to be acquired for this section. Acquisition is progressing, however, there are ten (10) residents that must be relocated. It's anticipated that these relocations will not be completed until October 31, 2001 (Rights of Way acquired under project 0288-072-104,RW-201, ID-17155).

B. James River Bridges Rights of Way acquisitions are complete on the north side (Goochland County) of the James River. There are two (2) parcels that are currently occupied north of Route 711 on the south side (Powhatan County) of the James River.

Both of these parcels (017 and 018) should be cleared by April 1, 2001 (Rights of Way acquired under projects 0288-037-104,RW-210, ID 17782 and 0288-072-104,RW-201, ID-17155).

C. From north end of James River Bridges to north of Route 6 Interchange. Three new parcels (107, 200 and 201) have been added to this section. One parcel (012, St Catherine's School) remains to be acquired. It is anticipated that these acquisitions will be complete by April 1,2001. All other acquisitions are complete (Rights of Way acquired under project 0288-037-104,RW-201, ID-17782).

D. From north of Route 6 Interchange to south of Route 250. One new parcel (160, Motorola), a permanent drainage easement, has been added. One additional parcel (052, H.B.C.) remains to be acquired. It is anticipated that these acquisitions will be complete by June 30, 2001. All other acquisitions are completed (Rights of Way acquired under project 0288-037-104,RW-201, ID-15974).

E. From Route 250 north to Interstate I-64. There are fourteen (14) parcels of rights of way to be acquired for this section. It is anticipated that all acquisitions will be completed by June 1, 2001 (Rights of Way are being acquired under project 0064-037-108.RW-201, ID- 17756).

F. From Route 76 to Route 60 (Chesterfield County). All rights of way has been acquired for this section.

G. Right of Way acquisition, on Section G, will be completed within 90 Days after APAC provides VDOT with Right of Way plans by March 1, 2001.

ARTICLE 7. UTILITIES

This Article 7 sets forth provisions relating to utility facilities affected by the Project. The Department has completed arrangements to have adjustments made for all known utility conflicts. The schedule for the completion of this work is attached in Appendix 11.

7.1 Coordination of Work

The Department shall be responsible for causing all necessary Utility Relocations to occur in a timely manner. Arrangements have been or are being completed for this work. Nothing in this section shall negate the Contractor's responsibilities in accordance with the requirements of Section 105.07 of the Standard Specifications.

Contractor shall be responsible for coordinating the work of its Subcontractors and the various utilities. The resolution of any conflicts between utilities and the construction of the Project, which is for the convenience of the Contractor, shall be the responsibility of Contractor.

During the life of this project, the utility facilities, as detailed below, will be adjusted as necessary, either prior to project construction or in conjunction with the project construction when necessary.

The Contractor shall not consider the description of the facilities contained herein or the description of the adjustments being made to these facilities as being inclusive of all facilities belonging to the companies on this project or all adjustments being made to these facilities.

The Contractor shall take all precautions necessary to prevent damaging the facilities belonging to the utility companies. In the event the Contractor's operations should damage said facilities, the Contractor shall immediately notify the affected company. Any cost that may be incurred by the Contractor or by the damaged company to repair the damaged facility shall be the responsibility of the Contractor.

The Contractor shall notify each affected company, through "Miss Utility" at 1-800-552-7001, a minimum of 48 hours prior to beginning any excavation or construction on this project so that they can locate and mark their existing facilities.

Appendix 11 describes the utility facilities belonging to the named utility company and the adjustments being made to these facilities.

ARTICLE 8. NOT USED

ARTICLE 9. TRAFFIC CONTROL AND RESTRICTIONS

9.1 Construction Traffic Management Plan

9.1.1 Contractor shall prepare and provide, by Section, to Department a Construction Traffic Management Plan approved by Richmond District Construction Engineer as a condition precedent to commencing construction Work in accordance with Article 3. The Construction Traffic Management Plan shall be prepared and implemented to promote safe and efficient operation of adjacent public transportation facilities at all times during the course of construction of the Project.

9.1.2 The Construction Traffic Management Plan shall comply with all applicable Contract Documents and Reference Documents, including the Section of the Scope of Work entitled 'Maintenance of Traffic' and Sections 104.4, 107.7 and 107.10 of the Standard Specifications.

9.2 Traffic Control

Subject to Department oversight, Contractor shall provide or cause to be provided traffic management and operations services in compliance with and to the extent required of Contractor by the approved Construction Traffic Management Plan.

ARTICLE 10. APPLICABLE LAW AND REGULATORY APPROVALS

The project shall be constructed under the requirements of, among other things, Regulatory Approvals from the Corps of Engineers authorized under Section 404 of the Clean Water Act and Section 10 Rivers and Harbor Act, from the Department of Environmental Quality authorized under Section 401 (Virginia Water Protection Permit) and Section 402 (Virginia Pollutant Discharge Elimination Systems Permit) of the Clean Water Act, and from the Virginia Marine Resources Commission under Code of Virginia (subaqueous bed permit).

10.1 Obligation to Comply with Laws, Regulation and Ordinances, and Regulatory Approvals

10.1.1 Contractor acknowledges and agrees that it has familiarized itself with the requirements of any and all applicable Laws, Regulations and Ordinances, and Regulatory Approvals prior to entering into this contract. The Contractor shall comply with and shall ensure that all Subcontractors comply with all applicable Laws, Regulations and Ordinances, and Regulatory Approvals.

10.1.2 The Contractor shall accept all conditions accepted by the Department to obtain the required Regulatory Approvals and certify in writing to the Department that it will abide by all Regulatory Approvals. The Department shall provide the compensatory mitigation required to obtain the Regulatory Approvals.

10.1.3 The Department shall transfer all Regulatory Approvals to the Contractor not later than 45 Days following the acquisition of the Regulatory Approvals.

10.1.4 The Contractor shall undertake and properly perform all actions required by and all action necessary to maintain in full force and effect all Regulatory Approvals including providing all information to facilitate permit acquisition, transfer of Regulatory Approvals, finalize project design, and performance of all environmental commitments required by the Contract Documents and Regulatory Approvals.

10.2 Obligation to Obtain Regulatory Approvals

10.2.1 Prior to performing any construction, equipping or installation of the Project or any portion within the area under the control of the Regulatory Approvals thereof, the Department shall obtain all Regulatory Approvals and transfer them to the Contractor. Also, the Contractor shall obtain all Regulatory Approvals for support operations, as well as for deviations or modifications from the Regulatory Approvals for Contractor's convenience. Construction activities shall not commence until all required Regulatory Approvals are received.

10.2.2 The Department anticipates the following schedule for obtaining Regulatory Approvals for the existing contract documents as of December 15, 2000:

Section A-Chesterfield County line to South end of the James River Bridge April 1, 2001

Section B-James River Bridge April 1, 2001

Section C-North end of James River Bridge to North of Route 6 Interchange June 1, 2001

Section D-North Route 6 Interchange to South of Route 250 June 1, 2001

Section E-South Route 250 to I 64 June 1, 2001

Section F-Route 76 to Route 60 March 15, 2001

Section G-Southern Access Road (obtained by others) transferred to VDOT March 1, 2001

10.2.2.1 The Department anticipates a time of year restriction for all in-stream work from April 15 to June 30 of any year for the following project segments:

Section A-Chesterfield County line to South end of the James River Bridge

Section B-James River Bridge

Section C-North end of James River Bridge to North of Route 6 Interchange

Section D-North Route 6 Interchange to South of Route 250

Section E-South Route 250 to I 64

Section G-Southern Access Road

10.2.3 The Department and Contractor shall cooperate and coordinate during the transfer of all Regulatory Approvals secured by the Department and transferred to the Contractor. The Department and Contractor shall develop a written agreement for the transfer of the Regulatory Approvals. The agreement shall document a transfer date, transfer of permit responsibility, coverage, and liability for compliance with the requirements of any enforcement activities related to the activity permitted by the Regulatory Approvals. The Contractor shall negotiate and accept any modifications to the Department's secured Regulatory Approvals by the Regulatory Agencies as a result of the transfer of the Regulatory Approvals.

10.2.4 The Contractor shall coordinate and obtain all Regulatory Approvals for any deviations or modifications from the Regulatory Approvals obtained by the Department. The Contractor shall be responsible for any compensatory mitigation resulting from any such deviations or modifications to the Regulatory Approvals obtained by the Department which are for Contractor's convenience. The Contractor shall deliver to the Department, promptly after Contractor's receipt, a copy of each modified Regulatory Approval.

10.2.5 The Contractor shall obtain all Regulatory Approvals for all support operations i.e. staging areas, borrow pits, disposal areas, material production operations (concrete or asphalt) owned, operated or implemented by the Contractor. The Contractor shall be responsible for any compensatory mitigation resulting from Regulatory Approvals for all support operations. The Contractor shall deliver to the Department, promptly after Contractor's receipt, a copy of each such Regulatory Approval.

10.2.6 Contractor shall receive compensation and/or a time extension in accordance with Article 19 for any changes in the work resulting from a delay in obtaining any Regulatory Approvals in accordance with 10.2.1(a). If there is a delay in the Contractor-secured Regulatory Approvals, compensation and/or a time extension shall not be considered.

10.3 Payment for Regulatory Approvals

10.3.1 Contractor shall pay all charges and fees and shall not be entitled to any time extension incident to obtaining modification to Regulatory Approvals and all new Regulatory Approvals and for any changes in the Work arising therefrom, provided that in the event a modification to a Regulatory Approval or new Regulatory Approval is necessitated by a Directed Change, or a Force Majeure event, Contractor shall receive compensation and/or a time extension for obtaining such modification or new Regulatory Approval and for any changes in the work resulting therefrom pursuant to the Change Order covering the Directed Change or Force Majeure event (but only to the extent under Article 19), as appropriate.

10.4 Acknowledgment Regarding Environmental Commitments

10.4.1 All environmental commitments prior to December 15, 2000 have been incorporated into the design plans. The Contractor shall be responsible for incorporating any conditions accepted by the Department to obtain Regulatory Approvals after December 15, 2000 into the plans.

10.4.2 Based on certain Department representation regarding the alignment of the Project, Contractor acknowledges and agrees that the Project can be designed and constructed within the constraints identified in the Contract Documents and Regulatory Approvals.

10.4.3 Contractor acknowledges and agrees that constraints established by the Department's coordination of historic property issues with the Department of Historic Resources were (and will be) based on certain Department representations regarding the alignment of the Project, and agrees that the Project can be designed and constructed within the constraints identified in the Contract Documents and Regulatory Approvals. Contractor agrees to coordinate all project modifications undertaken after execution of this agreement with the Department of Historic Resources, and agrees to carry out any commitments resulting from such coordination, subject to Article 19.4.

10.4.4 Contractor acknowledges and agrees that constraints established by the Water Quality Permits, Department's clearance for Air Quality, clearance for Noise and clearance for Hazardous Material were (and will be) based on certain Department representations regarding the alignment of the Project, and agrees that the Project can be designed and constructed within the constraints identified in the Contract Documents and Regulatory Approvals.

10.4.5 Department shall conclude all hazardous materials investigations within 120 Days after right-of-way acquisition. Contractor shall be responsible for the cost of implementing any containment, remediation, or mitigation activities at its own expense, for any hazardous materials

clean up of any above-ground or otherwise visible solid waste or hazardous materials present. Any additional costs shall be the Department's responsibility. Such activities shall be performed in compliance with all applicable state and federal laws and regulations and Department specifications.

10.4.6 Contractor shall perform additional investigation of any properties necessary to ensure proper management of contaminated construction residuals and providing worker and environmental protection from hazardous conditions during the course of construction, or from otherwise complying with all applicable Laws, Regulations, and Ordinances. All unknown hazardous conditions shall be handled in accordance with Article 19.

10.4.7 Contractor's liabilities under this Section 10.4 and Sections 21.1(a)(vi), (vii), and (viii) shall not exceed \$25,000 per occurrence, or \$500,000 in the aggregate, and the Department shall bear any additional liability.

10.5 Construction Environmental Monitoring Program

10.5.1 Contractor shall have full responsibility for environmental compliance for the Project, including the provisions of and compliance with an Environmental Monitoring Program.

10.5.2 Contractor shall prepare and provide the Department for review an Environmental Monitoring Program as a condition precedent to commencing construction work. The Environmental Monitoring Program shall be prepared and implemented to promote regulatory compliant operations at all times during the course of construction of the Project.

10.5.3 The Environmental Monitoring Program shall present practices and procedures to promote compliance with all applicable requirements contained in the Project Scope, Regulatory Approvals, and Standard Specifications.

10.5.4 Environmental Monitoring Program shall include elements such as:

- Pre-construction and construction conferences, meeting,
- Establish inspection/documentation protocols,
- Establish monitoring and photo documentation stations for construction aspects of this project within jurisdictional areas,
- Monitor jurisdictional activities necessary for compliance for all Regulatory Approvals,
- Coordinate with Department inspectors/Environmental Engineers on contract, construction schedule and monitoring schedules, and permit compliance, and
- Incident Reporting to the Engineer for incident or violations of Regulatory Approvals, Water Quality Standards or fish kills resulting from project operations.

10.5.5 The Contractor shall have full responsibility for environmental compliance for the Project, including the provisions of and compliance with an Environmental Monitoring Program satisfactory to the Richmond District Construction Engineer, within the time frames noted in Article 3. Contractor shall prepare and provide to the Department an Environmental Monitoring

Program as a condition precedent to commencing construction Work. The Environmental Monitoring Program shall present practices and procedures to promote compliance with all applicable requirements contained in the Scope of Work, Regulatory Approvals, and Standard Specifications.

ARTICLE 11. WARRANTIES

11.1 Warranties

11.1.1 Contractor warrants to Department that (a) all design Work performed pursuant to the Contract Documents shall conform to all professional engineering principles generally accepted as standards of the industry in the State, (b) the Project shall be free of Defects, (c) materials and equipment furnished under the Contract Documents shall be of good quality and new, and (d) the Work shall meet all of the requirements of the Contract Documents.

11.1.2 The Warranties shall commence on the first to occur of the Opening Date or the Final Acceptance Date, or with respect to any over crossings or under crossings put into service prior to the Opening Date in accordance with Section 18.1 the date of acceptance of such portions. The Warranties shall remain in effect for a five-year period. If any of the Work fails to meet the standards set forth in Section 11.1.1 at any time within the applicable warranty period, then Contractor shall correct such Work to meet the standards of Section 11.1.1, and repair (to such standards) any damage to the Project or other property of Department caused by the failure of the Work to meet the standards set forth in Section 11.1.1, even if the performance of such corrective work or repairs extends beyond the stated warranty period.

11.1.3 Within seven Days of receipt by Contractor of notice specifying a failure of any of the Work to satisfy Contractor's Warranties, Department will consult with Contractor to determine when and how Contractor shall remedy such violation; provided, however, that in case of an emergency requiring immediate curative action Contractor shall implement such action as it deems necessary and shall notify Department of the urgency of an expedited decision by the close of the following Business Day. Contractor and Department shall agree on such remedy as soon as reasonably practicable. If Contractor does not use diligent efforts to proceed promptly to effectuate such remedy within the agreed time or should no such agreement be reached within such seven-day period (or immediately, in the case of emergency conditions). Department, after notice to Contractor, shall have the right to perform or have performed by third parties the necessary remedy, and the costs thereof shall be borne by Contractor.

11.1.4 Contractor shall be responsible for obtaining any required encroachment permit from Department in connection with any such corrective or repair Work. Contractor shall bear all costs of correcting any rejected or defective Work, including additional testing and inspections, and shall reimburse Department or pay Department's direct expenses of regulating traffic and protecting the public and third party expenses made necessary thereby within 30 Days after Contractor's receipt of invoices therefor.

11.2 Extension of Warranties

Contractor's Warranties shall apply to all Work re-done pursuant to the terms of this Contract. The Warranties shall last as to each re-done element of the Work until the later of (a) one year after acceptance by Department of any re-done Work or (b) expiration of the applicable Warranty period as set forth in Section 11.1.2.

11.3 Subcontractor Warranties

11.3.1 Without in any way derogating from Contractor's own representations and warranties (including the Warranties) and other obligations with respect to all of the Work. Contractor shall obtain from all Subcontractors and cause to be extended to Department appropriate representations, warranties (for periods at least co-extensive in duration with Contractor's Warranties for such Work) guarantees and obligations with respect to design, materials, workmanship, equipment, tools and supplies furnished by such Subcontractors. All representations, warranties, guarantees and obligations of Subcontractors (a) shall be written so as to survive all inspections, tests and approvals hereunder, and (b) shall run directly to and be jointly and severally enforceable by Contractor, Department and their respective successors and assigns. Contractor hereby assigns to Department all of Contractor's rights and interest in all extended warranties for periods exceeding the applicable Warranty period which are received by Contractor from any of its Subcontractors.

11.3.2 Upon receipt from Department of notice of a failure of any of the Work to satisfy any Subcontractor warranty, representation, covenant, guarantee or obligation, Contractor shall be responsible for enforcing in the name of and on behalf of Department, if so directed, or performing any such representation, warranty, covenant, guarantee or obligation, in addition to Contractor's other obligations hereunder. Department's rights under this Section 11.3.2 shall commence at the time such representation, warranty, guarantee or obligation is furnished and shall continue until the expiration of Contractor's Warranty (including extensions for redone Work). Until such expiration, the cost of any equipment, material, labor (including re-engineering) or shipping shall be for the account of Contractor if such cost is covered by such a Warranty and Contractor shall be required to replace or repair defective or damaged equipment, material or workmanship furnished by Subcontractors.

11.4 Assignment of Warranties

Contractor's Warranties (including warranties for re-done Work) and all Subcontractor warranties shall be assignable by Department without approval by Contractor or any Subcontractor, which assignment shall be effective upon delivery of notice to Contractor of the assignment.

11.5 Damages for Breach of Warranty

Contractor's liability to Department for damages resulting from any breach of an express warranty (including warranties made by Subcontractors) shall be limited to all those costs reasonably incurred by Department in effecting the remedy described in Section 11.1.2 itself or

through a third party, including the costs described in Section 11.1.4. In no event shall any Contractor Party be liable for consequential damages, unless specifically provided herein, incurred in connection with the breach of any warranty. This limitation of liability shall not apply to liabilities incurred by Contractor arising out of its obligation to indemnify, defend and hold each State Indemnitee harmless from third party Claims under Section 2 1.1 or to the extent covered by insurance required hereunder.

11.6 Exclusive Remedy

This Article 11 and Section 14.4 set forth Department's exclusive remedies against Contractor and Department hereby waives all other remedies, regarding defects or deficiencies in the Work, whether patent or latent or arising in contract, tort (including negligence) or pursuant to other legal theory except (a) Contractor's obligation to indemnify, defend and hold each State Indemnitee harmless from third party Claims under Section 21.1 and (b) defects and deficiencies in the Work resulting from the fraud or deceit of any Contractor Party (excluding Subcontractors). Contractor makes no other warranties, express or implied, relating to the quality of the Work.

11.7 Habitat and Landscaping Maintenance

Contractor shall maintain in a growing condition all newly established plantings, seedlings and soddings furnished under the Contract Documents and shall protect new tree growth and other vegetative growth against injury, replacing all dead plants requiring replacement in accordance with the Standard Specifications throughout an establishment period that shall commence at initial planting and shall end one year after the planting date.

11.8 Pavement Warranty

This Article 11 shall not be construed to impose any obligation or liability on Koch, as Koch's sole warranty obligation is as indicated in the Pavement Warranty attached hereto as Appendix 12 and incorporated herein by reference. Any occurrence covered by the Pavement Warranty shall be excluded from the Warranties set forth in this Article 11.

ARTICLE 12. RECORDS

12.1 Maintenance of, Access to and Audit of Records

Contractor shall maintain a complete set of all books and records prepared or employed by Contractor in its management, scheduling, cost accounting and otherwise with respect to the Project. Contractor shall grant to Department such audit rights and allow Department such access to and the right to copy such books and records as Department may request in connection with Work to be performed on a reimbursable cost basis, issuance of Change Orders, the resolution of disputes and such other matters as Department reasonably deem necessary for purposes of verifying compliance with this Contract and applicable law.

12.1.1 Where the payment method for any Work is on a unit-priced basis, such examination and audit rights shall include all books, records and other data of Contractor for the purpose of evaluating the accuracy of Contractor's designations of quantities.

12.1.2 Where the payment method for any Work is on a time and materials basis, such examination and audit rights shall include all books, records, documents and other evidence and accounting principles and practices sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of such Work. If audit indicates Contractor has been over-credited under a previous progress report or progress payment, that over-credit will be credited against current progress reports or payments.

12.1.3 For cost and pricing data submitted in connection with pricing Change Orders, unless such pricing is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the public, or prices set by law or regulation, Department and its representatives have the right to examine all books, records, documents and other data of Contractor related to the negotiation of or performance of Work under such Change Orders for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. The right of examination shall extend to all documents deemed necessary by such Persons to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein.

12.1.4 Nothing contained in this Contract shall in any way limit the constitutional and statutory powers, duties and rights of elected state officials, including the independent rights of the State Auditor of Public Accounts, in carrying out his or her legal authority.

12.1.5 No audit rights shall extend to the make-up of any lump sum amount or unit price once the parties have agreed upon such amount or price.

12.1.6 Contractor shall require each Subcontractor to comply with the requirements applicable to Contractor set forth in this Section 12.1.

12.2 Retention of Records

Contractor shall maintain all records and documents relating to this Contract (including copies of all original documents delivered to Department) for five years after the Final Acceptance Date or termination date, as applicable, and shall notify Department where such records and documents are kept. Notwithstanding the foregoing, all records which relate to Contractor Claims being processed or actions brought under the dispute resolution provisions hereof shall be retained and made available until such actions and Contractor Claims have been finally resolved. Records to be retained include all books and other evidence bearing on Contractor's costs and expenses under the Contract Documents. Contractor shall make these records and documents available for audit and inspection to Department at Contractor's office, at reasonable times, without charge, and shall allow the Department to make copies of such documents (at no expense to Contractor). If approved by Department, photographs, microphotographs or other authentic reproductions may be maintained instead of original records

and documents.

12.3 Public Records

Requirements relating to public records are set forth in Section 18.2 of the Comprehensive Agreement.

12.4 Reporting Requirements

12.4.1 Not later than 30 Days after the end of each calendar quarter, Contractor shall prepare and deliver to Department the following reports, in a form reasonably satisfactory to Department:

(a) a written narrative report on the progress of design, permitting, construction of the Project and Project Right of Way since the immediately preceding report, or, if there was no preceding report, from the inception by Contractor of such Work, describing in reasonable detail all significant activities concerning design, Regulatory Approvals, construction progress and discovery and correction of defects. Such report shall include a discussion of the CPM/Payment Schedule and Contractor's compliance therewith, of any new or continuing delays, material matters which may affect the future performance of Contractor's obligations under the Contract Documents, and the causes thereof and a summary of all new changes to the Plans and Specifications. Such report also shall describe any damage or destruction and restoration work and revenue information (such as but not limited to insurance awards) relating to any such occurrence; and

(b) a written narrative report of any disputes with Contractor or claims, actions or assertions against Contractor, the Project or Project Right of Way by any Governmental Person, any general contractor, any architect or engineer, any subcontractors, vendors or suppliers or any other Person, or of Lien claims or stop notices filed or threatened to be filed by any Person. Such report shall include but not be limited to a description of the nature of the dispute, claim, action, assertion, Lien or notice, the amount in dispute or claimed, copies of any Lien notice, stop notice, complaint, demand or other pertinent documents which Department requires, availability of insurance and insurance defense, and actions taken and contemplated to defend against, settle or remove the dispute, claim, action, assertion, Lien or notice.

12.4.2 Contractor shall report to Department (a) not later than 24 hours after the occurrence thereof, any significant damage or destruction to the Project, and (b) at least 48 hours before commencement thereof, any planned work (other than emergency repairs) to repair or remedy such damage or destruction.

12.4.3 Contractor shall obtain Department's prior written approval of all proposed press releases and other statements concerning the Project before Contractor makes them available generally to the public or media.

12.4.4 Contractor shall furnish or cause to be furnished to Department copies of all

financial audit reports distributed by Contractor other than those limited to internal distribution within Contractor or its members.

12.4.5 Contractor shall furnish or cause to be furnished to Department such other documents, reports and information relating to the Project as Department may reasonably request from time to time.

12.5 Title to Work Product

Provided Department has made payment to Contractor therefor to the extent required by this contract, all Work Product shall become the property of Department upon Contractor's preparation or receipt thereof and Contractor shall promptly deliver possession thereof to Department. Notwithstanding the foregoing, proprietary items, pavement design, mix design, quality assurance plans and costing information of Koch that may be submitted in the performance of the Work shall remain the exclusive property of Koch.

ARTICLE 13. CRITICAL PATH METHOD SCHEDULE

13.1 CPM/Payment Schedule

Contractor shall prepare and maintain a CPM/Payment Schedule using the critical path method of scheduling on a system reasonably acceptable to Department. This schedule shall include as activities all Contractor's and Department's obligations hereunder and shall be used to manage the design and construction of the Project and as the basis for determining the amount of monthly progress payments to be made to Contractor and shall be in sufficient detail to determine progress, to monitor construction activity and to identify and avoid delays.

13.2 Allocation of Contract Price

Contractor shall allocate the total Contract Price among the Contractor's activities scheduled on the CPM/Payment Schedule so that each activity has a price which accurately shows the amount payable to Contractor for such activity. The price for each activity shall account for any limitations relating to payment for specific activities contained herein. For Work which is the subject of a Change Order, the schedule shall be updated to reflect the approved Change Order. The sum of the prices of all activities in the CPM/Payment Schedule shall equal the total Contract Price. Once the initial CPM/Payment Schedule has been approved, no changes to any allocated amount may be made without Department approval.

13.3 Initial CPM Payment Schedule; Monthly Updates

Contractor shall provide Department with a copy of an initial CPM/Payment Schedule within 30 Days after the Agreement Date. Contractor shall thereafter update the schedule on a monthly basis. The term "CPM/Payment Schedule" as used herein shall mean the most recent schedule provided hereunder that has been approved by Department.

13.4 CPM/Payment Schedule Requirements

Each CPM/Payment Schedule shall be in a paper and/or electronic medium accompanied by a management level summary, as may be requested by Department. Periodic construction meetings shall be held by Contractor with its consultants and subcontractors to coordinate the Work, update the CPM/Payment Schedule, provide information and resolve potential conflicts. The CPM/Payment Schedule shall, among other things, provide that Substantial Completion shall be achieved by the Guaranteed Completion Date, include a designation of any Construction Segments and be subject to Department's reasonable approval. In the event of any delay in excess of one month. Contractor shall prepare and provide to Department a recovery plan and revised schedule.

ARTICLE 14. COMPENSATION

14.1 Contract Price

14.1.1 Contract Amount

As full compensation for the Work and all other obligations to be performed by Contractor under the Contract Documents, and subject to the limitations contained herein, as well as Koch's Pavement Warranty Contractor shall be paid the sum of \$236,000,000 (such amount, as it may be adjusted from time to time as provided herein, is referred to herein as the "Contract Price").

The Contract Price shall be paid in accordance with Section 14.2. The Contract Price shall be increased only in accordance with Article 19 and decreased only in accordance with Sections 14.1.2 and 14.1.3 and Article 19.

14.1.2 Items Included in Contract Price

Contractor acknowledges and agrees that, subject only to Contractor's rights under Article 19, the Contract Price includes (a) all designs, equipment, materials, labor, insurance and bond premiums, home office, jobsite and all other overhead, profit and services relating to Contractor's performance of its obligations under the Contract Documents (including all Work, equipment, materials, labor and services provided by Subcontractors and all Intellectual Property rights necessary to perform the Work); (b) performance of each and every portion of the Work; (c) payment of any duties, permit and other fees and/or royalties imposed with respect to the work and any equipment, materials, labor or services included therein; and (d) Koch's Pavement Warranty.

14.2 Payments

Payment to Contractor of the Contract Price shall be made as follows:

14.2.1 Payment of Contract Price

Except as may be permitted by Article VI of the Comprehensive Agreement, which under certain circumstances provides for alternate sources of payment of portions of the Contract Price, subject to appropriation therefor by the Virginia General Assembly the Department shall pay portions of the Contract Price due under the CPM Payment Schedule in accordance with Section 14.2.2.

14.2.2 Delivery of Draw Request and Certificate

On or about the 15th Day of each month, Contractor shall submit to Department five copies of a Draw Request and Certificate (the "Request") in the form attached hereto as Appendix 3, with no additions or deletions other than those approved by Department. Each Request shall be executed by an Authorized Contractor Representative, appointed by Contractor to have such authority in accordance with Section 24.1. No Request shall be considered complete unless it (a) describes the status of completion as it relates to the CPM/Payment Schedule, (b) sets forth the related payments which are then due in accordance with the CPM/Payment Schedule, as of the end of the 10th Day of the month, (c) includes the required attachments thereto in form approved by Department, (d) includes a written certificate from Contractor and each Subcontractor to be paid pursuant to the subject request that all prior invoices have been paid in full except for amounts in dispute, (e) includes a certificate signed by a Koch Representative certifying that the requirements of the quality assurance plans and the Pavement Warranty have been satisfied for the pavement work for which payment is being requested, (f) in the case of amounts to be paid on a unit price basis, includes invoices, receipts or other evidence establishing the number of units delivered and (g) in the case of amounts invoiced on a time and materials basis, includes all supporting documentation described in Section 19.7. Within ten Days after Department's receipt of the Request, Department will review the Request and all attachments thereto for conformity with all requirements of the Contract Documents, and shall notify Contractor of the amount approved for payment and the reason for disapproval of any remaining invoiced amounts or of any other information set forth in the Request. Contractor may include such disapproved amounts in the next month's Request after correction of the deficiencies noted by Department (all such disapproved amounts shall be deemed in dispute unless otherwise agreed).

14.2.3 Not Used

14.2.4 Payment

Subject to Section 14.2.1, all payments will be made by Department within 40 Days after the Department's receipt of a complete Request and will be subject to the conditions to payment specified herein. In no event shall Contractor be entitled to payment for any activity eligible for payment from the Fixed Price Amount portion of the Contract Price in excess of the demonstrated percentage of completion of such activity, in excess of the amounts allowed under Section 14.1.2.

14.2.5 Continued Performance During Disputes

Subject to Contractor's right to suspend performing Work to the extent permitted under Section 25.4, failure of Department to pay any disputed amounts shall not postpone, alleviate, diminish or modify in any respect Contractor's obligation to perform under the Contract Documents, including Contractor's obligation to achieve Final Acceptance and perform all Work in accordance with the Contract Documents, and Contractor shall not cease or slow down its performance under the Contract Documents on account of any such amount. Any dispute between Contractor and Department regarding such payment shall be resolved pursuant to Article 27.

14.2.6 Retainage

Department reserves the right to hold in retainage 5% of each payment amount otherwise required in pursuant of Section 14.2.2 when the Contractor's time, as shown by it's CPM, extends beyond the Substantial Completion Date. This retainage will be held until the Contractor has obtained Substantial Completion.

14.3 Not Used

14.4 Offset; Reduction; Waiver

14.4.1 Department shall have the right to deduct any amount owed by Contractor to Department under the express terms of the Contract Documents, including Liquidated Damages and any amounts owing under Sections 11.1.3, 14.2.8.7.4 and 14.6.3 and Article 25, from any amounts owed by Department to Contractor including any progress payments payable under Section 14.2, and any incentive payment payable to Contractor under Section 14.5.

14.4.2 The failure by Department to deduct any sums owing by Contractor to Department from any amount owing by Department to Contractor shall not constitute a waiver of the right to recover such sums or to deduct such funds from future amounts owing by Department to Contractor. Permitting or requiring Contractor to continue and finish the Work or any part thereof after the Guaranteed Completion Date shall not act as a waiver of Department's right to receive Liquidated Damages hereunder or any rights or remedies otherwise available to Department.

ARTICLE 15. NOT USED

ARTICLE 16. QUALITY ASSURANCE AND QUALITY CONTROL

Contractor shall have full responsibility for quality assurance and quality control for the Project including provision of and compliance with a Quality Assurance and Control Inspection Program meeting all requirements contained in Appendix C attached to the Scope of Work.

ARTICLE 17. TIME FOR COMPLETION; SUBSTANTIAL COMPLETION

17.1 Time of Essence

Time is of the essence of this Contract.

17.2 Guaranteed Completion

17.2.1 Deadlines for Substantial Completion and Final Acceptance

Contractor shall achieve Substantial Completion on or before the date which is 29 months after June 1, 2001 (which date for Substantial Completion, as it may be extended by Change Order, is referred to herein as the "Guaranteed Completion Date"). Failure to achieve Substantial Completion by the Guaranteed Completion Date or Final Acceptance by the required date for Final Acceptance will result in the application of Liquidated Damages in accordance with Section 25.6.

17.2.2 No Time Extensions

Except as otherwise specifically provided in Article 19, Department shall have no obligation to extend the Final Acceptance Date and Contractor shall not be relieved of its obligation to achieve Substantial Completion by the Substantial Completion Date and Final Acceptance by the required date for Final Acceptance for any reason.

17.3 Substantial Completion

17.3.1 Contractor shall provide a written notice of anticipated Substantial Completion to Department when all of the following conditions to Substantial Completion have occurred:

(a) Contractor has completed the Project (except for Punch List items, other items included in the requirements for Final Acceptance and final cleanup), except for Section F;

(b) all construction associated with the Project has been performed in accordance with the requirements of the Contract Documents;

(c) the Project may be operated without damage to the Project or any other property on or off the Site, and without injury to any Person; and

(d) the Project shall have in place the final pavement surface course, permanent traffic control items, final drainage items, safety items and any other items necessary to operate the roadway as designed.

17.3.2 As promptly as is practicable after receipt of the notice of anticipated Substantial Completion pursuant to Section 17.3.1, Department shall advise Contractor in writing of any of the following of which Department then has knowledge: (a) Defects in the Project, and/or (b)

deficiencies in the Project relating to any of the items described in Section 17.3.1(a) through (c) deviations of any installed equipment, materials and workmanship from the requirements of the Contract Documents. Contractor shall, at its own cost and expense, correct such Defects, deficiencies and deviations. "Substantial Completion" will be deemed to have occurred once such corrections have been made and either (i) Department's Chief Engineer has issued a "Certification of Substantial Completion" to Contractor or (ii) each of the following has occurred: (A) Department's Chief Engineer receives a first notice from Contractor certifying that all conditions to Substantial Completion have occurred, stating that Substantial Completion may be deemed to occur if Department takes no further action and referencing this Section 17.3.2; (B) Department's Chief Engineer receives a second notice from Contractor on or after 21 Days after Department's Chief Engineer's receipt of Contractor's first notice of Substantial Completion stating that Substantial Completion will be deemed to occur after nine Days from the date of the second notice if Department takes no further action and referencing this Section 17.3.2; and (C) Department has not given notice of any Defects, deficiencies or deviations within such period.

ARTICLE 18 – ACCEPTANCE OF USEFUL SEGMENTS; FINAL ACCEPTANCE

18.1 Acceptance of a Completed Segment

18.1.1 Contractor may request that Department inspect and accept a completed segment subject to timely completion of punchlist work related thereto prior to completion of the rest of the Project. The Chief Engineer shall decide whether the segment is logical for partial acceptance, based on it providing value to the Commonwealth. If the request is honored, the Department and Contractor shall conduct a joint inspection to confirm that the segment has been completed in accordance with the approved drawings and specifications. The time for completion of each such inspection shall be identified in the updates to the CPM Payment Schedule. Department shall conduct its inspection within one week of receipt of notification from Contractor that a completed segment is ready for inspection.

18.1.2 If Department finds, upon inspection, that the completed segment has been completed in conformity with the Plans and Specifications, it shall issue its written acceptance thereof within five Business Days of completing the inspection. If a Department inspection reveals that work has not been performed in accordance with the Plans and Specifications, Department shall give Contractor a detailed description of any deficiencies. Contractor shall correct such deficiencies so the work conforms to the standards of this Contract and the corrected work shall be subject to inspection as provided herein. Partial acceptance shall in no way void or alter any terms of the Contract Documents.

18.2 Final Acceptance

18.2.1 Final acceptance, except with respect to Section F, shall occur no more than 60 Calendar Days, as defined in Section 108.09(a) of the Standard Specifications, after Substantial Completion, Contractor shall perform all Punch List items and all Work, if any, which was waived for purposes of Substantial Completion, and shall satisfy all of its other obligations under

the Contract Documents, including ensuring that the Project has been completed and all components have been properly adjusted and tested. Final Acceptance of the Project shall be deemed to have occurred when all of the following have occurred:

- (a) all requirements for Substantial Completion shall have been fully satisfied;
- (b) Department shall have received all Working Drawings, Shop Drawings, as-built drawings of the Project, manufacturers data, catalogues, all maintenance manuals for all equipment throughout the Project, surveys, test data and other deliverables required under the Contract Documents;
- (c) all of Contractor's and Subcontractors personnel, supplies, equipment, waste materials, rubbish and temporary facilities shall have been removed from the Site;
- (d) Contractor shall have delivered to Department satisfactory evidence that there are no outstanding Contractor Claims, claims, Liens or stop notices of any Subcontractor, laborer or third party, including utility owners, with respect to the Work, other than any previously submitted unresolved Contractor Claims, any claims, Liens or stop notices of a Subcontractor, laborer or third party, being contested by Contractor (in which event Contractor shall provide a certification listing of all such matters with such detail as is requested by Department and, with respect to all Subcontractor and laborer claims, Liens and stop notices and claims of third parties. shall include a representation of Contractor that it is diligently and in good faith contesting such matters by appropriate legal proceedings which shall operate to prevent the enforcement or collection of the same), for purposes of such certificate, the term "claim" shall include all matters or facts which may give rise to a claim;
- (e) the Punch List items shall have been completed to the satisfaction of Department;
- (f) all of Contractor's other obligations under the Contract Documents (other than obligations which by their nature are required to be performed after Final Acceptance) shall have been satisfied in full or waived; and
- (g) Department's Chief Engineer shall have delivered to Contractor a "Certification of Final Acceptance." Such certification shall state that the Work has been constructed in accordance with the Plans (and Specifications, subject only to the exceptions noted in said certification and set forth in the as-built drawings.

18.2.2 Neither the occurrence of the Final Acceptance Date nor delivery of the Certification of Final Acceptance shall relieve Contractor, any Subcontractor, or any Surety from any continuing obligations under the Contract Documents, including the warranty obligations under Article 11.

18.2.3 With respect to Section F in Article 17.3.1(a) the Contractor shall finally complete Section F within 60 Days after the Final Acceptance Date provided it has access to Section F by July 1, 2003.

ARTICLE 19 - CHANGES IN THE WORK

19.1 Acknowledgment and Waiver; Matters Not Eligible for Change Orders

19.1.1 Acknowledgment and Waiver

Article 19 sets forth the requirements for obtaining all Change Orders under this Contract. Contractor hereby acknowledges and agrees that the Contract Price constitutes full compensation for performance of all of the Work, subject only to those exceptions specified in Article 19 and Section 14.1.2, and that Department is subject to financing constraints which have resulted in strict limitations on its ability to increase the Contract Price or extend the Guaranteed Completion Date. Contractor hereby waives the right to make any Contractor Claim for a time extension or for any monetary compensation in addition to the Contract Price and other compensation specified in this Contract for any reason whatever, except as specifically set forth in Article 19 and Section 14.1.2.

19.1.2 Matters Not Eligible for Change Orders

Matters which are Contractor's exclusive responsibility and are not eligible for Directive Change include the following:

- (a) errors, omissions, inconsistencies or other defects in the Construction Documents;
- (b) any design changes requested in accordance with this Contract by Department as part of the process of approving the Draft Plans and Specifications for consistency with the requirements of the Contract Documents, including any design changes relating to Project safety (except to the extent that they arise from a change in Laws, Regulations and Ordinances that constitutes a Force Majeure event);
- (c) defective or incorrect schedules of Work or changes in the planned sequence of performance of the Work (unless changes in the planned sequence of performance of the Work arise from causes which otherwise give rise to a right to a Change Order);
- (d) the action or inaction of subcontractors (unless arising from causes which otherwise give rise to a right to a Change Order);
- (e) correction of nonconforming Work and review and acceptance thereof by Department (including design submittals rejected in accordance with this Contract);
- (f) obtaining all Regulatory Approvals (except as provided otherwise in Section 10.3) and compliance with the terms and conditions of all Regulatory Approvals;
- (g) failure by Contractor to comply with this Contract and Quality Assurance Plan;

- (h) time extensions for delays not on a Critical Path;
- (i) price increases for delays not on a Critical Path (unless arising from causes which otherwise give rise to a right to a Change Order);
- (j) delays in issuance of any permit or approval by any entity with jurisdiction over the subject matter of such permit or approval that is required to be obtained by Contractor;
- (k) costs covered by proceeds of insurance required hereunder and insurance deductibles, except as provided otherwise with respect to the windstorm deductible under Section 19.4.1.2(d); and
- (l) delays or failure in satisfying the conditions precedent to commencement of construction Work (other than Department-Caused Delays).

Contractor hereby assumes responsibility and accepts the allocated, sole risk for all matters described in Section 19.1.2, and acknowledges and agrees that assumption and acceptance by Contractor of responsibility and allocation for all such risks, costs, expenses and delays, and the consequences and costs and expenses resulting therefrom, is reasonable under the circumstances of this Contract.

19.2 Right to Receive Additional Payment and Extension of Time

19.2.1 Before starting to work on any item which Contractor considers to be outside of the Work required by the Contract Documents, as a condition precedent to its right to receive additional payment therefor or an extension of the Guaranteed Completion Date in connection therewith, one of the following shall have occurred:

- (a) Contractor shall have received a Directive Letter from Department stating that it is issued pursuant to Section 19.3.1;
- (b) Contractor shall have received a Change Order for such work signed by Department issued pursuant to Section 19.3 or Section 19.4; or
- (c) Contractor shall have requested a Change Order for such work in accordance with Article 19 that was disputed by Department, to the extent permitted in accordance with the dispute resolution process set forth in Article 27.

19.2.2 In addition, to the extent that Contractor undertakes any work that is not part of the Work without one of the preceding, Department may require Contractor to remove or otherwise undo any such work, at Contractor's sole cost and expense.

19.2.3 Subject to Section 6.4 of the Comprehensive Agreement, for any Department Caused Delays, the Contractor will receive time only for the first 30 Days and time plus \$8500 per Day after the first 30 Days.

19.3 Department Directed Changes and Procedures

Department may, at any time and from time to time, without notice to any Surety, authorize and/or require changes in the Work within the general scope of this Contract pursuant to a Directive Letter or a Change Order.

19.3.1 Directive Letter

19.3.1.1 Department may at any time issue a Directive Letter to Contractor in the event of any desired change in the Work or in the event of any dispute regarding the Work required by the Contract Documents. The Directive Letter will state that it is issued under this Section 19.3.1 and will describe the work in question. Contractor will proceed with the work as and when directed, pending the execution of a formal Change Order (or, if the letter states that the work is within the Work required by the Contract Documents, Contractor will proceed with the work as directed but shall have the right, pursuant to Section 19.4, to request that Department issue a Change Order with respect thereto). In the event that Department refuses to issue a Change Order based on Contractor's request. Contractor shall nevertheless perform all work as and when specified by Directive Letter, and shall have the right to submit the issue to dispute resolution hereunder.

19.3.1.2 The fact that a Directive Letter was issued by Department in and of itself shall not be considered evidence that in fact a Directed Change occurred, provided that the contents of a Directive Letter may be used as evidence by either party as appropriate.

19.3.2 Notice of Proposed Change/Direction

19.3.2.1 If Department desires to issue a Change Order or a Directive Letter or to evaluate whether to initiate such a change or direction, then Department may, at its discretion, issue a Notice of Proposed Change/Direction. Within five Business Days after Contractor's receipt of a Notice of Proposed Change/Direction, Department and Contractor shall arrange an initial consultation (at no charge to Department) to define the proposed scope of work. Within five Business Days following the initial consultation, Department and Contractor shall consult concerning the estimated cost and time impacts. Contractor shall provide to Department such data regarding the estimated cost and time impacts prepared by Contractor if requested by Department.

19.3.2.2 Within a reasonable time following the initial consultation and provision of data as described in Section 19.3.2.1 Department shall notify Contractor whether Department (a) wishes to issue a Change Order or Directive Letter, or (b) no longer wishes to issue a Change Order or Directive Letter.

19.3.2.3 If Department wishes to issue a Change Order or Directive Letter, Contractor shall, within a mutually agreed upon time after receipt of the notification described in

Section 19.3.2.2, prepare and submit to Department the scope, price and schedule impact, if any, of the requested change or direction, incorporating and fully reflecting all requests made by Department. The cost of developing the requested data shall be included in the Change Order as reimbursable items and will be reimbursed regardless of whether such Change Order is ever finalized or performed. Contractor represents and warrants that such data will (a) personally be examined prior to delivery by an authorized officer of Contractor, (b) clearly detail how the total price and individual components of that price were determined, and (c) include all assumptions, detailed quantity takeoffs, equipment employed, rates of production and progress calculations, cost estimates and quotes from Subcontractors and suppliers used by Contractor to arrive at the price.

19.3.2.4 In the event that the parties agree that a change in the requirements relating to the Work has occurred but disagree as to whether the change justifies additional compensation or time or disagree as to the amount of any increase to be made to the Contract Price or extension of the Guaranteed Completion Date to be made, Department may, in its sole discretion, order Contractor to proceed with the performance of the Work in question notwithstanding such disagreement, by issuing a Directive Letter under Section 19.3.1.

19.3.3 Payment for Directed Changes

19.3.3 Department shall be obligated to pay Contractor's cost of Directed Changes from funds available to the Department therefor, based on requisitions for payment prepared and approved pursuant to Section 14.2.2.

19.4 Eligible Contractor-Initiated Change Orders and Procedures

19.4.1 Eligible Changes

19.4.1.1 Contractor shall be entitled to a Change Order to extend the Guaranteed Completion Date only for the following excusable delays changing the duration of a Critical Path so as to delay Substantial Completion beyond the Guaranteed Completion Date:

- (a) Department-Caused Delays;
- (b) delays which are proximately attributable to Force Majeure events; and
- (c) delays which are directly attributable to any Cultural Resources or Hazardous Substances which causes an increase in the cost of performing the Work of more than \$25,000 per occurrence, or more than \$500,000 in aggregate.

19.4.1.2 Contractor shall be entitled to a Change Order to increase the Contract Price, subject to strict compliance with the requirements of Section 19.4 and subject to certain limitations as specified in Section 19.5, and with respect to subsections (c), (d), (e), and (f) below, subject to Section 14.3, only for increased costs directly attributable to:

- (a) Work in response to a Notice of Proposed Change/Direction;

- (b) A submitted Directive Letter;
- (c) Department-Caused Delays (excluding any delays from Directed Changes, which shall be reimbursable as part of the Change Orders for such Directed Changes);
- (d) Force Majeure events;
- (e) Project Right of Way and Utility Relocation not being cleared for construction by the dates listed in Article 6 or Article 7 respectfully;
- (f) Regulatory Approvals not complying with the conditions of Article 10; or
- (g) Hazardous Substances or Cultural Resources mitigation not provided for in Article 10, in excess of \$25,000 per occurrence or \$500,000 for the aggregate.

19.4.2 Procedures

Contractor must follow the procedure set forth in this Section 19.4.2.

19.4.2.1 Request for Change (RFC) Notice

Contractor shall deliver to Department written notice (an "RFC Notice") stating that an event or situation has occurred within the scope of Section 19.4.1.1 or 19.4.1.2 which Contractor believes is eligible for a Change Order. The first notice shall be labeled "RFC No. 1" and subsequent notices shall be numbered sequentially.

19.4.2.1.1 Each RFC Notice shall be delivered as promptly as possible after the occurrence of such event or situation. In the event that any RFC Notice is delivered later than 10 Days after Contractor first discovered (or should have discovered in the exercise of reasonable diligence) the occurrence described therein, Contractor shall be deemed to have waived the right to collect any and all costs incurred during the period after 10 Days after Contractor first discovered (or should have discovered in the exercise of reasonable diligence) the occurrence described in the RFC Notice and prior to the-date of delivery of the written notice, and shall be deemed to have waived the right to seek an extension of the Guaranteed Completion Date with respect to any delay in any Critical Path which accrued during such period. Furthermore, in the event that any RFC Notice concerns any condition or material described in Section 5.1.5, Contractor shall be deemed to have waived the right to collect any and all costs incurred in connection therewith to the extent that Department is not afforded the opportunity to inspect such material or condition before it is disturbed. Contractor's failure to provide an RFC Notice within 30 Days after Contractor first discovered (or should have discovered in the exercise of reasonable diligence) the occurrence of a given event or situation shall preclude Contractor from any relief, unless Contractor can show that (a) Department was not materially prejudiced by the lack of notice, or (b) Department's designated representative specified in Section 24.1 had actual knowledge, prior to the expiration of the 30-Day period, of the event or situation and that Contractor believed it was entitled to a Change Order with respect thereto.

19.4.2.1.2 The RFC Notice shall: (a) state the facts underlying the Request for Change Order, the reasons why Contractor believes additional compensation or time will or may be due and the date of occurrence, (b) state the name, title, and activity of each

Department representative knowledgeable of the facts underlying the Request for Change Order, (c) identify any documents and the substance of any oral communication involved in the facts underlying the Request for Change Order, (d) state the basis for a claim of necessary accelerated schedule performance, if applicable, (e) state the basis for a claim that the work is not required by this Contract, if applicable, (f) identify particular elements of Contract performance for which additional compensation may be sought under Article 19 and (g) identify any potential Critical Path impacts.

19.4.2.1.3 The written notification described in Section 5.1.5.1 may also serve as a RFC Notice provided it meets the requirements for RFC Notices.

19.4.2.1.4 Within 30 Days after receipt of a RFC Notice, Department will respond in writing to Contractor to: (a) confirm that a change has occurred; (b) deny that a change has occurred; or (c) advise Contractor that the necessary information has not been submitted to decide which of the above alternatives applies, and indicate the needed information for further review.

19.4.2.1.5 Any adjustments made to this Contract shall not include increased costs or time extensions for delay resulting from Contractor's failure to timely provide requested additional information under Section 19.4.2.1.

19.4.2.2 Delivery of Request for Change Order

Contractor shall deliver all Requests for Change Orders under this Section 19.4 to Department within 30 Days after delivery of the RFC Notice, or such longer period of time as may be allowed in writing by Department. Department may require design and construction costs to be covered by separate Requests for Change Order. If Contractor fails to deliver a Request for Change Order within the appropriate time period, Contractor shall be required to provide a new RFC Notice before it may submit a Request for Change Order.

19.4.2.2.1 Information Regarding Effect of Change

Each Request for Change Order shall include as attachments a detailed cost estimate relating thereto setting forth all consequences of the event, situation or proposed change giving rise to the proposed Change Order, and including (a) if Contractor claims that such event, situation or change requires a modification to the Work, the proposed modification of the Contract Price and payment allocations set forth in the CPM/Payment Schedule (if any) occasioned by such change and all facts justifying such modification in a format acceptable to Department, and (b) if Contractor claims that such event, situation or change affects the Critical Path, an impacted delay analysis indicating all activities represented or affected by the change, with activity numbers, durations, predecessor and successor activities, resources and cost, with a narrative report, in form satisfactory to Department, which compares the proposed new schedule to the current approved schedule.

19.4.2.2.2 Justification

Each Request for Change Order initiated by Contractor hereunder shall include an attachment containing a detailed narrative justification therefor, describing the circumstances underlying the proposed change, identifying the specific provision(s) of Article 19 which permit a Change Order to be issued, and describing the data and documents (including all data and reports required under Section 19.7.1.1) which establish the necessity and amount of such proposed change.

19.4.2.2.3 Contractor Representation

Each Request for Change Order shall contain a written representation by Contractor that the amount of time and/or compensation set forth therein includes all known and anticipated impacts or amounts, direct, indirect and consequential, which may be incurred as a result of the event or matter giving rise to such proposed change.

19.4.2.2.4 Cost Proposal

Each Request for Change Order shall include a detailed cost proposal identifying all categories of costs, supported by documentation satisfactory to Department (a) showing all impacts on the Contract from Work additions, deletions and modifications shown in the Change Order being priced and (b) setting out the proposed costs in such a way that a fair evaluation can be made. Contractor shall submit a detailed estimate of the cost of the change to Department. This estimate must include a breakdown for labor, materials, equipment, overhead (which includes all indirect costs), contingencies and profit. If the work is to be performed by Subcontractors and if the work is sufficiently defined to obtain Subcontractor quotes, Contractor shall obtain quotes (with breakdowns showing cost of labor, materials, equipment, overhead and profit) on the Subcontractor's stationery and shall include such quotes as back-up for Contractor's estimate. Contractor represents and warrants that the cost proposal will (a) personally be examined prior to delivery by an authorized officer of Contractor, (b) clearly detail how the total price and individual components of that price were determined, and (c) include all assumptions, detailed quantity takeoffs, rates of production and progress calculations, cost estimates, and quotes from Subcontractors and suppliers used by Contractor to arrive at the price.

19.4.2.3 Incomplete Requests for Change Orders

19.4.2.3.1 If any requirements set forth in Section 19.4.2.2 cannot be met due to the nature of the occurrence, Contractor shall provide an incomplete Request for Change Order which fills in all information capable of being ascertained and which (a) includes a list of those Change Order requirements which are not fulfilled together with an explanation reasonably satisfactory to Department stating why such requirements cannot be met, (b) provides such information regarding projected impact on the Critical Path as is reasonably available, and (c) in all events includes sufficient detail to ascertain the basis for the proposed Change Order and for any ascertainable amounts with respect thereto.

19.4.2.3.2 Contractor shall furnish, when requested by Department, such

further information and details as may be required to determine the facts or contentions involved. Contractor agrees that it shall give Department access to any and all of Contractor's books, records and other materials relating to the Request for Change Order, and shall cause its Subcontractors to do the same, so that Department can investigate the basis for such proposed Change Order. Contractor shall provide Department with an update to each outstanding incomplete Request for Change Order if any change in the data (either singularly or cumulatively) causes a price or schedule change by more than 10% of such Request for Change Order, describing the status of all previously unfulfilled requirements and stating any changes in projections previously delivered to Department, excess time expenditures to date and excess time anticipated for completion of the activities for which the time extension is claimed. Department may reject the Request for Change Order at any point in the process. Once a complete Request for Change Order is provided, Department's failure to respond thereto within 21 Days of delivery of the request shall be deemed a rejection of such request. Although Department intends for Department to review incomplete Requests for Change Order for the purposes described in Section 19.4.2.4, Department shall have no obligation to review the back-up associated with any Request for Change Order until a complete Request for Change Order is provided.

19.4.2.4 Importance of Timely Response

Contractor acknowledges and agrees that, due to the limited availability of funds for the Project, timely delivery of notification of such events and situations and Requests for Change Order and updates thereto are of vital importance to Department. Department is relying on Contractor to evaluate promptly, upon the occurrence of any event or situation, whether the event or situation will affect the CPM Payment Schedule and, if so, whether Contractor believes a time extension and/or claim on the Contingency is required hereunder. If an event or situation occurs which may affect the Contract Price or the Guaranteed Completion Date, Department will evaluate the situation and determine whether it wishes to make any changes to the definition of the Project so as to bring it within Department's funding and time restraints. The following matters (among others) shall be considered in determining whether Department has been prejudiced by Contractor's failure to provide notice in a timely fashion: the effect of the delay on alternatives available to Department (that is, a comparison of alternatives which are available at the time notice was actually given and alternatives which would have been available had notice been given within ten days after occurrence of the event or when such occurrence should have been discovered in the exercise of reasonable prudence) and the impact of the delay on Department's ability to obtain and review objective information contemporaneously with the event.

19.4.2.5 Review of Subcontractor Claims

Prior to submission by Contractor of any Request for Change Order which is based in whole or in part on any facts alleged in a submittal by any Subcontractor to Contractor, Contractor shall have reviewed all such Subcontractor claims and determined in good faith whether the claims are justified as to both entitlement and amount, and Contractor's Request for Change Order shall include only those items which Contractor has determined are so justified

and which otherwise meet all requirements hereunder for Contractor-initiated Change Orders. Each Request for Change Order involving Subcontractor Work, and each update to an incomplete Change Order request involving such Work shall include a summary of Contractor's analysis of all Subcontractor claims components and shall include a certification signed by Contractor's Project Manager stating that Contractor has reviewed and approved any data included in the request. Any Request for Change Order involving Subcontractor Work which is not accompanied by such an analysis and certification shall be considered incomplete.

19.5 Pricing

19.5.1 Limitations

19.5.1.1 Limitation on Contract Price Increases

Any increase in the Contract Price allowed hereunder shall exclude: (a) costs caused by the breach of contract or fault or negligence, or act or failure to act of Contractor, its employees, agents, officers or Subcontractors or any other Persons for whom Contractor may be contractually or legally responsible; (b) costs which could reasonably be avoided by Contractor, including by resequencing, reallocating or redeploying its forces to other portions of the Work (including any additional costs reasonably incurred in connection with such reallocation, or redeployment); and (c) costs for remediation of any nonconforming Work.

19.5.1.2 Limitation on Delay Costs

Any increase in the Contract Price due to delays eligible for Change Orders under Section 19.4.1.2 shall be limited to overhead costs arising from such delays and direct costs resulting from such delays, provided that if the delay does not impact a Critical Path activity, the increase in the Contract Price due to such delay shall be limited to the actual costs of the affected workers and equipment that cannot be mitigated. Before Contractor may obtain any increase in the Contract Price to compensate for additional or extended overhead or direct costs resulting from delay, Contractor shall be required to demonstrate to Department's satisfaction that (a) the change in the Work or other event or situation which is the subject of the Request for Change Order has caused or will result in an identifiable and measurable disruption of the Work, (b) the delay or cost was not due to any breach of contract or fault or negligence, or act or failure to act of Contractor, its employees, agents, officers or Subcontractors or any other Persons for whom Contractor may be contractually or legally responsible, and could not reasonably have been avoided by Contractor, including by resequencing, reallocating or redeploying its forces to other portions of the Work (including any additional costs reasonably incurred in connection with such reallocation or redeployment), (c) the delay for which compensation is sought is reduced by an amount commensurate with the extent to which the delay is not concurrently caused by a matter or circumstance for which Contractor is responsible and (d) Contractor has suffered or will suffer actual overhead and direct costs due to such delay, each of which overhead and direct costs shall be documented in a manner satisfactory to Department.

19.5.2 Pricing Methodologies

Department and Contractor (on its own behalf and on behalf of its Subcontractors) shall endeavor to negotiate a reasonable cost for each Change Order. If the parties agree that Contractor is entitled to additional compensation or additional time for the work which is the subject of a Change Order, but cannot agree as to the amount, then unless the Department and Contractor agree that a time and materials approach is not practicable, Contractor shall be entitled to receive payment as provided in Sections 19.5.2.1, 19.5.2.2 and 19.5.2.3, subject to Department's right to not issue a Change Order or to refuse to pay incurred costs which Department deems unreasonable. If the parties agree that a time and materials approach is not practicable, Department shall adjust the amount of the price or time extension/reduction as Department deems appropriate. The Contractor has the right to pursue any disagreements with any decisions of the Department under this Article in accordance with Section 19.8. The Department shall execute and deliver a Change Order reflecting such changes to Contractor, within a reasonable period after receipt of a request by Contractor to do so.

19.5.2.1 Subject to Sections 19.5.2.2 and 19.5.2.3, compensation for time and material Change Orders shall be limited to such of the following direct costs, whether incurred by Contractor or a first-tier construction Subcontractor, which are actually and reasonably incurred as a direct and sole result of the event or matter giving rise to the change and no others:

(a) the cost of labor including social security, old age survivors and disability insurance, unemployment insurance, fringe benefits required by agreement or custom and workers' compensation insurance;

(b) the cost of materials, supplies and equipment, including the cost of transportation, taxes and duties, whether incorporated in the Project or consumed;

(c) rental or depreciation costs of plant, buildings, machinery, equipment and hand tools, whether Contractor owned or rented from others;

(d) permit fees and sales, use or similar taxes related to such changes;
and

(e) costs directly attributable to the charges of consultants or lower tier Subcontractors directly attributable to performance of the change.

19.5.2.2 Direct costs allowable under Section 19.5.2.1 shall either be marked-up by 10% for overhead and profit in the event of non-subcontracted Work, or shall be marked up by 15% for cumulative overhead and profit of Contractor and Subcontractors in the event of subcontracted Work.

19.5.2.3 The following items are included in the Change Order mark-up for overhead and profit:

- (a) Salary and expenses of executive officers, supervising officers or supervising employees and technical or engineering employees;
- (b) Contractor's Project Manager;
- (c) clerical or stenographic employees;
- (d) drafting room accessories such as paper tracing cloth, blue printing, etc.;
- (e) any and all field and home office overhead and operating expenses whatsoever;
- (f) subsistence and travel expenses for all personnel;
- (g) all bond and insurance premiums;
- (h) attorneys' fees and costs;
- (i) all other indirect costs;
- (j) costs of furnishing the reports described in Section 19.7 and
- (k) profit.

19.6 Limitation on Time Extensions

Any extension of the Guaranteed Completion Date allowed hereunder shall exclude any delay to the extent that it (a) was due to the fault or negligence, or act or failure to act of Contractor, its employees, agents, officers or Subcontractors or any other Persons for whom Contractor may be contractually or legally responsible, or (b) could reasonably have been avoided by Contractor, by resequencing, reallocating or redeploying its forces to other portions of the Work. Contractor shall be required to demonstrate to Department's satisfaction that the change in the Work or other event or situation which is the subject of the Request for Charge Order seeking a change in the Guaranteed Completion Date has caused or will result in an identifiable and measurable disruption of the Work so as to delay completion thereof and change the duration of the Critical Path which was not due to any such fault or negligence and could not reasonably have been avoided by Contractor, by resequencing, reallocating or redeploying its forces to other portions of the Work.

19.7 Change Order Records

Contractor shall maintain its records in such a manner as to provide a clear distinction between the direct costs of Work for which it is entitled (or for which it believes it is entitled) to an increase in the Contract Price and the costs of other operations. Contractor shall contemporaneously collect, record in writing, segregate and preserve (a) all data necessary to

determine the costs of all Work which is the subject of a Change Order or a requested Change Order, but specifically excluding negotiated and issued Change Orders, and (b) all data necessary to show the actual impact (if any) of the change on each Critical Path-activity with respect to all Work which is the subject of a Change Order or a proposed Change Order, if the impact on the CPM/Payment Schedule is in dispute. Such data shall be provided to Department and any authorized representative of such Persons reviewing any Contractor Claim or dispute regarding compensation for such Work as provided in Section 12.1.

19.7.1 Daily Work Reports and Data Collection

19.7.1.1 Contractor shall collect and preserve concurrent time and materials data and records in written form for (a) all time and materials Work and (b) all Work performed which Contractor believes constitutes extra work, pending issuance of a Change Order or resolution of any dispute in accordance with Article 27, at reasonable times as requested by Department. Contractor shall provide Department with a copy of each such item; provided, however, that the provision of such information shall not constitute a RFC Notice under Section 19.4.2.1.

19.7.1.2 From the records and data described in Section 19.7.1.1, Contractor shall furnish Department completed daily work reports for each day's Work to which Section 19.7.1.1 applies. The daily time and material Work reports shall be detailed as follows:

(a) Name, classification, date, daily hours, total hours, rate, and extension for each worker (including both construction and non-construction personnel) for whom direct reimbursement is requested.

(b) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

(c) Quantities of materials, prices, and extensions.

(d) Transportation of materials.

(e) For construction labor, the cost of property damage, liability, and worker's compensation insurance premiums, unemployment insurance contributions, bonds, and social security tax. Monthly reports shall also state the total costs to date for the time and materials Work.

19.7.2 Suppliers' Invoices

Material charges shall be substantiated by valid copies of suppliers' invoices. Such invoices shall be submitted with the daily time and material Work reports, or if not available, they shall be submitted with subsequent daily time and material Work reports.

19.7.3 Execution of Reports

All time and materials reports shall be signed by Contractor's Project Manager.

19.8 Disputes

The failure of Department and Contractor to agree to any Change Order under Article 19 (including agreement as to the amount of compensation allowed under Section 19.5.2 and any disputed amount of the increase in the Contract Price or extension of the Guaranteed Completion Date in connection with a Change Order) shall be a dispute to be resolved in accordance with Article 27. Except as otherwise specified in the Change Order, execution of a Change Order by both parties shall be deemed accord and satisfaction of all claims of any nature arising from or relating to the Work covered by the Change Order. If the courts of the State determine that Contractor is entitled to be paid for any work which is the subject of a dispute, the Contractor Claim and the award of the court shall be limited to the actual incremental costs incurred by Contractor with respect to the disputed matter (crediting Department for any corresponding reduction in Contractor's other costs).

ARTICLE 20 - SUSPENSION OF ALL OR PART OF WORK

20.1 Suspension for Convenience

Department may order Contractor in writing to suspend, delay, or interrupt all or any part of the Work for a period of time not to exceed 24 hours, as Department may determine to be appropriate for the convenience of Department. Any suspension for convenience in excess of 24 hours shall require Department's signature and will be considered a Directed Change.

20.2 Not Used

20.3 Suspension for Other Reasons

20.3.1 Department has the authority to suspend the Work wholly or in part, for such period as Department deems necessary because of the failure on the part of Contractor to carry out orders given, or to perform any requirements of the Contract Documents. Contractor shall promptly comply with the written order of Department to suspend the Work wholly or in part. The suspended Work shall be resumed when appropriate corrective action has been taken.

20.3.2 Contractor shall not be entitled to any increase in the Contract Price or extension of the Guaranteed Completion Date in connection with any suspension under this Section 20.3, including the work described in Section 20.4.

20.4 Project Safety

In the event of a suspension of Work under Article 20, Contractor shall undertake all work necessary to ensure Project safety, including providing a safe, smooth, and unobstructed

passageway through the construction area for use by public traffic during the period of such suspension.

ARTICLE 21 - INDEMNITY; HAZARDOUS SUBSTANCE LIABILITY; CULTURAL RESOURCES INDEMNIFICATION PROCEDURES

21.1 Indemnifications by Contractor

(a) Except as otherwise expressly provided in subsection (b) below, Contractor shall indemnify, protect, defend, hold harmless and release each State Indemnatee from and against any and all third party Claims arising out of the following:

(i) any error, act or omission of any Contractor Party except to the extent caused by the negligence of the Department, provided that the indemnity under this subsection (a)(i) concerning Claims not related to Project Right of Way' acquisition, Utility Relocations, procurement and documentation shall be limited to such Claims arising out of death, bodily injury or property damage suffered by third parties;

(ii) any violation by any Contractor Party of Laws, Regulations and Ordinances in connection with or relating to the Project or the Work;

(iii) any mechanic's, material supplier or design professional's lien on Department's right, title and interest in and to any Project Right of Way or other property arising out of the actual or alleged furnishing of labor, materials or services to or for the Project or any portion thereof by or on behalf of or at the request of any Contractor Party and due to Contractor's failure or alleged failure to pay to others any amount due or alleged to be due, provided that there has been no default in payment to Contractor under this Contract;

(iv) any failure of any Contractor Party to pay any sales, use or other taxes due or alleged to be due in connection with the Work or the purchase, supply or use of any materials, services or equipment;

(v) storage, use, transport or management of any Hazardous Substances originally introduced to or brought onto any Project Right of Way or other Department property by any Contractor Party;

(vi) the presence, spreading, migration, release, remediation, storing, transportation or disposal of Pre-Existing Hazardous Substances not discovered during site acquisition work due to failure of any Contractor Party to conduct investigations according to the procedures and provisions required by this Contract, subject to the limitations of Section 10.4.7;

(vii) failure of any Contractor Party to handle, store, transport, monitor, remediate or dispose of in compliance with Laws, Regulations and Ordinances in effect at the time of the activity in question, Pre-Existing Hazardous Substances which are or become known or apparent to any Contractor Party through site investigation or during the course of

construction, subject to the limitations of Section 10.4.7;

(viii) exacerbation, due to the negligence, recklessness or willful misconduct of any Contractor Party, of the release, spreading, migration or toxicity of Hazardous Substances which are or become known or apparent to or reasonably suspected by any Contractor Party through site investigation or during the course of construction, subject to the limitations of Section 10.4.7;

(ix) infringement by any Contractor Party (excluding third party equipment and software vendors) of any actually or allegedly patented, copyrighted, trademarked, service marked or other proprietary materials, equipment, devices or processes, including Intellectual Property and including infringement by State due to Contractor's failure to obtain any ownership or license required to be obtained pursuant to Section 12.7; and

(x) fraud or intentional misrepresentation by any Contractor Party.

(b) Contractor's indemnities exclude the portion of liability on a Claim that is attributable (i) to the culpability of a State Indemnitee or (ii) to a deficiency in a Department design or construction standard which either (A) is unknown to Contractor or (B) although known to Contractor, is communicated in writing to Department and not waived by Department. If the culpability of a State Indemnitee or such deficiency in a Department design or construction standard has contributed to a loss, Contractor shall not be obligated to indemnify State Indemnitees for the proportionate share of such Claim caused thereby.

(c) For purposes of Section 21.1, a "third party" means any person or entity other than a State Indemnitee or an Association Indemnitee, except that a third party includes (i) any State employee, agent and contractor or his or her heir or representative who asserts a Claim arising out of death, bodily injury or property damage against a State Indemnitee and which is not covered by State's worker's compensation program, and (ii) any State department or agency other than Department which, in the exercise of its authority, imposes upon Department Hazardous Substance remediation requirements or costs which are within the scope of an indemnity set forth in Section 21.1.

21.2 No Indemnity Regarding Pre-Existing Hazardous Substances or Cultural Resource

Except to the extent provided in Sections 21.1(a)(vi), (vii) and (viii) the parties agree that neither shall have any obligation to indemnify the other or any third-party beneficiary or assignee with respect to any Claim relating to Pre-Existing Hazardous Substances or unidentified Cultural Resource.

21.3 Defense and Indemnification Procedures

(a) If Department receives notice of or otherwise has actual knowledge of a Claim which it believes is within the scope of Contractor's indemnification under Section 21.1, it shall by writing as soon as practicable (i) inform Contractor of such Claim; (ii) send to Contractor a

copy of all written materials Department has received asserting such Claim; and (iii) notify Contractor that either (A) the defense of such Claim is being tendered to Contractor or (B) Department has elected to conduct its own defense for a reason set forth in subsection (e) below.

(b) If the insurer under any applicable insurance policy accepts tender of defense, Contractor and Department shall cooperate in the defense as required by the insurance policy. If no defense is provided by insurers under potentially applicable insurance policies, then subsections (c), (d), (e) and (f) below shall apply.

(c) If the defense is tendered to Contractor, Contractor shall within 45 Days of said tender deliver to Department a written notice stating that Contractor (i) accepts the tender of defense and confirms that the Claim is subject to full indemnification hereunder without any "reservation of rights" to deny or disclaim full indemnification thereafter, (ii) accepts the tender of defense but with a "reservation of rights" in whole or in part or (iii) rejects the tender of defense if it reasonably determines it is not required to indemnify against the Claim under Section 21.1. If such notice is not delivered within such 45 Days, the tender of defense shall be deemed rejected.

(d) If Contractor gives notice under subsection (c)(i) above, Contractor shall have the right to select legal counsel for the State Indemnitees, subject to reasonable approval of the State Attorney General, and Contractor shall otherwise control the defense of such Claim, including settlement, and bear the fees and costs of defending and settling such Claim. During such defense: (A) Contractor shall at Contractor's expense, fully and regularly inform Department of the progress of the defense and of any settlement discussions; and (B) Department shall, at Contractor's expense for all of Department's third party expenses, fully cooperate in said defense, provide to Contractor all materials and access to personnel it requests as necessary for defense, preparation and trial and which or who are under the control of or reasonably available to Department and maintain the confidentiality of all communications between it and Contractor concerning such defense.

(e) Department shall be entitled to select its own legal counsel and otherwise control the defense of such Claim if: (i) the defense is tendered to Contractor and it refuses the tender of defense, or fails to accept such tender within 45 Days, or reserves any right to deny or disclaim such full indemnification thereafter; or (ii) Department, at the time it gives notice of the Claim or at any time thereafter, reasonably determines that (A) a conflict exists between it and the Contractor which prevents or potentially prevents Contractor from presenting a full and effective defense or (B) Contractor is otherwise not providing an effective defense in connection with the Claim and Contractor lacks the financial capacity to satisfy potential liability or to provide an effective defense. Department may assume its own defense pursuant to subsection (e)(ii) above by delivering to Contractor written notice of such election and the reasons therefor. A refusal of, or failure to accept, a tender of defense may be treated by Department as a Claim against Contractor subject to resolution pursuant to Article 27.

(h) If Department is entitled and elects to conduct its own defense pursuant hereto, all reasonable costs and expenses it incurs in investigating and defending Claim for which it is entitled to indemnification hereunder shall be reimbursed by Contractor on a current basis. In

the event Department is entitled to and elects to conduct its own defense, then it shall have the right to settle or compromise the Claim with the Contractor's prior written consent, which shall not be unreasonably withheld or delayed, or with approval of the court, and with the full benefit of the Contractor's indemnity.

ARTICLE 22. INSURANCE AND BONDS

22.1 Contractor's Bodily Injury and Property Damage Liability Insurance

Bodily Injury and Property Damage Liability Insurance shall be procured and retained by Contractor in accordance with Section 103.06 (f) of the Standard Specifications, except that the minimum aggregate amount shall be \$8,000,000 and the minimum per person / per occurrence shall be \$2,000,000.

22.6 Performance and Payment Bonds

22.6.1 Five Business Days after the execution of this Contract, Contractor shall provided to Department a Payment Bond and a Performance Bond in the amount of \$226,000,000, each, in the forms attached hereto as Appendix 4 and Appendix 5, respectively. The Payment Bond shall remain in full force and effect until the later to occur of one year after the Final Acceptance Date or resolution of all claims filed thereunder. The Performance Bond shall remain in full force and effect until the final expiration of all Warranties set forth in Article 11 (which does not include the Pavement Warranty).

22.6.2 Not Used

22.6.3 In lieu of Payment or Performance Bonds, Contractor may furnish a certified check or cash escrow in the face amount required for each of the bonds, which will be held for the full period as applicable for each bond.

22.6.4 After Final Acceptance, the Performance Bond may be reduced to an amount not less than 20% of the original amount thereof.

ARTICLE 23. CONTRACTING PRACTICES

23.1 Obligation to Refrain from Discrimination

Contractor shall comply with Article 11 of the Comprehensive Agreement.

23.2 Disadvantaged Business Enterprises

23.2.1 Department has adopted a Disadvantaged Business Enterprises ("DBE") program (which consists of both minority-owned firms and women-owned firms) pursuant to which its

policy is to allow DBE's the opportunity to participate as contractors and subcontractors in the design and construction of the Project. Department has agreed to a Race Neutral DBE participation goal for the Project of \$10,000,000. Contractor shall diligently seek to comply with Department's DBE participation goal and the objectives set forth in their DBE Policy in Appendix E of the Scope of Work.

23.2.2 Contractor shall incorporate in all Subcontracts the requirement to diligently seek to comply with Department's DBE participation goal and the objectives set forth in their DBE Policy set forth in Appendix E of the Scope.

23.3 Minority Employment and Contracting Procedures

23.3.1 Contractor acknowledges and agrees that it is the policy of Department to promote and ensure economic advancement of minorities and women through employment. Department hereby adopts a minority hiring goal for the Project of achieving new hires for the labor force, in all categories of Work, proportionately representative of the minority groups residing in the standard metropolitan statistical area in which the Project is located. Department shall provide to Contractor, when from time to time requested, its current figures on the percentages of minorities in the population of such standard metropolitan statistical area, and such figures shall be the basis for Contractor's hiring efforts for the purposes of this Contract. Contractor shall employ or select employees possessing the necessary skill, expertise, cost level and efficiency for the performance of the Work.

23.3.2 Contractor shall in all Subcontracts require that, to the greatest extent reasonably feasible, any new hires for the labor force in all categories for such Subcontracts satisfy the foregoing minority hiring goal.

23.4 Subcontracts

23.4.1 Each instrument evidencing any agreement of Contractor with any Subcontractor shall provide that, pursuant to terms in form and substance satisfactory to Department, (a) the rights (but not the obligations) of Contractor under such instrument are assigned to Department and their respective successors and assigns (contingent only upon written acceptance of the assignment from the assignee(s) or its (their) successor(s) or assign(s)) following default by Contractor or termination or expiration of this Contract, and (b) all warranties, guarantees and indemnifications (express and implied) of such Subcontractor shall inure to the benefit of Department and its successors and assigns.

23.4.2 Notwithstanding any Subcontract or agreement with any Subcontractor, Contractor shall be fully responsible for all of the Work (except as may be expressly provided to the contrary herein). Department shall not be bound by any Subcontract, and no Subcontract shall include a provision purporting to bind them.

23.4.3 Contractor shall, each month and from time to time upon request, provide Department with a list of all Subcontractors, shall allow Department access to all Subcontracts and shall deliver to Department, within 10 Days after receipt of a request from Department,

copies of all Subcontracts as may be requested.

ARTICLE 24. REPRESENTATIVES

24.1 Designation of Representatives; Cooperation with Representatives

24.1.1 Department and Contractor shall each designate an individual or individuals who shall be authorized to make decisions and bind the parties on matters relating to the Contract Documents. Appendix 8 hereto provides the initial designations. Such individuals shall constitute Authorized Department Representatives and Authorized Contractor Representatives, respectively. Such designations may be changed by a subsequent writing delivered to the other party in accordance with Section 20.3 of the Comprehensive Agreement. The parties may also designate technical representatives who shall be authorized to investigate and report on matters relating to the construction of the Project and negotiate on behalf of each of the parties but who do not have authority to enter into binding agreements.

24.1 .2 Contractor shall cooperate with Department and all representatives of Department designated as described above.

ARTICLE 25. DEFAULT

25.1 Default of Contractor

25.1.1 The term "Event of Default" shall mean the occurrence of any one or more of the following events or conditions, following notice and opportunity to cure (if applicable) as specified in Section 25.1 .2 and an election by Department to declare that an Event of Default has occurred in writing and given to Contractor and Surety:

(a) Contractor fails either (i) to promptly' begin the Work under the Contract Documents or (ii) to prosecute the Work in accordance with the CPM Payment Schedule; or

(b) Contractor fails to perform the Work in accordance with the Contract Documents. including conforming to applicable standards in constructing the Project, or refuses to remove and replace rejected materials or unacceptable Work; or

(c) Contractor discontinues the prosecution of the Work (exclusive of Work stoppage (i) due to termination by Department, (ii) due to and during the continuance of a Force Majeure event, or a suspension by Department or (iii) to the extent permitted under Section 25.4); or

(d) Contractor fails to resume performance of Work which has been suspended or stopped. within a reasonable time after receipt of notice from Department to do so or (if applicable) after cessation of the event preventing performance; or

(e) Contractor shall have become insolvent, or generally does not pay its debts as they become due, or admits in writing its inability to pay' its debts or-makes an assignment for

the benefit of creditors; or

(f) Insolvency, receivership, reorganization or bankruptcy proceedings shall have been commenced by Contractor or against Contractor and such case or cases shall not be contested in good faith or shall remain undismissed and unstayed for a period of 90 Days; or

(g) Any representation or warranty made by Contractor in the Contract Documents or any certificate, schedule, instrument or other document delivered by Contractor pursuant to the Contract Documents shall have been materially false or misleading when made; or

(h) Contractor breaches any material agreement contained in the Contract Documents; or

(i) Contractor shall be in default under the Comprehensive Agreement; or

(j) Contractor shall have assigned or transferred the Contract Documents or any right or interest therein without Department's prior written consent, and any transfer of the right or practical ability to control the policies or decisions of Contractor, whether due to transfer of partnership or membership interests, shares, beneficial interests or otherwise shall constitute an assignment or transfer prohibited under this subsection (j) without Department's prior written consent; or

(k) Contractor shall have failed, absent a valid dispute, to make payment when due for labor, equipment or materials in accordance with its agreements with Subcontractors and applicable law. or shall have materially failed to comply with any Laws, Regulations and Ordinances or failed reasonably' to comply with the instructions of Department consistent with the Contract Documents.

25.1.2 Contractor and Surety shall be entitled to 10 Days notice and opportunity to cure any breach described in (a) through (d) and (h) through (k) above (excluding any such breach which by its nature cannot be cured); provided that (a) if such breach is capable of cure but by its nature cannot be cured within 10 Days, such additional period of time shall be allowed as may be reasonably necessary' to cure the breach, provided Contractor or Surety or any Guarantor under the Completion Guaranty commences such cure within such 10-Day period and thereafter diligently prosecutes such cure to completion; (b) in the case of an emergency Department shall have the right to shorten the 10-Day cure period by so specifying in the notice of breach; and (c) no cure period shall extend the Guaranteed Completion Date or the deadline for Final Acceptance, nor shall any cure period excuse, delay or extend Contractor's obligations to pay Liquidated Damages hereunder.

25.2 Remedies for Contractor Event of Default

25.2.1 Upon the occurrence of an Event of Default. Department's obligation to make payments to Contractor hereunder shall be suspended unless and until the Event of Default is cured.

25.2.2 Upon the occurrence of an Event of Default, Department may notify Contractor to discontinue all or part of the Work and may terminate this Contract. In such event, Department may appropriate any or all materials and equipment on the Site as may be suitable and acceptable and may (a) direct the Surety to complete such portion of the Work or complete this Contract, (b) enter into an agreement for the completion of such portion of the Work or the completion of this Contract according to the terms and provisions thereof with another contractor (should the Surety fail to comply with its obligations), the Surety or (c) use such other methods as it deems necessary for the completion of such portion of the Work or the completion of this Contract, including completion of the Work by Department. In the event that this Contract is terminated, Sections 26.2.3, 26.2.4, 26.2.5, 26.2.6, 26.2.7 shall apply and Contractor shall immediately deliver to Department all completed and partially completed Work Product (including that not yet paid for due to offset claims of Department). In the event that this Contract is terminated for grounds which are later determined not to justify a termination for default, such termination shall be deemed to constitute a termination for convenience.

25.2.3 Contractor and Surety shall not be relieved of liability for continuing Liquidated Damages on account of a breach or default by Contractor or by Department's declaration of an Event of Default, or by actions taken by Department under this Section 25.2.

25.2.4 All costs and charges incurred by Department, together with the cost of completing the Work, will be deducted from any moneys due or that may become due Contractor or any Surety, subject to Department's good faith efforts to mitigate damages. Subject to Sections 25.3.1 and 25.3.2, if such expense exceeds the sum which would be available from such moneys, then Contractor the Surety and each Guarantor shall be jointly and severally liable and shall pay to Department the amount of such excess.

25.2.5 Each right and remedy of Department hereunder shall be cumulative and shall be in addition to every other right or remedy provided herein, and the exercise or beginning of the exercise by Department of any' one or more of any of such rights or remedies shall not preclude the simultaneous or later exercise by the State of any or all other such rights or remedies.

25.3 Certain Limitations on Department Remedies

25.3.1 Subject to the limitations in Section 25.7, Contractor's liability to Department for damages resulting from breach of this Contract shall be limited to all those costs reasonably incurred by Department or any party acting on Department's behalf in completing or correcting the Work and repairing any damage to the Project or other property of any State Indemnitee caused thereby including Department's costs of Oversight Services in connection therewith. This limitation of liability shall not apply to liabilities incurred by Contractor arising out of its obligation to indemnify, defend and hold harmless each State Indemnitee from third party Claims under Section 21.1 or to the extent covered by insurance required hereunder.

25.3.2 Not Used

2 5.3.3 Where this Contract provides an expressly stated remedy, such expressly stated remedy shall be exclusive of any inconsistent, additive or alternative extra-contractual remedies

which might otherwise have been available at law or equity, except for (a) any common law or statutory right to indemnity or contribution regarding liability of potentially responsible parties for Pre-Existing Hazardous Substances, where the liability is not otherwise the subject of an indemnity pursuant to Section 21.2, (b) any claim or cause of action for fraud or intentional misrepresentation and (c) any subject matter on which no express contractual remedy is provided. The parties may resort to any remedy available at law or equity with respect to the foregoing exceptions.

25.4 Failure to Deliver Payment; Unavailability of Funds

25.4.1 In the event that Contractor fails to receive a payment in the amount approved under Section 14.2.4 by the date specified for payment in Section 14.2.4, Contractor may request written assurances from Department that payment will be made. Unless Contractor receives reasonably acceptable assurances from Department within five Business Days after delivery of such request to Department, Contractor shall have the right to suspend the Work for such period, provided that Contractor shall have provided a separate written notice to Department stating that Contractor is not satisfied with the assurances and describing the reasons for such dissatisfaction. Which notice shall have been delivered at least three Business Day's before suspending the Work. Notwithstanding the foregoing, Contractor shall have no right to request or receive assurance of payment, or to stop Work, where Department has suspended payment in accordance with Section 25.2.1.

25.4.2 Not Used

25.4.3 Not Used

25.5 Limitation on Contractor Remedies

25.5.1 Except as otherwise provided in Section 25.4, in the event of any alleged breach of this Contract by Department, Contractor shall provide Department written notice describing the alleged breach and 30 Days opportunity to cure the same, as a condition precedent to exercising any remedies to which Contractor is entitled at law or in equity with respect thereto.

25.5.2 In no event shall Contractor have any right to unilaterally terminate this Contract after receipt of the Notice to Proceed, notwithstanding any default by Department. The foregoing does not limit Contractor's right to suspend Work to the extent provided in Section 25.4.

25.6 Liquidated Damages

Contractor, Department have agreed to liquidate damages incurred by Department and Commonwealth with respect to any delay in achieving Substantial Completion and Final Acceptance by the deadlines contained in Section 1 7.2.1 damages are allocable to Department's administrative expenses associated with delay (collectively, the "Liquidated Damages"). Contractor acknowledges and agrees that the Liquidated Damages are intended to constitute compensation solely for Contractor's failure to meet the completion deadlines, and shall not

excuse Contractor from liability for any other breach of Contract requirements, including any failure of the Work to conform to applicable requirements. If an Event of Default consists solely of Contractor's failure to achieve Substantial Completion by the Guaranteed Completion Date, then the damages recoverable by Department shall be limited as provided in Section 25.3.2.

25.6.1 Amount

25.6.1.1 Contractor agrees to pay Department the amount of \$25,000 / Day up to a maximum of \$5,000,000 as deemed compensation to Department for damages incurred due to delay in completion, for each day after the Guaranteed Completion Date and through the date of Substantial Completion, and \$2,800 for each day after the required date for Final Acceptance and through the Final Acceptance Date as outlined in Article 18.2.

25.6.1.2 It is understood and agreed by Contractor that any Liquidated Damages payable in accordance with this Section 25.6 are in the nature of liquidated damages and not a penalty and that such sums are reasonable under the circumstances existing as of the date of execution and delivery of this Contract. Contractor further acknowledges and agrees that Liquidated Damages may be owing even though no Event of Default has occurred or been declared.

25.6.2 Payment Terms

If Department determines that Liquidated Damages are owing, Department shall give written notice thereof to Contractor. Thereafter, each Draw Request and Certificate under Section 14.2.2 shall include a calculation of Liquidated Damages occurring since the prior request (or since the notice if there has been no prior request) and that amount will automatically be due on or prior to submission of such request if not paid by offset under Section 14.4.

25.7 Limitation on Consequential Damages

Except as expressly provided in this Contract to the contrary, and except for in connection with compensation for Work actually performed, neither party shall be liable to the other for indirect, incidental or consequential damages of any nature, whether arising in contract, tort (including negligence) or other legal theory. The foregoing limitation shall not, however, in any manner:

(a) prejudice Department's right to recover Liquidated Damages from Contractor as provided herein;

(b) limit Contractor's liability for any type of damage arising out of Contractor's obligation to indemnify, defend and hold each State Indemnatee harmless from third party Claims under Section 21.1 and elsewhere in this Contract;

(c) limit Contractor's liability for any type of damage to the extent covered by insurance required hereunder; and

(d) limit Contractor's liability for any type of damage to the extent required to be covered by third party warranties required to be obtained by Contractor hereunder if Contractor fails to obtain such warranties.

ARTICLE 26. TERMINATION FOR CONVENIENCE

26.1 Notice of Termination

Department may terminate this Contract and the performance of the Work by Contractor at any time after the Notice to Proceed if Department determines, in its sole discretion, that a termination is in its best interest. Department shall notify Contractor of the decision to terminate by delivering to Contractor a written Notice of Termination specifying the extent of termination and its effective date. Termination of this Contract shall not relieve the Surety of its obligation for any just claims arising out of or relating to the Work.

26.2 Contractor's Responsibilities After Receipt of Notice of Termination

After receipt of a Notice of Termination, and except as directed by Department, Contractor shall immediately proceed as follows, regardless of any delay in determining or adjusting any amounts due under this Article 26:

26.2.1 stop Work as specified in the notice;

26.2.2 enter into no further Subcontracts and place no further orders for materials, services or facilities, except as necessary to complete the continued portion of the Work, if any, or for mitigation of damages;

26.2.3 unless instructed otherwise by Department, terminate all Subcontracts to the extent they relate to the Work terminated and except to the extent that continuation of the Subcontract is necessary in order to mitigate damages;

26.2.4 assign to Department or its designee in the manner, at the times, and to the extent directed by Department, all of the right, title, and interest of Contractor under the Subcontracts so terminated, in which case Department will have the right, in its sole discretion, to accept performance, settle or pay any or all claims under or arising out of the termination of such Subcontracts;

26.2.5 settle outstanding liabilities and claims arising out of such termination of Subcontracts, with the approval or ratification of Department, to the extent it may require, which approval or ratification shall be final;

26.2.6 transfer and deliver to Department or its designee, as directed by Department, (a) possession and control of the Project, and (b) all right, title and interest of Contractor in and to (i) the Work in process, completed Work, supplies and other materials produced or acquired for the Work terminated, and (ii) the Construction Documents and all other completed or partially

completed drawings (including plans, elevations, sections, details and diagrams), specifications, records, reports, books, samples, information and other Work Product that would have been required to be furnished to Department if the Work had been completed;

26.2.7 complete performance in accordance with the Contract Documents of all Work not terminated;

26.2.8 take all action that may be necessary or that Department may direct, for the protection and preservation of the property related to the Contract Documents that is in the possession of Contractor and in which Department has or may acquire an interest; and

26.2.9 as authorized by Department, use its best efforts to sell at reasonable prices any property of the types referred to in Section 26.2.6; provided, however, that Contractor (a) shall not take any such action with respect to any items for which title has previously transferred to Department (b) is not required to extend credit to any purchaser, and (c) may acquire the property itself, under the conditions prescribed and at prices approved by Department. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by Department under the Contract Documents or paid in any other manner directed by Department.

26.3 Inventory

Contractor shall submit to Department a list of termination inventory' not previously disposed of and excluding items authorized for disposition by Department; and within 30 Day's of receipt of the list. Contractor shall deliver such inventory to Department and Department shall accept title to such inventory as appropriate.

26.4 Settlement Proposal

After termination, Contractor shall submit a final termination settlement proposal to Department in the form and with the certification prescribed by Department. Contractor shall submit the proposal promptly, but no later than 60 Days from the effective date of termination unless Contractor has requested a time extension in writing within such 60-Day period and Department has agreed in writing to allow such an extension.

26.5 Amount of Termination Settlement

Contractor and Department may agree, as provided in Section 26.4, upon the whole or any part of the amount or amounts to be paid to Contractor by reason of the termination of Work pursuant to this Article 26. Such negotiated settlement may include an allowance for profit solely on Work which has been completed as of the termination date. Such agreed amount or amounts payable for the terminated Work, exclusive of settlement costs, shall not exceed the total Contract Price as reduced by the Contract Price of Work not terminated. Upon determination of the settlement amount this Contract will be amended accordingly, and Contractor will be paid the agreed amount as described in this Section 26.5. Nothing in Section 26.6, prescribing the amount to be paid to Contractor in the event that Contractor and Department fail to agree upon the whole amount to be paid to Contractor by reason of the

termination of Work pursuant to this Article 26, shall be deemed to limit, restrict or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to Contractor pursuant to this Section 26.5. Department's execution and delivery of any settlement agreement shall not be deemed to affect any of its rights with respect to compliance of the completed Work with all applicable Contract requirements, any of its rights under the Performance Bonds or any of its rights against Subcontractors. Upon determination of the amount of the termination payment, this Contract shall be amended to reflect the agreed termination payment, Contractor shall be paid the agreed amount, subject to the limitations contained herein on Department's obligations to make payments, and the Contract Price shall be adjusted to deduct the portion thereof which is allocable to the terminated Work.

26.6 No Agreement as to Amount of Claim

In the event of failure of Contractor and Department to agree upon the amount to be paid Contractor by reason of the termination of Work pursuant to this Article 26, the amount payable (exclusive of interest charges) shall be determined in accordance with the following:

26.6.1 In the event of a termination occurring on or after the Notice to Proceed Date, the amount to be paid to Contractor for Work performed prior to the termination date shall be determined based on the CPM/Payment Schedule. In such event all invoices previously submitted and claims submitted shall be processed in accordance with the terms hereof (including payment of any Retainage). In addition, Contractor shall be paid its reasonable costs of termination of Subcontracts and otherwise winding down the terminated Work. However, the total amount to be paid to Contractor, exclusive of costs described in the prior sentence, may not exceed the total Contract Price less the amount of payments previously made. Furthermore, in the event that any refund is payable with respect to insurance premiums, deposits or similar items which were previously passed through to Department by Contractor, such refund shall be paid directly to Department or otherwise credited to Department.

26.6.2 Except for normal spoilage, and except to the extent that Department will have otherwise expressly assumed the risk of loss, there will be excluded from the amounts payable to Contractor under Section 26.6.1 or 26.6.2, the fair value, as determined by Department, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to Department, or to a buyer pursuant to Section 26.2.9.

26.7 Reduction in Amount of Claim

The amount otherwise due Contractor under this Article 26 shall be reduced by (a) the amount of any claim which Department may have against Contractor in connection with this Contract provided that Department has delivered to Contractor written notice thereof setting forth the specific grounds therefor and (b) the agreed price for, or the proceeds of sale of, materials, supplies or other things acquired by Contractor or sold, pursuant to the provisions of this Article 26, and not otherwise recovered by or credited to Department.

26.8 Payment

Department may from time to time, under such terms and conditions as it may prescribe and in its sole discretion, make partial payments on account against costs incurred by Contractor in connection with the terminated portion of this Contract, whenever in the opinion of Department the aggregate of such payments shall be within the amount to which Contractor will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this Article 26, such excess shall be payable by Contractor to Department upon demand together with interest at a variable rate per annum equal to the reference rate announced by Bank of America, NT&SA from time to time, plus 1%.

26.9 Inclusion in Subcontracts

Contractor shall insert in all Subcontracts that the Subcontractor shall stop Work on the date of and to the extent specified in a Notice of Termination from Department and shall require that Subcontractors insert the same provision in each Subcontract at all tiers. Contractor shall communicate, immediately upon receipt thereof, any Notice of Termination issued by Department to all affected Subcontractors.

26.10 No Consequential Damages

In the event of a termination for convenience under this Article 26, Contractor acknowledges and agrees that it shall not be entitled to any compensation in excess of the value of the Work performed plus its settlement costs (determined as provided in Section 26.6.1 or 26.6.2). Under no circumstances shall Contractor or any Subcontractor be entitled to anticipatory or unearned profits, unabsorbed overhead, opportunity costs or consequential or other damages as a result of a termination for convenience under this Article 26. The payment to Contractor determined in accordance with this Article 26 constitutes Contractor's exclusive remedy for a termination hereunder.

26.11 No Waiver

Anything contained in this Contract to the contrary notwithstanding, a termination under this Article 26 shall not waive any right or claim to damages which Department may have and Department may pursue any cause of action which it may have by law or under this Contract.

26.12 Dispute Resolution

The failure of the parties to agree on amounts due under Article 26, shall be a dispute to be resolved in accordance with Article 27.

ARTICLE 27. DISPUTE RESOLUTION

Disputes shall be resolved solely in accordance with Section 105.16 of the Standard

Specifications. At all times during the term hereof, including during the course of and notwithstanding the existence of any dispute, Contractor shall perform as directed by Department, in a diligent manner and without delay, shall abide by Department's decision or order, and shall comply with all applicable provisions of the Contract Documents.

ARTICLE 28- MISCELLANEOUS PROVISIONS

28.1 Incorporation of Miscellaneous Provisions in Comprehensive Agreement

The following provisions in the Comprehensive Agreement are applicable to the Contract Documents, provided that all references therein to the "Agreement" shall instead be deemed references to the Contract Documents unless the context requires otherwise:

Section 20.1 (Assignment);

Section 20.2 (No Gift or Dedication);

Section 20.3 (Notices);

Section 20.4 (Binding Effect);

Section 20.5 (Relationship of Parties);

Section 20.6 (No Third Party Beneficiaries);

Section 20.7 (Waiver);

Section 20.9 (Governing Law and Venue);

Section 20.11 (Survival);

Section 20.13(a) through (e) (Construction and Interpretation of Agreement); and

Section 20.14 (Counterparts).

28.2 Entire Agreement; Amendment

28.2.1 THIS CONTRACT AND THE OTHER PROJECT AGREEMENTS CONSTITUTE THE ENTIRE AND EXCLUSIVE AGREEMENT BETWEEN THE PARTIES RELATING TO THE SPECIFIC MATTERS COVERED HEREIN AND THEREIN. ALL PRIOR OR CONTEMPORANEOUS VERBAL OR WRITTEN AGREEMENTS, UNDERSTANDINGS, REPRESENTATIONS AND/OR PRACTICES RELATIVE TO THE FOREGOING ARE HEREBY SUPERSEDED, REVOKED AND RENDERED INEFFECTIVE FOR ANY PURPOSE. THIS CONTRACT MAY BE ALTERED, AMENDED OR REVOKED ONLY BY AN INSTRUMENT IN WRITING SIGNED BY EACH PARTY HERETO, OR ITS

PERMITTED SUCCESSOR OR ASSIGNEE. NO VERBAL AGREEMENT OR IMPLIED COVENANT SHALL BE HELD TO VARY THE TERMS HEREOF, ANY STATUTE, LAW OR CUSTOM TO THE CONTRARY NOTWITHSTANDING.

28.2.2 This Contract and the other Project Agreements attempt to set forth in full all requirements applicable under the PPTA as to the study, planning, design, acquisition, development, construction, operation, maintenance, repair, management and financing of the Project and attempt to define in full the rights and responsibilities of each party in connection therewith. To the extent requirements and rights and responsibilities have not been addressed in this Contract and the other Project Agreements, the parties agree to carry out their respective responsibilities in the spirit of cooperation contemplated by the PPTA, recognizing that they may not have defined in a sufficient detail or anticipated fully all activities necessary for the full implementation of the Project.

28.2.3 If any provisions of this Contract are rendered obsolete or ineffective in serving their purpose by change in law, passage of time, financing requirements or other future events or circumstances, the parties agree to negotiate in good faith appropriate amendments to or replacements of such provisions in order to restore and carry out the original purposes thereof to the extent practicable; provided, however, that neither party is obligated to agree to any amendment or replacement which would reduce its rights or enlarge its responsibilities under this Contract in any material respect.

28.3 Explanations; Omissions, Misdescriptions, Inclusions without Limitation

Should it appear that the Work to be done or any of the matters relative thereto is not sufficiently detailed or explained in the Contract Documents, Contractor shall apply to Department in writing for such further written explanations as may be necessary and shall conform to the explanation provided. Contractor shall promptly notify Department of all errors, omissions, inconsistencies or other defects (including inaccuracies and inconsistencies) which it may discover in the Contract Documents, provide written recommendations regarding changes or corrections to resolve any such error, omission or defect and obtain Department's approval before proceeding with the design Work affected thereby. Omission from the Scope of Work or the misdescription of details of Work which are necessary to carry out the intent of the Contract Documents, or which are customarily performed, shall not relieve Contractor from performing such omitted Work (no matter how extensive) or misdescribed details of the Work and they shall be performed as if fully and correctly set forth and described in the Scope of Work, without entitlement to a Change Order hereunder. The words "including," "includes" and "include" shall be deemed to be followed by the words "without limitation."

28.4 Computation of Periods

If the date to perform any act or give any notice specified in the Contract Documents (including the last date for performance or provision of notice "within" a specified time period) falls on a non-Business Day, such act or notice may be timely performed on the next succeeding day which is a Business Day, Notwithstanding the foregoing, requirements contained in the Contract Documents relating to actions to be taken in the event of an emergency, requirements

contained in Section 5.3.5, and other requirements for which it is clear that performance is intended to occur on a non-Business Day, shall be performed as specified, even though the date in question may fall on a non-Business Day.

28.5 Approvals

In all cases where approvals, consents or determinations are required to be provided hereunder. such approvals or consents shall not be withheld unreasonably and such determinations shall be made reasonably except in cases where a different standard (such as, by way of example only, sole discretion) is specified. In cases where sole discretion is specified for an approval, consent, determination or other decision, the decision shall not be subject to dispute resolution hereunder.

28.6 Not Used

28.7 Correspondence

Contractor shall copy Department on all written correspondence pertaining to this Contract between Contractor and any Person other than Contractor's Subcontractors, consultants and attorney's.

28.8 Standard Specifications

Cross-references to provisions of the Standard Specifications which are not applicable to this Contract because they have been superseded by other provisions of the Contract Documents shall be deemed references to the Contract Document provisions which have superseded the referenced Standard Specifications provisions.

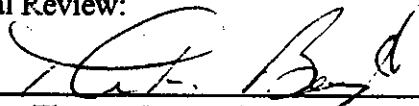
Department

**VIRGINIA DEPARTMENT OF
TRANSPORTATION**

By: 

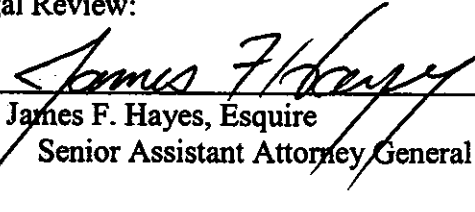
Charles D. Nottingham
Commonwealth Transportation
Commissioner

Fiscal Review:

By: 

Thomas F. Boyd
Assistant Commissioner for Finance

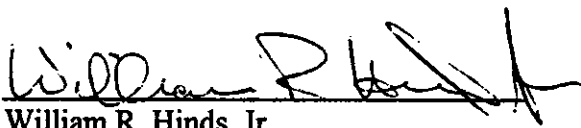
Legal Review:

By: 

James F. Hayes, Esquire
Senior Assistant Attorney General

Contractor

APAC-VIRGINIA, INC.,
a Delaware corporation

By: 

William R. Hinds, Jr.
President

DEFINITIONS

Agreement Date means the date written on the cover page of the Comprehensive Agreement.

APAC means APAC-Virginia, Inc., a Delaware corporation, and its permitted successors and assigns.

APAC Indemnatee means and includes APAC and all of its parents affiliates and subsidiaries, and each of their respective managers, directors, officers, employees, authorized agents and authorized representatives.

Authorized Department Representative means any person designated to act on behalf of the Department by a certificate signed by the Commissioner and filed with APAC and Koch.

Authorized Contractor Representative means any person designated to act on behalf of APAC by a certificate signed by its President and filed with the Department.

Business Day means any Day other than a Saturday, Sunday or other day on which the New York Stock Exchange or banks are authorized or required to close in New York, New York or Richmond, Virginia.

Change Order means a written amendment to the terms and conditions of the Contract Documents issued in accordance with Article 19 of the Design-Build Contract.

Claims means any and all claims, disputes, disagreements, causes of action, demands, suits, proceedings, damages, injuries, liabilities, obligations, losses, costs and expenses.

Commissioner means the Commonwealth Transportation Commissioner or any successor in function.

Comprehensive Agreement means the Comprehensive Agreement to Design, Construct and Warrant Route 288 Project among APAC, Koch and the Department dated as of the Agreement Date, and all exhibits thereto, as supplemented or amended from time to time.

Construction Documents means all Shop Drawings and Working Drawings, catalog cuts and samples necessary for construction of the Project in accordance with the Contract Documents and to inspect that construction.

Construction Segment means each or any segment of the Project which the Department and APAC designate pursuant to Article 13 of the Design-Build Contract for the purpose of scheduling construction.

Construction Traffic Management Plan means the plan for traffic management submitted and approved in accordance with Section 9.1 of the Design-Build Contract.

Contract Documents means the Design-Build Contract, including all appendices, the Scope of Work, the Standard Specifications, the Preliminary Engineering (subject to Contractor's obligation to provide the Plans and Specifications free of any errors, omissions, inconsistencies and other defects which may be contained in the Preliminary Engineering) and the Plans and Specifications, including all amendments to any of the foregoing and all Change Orders issued.

Contractor means APAC and its permitted successors and assigns.

Contractor Claim means a separate demand by APAC for (a) a time extension which is disputed by the Department, or (b) payment of money or damages arising from work done by or on behalf of APAC in connection with the Design-Build Contract which is disputed by the Department. A Contractor Claim will cease to be a Contractor Claim upon resolution thereof, including resolution by withdrawal or release thereof or delivery of a Change Order or Design-Build Contract amendment signed by all parties.

Contractor Party means and includes APAC, any related party thereto, including its parent, affiliate and subsidiary companies, and any member company, manager, partner, director, officer, employee, agent, contractor (other than the Department), subcontractor (other than the Department) at any tier or any representative of APAC or any such related party.

Contract Price shall have the meaning set forth in Section 3.3(b)(ii) of the Comprehensive Agreement and Section 14.1.1 of the Design-Build Contract.

CPM/Payment Schedule means the most current schedule for the Project approved by the Department as described in Section 13.3 of the Design-Build Contract.

Critical Path means the longest non-intermittent path between the first and the last event of the Project shown on the CPM/Payment Schedule (or, if more than one such path exists, each such path).

CTB means the Commonwealth Transportation Board, a state board of the State affiliated with the Department.

Cultural Resources means historic buildings, structures, physical remains of a people's way of life and any significant archaeology sites.

Days means calendar days, unless otherwise designated.

Defect means, with respect to each element or aspect of the Work for which acceptable tolerances are specified in the Contract Documents or Reference Documents, any such element or aspect as of the Final Acceptance Date not conforming to such specified tolerances, and with respect to each element or aspect of the Work for which acceptable tolerances are not specified in the Contract Documents or Reference Documents, any such element or aspect not conforming to industry standards applicable thereto as of the time such element or aspect of the Work is undertaken; provided that in all instances "Defect" includes any element or aspect of the Work not conforming to the Design-Build Contract, Plans and Specifications, Laws, Regulations and Ordinances or Regulatory Approvals.

Department means the Virginia Department of Transportation, a department of the State, and any other State agency succeeding to the powers, authorities and responsibilities of the Department invoked by or under the Comprehensive Agreement.

Department-Caused Delays means unavoidable delays, to the extent that they affect a Critical Path, arising from the following matters and no others: (a) a suspension order pursuant to Section 20.1 of the Design-Build Contract (but not exceeding 24 hours), (b) Directed Changes, (c) failure of the Department to provide responses to submittals and matters for which response by such Person is required, within the time periods indicated in the Contract Documents, (d) uncovering, removing and restoring Work, to the extent provided in Section 5.2.2.5 of the Design-Build Contract, (e) any improper failure to act by the Department within a reasonable time after delivery of notice by Contractor to the Department requesting such action, and (f) a Department Default. Any court order to suspend Work shall not be considered a Department-Caused Delay (although it may qualify as a Force Majeure event) despite the fact that the Department may specifically direct Contractor to comply with the court order.

Department Default shall have the meaning set forth in Section 17.4 of the Comprehensive Agreement.

Department Standards means the requirements applicable to performance of the Work contained in the manuals, standards and procedures set forth in the Reference Documents.

Design-Build Contract means the Design-Build Contract between the Department and APAC dated as of the Agreement Date, a copy of which is attached to the Comprehensive Agreement as Exhibit C, and any and all amendments and supplements thereto.

Developer shall have the meaning assigned to the term "operator" in Section 56-557 of the PPTA and, for purposes of the Comprehensive Agreement, means APAC and Koch, collectively.

Developer Indemnitee means and includes APAC and/or Koch, as the case may be, and all of its affiliates and subsidiaries, and each of its respective members, partners, managers, directors, officers, employees, authorized agents and authorized representatives.

Developer Party means and includes APAC and/or Koch, as the case may be, and any director, officer, employee, agent, contractor (other than the Department), subcontractor (other than the Department) or any authorized representative of APAC and/or Koch, as the case may be.

Differing Site Condition means any permanent condition on, within, under or of the Project Right of Way (such as but not limited to presence of Hazardous Substances or archaeological, paleontological, biological or Cultural Resources) which is materially different from (a) that represented by the data and information provided or reasonably available to Contractor as of the Agreement Date or (b) that which would have been discoverable by reasonable site investigation prior to the Agreement Date in accordance with recognized industry standards. A Differing Site Condition shall be deemed to include all manifestations of the same condition.^{1/}

Directed Change means any change in the Work (including changes in the standards applicable to the Work) which the Department has directed Contractor to perform by Directive Letter pursuant to Section 19.3.1 of the Design-Build Contract or by Change Order under Section 19.3.2 of the Design-Build Contract. The term shall also include changes in the Work which are directly attributable to delays caused by bad faith actions, active interference, gross negligence or comparable tortious conduct by the Department. The fact that the Department has delivered a Directive Letter does not necessarily mean that a change in the Work has occurred.

Directive Letter means each letter issued by the Department pursuant to Section 19.3.1 of the Design-Build Contract.

Draft Plans and Specifications means all drawings (including plans, elevations, sections, details and diagrams) furnished by Contractor showing the sizes, shapes and location of component elements comprising the Project and all specifications, reports, calculations, records and submittals necessary for design

1/ For example, if a given geologic formation is continuous and affects the Project Right of Way in more than one location, all such locations are together part of the same "condition." Conversely, if, for example, a location is affected by a geologic fault and a nearby location is affected by a rock formation, each would be a separate "condition." Similarly, each and every discrete archeological site would be a separate "condition."

of the Project furnished by Contractor as described in Article 3 of the Design-Build Contract.

Draw Request means a draw request by APAC on the Draw Request and Certificate form attached as Appendix 3 to the Design-Build Contract.

EIS means that certain signed final environmental impact statement, Record of Decision and re-evaluation for the I-64 Interchange portion of the Project prepared and approved by FHWA.

Environmental Laws means all Laws, Regulations and Ordinances now or hereafter in effect relating to the environment or to emissions, discharges, releases or threatened releases of Hazardous Substances into the environment including into the air, surface water or ground water or onto land, or relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Substances or otherwise relating to the protection of public health, public welfare or the natural environment (including protection of nonhuman forms of life, land, surface water, groundwater and air) including the statutes listed in the definition of Hazardous Substances; the National Environmental Policy Act, as amended, 42 U.S.C. §§ 4321 et seq.; the Occupational Safety and Health Act, as amended, 29 U.S.C. §§ 651 et seq.; the Hazardous Materials Transportation Act, as amended, 49 App. U.S.C. §§ 1801 et seq.; the Endangered Species Act, as amended, 16 U.S.C. §§ 1531 et seq.; the Clean Water Act, as amended, 33 U.S.C. §§ 1251 et seq.; and the Migratory Bird Treaty Act, 16 U.S.C. §§ 703 et seq.

Environmental Monitoring Program means the Contractor's environmental monitoring program meeting the requirements set forth in Section 10.5 of the Design-Build Contract.

Final Acceptance means the occurrence of the events described in subsections (a) through (g) inclusive of Section 18.2.1 of the Design-Build Contract.

Final Acceptance Date means the date on which Final Acceptance occurs under the Design-Build Contract.

Force Majeure means any of the following events (provided such events are beyond the control of Contractor and are not due to an act or omission of Contractor) which materially and adversely affects Contractor's obligations hereunder and which event (or the effects of which event) could not have been avoided by due diligence and use of reasonable efforts by Contractor:

(a) any tidal wave, hurricane force wind, flood, tornado or earthquake or significantly abnormal weather conditions that, in the reasonable determination of the Department's Chief Engineer, prevent work on the Critical Path in excess of 14 consecutive Days;

(b) any epidemic, blockade, rebellion, war, riot or act of sabotage or civil commotion;

(c) any strike, labor dispute, work slowdown, work stoppage, secondary boycott, walkout or other similar occurrence, except as excluded under subsection (iii) below;

(d) any unreasonable delay by a Utility Owner in connection with a Utility Relocation;

(e) any change in or new enactment of any written Laws, Regulations and Ordinances, or change in the judicial or administrative interpretation of, or adoption of any new Laws, Regulations and Ordinances which is materially inconsistent with Laws, Regulations and Ordinances in effect on the Agreement Date (subject to the exclusions set forth below);

(f) any suspension of the Work to the extent permitted under Section 25.4 of the Design-Build Contract; and

(g) any court order which restrains, enjoins, challenges or delays performance of the Work or the granting or renewal of any Regulatory Approval.

The term "Force Majeure" shall be limited to the matters listed above and specifically excludes from its definition the following matters which might otherwise be considered force majeure:

(i) fire or other physical destruction or damage, including lightning, explosion, drought, rain, storm or action of the elements or other acts of God not caused by or resulting from the events listed in subsection (a) above;

(ii) except as caused by or resulting from the events listed in subsection (b) above, explosion, malicious or other acts or similar occurrence;

(iii) strike, labor dispute, work slowdown, work stoppage, secondary boycott, walkout or other similar occurrence particular to a Contractor Party or the Project;

(iv) Differing Site Conditions;

(v) a change in any Laws, Regulations and Ordinances (such as increases in tax rates) which causes an increase in amounts payable by Contractor for deliverables but which does not change the obligations to be performed by Contractor under the Design-Build Contract;

(vi) Directed Changes;

(vii) any delay or cost risk for which coverage is to be provided through insurance required under the Design-Build Contract; and

(viii) all other matters not caused by the Department or beyond the control of the Department and not listed in subsections (a) through (g) above.

Governmental Person means any federal, state, local or foreign government and any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body or entity.

Guaranteed Completion Date shall have the meaning set forth in Section 17.2.1 of the Design-Build Contract.

Hazardous Substance means (a) any substance, product, waste or other material of any nature whatsoever which is or becomes listed, regulated, or addressed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq., the Hazardous Materials Transportation Act, 49 U.S.C. Section 1801 et seq., the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq., the Clean Water Act, 33 U.S.C. Section 1251 et seq., the Clean Air Act, 42 U.S.C. Section 7401 et seq., the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. Section 136 et seq., Virginia Waste Management Act, §10.1-1400 et seq., Code of Virginia (1950) as amended, all as amended or as may be amended, or any other federal, state or local statute, law, ordinance, resolution, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic or dangerous waste, substance or material, as now or at any time hereafter in effect, (b) any substance, product, waste or other material of any nature whatsoever which may give rise to liability under any of the above statutes, (c) petroleum or crude oil or products thereof other than petroleum and petroleum products which are contained within regularly operated motor vehicles, (d) asbestos and (e) radioactive wastes and substances.

I-64 Interchange means the federal portion of the Project which is designated as Department Project Nos. 0064-037-108, C501, B601, B602, B603, B614 and B615 (generally including the interchange of Route 288 with Interstate 64 and the portion of State Route 288 continuing south from such interchange to the intersection with U.S. Route 250).

Implementation Guidelines means the Implementation Guidelines under the PPTA adopted by the Commissioner on July 1, 1995, governing the selection of Qualifying Transportation Facilities under the purview of the Department, as such Implementation Guidelines may be amended or supplemented.

Inspection means the act of viewing or looking carefully at construction, manufacturing and design and maintenance practices, processes and products, including document control and Shop Drawing review, to ensure the practices,

processes and products comply with the quality requirements contained in the Contract Documents.

ITS means any application of computer, electronics and/or telecommunications equipment and software and supporting fixtures and equipment whose function is to provide information, data and/or services to the traveling public or the Department or to manage and control traffic, all items listed in the Federal Highway Administration Intelligent Transportation Systems Summary Report dated January 19, 1995, and any future systems or services conceived or developed for the same or similar purposes.

Koch means Koch Performance Roads, Inc., a Delaware corporation, and its permitted successors and assigns.

Koch Indemnatee means and includes Koch and all of its parents, affiliates and subsidiaries and each of their respective managers, directors, officers, employees, authorized agents and authorized representatives.

Laws, Regulations and Ordinances means all applicable laws, codes, rules, ordinances, restrictions and regulations of the federal, State, regional or any local government (including those resulting from the initiative or referendum process) and judicial or administrative orders.

Lien means any pledge, lien, security interest, mortgage, deed of trust or other charge or encumbrance of any kind, or any other type of preferential arrangement (including any agreement to give any of the foregoing, any conditional sale or other title retention agreement, any lease in the nature of a security instrument and the filing of or agreement to file any financing statement under the Virginia Uniform Commercial Code).

Liquidated Damages shall have the meaning set forth in Section 25.6 of the Design-Build Contract.

NEPA means the National Environmental Policy Act, 42 U.S.C. § 4321 et seq., as amended and as it may be amended from time to time.

Notice of Proposed Change/Direction means a notice issued by the Department concerning a possible Change Order, as specified in Section 19.3.2 of the Design-Build Contract.

Notice of Termination means a notice issued by the Department to terminate the Design-Build Contract and the performance of the Work by Contractor pursuant to Article 26 of the Design-Build Contract.

Notice to Proceed means the authorization in Section 15.5(f) of the Comprehensive Agreement to APAC to proceed with design and construction for the Project as of the Agreement Date.

Opening Date means the first date on which a Construction Segment of the Project (other than overpasses and underpasses) is opened for regular public use.

Oversight Services means those services and functions the Department has the right or obligation to perform or to cause to be performed under the Laws, Regulations and Ordinances or any Project Agreement in order to monitor, review, manage or administer the Project Agreements or the work or performance of the Developer under the Project Agreements.

Pavement Warranty means the Pavement Warranty of Koch appended to the Design-Build Contract.

Payment Bond means the payment bond described in Section 22.6 of the Design-Build Contract.

Performance Bond means the performance bond described in Section 22.6 of the Design-Build Contract.

Person means any individual, public or private corporation, county, district, authority, municipality, political subdivision or other entity of the State or the United States of America, and any corporation, limited liability company, partnership, association, firm, trust, estate, or any other entity whatsoever.

Plans and Specifications means the 100% completed maps, plans, drawings and specifications for different components of the Work as approved by the Department's Chief Engineer and bearing the seal of a Virginia licensed engineer.

PPTA means the Public-Private Transportation Act of 1995, which is codified as Title 56, Chapter 22, Section 56-556 et seq., of the Virginia Code.

Pre-Existing Hazardous Substances means any Hazardous Substance that was present within the Project Right of Way limits prior to acquisition of the property for the Project, and which was not placed or deposited there by either Contractor or the Department.

Preliminary Engineering means the preliminary plan and specifications dated December 15, 2000, produced pursuant to the VDOT design contracts identified in the Scope of Work.

Project means (a) all improvements constituting the Project as generally shown on the map attached as Exhibit B to the Comprehensive Agreement and as more particularly identified in the Scope of Work, and (b) all other improvements and other Work Product to be provided by Contractor as a condition to Final Acceptance in accordance with the Contract Documents.

Project Agreement means any of the Comprehensive Agreement, the Contract Documents and the Pavement Warranty, including any appendices or exhibits thereto. The term "Project Agreements" means all such agreements and documents in the aggregate, including any appendices or exhibits thereto.

Project Manager shall have the meaning set forth in Section 2.2.3 of the Design-Build Contract.

Project Right of Way or Right of Way or right of way means, with respect to the Project, all real property (which term is inclusive of all estates and interests in real property) which is necessary for ownership and operation of the Project by the Department. The term specifically includes all property within the access control line for the Project. The term specifically excludes any temporary easements or other real property interests which Contractor deems necessary or advisable in connection with construction of the Project.

Punch List means the list of Work which remains to be completed after achievement of Substantial Completion, and shall be limited to minor incidental items of Work necessary to correct imperfections which have no adverse effect on the safety or operability of the Project.

Qualifying Transportation Facility shall have the meaning assigned to such term in Section 56-557 of the PPTA.

Quality Assurance (QA) means all those planned and systematic actions necessary to provide confidence that all Work fully complies with the Contract and that all materials incorporated in the Work, all equipment and all elements of the Work will perform satisfactorily for the purpose intended. Actions include design checks and reviews; document control; Shop Drawing review and approval; materials sampling and testing at the production site and the Project site; inspection of manufacturing/processing facilities and equipment; inspection of on-site equipment, calibration of test equipment, documentation of QA activities.

Quality Assurance Manager means the independent consultant responsible for inspecting and testing in accordance with the Quality Assurance and Control Inspection Program as described in Appendix C attached to the Scope of Work.

Quality Assurance and Control Inspection Program means the program described in Appendix C attached to the Scope of Work.

Quality Control (QC) means the total of all activities performed by Contractor, designer, producer, or manufacturer to ensure that a product meets Contract requirements. For highway design, construction and maintenance this includes design procedures and checking, materials handling and construction procedures, calibration and maintenance of equipment, Shop Drawing review,

document control, production process control, and any sampling, testing, and inspection done for these purposes. QC also includes documentation of QC efforts.

Reference Documents means those documents listed in the Scope of Work.

Regulatory Approvals means all local, regional, state and federal agreements, studies, findings, permits, approvals, authorizations, certifications, consents, decisions, exemptions, filings, leases, licenses, registrations, rulings and other governmental authorizations required to be obtained or completed under applicable Laws, Regulations and Ordinances prior to undertaking any particular activity contemplated by the Comprehensive Agreement or the Design-Build Contract. The term "Regulatory Approvals" includes the EIS.

Reserved Rights means all of the following:

(a) in accordance with Article XIX of the Comprehensive Agreement, the Department's right to use, possess and enjoy any real and personal property over, on, under or adjacent to the Project Right of Way for other transportation and transit facilities, including but not limited to tunnels, flyovers, interchanges and fixed guideways; and

(b) all right to use, and use of:

(i) all electrical, fiber optic and wireless conduit, cable, capacity, towers, antennas and associated equipment or other telecommunications equipment, hardware and capacity existing over, on, under or adjacent to any Project Right of Way installed by anyone, whether before or after the Agreement Date;

(ii) any area or space over, on, under or adjacent to the Project Right of Way for development and operation of any office, commercial, industrial or mixed use real estate project, such as but not limited to revenue-generating service or rest areas;

(iii) any equipment, facilities or capabilities for ITS studies or applications installed by the Department and the right to install any such equipment, facilities or capabilities; and

(iv) any area or space over, on, under or adjacent to the Project Right of Way for any other commercial or non-commercial development or use.

Responsible Public Entity shall have the meaning assigned to such term in Section 56-557 of the PPTA and, for purposes of the Comprehensive Agreement, means the Department.

Retainage shall have the meaning set forth in Section 14.2.6 of the Design-Build Contract.

RFC Notice shall have the meaning set forth in Section 19.4.2.1 of the Design-Build Contract.

Safety Program means Contractor's approved safety program meeting the requirements set forth in Section 5.1.2 of the Design-Build Contract.

Scope of Work means the document attached to the Design-Build Contract as Appendix 6.

Section means any of Sections A through G of the Project as designated in the Scope of Work.

Shop Drawings means drawings showing the sizes, shapes and locations of component elements comprising the Project.

Site means those areas designated in writing by the Department for performance of the Work and such additional areas as may, from time to time, be designated in writing by the Department for Contractor's use in performance of the Work. The Site initially includes the area within the Project Right of Way limits. For purposes of insurance, indemnification, safety and security requirements and payment for use of equipment the term "Site" also includes any areas on which Utility Relocation Work is performed and any property being temporarily used by Contractor for storage of equipment and/or construction Work.

Standard Specifications means the Virginia Department of Transportation Metric Road and Bridge Specifications dated January 1997, provided that the document attached to the Design-Build Contract as Appendix 9 shall be substituted for Division I thereof. Divisions II through VII will not apply to the Work except in connection with any design furnished by Contractor which references the Standard Specifications.

State means the Commonwealth of Virginia.

State Indemnitee means and includes the Department, the Commissioner, the CTB, the State and all elected representatives, appointed officials, commissioners, officers, members, employees, authorized agents and authorized representatives of any of them.

Subcontract means any agreement by Contractor with any other Person to perform any part of the Work or provide any materials, equipment or supplies for any part of the Work, or any such agreement at a lower tier, between a Subcontractor and its lower tier Subcontractor.

Subcontractor means any Person with whom Contractor has entered into any Subcontract to perform any part of the Work or provide any materials, equipment or supplies for the Project on behalf of Contractor (and any other Person with whom any Subcontractor has further subcontracted any part of the Work).

Substantial Completion shall have the meaning set forth in Section 17.3 of the Design-Build Contract.

Surety means each properly licensed surety company, insurance company or other Person approved by the State Corporation Commission to do business in the State, listed in the U.S. Treasury Department Circular 570 and with an A.M. Best and Company rating level of A- or better, Class VII or better, or as otherwise approved by the Department, at its sole discretion, which has issued the Payment Bond or Performance Bond.

Term means the time period commencing on the Agreement Date and expiring 20 years after the latest Opening Date with respect to any portion of the Project warranted by the Pavement Warranty.

Utility or utility means a public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, sewage, storm water not connected with the highway drainage and similar substances that directly or indirectly serve the public. The term "Utility" specifically excludes (a) storm water lines connected with the highway drainage, and (b) traffic signals, street lights, and electrical systems for roadways.

Utility Owner or utility owner means the owner or developer of any Utility (including both privately held and publicly held entities, cooperative utilities, and municipalities and other governmental agencies).

Utility Relocation means the removal, relocation and/or protection in place (including provision of temporary services as necessary) of any and all utility facilities that have to be removed, relocated and/or protected in place in order to permit construction of the Project.

Virginia Code means the Code of Virginia of 1950, as amended from time to time.

Warranties means the warranties made by Contractor in Article 11 of the Design-Build Contract.

Work means all of the administrative, design, engineering, Utility Relocation, procurement, professional, manufacturing, supply, installation, construction, supervision, management, testing, verification, labor, materials,

equipment, maintenance, documentation and other duties and services to be furnished and provided by APAC as required by the Contract Documents, including all efforts necessary or appropriate to achieve Final Acceptance except for those efforts which such Contract Documents specify will be performed by Persons other than a Contractor Party.

Working Drawings means drawings needed to show things associated with the construction of something to be constructed, but which will not be part of the permanent construction, e.g. formwork.

Work Product means all the data, information, documentation and other work product produced, prepared, obtained or deliverable by or on behalf of any Contractor Party and in any way related to the Project or Project Right of Way, including but not limited to Shop Drawings, Working Drawings, Draft Plans and Specifications, Plans and Specifications, record and as-built plans and specifications, engineering documents, geotechnical soils and soil boring data, analyses, reports and records, the Right of Way Plan, property acquisition files, agreements and documents (including records of payment and related correspondence, title policies, parcel diaries and all documents described in Section 6.4.2 of the Design-Build Contract), engineers' and inspectors' diaries and reports, utility relocation plans and agreements, right of way record maps and surveys, Change Orders, final quantities, pile driving records, records of accidents and traffic management, field test records and reports, concrete pour records, surfacing depth check records, grade and alignment books, cross-section notes, drainage notes, photographs, false work and form plans, records of construction materials, and any other documents which can be reasonably described as technical or engineering documents. Work Product expressly excludes, however, documents and information which APAC, Koch and the Department mutually agree in writing, or which a court determines, to be exempted or protected from public disclosure under Section 18.2 of the Comprehensive Agreement and which is not conceived or first reduced to practice for the Project, such as but not limited to proprietary information, technical and engineering data, formulas, analysis and calculations concerning the Pavement Warranty and other proprietary financial and pricing information of either APAC or Koch.

Appendix 2

NOT USED

DRAW REQUEST AND CERTIFICATE

Draw Request No.: _____

Date: _____

Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219
Attention: Project Manager, Route 288

Ladies and Gentlemen:

APAC-Virginia, Inc., a Delaware Corporation (APAC), submits this Draw Request and Certificate (the Request) pursuant to Section 14.2.2 of the Design-Build Contract dated as of December 18, 2000 (the "Design-Build Contract") by and between APAC and the Virginia Department of Transportation (Department). All capitalized terms used in this Request and not defined herein have the respective meaning to such terms in Appendix 1 of the Design-Build Contract or otherwise given in the Design-Build Contract. Section numbers shown in this Request are the Section numbers of the Design-Build Contract unless expressly stated otherwise.

The undersigned officer of APAC has discussed all matters pertinent to this Request with appropriate officers, agents and employees of APAC and its Subcontractors, and other parties to ensure the accuracy of this Request, and has made such other examinations and investigations as are necessary for purposes of ascertaining the truth of the statements contained in this Request.

On the basis of the foregoing, the undersigned hereby (1) requests payment in the amounts on Attachment 1 hereto as set forth in Article 14 of the Design-Build Contract and (2) certifies, warrants and represents on behalf of APAC as follows:

A. Amount of Request

See Attachment 1 for the Request amount and the supporting documentation.

B. Payment and Payees

1. All Costs of the Project itemized in Attachment 1 are now due and payable or are due and payable not more than 30 Days after the Date of this Request in accordance with Article 14 of the Design-Build Contract.
2. The Work for which payment is requested under this Request has been performed and delivered; and the payments to APAC and its Subcontractors requested in this Request include only those costs and

charges for which APAC is entitled to payment at this time under the terms and conditions of the Design-Build Contract.

3. The aggregate amount of all previous draws, if any, paid to APAC or its Subcontractors have been applied only to the payment of Costs of the Project heretofore incurred as specified in the Design-Build Contract.

C. Status of Contract and Contract Performance

1. The Project is being built in accordance with the Scope of Work and the Contract Documents, and in compliance with all Laws, Regulations and Ordinances in effect at the time of performance of the relevant Work.
2. APAC has obtained all Subcontractor's and manufacturer's representations, warranties, guaranties and obligations required to be obtained by APAC under Article 11 of the Design-Build Contract with respect to all Work performed and materials procured to date under the Design-Build Contract.
3. All insurance policies and coverages required under Article 22 of the Design-Build Contract are in full force and effect.
4. No event of Default under the Design-Build Contract and no APAC Default under the Comprehensive Agreement exists on the date of this request or shall occur as a result of the making of the draw to which this Request relates.
5. All representations and warranties of APAC contained in the Design-Build Contract or Comprehensive Agreement in effect on the date hereof are true and correct in all material respects on and as of the date hereof (except for such representations or warranties that by their terms relate solely to a specific prior date) with the same effect as if made on and as of the date hereof.
6. The Design-Build Contract and Comprehensive Agreement executed on or prior to the date hereof and to which APAC is a party is in full force and effect as of the date hereof (or, in the case of the first Request, will be in effect on the date of the draw thereunder), each without amendment or modification except in accordance with the terms thereof and of the Design-Build Contract.

D. Documentation and Conditions of Request

1. This Request is accompanied by all documents as are required to be delivered by APAC pursuant to Article 14 of the Design-Built Contract.
2. The information in all documents and supporting papers prepared by APAC, and, to the best knowledge of APAC, its Subcontractors, and submitted to the Department in connection with this Request is true, correct and complete.

E. Authority; Continuation of Certifications

3. The undersigned has the authority to deliver this Request on behalf of APAC.
4. The Department may assume that the matters certified herein remain true from and after the date hereof through the date of the draw to which this Request relates unless the undersigned shall have delivered to Department a certificate as to any change in any of such matters, which the undersigned hereby agrees to give promptly after obtaining knowledge thereof.

IN WITNESS WHEREOF, the undersigned has caused this Request to be executed by its duly authorized officer on the date first written.

APAC-Virginia, Inc., a Delaware Corporation

By: _____

Name: _____

Title: _____

IN WITNESS WHEREOF, the undersigned certifies that the requirements of the Quality Assurance Plans and the Pavement Warranty have been satisfied for the pavement work for which payment is being requested in accordance Article 14 of the Design-Built Contract by its duly authorized officer on the date first written.

Koch Performance Roads, Inc., a Delaware Corporation

By: _____

Name: _____

Title: _____

Verified and Recommend by Department on Site Representative:

Name: _____

Title: _____

**APPROVED FOR PAYMENT IN ACCORDANCE
WITH PAYMENT INSTRUCTIONS HEREIN:**

Name: _____

Title: **Chief Engineer**

Attachment 1

[illegible]

The total for this Request is \$_____

Appendix 4

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CONTRACT PAYMENT BOND
(Route 288)

Know all men by these presents. That we _____

Hereinafter called the "Principal" and _____

(hereinafter called the "Surety"), are held and firmly bound unto the Commonwealth of Virginia (hereinafter called the "Surety"), are held and firmly bound unto the Commonwealth of Virginia (hereinafter called the "Owner"), in full and the just sum of _____

Dollars (\$ _____) lawful money of the United States of America to be paid to said

"Owner." Its successors, and assigns, to which payment well and truly to be made we bind ourselves, executors, administrators, successors, and assigns jointly and severally and firmly by these presents:

Whereas, The above bounden "Principal" has entered into a contract with the said "Owner" by and through the Commonwealth Transportation Commissioner of the Department of Transportation, said contract being attached hereto, for constructing or otherwise improving

Project: _____

Located: _____

upon certain terms and conditions in said contract more particularly mentioned: and

Whereas, It was one of the conditions of the award of the "Owner" pursuant to which said contract was entered into, that these presents shall be executed:

Now: Therefore. The conditions of this obligation is such that if the above burden "Principal" shall promptly pay all just claims for labor and material (including public utility services and reasonable rental of equipment when such equipment is actually used at the site) performed for or supplied to said "Principal" or any subcontractor in the prosecution of the work contracted for then this obligation is to be void; otherwise; to be and remain in full force and virtue in law.

Witness, the signature of the "Principal" and the signature of the "Surety" by its Attorney-in-fact and its corporate seal duly attached by their Attorney-in-fact,

hereunto affixed this _____ day of _____ in the year _____

(Principal)

(Surety Company)

By: _____

(Officer, Partner or Owner)

(SEAL)

By: _____

Attorney-in-fact

(SEAL)

(Address)

(Address)

Appendix 5

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CONTRACT PERFORMANCE BOND (Route 288)**

Know all men by these presents. That we _____

Hereinafter called the ("principal") and _____

(hereinafter called the "Surety"), are held and firmly

bound unto the Commonwealth of Virginia (hereinafter called the "Owner"), in full and just sum of _____

Dollars (\$ _____) lawful money of the United States of America to be paid to said "Owner." Its successors, and assigns, to which payment well and truly to be made we bind ourselves, executors, administrators, successors, and assigns jointly and severally and firmly by these presents:

Whereas, The above bounden: "Principal" has entered into a contract with the said "Owner" by and through the Commonwealth Transportation Commissioner of the Department of Transportation, said contract being attached hereto, for constructing or otherwise improving

Project: _____

Located _____

upon certain terms and conditions in said contract more particularly mentioned: and

Whereas. It was one of the conditions of the award of the "Owner" pursuant to which said contract was entered into, that these presents shall be executed:

Now: Therefore. The conditions of this obligation is such that if the above burden "Principal" shall in all respects comply with the terms and conditions of said contract and his obligations thereunder, including the "Specifications", with amendments thereto, "Special Provisions," "Proposal," and plans therein referred to and made a part thereof, and such alterations as may be made in said plans and specifications as therein provided for, and shall indemnify and save harmless the said "Owner" against or from all cost, expenses, damages, injury or as loss to which the said "Owner" may be subjected by reason of any wrongdoing, misconduct, want of care or skill, negligence or default, including patent infringements, delay or failure to comply with contract provisions, on the part of said "Principal," his agents or employees, in the execution or performance of said contract, including errors in the plans furnished by the "Principal," and shall pay all just claims for damages and injury to property then this obligation to be void; otherwise, to be and remain in full force and virtue in law.

Witness, The signature of the "Principal" and the signature of the "Surety" by its Attorney-in-fact and its corporate seal duly attached by their Attorney-in-fact,

hereunto affixed this _____ day of _____ in the year _____

(Principal)

(Surety Company)

By: _____

(Officer, Partner or Owner)

(SEAL)

By: _____

Attorney-in-fact

(SEAL)

(Address)

(Address)

PROJECT SCOPE - 288

12-13-00

Introduction:

The purpose of this document is to describe the scope and standard of services to be provided by APAC Virginia, Inc. in the design and construction of Route 288 as proposed under the authority of the Virginia Public-Private Transportation Act of 1995. The roadway shall begin generally in Chesterfield County south of Route. 76 / 288 Interchange, span the James River and terminate at I-64 in Goochland County and will adhere to the geometry and standards set in the Preliminary Designs indicated by the plans dated December 15, 2000, attached. Any changes from the Preliminary Design shall be approved by the Chief Engineer, under Article 3 of the Design- Build Contract.

Standards:

Work under this agreement will be in accordance with the following documents, which are incorporated by reference to this project scope.

AASHTO A Policy on Geometric Design of Highways and Streets, 1994 edition
AASHTO An information Guide for Roadway Lighting
AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement)
AASHTO Guide Specifications for Distribution of Loads for Highway Bridges, 1994 edition
AASHTO Guide Specifications for Horizontally Curved Highway Bridges, 1993 edition
AASHTO Standard Specifications for Highway Bridges, Sixteenth Edition, 1996 w/VDOT Modifications
AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals. 1994 edition
Americans with Disabilities Act Accessibility Guidelines for State and Local Government Facilities
American Water Works Association Standards
FHWA Roadway Lighting Handbook
Transportation Research Board Highway Capacity Manual, Third Edition, 1994
USDOT Manual on Uniform Traffic Control Devices, 1988 edition
VDOT Drainage Manual, 1980 edition
VDOT Manual of Practice for Planning Stormwater Management, January 1999 Edition
VDOT Metric Road and Bridge Specifications, January 1997 Edition (Metric) and January 1994 (Imperial)
VDOT Road and Bridge Standards, Volumes I and II, 1996 Edition (Metric) and 1993 Edition (Imperial)
VDOT Road Design Manual, Volumes I and II, 1996 Edition
VDOT Structure and Bridge Division Manual, Volumes III and V
Virginia Erosion and Sediment Control Handbook, Third Edition, 1992
Virginia Uniform Statewide Building Code, 1997 Edition
Virginia Work Area Protection Manual, January 1, 1996 Edition
VDOT Post Construction Manual 1997 Edition
VDOT Hauling Permit Manual 1996 Edition

AASHTO Fracture Critical Non-Redundant Steel Bridge Members Current Spec. w/ all Interim's
AASHTO "Guide Spec.'s for Design and Construction of Segmental Concrete Bridges" 1989 w/ Interim's
AASHTO "Guide Spec.'s and Commentary for Vessel Collision Design of Highway Bridges, 1991
AASHTO LRFD Design Specifications, 1999
AASHTO "Guide Spec.'s for Thermal Effects in Concrete Bridges Superstructures" w/ Interim's
Construction and Professional Services Manual (Department of General Services)
VDOT Construction Manual, 1996 Version
VDOT Manual of Instruction Materials Division, 1995 Version
VDOT Phase Inspection, 1983 Version

Specific design criteria shall be the design criteria set forth in VDOT design contracts for 0288-072-104,C504,B602,B603,B604,B605,B606;0288-037-104,C505,B601,B602,D620; 0288-037-104,C507,B605, B606, B607,B609,B616,B617,B618,B619; 0288-037-104,C510; 0064-037-108,C501,B601,B602,B603,B614,B615.

Description:

Scope:

The project will be constructed in seven Sections.

Section A – Chesterfield/Powhatan County Line to South end of the James River Bridge
Section B – James River Bridge
Section C – North end of James River Bridge to North of Route. 6 Interchange
Section D – North of Route. 6 Interchange to South of Route. 250 Interchange
Section E – South of the Route. 250 Interchange to I-64 Interchange
Section F – Chesterfield County Improvements
Section G – Southern Access Road

See FIGURE 1. - *Grade Separation/Stream Crossing Structures* – Route 288 for a listing of the bridge structures.

Section A – Chesterfield / Powhatan County Line – South end of James River Bridge

The facility begins at and ties into the section under construction at the Chesterfield/Powhatan County Line. Four lanes will be constructed northward to the James River Bridge. A diamond interchange will be constructed at Route 711, including a bridge carrying Route 711 over Route 288 and with associated service roads. Bridges will also be constructed over Bernard's Creek, just south of Route 711.

Bernard's Creek

- Construct two bridges carrying Route 288 over Bernard's Creek

Route 711 Interchange – Robins Road

- Construct a diamond interchange
- Construct one bridge carrying Route 711 over Route 288

- Construct one new, 4-lane roadway - Route. 711 from Sta. 12+00 to 25+20
- Reconstruct Hancroft Drive – 2-lane service road from Sta 100+43 to 104+51
- Reconstruct Frontage Road – 2-lane frontage road from Sta 200+07 to 203+63
- Construct a private entrance on the Beechwood Property located in the southeast quadrant from Sta. 300+05 to 303+45
- Signals at both ramps intersection with Route. 711.

Section B – James River Bridge

Two parallel structures carrying Route 288 over the James River.

- Construct two bridges carrying Route 288 over the James River, Kanawha Canal and CSX Railway.
- Provide flagging for construction of bridges over CSX Railway.

Section C – North end of the James River Bridge – North of Route 6 Interchange

Four lanes will be constructed from the James River Bridges to north of the Route 6 interchange. A bridge carrying Route 650 (River Road) over Route 288 will be constructed. A cloverleaf type interchange will be constructed at Route 6, as well as a bridge carrying Route. 6 over Route. 288. Paigebrook Drive, east of the Route. 6 interchange will be relocated eastward of its intersection with Route. 6. Two service roads will be constructed in the southeastern and southwestern quadrants of the interchange.

Route 650 – River Road

- Construct one bridge carrying Route 650 (River Road) over Route 288
- Reconstruct Route 650, a two-lane roadway from Sta 118+80 to 120+40

Route 6 Interchange (Patterson Ave.)

- Construct a partial cloverleaf interchange with four loops, and three ramps
- Construct one bridge carrying Route 6 (Patterson Avenue) over Route 288
- Construct relocated Paigebrook Drive from Sta. 10+13 to 12+77
- Construct Service Road A from Sta. 10+03 to 14+30
- Construct Service Road B from Sta. 10+03 to 13+20
- Reconstruct Route 6 to a 4-lane roadway with median from Sta. 303+40 to 318+99.

Section D – North of Route 6 Interchange – South of Route 250 Interchange

Four lanes will be constructed from north of the Route 6 interchange to West Creek Parkway. From West Creek Parkway to Route 250, two lanes on the eastern side of the 2-lane existing section of Route 288 will be constructed. A diamond-type interchange including a loop in the southwest quadrant will be constructed at West Creek Parkway, including structures carrying Route 288 over West Creek Parkway. A structure carrying Route 288 over Broad Branch will be constructed just north of West Creek Parkway. A cloverleaf type interchange will be constructed at Ridgefield Parkway, including a flyover from Route 288 into the Capital One site being developed in the southwestern quadrant. This access to the Capital One site will have two structures, one over the Route 288 mainline and one over Ridgefield Parkway. Ridgefield Parkway will be extended westward from Route 288 to Route 623. To the east, Ridgefield Parkway will terminate at the eastern limited access line. Also included at the Ridgefield Parkway interchange will be a structure carrying Ridgefield Parkway over Route 288. The existing two-lane structure carrying southbound Route 288 over Tuckahoe Creek will be widened

to accommodate an auxiliary lane from the Route 250 Interchange. A structure will be constructed to carry northbound Route 288 over Tuckahoe Creek.

Temporary Access Road

- Construct eastbound lane of Ridgefield Parkway from Sta. 8+70 to Sta. 14+20 up to finished pavement.
- Construct Ramp D consisting of two lanes from Sta. 10+00 to Sta. 17+42.
- Construct two lanes for a temporary connection from Ramp D Sta. 17+42 to existing Route 288 Sta. 159+20 including a temporary signal at Route 288 and temporary connection.
- Roadway will be open by December 1, 2001.

Westcreek Parkway Interchange

- Diamond interchange with a loop in the southwest quadrant except, Ramp A as noted in bullet 5.
- Two lanes in each direction on Route 288 between Route 6 and Westcreek Parkway.
- Construct two bridges carrying Route 288 over Westcreek Parkway.
- Widening and shoulder work on Westcreek Parkway.
- Southbound exit ramp to Westcreek Parkway will be the existing 2-lane section of Route 288 from Sta. 10+00 and Sta. 15+79.
- Construct one bridge carrying northbound Route 288 over Broad Branch Creek.

Ridgefield Parkway Interchange

- Construct a full cloverleaf interchange.
- Construct one bridge with raised median carrying Ridgefield Parkway over Route 288.
- Construct Ridgefield Parkway from Sta 3+07 to 28+80.
- Construct flyover access road (Ramp A) including one bridge over Route 288 and one bridge over Ridgefield Parkway and Ramp D.
- Flyover access road construction will consist of sufficient embankment on the southwest side of Ridgefield Parkway to facilitate construction of the flyover bridge over Ramp D and Ridgefield Parkway and will not include any pavement south of the flyover bridge.
- Signal at entrance to Capital One from Ridgefield Parkway.

Tuckahoe Creek

- Construct bridge carrying northbound Route 288 over the Tuckahoe Creek.
- Widen existing southbound Route 288 bridge over Tuckahoe Creek for on-ramp merge lane from Route 250.
- Widen and reconstruct southbound Route 288 from Broad Street / Route 250 to Tuckahoe Creek.

Section E – South of the Route 250 Interchange – I-64 Interchange

The Route 288 mainline and auxiliary lanes from south of Route 250 to I-64 will be constructed. Interchanges with Route 250 and I-64 will also be constructed. Two structures carrying Route 288 over Route 250 will be constructed. Three structures will be constructed at the Route 288 and I-64 interchange – two flyover structures and one structure carrying a ramp over Little Tuckahoe Creek.

Route 60 Interchange

- Construct two through lanes in each direction between the CD road exits and entrances from Sta. 93+27 to 109+35. The 10-inch concrete pavement will be added towards the median with the existing inside lane serving as the new outside mainline shoulder. A new median mainline shoulder will be constructed.

Section G – Southern Access Road

Construct 2-lanes from south end of bridge over Route 288 to north end of bridge over Broad Branch with sufficient embankment to facilitate construction of the bridge over Route 288 and Broad Branch Creek.

- Construct one bridge carrying Southern Access Road over Route 288.
- Construct one bridge carrying Southern Access Road over Broad Branch Creek.
- Construct a new two-lane access road with widening as required for turning movements between the two bridges.
- Environmental Permits will be provided by June 1, 2001 and the facility will be completed by August 1, 2002.

Permits.

The Department shall obtain all Regulatory Approvals for the existing contract documents in accordance with Section 10.2.1(a) of the Design/Built Contract. The Department shall provide the compensatory mitigation required to obtain the Regulatory Approvals.

The Contractor shall obtain all Regulatory Approvals for any deviations or modifications from the Regulatory Approvals obtained by the Department. The Contractor shall obtain all Regulatory Approvals for all support operations (concrete or asphalt) owned, operated or implemented by the Contractor. The Contractor shall be responsible for any compensatory mitigation resulting from Regulatory Approvals for all deviations or modifications and for all support operations.

The project shall be built under the requirements of, among other things, the Corps of Engineers permits authorized under Section 401/404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, Virginia Water Protection Permit from Department of Environmental Quality and a Virginia Pollutant Discharge Elimination System Permit (stormwater), and the Subaqueous Bed Permit from Virginia Marine Resources Commission. The Permit Application shall delineate all of the wetland temporarily, adversely, or permanently impacted by construction of the project.

Right of Way and Utilities.

The Department will be responsible for acquiring the project Right of Way as specified in the plans that are necessary for the construction. The Department will be responsible for all utility adjustments. Any additional Right of Way or easements needed for convince of the Contractor shall be acquired by the Contractor. This includes but is not limited to; construction easements, borrow sites, waste sites and staging areas or any deviation or modification of the existing design.

Maintenance of Traffic

Maintenance of Traffic shall conform to the Plan as required by the Design- Build Contract Article 19 and approved by the Chief Engineer and shown conceptually in the Preliminary Design Variances to the Plan shall be requested at least one week prior, by APAC and approved by the Richmond District Construction Engineer. Documentation of the variance shall be maintained by APAC. Other than the lane restrictions approved as a part of the Plan as approved by the District, no temporary lane restrictions shall take place between the hours of 6:30 and 8:30 AM and 4:00 and 7:00 PM Monday through Friday. No permanent lane restrictions will be allowed on I-64 unless provisions are made for two 11-foot lanes. On all other roadways, no permanent lane restrictions will be made unless equivalent lane widths are made, up to a maximum of 11-foot lanes on Primary Roads.

No temporary lane restrictions shall take place between 12:00 noon on the Friday preceding and 12:00 noon the Tuesday following Memorial Day and Labor Day; or July 4 and Christmas Day if these holidays occur on Saturday or Sunday. No lane restrictions shall take place between 12:00 Noon Wednesday preceding and 12:00 noon the Monday following Thanksgiving Day. All activities related to the Project that have an impact on the traveling public shall be performed in accordance with the Construction Traffic Management Plan to be developed by APAC.

Contractor will not use any secondary roads in Powhatan County, West Creek Parkway and secondary roads in and around Salisbury Subdivision for hauling of materials except for Route. 711.

Temporary signage used during the construction of the project shall conform to the Manual of Uniform Traffic Control Devices.

Coordination with other VDOT construction efforts in the area shall be coordinated through the Richmond District. APAC Virginia, Inc. shall adhere to the direction of the District.

The Construction Traffic Management Plan shall include an operational traffic analysis and proposed mitigation measures on the Project during the course of construction and their interface with the connecting and adjacent public transportation facilities and State Highways. The following information and relevant underlying assumptions shall be provided, as appropriate, for the peak a.m. and p.m. periods, for the transitional periods in which the operation of the Project changes from that in effect during the peak period operations and for non-peak, non-transitional operating periods:

- (a) existing and projected volumes;
- (b) ingress and egress locations;
- (c) types of vehicles allowed or excluded from the project;
- (d) weaving lengths under anticipated traffic flow patterns;

- (e) the connections at each end of the Construction Segments;
- (f) scheduling of temporary traffic diversions;
- (g) enforcement areas and procedures;
- (h) delays and queues;
- (i) public information, driver information plans and incident response; and
- (j) provisions for construction worker safety.

The Construction Traffic Management Plan shall set forth standards and procedures for designating each Construction Segment and shall initially identify each Construction Segment. Contractor may from time to time change the designation of Construction Segments provided the change conforms to such standards and procedures and Department has approved the change in writing. Department shall not unreasonably withhold or delay its approval. Each such change shall become effective when Department and Contractor execute a written amendment or supplement to the Construction Traffic Management Plan setting forth such change.

Pavement

Typical pavement sections except as being built under Koch Pavement Warranty shall be as shown in the Plans.

Signage

Permanent Signs shall be a part of the Work under the Design - Build Contract to be furnished by APAC. This plan shall include directional and enforcement signs. The sign plans shall be approved by the Chief Engineer.

Construction Schedule.

Schedule of Construction shall be as described in Sections 13 and 17 of the Design-Build Contract.

Quality Assurance and Control Inspection Program shall be in accordance with Appendix C.

Plan preparation shall be accordance with Appendix D.

Appendices:

- A – Not Used
- B – Not Used.
- C - Quality Assurance and Control Inspection Program
 - C-1-Koch Pavement and Binder QA Plan
- D - Plan Preparation
- E – DBE Policy

FIGURE 1

GRADE SEPARATION / STREAM CROSSING STRUCTURES - ROUTE 288

The dimensions and stations shown herein and on the Design Plans dated December 15, 2000 and attached as a part Appendix D are approximate and are subject to final design which is the responsibility of APAC.

Structure	Plan No.	Length (meters)	Width out-to-out (meters)
Section A			
B602 - Route. 288 (SBL) / Bernard's Creek	280-61	174.00	17.50
B605 - Route. 288 (NBL) / Bernard's Creek	281-10	176.19	16.60
B603 - Route. 711 / Route. 288	280-62	99.24	29.20
Section B			
B604 - Route. 288 (SBL) / James River	280-63	1116.32	12.96
B606 - Route. 288 (NBL) / James River	281-11	1116.32	12.96
Section C			
B601 - Route. 650 (River Road) / Route. 288	280-38	82.40	10.00
B602 - Route. 6 (Patterson Ave.) / Route. 288	281-82	87.20	32.20
Section D			
<i>West Creek Parkway Interchange</i>			
B605 - Route. 288 (NBL) / West Creek Parkway	281-81	71.94	13.60
B606 - Route. 288 (SBL) / West Creek Parkway	281-81	71.94	13.60
B607 - Route. 288 (NBL) / Broad Branch Creek	282-08	59.65	13.60
<i>Ridgefield Parkway Interchange</i>			
B617 - Ridgefield Parkway / Route. 288	282-11	72.62	37.55
B618 - Flyover A / Route. 288	282-12	101.14	12.40
B619 - Flyover A / Ridgefield Parkway and Ramp D	282-13	82.85	23.20
B609 - Route. 288 (NBL) / Tuckahoe Creek	282-09	159.19	19.00
B616 - Route. 288 (SBL) / Tuckahoe Creek *	274-49A	159.85	4.60 *
Section E			
<i>Route. 250 (Broad Street) Interchange</i>			
B614 - Route. 288 (NBL) over Route. 250	279-06	64.00	19.00
B615 - Route. 288 (SBL) over Route. 250	279-06	64.00	22.60
<i>I-64 Interchange</i>			
B603 - Ramp E / Little Tuckahoe Creek	281-24	210.00	14.50
B601 - Ramp G / I-64 and Ramp H	281-22	288.00	14.50
B602 - Ramp H / I-64 & Little Tuckahoe Creek	281-23	225.00	14.50
Section F			
▲ B679 - Route. 288 (NBL) over Route. 76	279-00A	67.80	13.40

| **Complete Lucks Lane Interchange**

▲		278-92A	82.88	16.06 *
B622 - Widen existing Lucks Lane over Route 288. *				

| **Complete Woolridge Road Interchange**

▲		278-94	85.60	27.00
B683 - Woolridge Road / Route. 288				

Section G

| **Southern Access Road**

▲		xxx-xx	82.30	12.80
B620- Southern Access Road over Route 288				

▲		xxx-xx	198.12	12.80
B621 - Southern Access Road over Broad Branch Creek				

*Widened portion

▲ Plans to be developed by APAC for designated Bridges both preliminary and final.

Appendix C to Scope

QUALITY ASSURANCE AND CONTROL INSPECTION PROGRAM

INTRODUCTION

QA MANAGER, an independent consultant to APAC, will be responsible for providing Quality Assurance and Control Inspection to monitor the ROUTE 288 construction activities for conformance with the approved Drawings, Specifications and related documents.

The Virginia Department of Transportation (VDOT) may provide quality assurance inspection during the life of the project, to verify conformance with VDOT's obligations under Design-Build Contract. The Corps of Engineers (COE), Chesterfield County, Henrico County, Powhatan County, Goochland County and the various utility companies affected by ROUTE 288 may also occasionally provide spot inspection to review construction compliance with their respective contractual or legal requirements.

Subject to Article 3.7.5 of the Design-Build Contract, VDOT Standards and Specifications, including any project supplemental specifications specifically identified in The Contract Documents between VDOT and APAC, shall at all times govern the construction of this project. The QA MANAGER shall be the interpreter of these requirements unless otherwise directed by VDOT. The QA MANAGER shall certify that all construction has been placed in accordance with the approved plans and specifications.

To protect the interest of VDOT as specified in the Design-Build Contract, a Quality Assurance and Control Inspection Program (QA/CIP) will be implemented to address and define inspection and reporting responsibilities. This Program is defined on the following pages and reflects the unique relationships among the parties involved in this Project.

ORGANIZATION AND RESPONSIBILITIES

The QA MANAGER will be responsible for monitoring the construction activities for Contractor compliance to the QA/CIP and to provide the necessary documentation and coordination of all construction engineering, inspection and testing of construction materials and construction. Actual QA/CIP manpower requirements will be determined by the QA MANAGER based upon the levels of construction activities undertaken by the Contractor and to adequately and properly monitor the work to be certified as required by the Design-Build Contract and the Project's approved schedule.

The QA Manager's Project Resident Engineer (PRE) will have overall responsibility to coordinate the utilization of any and all Independent Materials Testing Agencies' Inspectors. The PRE will coordinate with the APAC's Project Manager (PM) as to the Project's schedule and the inspection staff required to adequately and properly monitor these activities for certification of compliance to VDOT.

The QA MANAGER will inform APAC when the quality of APAC's production forces (PRODUCTION) work is unsatisfactory. The PRE will notify APAC if corrective measures are not implemented in a timely manner. APAC will make all decisions

regarding removal of defective work or reduction of payment. The QA Manager shall keep VDOT's District Construction Engineer (or his designated representative) informed of all such actions.

The VDOT Quality Assurance inspectors will be afforded the opportunity to perform any inspection activities including but not limited to those listed below:

- Review locations where pipe and culvert are to be installed - temporary or permanent
- Inspect pipe and culvert foundations before bedding material is placed
- Review pipe and culvert invert elevations
- Inspect bridge foundations prior to placement of concrete
- Review rebar and form work prior to concrete placement
- Monitor bridge deck and bridge substructure concrete placement
- Review significant plan changes
- Attend scheduling meetings
- Have access to all Project inspection documentation
- Review failed material tests with APAC and the PRE
- Coordinate all discrepancies and safety concerns with APAC and the PRE
- Provide overview inspection of off-site asphalt and concrete plants furnishing VDOT approved materials
- Monitor traffic control devices and traffic safety

The QA MANAGER may use Independent Materials Testing Agencies that will furnish technicians, equipment and facilities to perform laboratory tests of fabricated and non-fabricated materials used in the construction of this Project. The QA MANAGER will provide a Materials Coordinator who will be responsible for coordinating the proper inspection coverage and documentation of materials certifications. The QA Manager's personnel staff shall be VDOT certified in hydraulic cement, asphalt cement pavement, central mix aggregate and soils compaction, and nuclear safety. Independent Materials Testing Agencies' staff shall be VDOT certified in the areas that they will be involved. Troxler certification may be an acceptable alternative for nuclear density inspection of compacted soils and asphaltic concrete.

The QA MANAGER will provide Engineers and Inspectors for the implementation and coordination of the approved QA/CIP and to monitor, test, supervise, review, and coordinate the construction inspection and testing program for ROUTE 288.

The QA Manager's personnel will maintain daily logs of all construction activities and will perform, although not limited to, the following to observe and record the conformance with plans and specifications:

- Review material test results
- Coordinate inspection of bearing material for foundations with the geotechnical firm selected by APAC.
- Check form work and reinforcing bar placement for concrete structures.
- Monitor structural steel placement
- Monitor concrete curing procedures
- Inspect bridge deck screed machines, including operation and depth of slab settings
- Monitor deck and substructure concrete placement

- Review maintenance and protection of installed traffic control devices
- Inspect erosion and siltation control devices and coordinate storm water management related matters.

This list is not intended to be inclusive of all activities that may be required of the QA Manager. The QA Manager's staff will also perform the following tasks, monitor and review the testing activities of all Independent Materials Testing Agencies to assure conformance with the contract documents.

- Compaction testing of engineered fills including embankment, backfills, and pipe trenches
- On-site concrete testing consisting of slump, air entrainment, temperature, and the making of concrete test cylinders.
- Compaction testing of base courses and asphalt pavement
- Continuous inspection of utility installations within 288 Right-of-Way
- Blow count recordation for driving of piles
- Witness pressure and leak tests performed by subcontractors
- Field bolt torque inspection
- Check structural steel field-coat paint thickness

The QA MANAGER will coordinate and receive all test results and reports for the following services from the off-site laboratories and plant inspectors:

- Laboratory testing of concrete cylinders
- Shop inspection of fabricated structural steel
- Monitoring of concrete, asphalt and crusher plants
- Certifications from F.O.B. job site provided materials

INSPECTION AND ADMINISTRATION

1. INSPECTION PROGRAM

A. General

All inspections shall either be performed by, or at the direction of the QA Manager's Quality Assurance Team. The QA Manager's staff will determine whether the materials and work are in compliance with the approved drawings, specifications, and applicable VDOT standards as outlined in the Design-Build Contract.

B. Control Testing

All control testing will be performed by the QA Manager's staff or by inspectors from an approved Independent Materials Testing Agency. Inspection activity will be scheduled and coordinated by the QA Manager's Quality Assurance Team with APAC.

The PRE shall:

1. Provide scheduling and coordination of all testing and re-testing to maintain a quality and quality level of testing for VDOT approval and certifications.
2. Receive and check material certifications and samples for conformance

3. Inspect delivered materials and equipment.
4. Inspect work in progress and in place
5. Witness field testing of construction materials
6. Make control tests to support the methods or equipment of any independent testing agency
7. Verify that the results of tests conform to contract requirements
8. Immediately notify APAC if materials or workmanship do not comply with the specifications. APAC and VDOT will be notified in writing when these deficiencies are not correct in a timely and appropriate manner.

C. Reporting

All inspection requirements will be documented in writing. Complete and accurate reports of all Quality Control Tests will be maintained by the QA Manager. Among the items to be shown on the report are:

1. Description of work
2. Type of test and specification reference
3. Agency and Inspector performing the test and location, time, date and equipment used.
4. Sample source and date secured
5. Results of tests
6. Recommendation as to acceptance or rejection
7. Signature of responsible person controlling the testing work
8. Approval or rejection by the PRE

D. Scheduling and Coordination

The QA Manager, along with necessary representatives of the Quality Assurance Team, will attend APAC conducted weekly construction job meetings with subcontractors and field superintendents to discuss safety, schedule, and outstanding issues. APAC will be responsible for maintaining the master schedule for this Project as provided for in the Design-Build Contract utilizing appropriate scheduling software. Input from PRODUCTION will be coordinated by APAC. APAC's working monthly or weekly schedules from the overall Project schedule will be provided to the PRE so he can adjust his staffing levels and review possible construction delays. Each Quality Assurance Team member will evaluate these requirements from APAC's schedule and advise the PRE as to the location, time, and number of personnel required along with the type of testing services required.

E. Job Meetings

Communication is critical to this project's success. Therefore at a minimum, the following construction job meeting shall be held weekly:

1. Safety meeting with APAC's employees and PRE
2. Scheduling meeting with APAC, Production, QA Manager, PRE and VDOT
3. Quality meeting APAC, QA staff and VDOT

Each morning the QA Manager shall discuss the days proposed activities with Production.

The QA Manager will schedule and conduct a weekly Safety meeting with the QA staff.

Each week the PRE will schedule and conduct progress job meetings with PM, engineers, inspectors, and Independent Material Testing Agency representatives. Schedules and manpower requirements for the following week will be discussed.

PRE will disseminate meeting information to the QA/CIP Team.

F. Progress of Work

APAC will make a video Cassette Recording or take photographs showing the progress of construction. Each recording or photograph will normally show the date and time. The tapes and photographs made by APAC and/or the Subcontractor will be for their use in reviewing Project status for the administration of contract payments. As applicable, this photographic record of the progress shall accompany the monthly report to VDOT.

G. Environmental Monitoring Program

APAC shall employ a full time Environmental Monitor to ensure compliance with applicable laws and regulations, and serve as a resource in securing permits and as a source of expert advice. The duties shall include but are not limited to:

- Liaison between APAC and Production, and VDOT and regulatory agency personnel to coordinate and solve environmental, and design-engineering issues.
- Implement s contract special provisions and provides on-time technical guidance on the implementation of permit conditions within each phase of the project to analyze and evaluate water quality impacts, construction design and technical data associated with the project.
- Anticipates problems and concerns the environmental regulatory agencies may raise during the construction of the project.
- Facilitates the resolution of engineering, biological, water quality, and wetland-related issues as they arise during project construction. Arranges and conducts meetings with federal and state agencies to solicit comments on project implementation.
- Develops biological, chemical and physical sampling procedures to support regulatory approvals and the Environmental Monitoring Program.
- Project coordinator and expert on the implementation of the requirement s from the Erosion and Sediment Control Law, Storm water Management Law, Virginia Pollution Discharge Elimination System (VPDES) permits, Virginia Water Protection Permits, VMRC Permits and Corps of Engineers Permits.
- Performs scientific field investigations, data collections and wetlands delineation to assess and ensure the implementation of permit conditions during construction activities so that reporting deadlines are met.
- Provide Quality Assurance/Quality Control for the implementation of the permit conditions in accordance and in compliance with current state and federal environmental regulations.
- Prepares, and coordinates permit applications to acquire permit modifications for the project and to acquire permits for support activities.

- Provide Quality Assurance/Quality Control for the implementation of the permit conditions in accordance and in compliance with current state and federal environmental regulations.
- Prepares, and coordinates permit applications to acquire permit modifications for the project and to acquire permits for support activities.

2. ADMINISTRATIVE FUNCTIONS

A. Progress Payment

APAC will be responsible for preparing monthly progress payment requisitions related to the work. A monthly meeting will be conducted with the QA Manager to review and finalize the payment requisition. The QA Manager shall certify that the work represented in the requisition has been accomplished and is in compliance with the contract documents. Before this monthly meeting, the Production must submit to the QA Manager, an invoice including substantiation of material deliveries, so that an agreement on the quantities shown on the invoice can be reached.

B. Working Drawings

Production working drawings shall be submitted through APAC in accordance with the requirements of the specification. In addition, all communication between Production and the PRE, with respect to the working drawings, shall be channeled through APAC.

C. Conformity with Plans and Specifications

All work performed and all materials furnished shall be in conformity with the Contract requirements.

The QA Manager has the authority to enforce requirements of the Contract Document, and Reference Document, when deficient materials or unsatisfactory finished products fail to conform to Contract Documents and Reference Documents. The QA Manager's Quality Assurance Team, in accordance with their assignments, shall monitor, and inspect Production work as it progresses. Work that is not acceptable will be brought to the immediate attention of Production who will have the deficiency corrected before it is covered. All deficiencies that are not corrected (hereinafter referred to as a Non-Conformance), including those pertaining to rules, regulations and permit requirements, will be documented by the QA Manager. A Non-Conformance Report (NCR), referenced by a unique number, will be forwarded to APAC and VDOT within 24 hours of discovery of the Non-Conformance. NCR's can be initiated by the QA Manager, VDOT, APAC, and any agency issuing a permit for the prosecution of this work. In order to maintain Project continuity, all NCRs will be submitted to and coordinated by the QA MANAGER for resolution. PRODUCTION may submit through APAC to the PRE a proposed method of correction for approval. APAC will require Production to remove, replace or correct inferior materials and workmanship. Responsibility for the expense for these corrections will be resolved between APAC and Production. Each item will be placed in a computer database so as to create an ongoing punch list. This punch list will be provided on a monthly basis to APAC and VDOT. The objective is to resolve NCRs within 30 Days.

In certain cases, materials or finished products, are not in strict conformity with the Contract requirements, but the removal of these materials will cause serious schedule and possible completion impacts. In these situations, except for work covered under the Pavement Warranty, the PRE, with the concurrence of VDOT, will make a final determination as to whether the work can be accepted.

In the event that it is accepted, the QA Manager will document the basis of acceptance. APAC and VDOT will be responsible for any decisions as to an appropriate adjustment in the Contract price or other specific requirements or adjustments that are appropriate.

The QA Manager shall have the authority to suspend the work, wholly or in part, by written order for such period as they deem necessary because of any condition considered by them to be unfavorable for the suitable prosecution of the work; or failure on the part of Production to perform any provision of the NCR. A NCR recommending suspension of work can be initiated by any of the parties noted above but must be furnished to the PRE for coordination and concurrence within 24 hours of discovery. VDOT can instruct APAC to suspend the work.

D. As-Built Documentation

APAC shall prepare and furnish red-lined prints of Contract drawings to the QA MANAGER showing significant as-built conditions. All as-built shop drawings, catalog cuts, and diagrams, and other information prepared by APAC, its subcontractors, suppliers and manufacturers, that are necessary to properly maintain the accepted facility, are to be furnished to the PRE and the Department. To control the documentation of the changes made, the PRE shall, on a daily basis maintain at a central location, a complete set of contract full size drawings to reflect "AS-BUILT" conditions with changes marked in green pencil.

E. Interpretations and Requests for Information

Any requests for information shall be submitted to the PRE through the appropriate inspector. The PRE will coordinate the request with the APAC and VDOT. The QA Manager will ensure a timely response to these requests.

F. Extra Work

All requests for extra work will be coordinated by APAC who will inform the PRE so that proper quality control can be performed. All adjustments to contracts as a result of extra work requests will be the responsibility of APAC.

G. Safety

APAC and Production are responsible for the safety of their operations and their employees (a Safety Director will be employed full time by APAC). Whenever unsafe conditions are noticed by the QA staff during the prosecution of the QA/CIP, they will immediately be brought to the attention of the responsible party in charge. If, after notification, satisfactory corrections are not made in a timely manner, the Contractor's Safety Director will be informed and requested to take appropriate action. If satisfactory corrections are not forthcoming, APAC will be informed by the PRE. The QA Manager

shall not advise or issue directions regarding, or assume control over, safety precautions and programs of others.

VDOT shall have the authority to suspend work due to safety violations or unsafe conditions occurring within Project Right of Way. VDOT shall review the signing and traffic control devices where the Project interfaces with existing roadways. VDOT shall also have the authority to suspend work along detours being used by the general public where unsafe conditions or inadequate traffic control measure is noted. Unsafe conditions found by VDOT on Project Site shall be brought to the attention of APAC for disposition as described above.

PROJECT SCOPE - 288

12-13-00

Introduction:

The purpose of this document is to describe the scope and standard of services to be provided by APAC Virginia, Inc. in the design and construction of Route 288 as proposed under the authority of the Virginia Public-Private Transportation Act of 1995. The roadway shall begin generally in Chesterfield County south of Route. 76 / 288 Interchange, span the James River and terminate at I-64 in Goochland County and will adhere to the geometry and standards set in the Preliminary Designs indicated by the plans dated December 15, 2000, attached. Any changes from the Preliminary Design shall be approved by the Chief Engineer, under Article 3 of the Design- Build Contract.

Standards:

Work under this agreement will be in accordance with the following documents, which are incorporated by reference to this project scope.

AASHTO A Policy on Geometric Design of Highways and Streets, 1994 edition
AASHTO An information Guide for Roadway Lighting
AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement)
AASHTO Guide Specifications for Distribution of Loads for Highway Bridges, 1994 edition
AASHTO Guide Specifications for Horizontally Curved Highway Bridges, 1993 edition
AASHTO Standard Specifications for Highway Bridges, Sixteenth Edition, 1996 w/VDOT Modifications
AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals. 1994 edition
Americans with Disabilities Act Accessibility Guidelines for State and Local Government Facilities
American Water Works Association Standards
FHWA Roadway Lighting Handbook
Transportation Research Board Highway Capacity Manual, Third Edition, 1994
USDOT Manual on Uniform Traffic Control Devices, 1988 edition
VDOT Drainage Manual, 1980 edition
VDOT Manual of Practice for Planning Stormwater Management, January 1999 Edition
VDOT Metric Road and Bridge Specifications, January 1997 Edition (Metric) and January 1994 (Imperial)
VDOT Road and Bridge Standards, Volumes I and II, 1996 Edition (Metric) and 1993 Edition (Imperial)
VDOT Road Design Manual, Volumes I and II, 1996 Edition
VDOT Structure and Bridge Division Manual, Volumes III and V
Virginia Erosion and Sediment Control Handbook, Third Edition, 1992
Virginia Uniform Statewide Building Code, 1997 Edition
Virginia Work Area Protection Manual, January 1, 1996 Edition
VDOT Post Construction Manual 1997 Edition
VDOT Hauling Permit Manual 1996 Edition

AASHTO Fracture Critical Non-Redundant Steel Bridge Members Current Spec. w/ all Interim's
AASHTO "Guide Spec.'s for Design and Construction of Segmental Concrete Bridges" 1989 w/ Interim's
AASHTO "Guide Spec.'s and Commentary for Vessel Collision Design of Highway Bridges, 1991
AASHTO LRFD Design Specifications, 1999
AASHTO "Guide Spec.'s for Thermal Effects in Concrete Bridges Superstructures" w/ Interim's
Construction and Professional Services Manual (Department of General Services)
VDOT Construction Manual, 1996 Version
VDOT Manual of Instruction Materials Division, 1995 Version
VDOT Phase Inspection, 1983 Version

Specific design criteria shall be the design criteria set forth in VDOT design contracts for 0288-072-104,C504,B602,B603,B604,B605,B606;0288-037-104,C505,B601,B602,D620; 0288-037-104,C507,B605, B606, B607,B609,B616,B617,B618,B619; 0288-037-104,C510; 0064-037-108,C501,B601,B602,B603,B614,B615.

Description:

Scope:

The project will be constructed in seven Sections.

Section A – Chesterfield/Powhatan County Line to South end of the James River Bridge
Section B – James River Bridge
Section C – North end of James River Bridge to North of Route. 6 Interchange
Section D – North of Route. 6 Interchange to South of Route. 250 Interchange
Section E – South of the Route. 250 Interchange to I-64 Interchange
Section F – Chesterfield County Improvements
Section G – Southern Access Road

See FIGURE 1. - *Grade Separation/Stream Crossing Structures* – Route 288 for a listing of the bridge structures.

Section A – Chesterfield / Powhatan County Line – South end of James River Bridge

The facility begins at and ties into the section under construction at the Chesterfield/Powhatan County Line. Four lanes will be constructed northward to the James River Bridge. A diamond interchange will be constructed at Route 711, including a bridge carrying Route 711 over Route 288 and with associated service roads. Bridges will also be constructed over Bernard's Creek, just south of Route 711.

Bernard's Creek

- Construct two bridges carrying Route 288 over Bernard's Creek

Route 711 Interchange – Robins Road

- Construct a diamond interchange
- Construct one bridge carrying Route 711 over Route 288

- Construct one new, 4-lane roadway - Route. 711 from Sta. 12+00 to 25+20
- Reconstruct Hancroft Drive - 2-lane service road from Sta 100+43 to 104+51
- Reconstruct Frontage Road - 2-lane frontage road from Sta 200+07 to 203+63
- Construct a private entrance on the Beechwood Property located in the southeast quadrant from Sta. 300+05 to 303+45
- Signals at both ramps intersection with Route. 711.

Section B - James River Bridge

Two parallel structures carrying Route 288 over the James River.

- Construct two bridges carrying Route 288 over the James River, Kanawha Canal and CSX Railway.
- Provide flagging for construction of bridges over CSX Railway.

Section C - North end of the James River Bridge - North of Route 6 Interchange

Four lanes will be constructed from the James River Bridges to north of the Route 6 interchange. A bridge carrying Route 650 (River Road) over Route 288 will be constructed. A cloverleaf type interchange will be constructed at Route 6, as well as a bridge carrying Route. 6 over Route. 288. Paigebrook Drive, east of the Route. 6 interchange will be relocated eastward of its intersection with Route. 6. Two service roads will be constructed in the southeastern and southwestern quadrants of the interchange.

Route 650 - River Road

- Construct one bridge carrying Route 650 (River Road) over Route 288
- Reconstruct Route 650, a two-lane roadway from Sta 118+80 to 120+40

Route 6 Interchange (Patterson Ave.)

- Construct a partial cloverleaf interchange with four loops, and three ramps
- Construct one bridge carrying Route 6 (Patterson Avenue) over Route 288
- Construct relocated Paigebrook Drive from Sta. 10+13 to 12+77
- Construct Service Road A from Sta. 10+03 to 14+30
- Construct Service Road B from Sta. 10+03 to 13+20
- Reconstruct Route 6 to a 4-lane roadway with median from Sta. 303+40 to 318+99.

Section D - North of Route 6 Interchange - South of Route 250 Interchange

Four lanes will be constructed from north of the Route 6 interchange to West Creek Parkway. From West Creek Parkway to Route 250, two lanes on the eastern side of the 2-lane existing section of Route 288 will be constructed. A diamond-type interchange including a loop in the southwest quadrant will be constructed at West Creek Parkway, including structures carrying Route 288 over West Creek Parkway. A structure carrying Route 288 over Broad Branch will be constructed just north of West Creek Parkway. A cloverleaf type interchange will be constructed at Ridgefield Parkway, including a flyover from Route 288 into the Capital One site being developed in the southwestern quadrant. This access to the Capital One site will have two structures, one over the Route 288 mainline and one over Ridgefield Parkway. Ridgefield Parkway will be extended westward from Route 288 to Route 623. To the east, Ridgefield Parkway will terminate at the eastern limited access line. Also included at the Ridgefield Parkway interchange will be a structure carrying Ridgefield Parkway over Route 288. The existing two-lane structure carrying southbound Route 288 over Tuckahoe Creek will be widened

to accommodate an auxiliary lane from the Route 250 Interchange. A structure will be constructed to carry northbound Route 288 over Tuckahoe Creek.

Temporary Access Road

- Construct eastbound lane of Ridgefield Parkway from Sta. 8+70 to Sta. 14+20 up to finished pavement.
- Construct Ramp D consisting of two lanes from Sta. 10+00 to Sta. 17+42.
- Construct two lanes for a temporary connection from Ramp D Sta. 17+42 to existing Route 288 Sta. 159+20 including a temporary signal at Route 288 and temporary connection.
- Roadway will be open by December 1, 2001.

Westcreek Parkway Interchange

- Diamond interchange with a loop in the southwest quadrant except, Ramp A as noted in bullet 5.
- Two lanes in each direction on Route 288 between Route 6 and Westcreek Parkway.
- Construct two bridges carrying Route 288 over Westcreek Parkway.
- Widening and shoulder work on Westcreek Parkway.
- Southbound exit ramp to Westcreek Parkway will be the existing 2-lane section of Route 288 from Sta. 10+00 and Sta. 15+79.
- Construct one bridge carrying northbound Route 288 over Broad Branch Creek.

Ridgefield Parkway Interchange

- Construct a full cloverleaf interchange.
- Construct one bridge with raised median carrying Ridgefield Parkway over Route 288.
- Construct Ridgefield Parkway from Sta 3+07 to 28+80.
- Construct flyover access road (Ramp A) including one bridge over Route 288 and one bridge over Ridgefield Parkway and Ramp D.
- Flyover access road construction will consist of sufficient embankment on the southwest side of Ridgefield Parkway to facilitate construction of the flyover bridge over Ramp D and Ridgefield Parkway and will not include any pavement south of the flyover bridge.
- Signal at entrance to Capital One from Ridgefield Parkway.

Tuckahoe Creek

- Construct bridge carrying northbound Route 288 over the Tuckahoe Creek.
- Widen existing southbound Route 288 bridge over Tuckahoe Creek for on-ramp merge lane from Route 250.
- Widen and reconstruct southbound Route 288 from Broad Street / Route 250 to Tuckahoe Creek.

Section E – South of the Route 250 Interchange – I-64 Interchange

The Route 288 mainline and auxiliary lanes from south of Route 250 to I-64 will be constructed. Interchanges with Route 250 and I-64 will also be constructed. Two structures carrying Route 288 over Route 250 will be constructed. Three structures will be constructed at the Route 288 and I-64 interchange – two flyover structures and one structure carrying a ramp over Little Tuckahoe Creek.

Route 250 Interchange

- Broad Street/Route 250 will be constructed under a separate contract by others
- Construct partial cloverleaf interchange with Route 250 (Loops in the southeast and southwest quadrants, ramp in southwest quadrant and modification of ramp in southeast quadrant)
- Construct two bridges carrying Route 288 over Route 250 (Broad St.)

I-64 Interchange

- Construct full interchange four ramps with Route 288 and I-64.
- Construct one bridge on Ramp E over Little Tuckahoe Creek.
- Construct one bridge on Ramp G over I-64 and Ramp H.
- Construct one bridge on Ramp H over I-64 and Little Tuckahoe Creek.
- Widen for auxiliary entrance and exit lanes on I-64 from Sta. 698+20 to 727+00) west bound lane and from Sta. 700+20 to 727+00 east bound lane).
- Two-lane ramps for all movements.
- Auxiliary lanes between I-64 and Route 250 (Station 200+00 to 205+77).

Section F – Chesterfield County Improvements

Construct a 4-lane mainline section through the Route 76 and Lucks Lane interchanges. Construct a 4-lane mainline section through the Route 60 interchanges. Construct a structure carrying northbound Route 288 over Route 76. Widen the bridge carrying Lucks Lane over Route 288 and widen Lucks Lane. Construct a structure carrying Woolridge Road over Route 288. Construct a section of Woolridge Road from the point to be constructed by VDOT's contractor (Vecillio & Grogan) to its proposed tie in to the ramp intersections west of Route 288. Construct the on and off ramps to and from SB Route 288.

Route 76 Interchange

- Construct two through lanes in each direction between the CD road exits and entrances (Sta. 22+42 to 45+08). The 10-inch concrete pavement will be added towards the median with both inside and outside shoulders being constructed.
- Construct one bridge carrying the northbound Route 288 over Route 76.

Lucks Lane Interchange

- Widen the existing bridge carrying Lucks Lane over Route 288.
- Construct two additional lanes on Lucks Lane from Sta. 101+25 to Sta. 113+50.
- Signals at Lucks Lane intersection and both ramps.

Woolridge Interchange

- Construct one bridge carrying Woolridge Road over Route 288.
- Construct a new southbound off ramp to Woolridge Road from Route 288.
- Construct a new southbound on ramp from Woolridge Road to Route 288.

Route 60 Interchange

- Construct two through lanes in each direction between the CD road exits and entrances from Sta. 93+27 to 109+35. The 10-inch concrete pavement will be added towards the median with the existing inside lane serving as the new outside mainline shoulder. A new median mainline shoulder will be constructed.

Section G – Southern Access Road

Construct 2-lanes from south end of bridge over Route 288 to north end of bridge over Broad Branch with sufficient embankment to facilitate construction of the bridge over Route 288 and Broad Branch Creek.

- Construct one bridge carrying Southern Access Road over Route 288.
- Construct one bridge carrying Southern Access Road over Broad Branch Creek.
- Construct a new two-lane access road with widening as required for turning movements between the two bridges.
- Environmental Permits will be provided by June 1, 2001 and the facility will be completed by August 1, 2002.

Permits.

The Department shall obtain all Regulatory Approvals for the existing contract documents in accordance with Section 10.2.1(a) of the Design/Built Contract. The Department shall provide the compensatory mitigation required to obtain the Regulatory Approvals.

The Contractor shall obtain all Regulatory Approvals for any deviations or modifications from the Regulatory Approvals obtained by the Department. The Contractor shall obtain all Regulatory Approvals for all support operations (concrete or asphalt) owned, operated or implemented by the Contractor. The Contractor shall be responsible for any compensatory mitigation resulting from Regulatory Approvals for all deviations or modifications and for all support operations.

The project shall be built under the requirements of, among other things, the Corps of Engineers permits authorized under Section 401/404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, Virginia Water Protection Permit from Department of Environmental Quality and a Virginia Pollutant Discharge Elimination System Permit (stormwater), and the Subaqueous Bed Permit from Virginia Marine Resources Commission. The Permit Application shall delineate all of the wetland temporarily, adversely, or permanently impacted by construction of the project.

Right of Way and Utilities.

The Department will be responsible for acquiring the project Right of Way as specified in the plans that are necessary for the construction. The Department will be responsible for all utility adjustments. Any additional Right of Way or easements needed for convince of the Contractor shall be acquired by the Contractor. This includes but is not limited to; construction easements, borrow sites, waste sites and staging areas or any deviation or modification of the existing design.

Maintenance of Traffic

Maintenance of Traffic shall conform to the Plan as required by the Design- Build Contract Article 19 and approved by the Chief Engineer and shown conceptually in the Preliminary Design Variances to the Plan shall be requested at least one week prior, by APAC and approved by the Richmond District Construction Engineer. Documentation of the variance shall be maintained by APAC. Other than the lane restrictions approved as a part of the Plan as approved by the District, no temporary lane restrictions shall take place between the hours of 6:30 and 8:30 AM and 4:00 and 7:00 PM Monday through Friday. No permanent lane restrictions will be allowed on I-64 unless provisions are made for two 11-foot lanes. On all other roadways, no permanent lane restrictions will be made unless equivalent lane widths are made, up to a maximum of 11-foot lanes on Primary Roads.

No temporary lane restrictions shall take place between 12:00 noon on the Friday preceding and 12:00 noon the Tuesday following Memorial Day and Labor Day; or July 4 and Christmas Day if these holidays occur on Saturday or Sunday. No lane restrictions shall take place between 12:00 Noon Wednesday preceding and 12:00 noon the Monday following Thanksgiving Day. All activities related to the Project that have an impact on the traveling public shall be performed in accordance with the Construction Traffic Management Plan to be developed by APAC.

Contractor will not use any secondary roads in Powhatan County, West Creek Parkway and secondary roads in and around Salisbury Subdivision for hauling of materials except for Route. 711.

Temporary signage used during the construction of the project shall conform to the Manual of Uniform Traffic Control Devices.

Coordination with other VDOT construction efforts in the area shall be coordinated through the Richmond District. APAC Virginia, Inc. shall adhere to the direction of the District.

The Construction Traffic Management Plan shall include an operational traffic analysis and proposed mitigation measures on the Project during the course of construction and their interface with the connecting and adjacent public transportation facilities and State Highways. The following information and relevant underlying assumptions shall be provided, as appropriate, for the peak a.m. and p.m. periods, for the transitional periods in which the operation of the Project changes from that in effect during the peak period operations and for non-peak, non-transitional operating periods:

- (a) existing and projected volumes;
- (b) ingress and egress locations;
- (c) types of vehicles allowed or excluded from the project;
- (d) weaving lengths under anticipated traffic flow patterns;

- (e) the connections at each end of the Construction Segments;
- (f) scheduling of temporary traffic diversions;
- (g) enforcement areas and procedures;
- (h) delays and queues;
- (i) public information, driver information plans and incident response; and
- (j) provisions for construction worker safety.

The Construction Traffic Management Plan shall set forth standards and procedures for designating each Construction Segment and shall initially identify each Construction Segment. Contractor may from time to time change the designation of Construction Segments provided the change conforms to such standards and procedures and Department has approved the change in writing. Department shall not unreasonably withhold or delay its approval. Each such change shall become effective when Department and Contractor execute a written amendment or supplement to the Construction Traffic Management Plan setting forth such change.

Pavement

Typical pavement sections except as being built under Koch Pavement Warranty shall be as shown in the Plans.

Signage

Permanent Signs shall be a part of the Work under the Design - Build Contract to be furnished by APAC. This plan shall include directional and enforcement signs. The sign plans shall be approved by the Chief Engineer.

Construction Schedule.

Schedule of Construction shall be as described in Sections 13 and 17 of the Design-Build Contract.

Quality Assurance and Control Inspection Program shall be in accordance with Appendix C.

Plan preparation shall be accordance with Appendix D.

Appendices:

- A – Not Used
- B – Not Used.
- C - Quality Assurance and Control Inspection Program
 - C-1-Koch Pavement and Binder QA Plan
- D - Plan Preparation
- E – DBE Policy

FIGURE 1

GRADE SEPARATION / STREAM CROSSING STRUCTURES - ROUTE 288

The dimensions and stations shown herein and on the Design Plans dated December 15, 2000 and attached as a part Appendix D are approximate and are subject to final design which is the responsibility of APAC.

Structure	Plan No.	Length (meters)	Width out-to-out (meters)
Section A			
B602 - Route. 288 (SBL) / Bernard's Creek	280-61	174.00	17.50
B605 - Route. 288 (NBL) / Bernard's Creek	281-10	176.19	16.60
B603 - Route. 711 / Route. 288	280-62	99.24	29.20
Section B			
B604 - Route. 288 (SBL) / James River	280-63	1116.32	12.96
B606 - Route. 288 (NBL) / James River	281-11	1116.32	12.96
Section C			
B601 - Route. 650 (River Road) / Route. 288	280-38	82.40	10.00
B602 - Route. 6 (Patterson Ave.) / Route. 288	281-82	87.20	32.20
Section D			
<i>West Creek Parkway Interchange</i>			
B605 - Route. 288 (NBL) / West Creek Parkway	281-81	71.94	13.60
B606 - Route. 288 (SBL) / West Creek Parkway	281-81	71.94	13.60
B607 - Route. 288 (NBL) / Broad Branch Creek	282-08	59.65	13.60
<i>Ridgefield Parkway Interchange</i>			
B617 - Ridgefield Parkway / Route. 288	282-11	72.62	37.55
B618 - Flyover A / Route. 288	282-12	101.14	12.40
B619 - Flyover A / Ridgefield Parkway and Ramp D	282-13	82.85	23.20
B609 - Route. 288 (NBL) / Tuckahoe Creek	282-09	159.19	19.00
B616 - Route. 288 (SBL) / Tuckahoe Creek *	274-49A	159.85	4.60 *
Section E			
<i>Route. 250 (Broad Street) Interchange</i>			
B614 - Route. 288 (NBL) over Route. 250	279-06	64.00	19.00
B615 - Route. 288 (SBL) over Route. 250	279-06	64.00	22.60
<i>I-64 Interchange</i>			
B603 - Ramp E / Little Tuckahoe Creek	281-24	210.00	14.50
B601 - Ramp G / I-64 and Ramp H	281-22	288.00	14.50
B602 - Ramp H / I-64 & Little Tuckahoe Creek	281-23	225.00	14.50
Section F			
▲ B679 - Route. 288 (NBL) over Route. 76	279-00A	67.80	13.40

| *Complete Lucks Lane Interchange*

▲	278-92A	82.88	16.06 *
B622 - Widen existing Lucks Lane over Route 288. *			

| *Complete Woolridge Road Interchange*

▲	278-94	85.60	27.00
B683 - Woolridge Road / Route. 288			

Section G

Southern Access Road

▲	xxx-xx	82.30	12.80
B620- Southern Access Road over Route 288			

▲	xxx-xx	198.12	12.80
B621 - Southern Access Road over Broad Branch Creek			

*Widened portion

▲ Plans to be developed by APAC for designated Bridges both preliminary and final.

QUALITY ASSURANCE AND CONTROL INSPECTION PROGRAM

INTRODUCTION

QA MANAGER, an independent consultant to APAC, will be responsible for providing Quality Assurance and Control Inspection to monitor the ROUTE 288 construction activities for conformance with the approved Drawings, Specifications and related documents.

The Virginia Department of Transportation (VDOT) may provide quality assurance inspection during the life of the project, to verify conformance with VDOT's obligations under Design-Build Contract. The Corps of Engineers (COE), Chesterfield County, Henrico County, Powhatan County, Goochland County and the various utility companies affected by ROUTE 288 may also occasionally provide spot inspection to review construction compliance with their respective contractual or legal requirements.

Subject to Article 3.7.5 of the Design-Build Contract, VDOT Standards and Specifications, including any project supplemental specifications specifically identified in The Contract Documents between VDOT and APAC, shall at all times govern the construction of this project. The QA MANAGER shall be the interpreter of these requirements unless otherwise directed by VDOT. The QA MANAGER shall certify that all construction has been placed in accordance with the approved plans and specifications.

To protect the interest of VDOT as specified in the Design-Build Contract, a Quality Assurance and Control Inspection Program (QA/CIP) will be implemented to address and define inspection and reporting responsibilities. This Program is defined on the following pages and reflects the unique relationships among the parties involved in this Project.

ORGANIZATION AND RESPONSIBILITIES

The QA MANAGER will be responsible for monitoring the construction activities for Contractor compliance to the QA/CIP and to provide the necessary documentation and coordination of all construction engineering, inspection and testing of construction materials and construction. Actual QA/CIP manpower requirements will be determined by the QA MANAGER based upon the levels of construction activities undertaken by the Contractor and to adequately and properly monitor the work to be certified as required by the Design-Build Contract and the Project's approved schedule.

The QA Manager's Project Resident Engineer (PRE) will have overall responsibility to coordinate the utilization of any and all Independent Materials Testing Agencies' Inspectors. The PRE will coordinate with the APAC's Project Manager (PM) as to the Project's schedule and the inspection staff required to adequately and properly monitor these activities for certification of compliance to VDOT.

The QA MANAGER will inform APAC when the quality of APAC's production forces (PRODUCTION) work is unsatisfactory. The PRE will notify APAC if corrective measures are not implemented in a timely manner. APAC will make all decisions

regarding removal of defective work or reduction of payment. The QA Manager shall keep VDOT's District Construction Engineer (or his designated representative) informed of all such actions.

The VDOT Quality Assurance inspectors will be afforded the opportunity to perform any inspection activities including but not limited to those listed below:

- Review locations where pipe and culvert are to be installed - temporary or permanent
- Inspect pipe and culvert foundations before bedding material is placed
- Review pipe and culvert invert elevations
- Inspect bridge foundations prior to placement of concrete
- Review rebar and form work prior to concrete placement
- Monitor bridge deck and bridge substructure concrete placement
- Review significant plan changes
- Attend scheduling meetings
- Have access to all Project inspection documentation
- Review failed material tests with APAC and the PRE
- Coordinate all discrepancies and safety concerns with APAC and the PRE
- Provide overview inspection of off-site asphalt and concrete plants furnishing VDOT approved materials
- Monitor traffic control devices and traffic safety

The QA MANAGER may use Independent Materials Testing Agencies that will furnish technicians, equipment and facilities to perform laboratory tests of fabricated and non-fabricated materials used in the construction of this Project. The QA MANAGER will provide a Materials Coordinator who will be responsible for coordinating the proper inspection coverage and documentation of materials certifications. The QA Manager's personnel staff shall be VDOT certified in hydraulic cement, asphalt cement pavement, central mix aggregate and soils compaction, and nuclear safety. Independent Materials Testing Agencies' staff shall be VDOT certified in the areas that they will be involved. Troxler certification may be an acceptable alternative for nuclear density inspection of compacted soils and asphaltic concrete.

The QA MANAGER will provide Engineers and Inspectors for the implementation and coordination of the approved QA/CIP and to monitor, test, supervise, review, and coordinate the construction inspection and testing program for ROUTE 288.

The QA Manager's personnel will maintain daily logs of all construction activities and will perform, although not limited to, the following to observe and record the conformance with plans and specifications:

- Review material test results
- Coordinate inspection of bearing material for foundations with the geotechnical firm selected by APAC.
- Check form work and reinforcing bar placement for concrete structures.
- Monitor structural steel placement
- Monitor concrete curing procedures
- Inspect bridge deck screed machines, including operation and depth of slab settings
- Monitor deck and substructure concrete placement

- Review maintenance and protection of installed traffic control devices
- Inspect erosion and siltation control devices and coordinate storm water management related matters.

This list is not intended to be inclusive of all activities that may be required of the QA Manager. The QA Manager's staff will also perform the following tasks, monitor and review the testing activities of all Independent Materials Testing Agencies to assure conformance with the contract documents.

- Compaction testing of engineered fills including embankment, backfills, and pipe trenches
- On-site concrete testing consisting of slump, air entrainment, temperature, and the making of concrete test cylinders.
- Compaction testing of base courses and asphalt pavement
- Continuous inspection of utility installations within 288 Right-of-Way
- Blow count recordation for driving of piles
- Witness pressure and leak tests performed by subcontractors
- Field bolt torque inspection
- Check structural steel field-coat paint thickness

The QA MANAGER will coordinate and receive all test results and reports for the following services from the off-site laboratories and plant inspectors:

- Laboratory testing of concrete cylinders
- Shop inspection of fabricated structural steel
- Monitoring of concrete, asphalt and crusher plants
- Certifications from F.O.B. job site provided materials

INSPECTION AND ADMINISTRATION

1. INSPECTION PROGRAM

A. General

All inspections shall either be performed by, or at the direction of the QA Manager's Quality Assurance Team. The QA Manager's staff will determine whether the materials and work are in compliance with the approved drawings, specifications, and applicable VDOT standards as outlined in the Design-Build Contract.

B. Control Testing

All control testing will be performed by the QA Manager's staff or by inspectors from an approved Independent Materials Testing Agency. Inspection activity will be scheduled and coordinated by the QA Manager's Quality Assurance Team with APAC.

The PRE shall:

1. Provide scheduling and coordination of all testing and re-testing to maintain a quality and quality level of testing for VDOT approval and certifications.
2. Receive and check material certifications and samples for conformance

3. Inspect delivered materials and equipment.
4. Inspect work in progress and in place
5. Witness field testing of construction materials
6. Make control tests to support the methods or equipment of any independent testing agency
7. Verify that the results of tests conform to contract requirements
8. Immediately notify APAC if materials or workmanship do not comply with the specifications. APAC and VDOT will be notified in writing when these deficiencies are not correct in a timely and appropriate manner.

C. Reporting

All inspection requirements will be documented in writing. Complete and accurate reports of all Quality Control Tests will be maintained by the QA Manager. Among the items to be shown on the report are:

1. Description of work
2. Type of test and specification reference
3. Agency and Inspector performing the test and location, time, date and equipment used.
4. Sample source and date secured
5. Results of tests
6. Recommendation as to acceptance or rejection
7. Signature of responsible person controlling the testing work
8. Approval or rejection by the PRE

D. Scheduling and Coordination

The QA Manager, along with necessary representatives of the Quality Assurance Team, will attend APAC conducted weekly construction job meetings with subcontractors and field superintendents to discuss safety, schedule, and outstanding issues. APAC will be responsible for maintaining the master schedule for this Project as provided for in the Design-Build Contract utilizing appropriate scheduling software. Input from PRODUCTION will be coordinated by APAC. APAC's working monthly or weekly schedules from the overall Project schedule will be provided to the PRE so he can adjust his staffing levels and review possible construction delays. Each Quality Assurance Team member will evaluate these requirements from APAC's schedule and advise the PRE as to the location, time, and number of personnel required along with the type of testing services required.

E. Job Meetings

Communication is critical to this project's success. Therefore at a minimum, the following construction job meeting shall be held weekly:

1. Safety meeting with APAC's employees and PRE
2. Scheduling meeting with APAC, Production, QA Manager, PRE and VDOT
3. Quality meeting APAC, QA staff and VDOT

Each morning the QA Manager shall discuss the days proposed activities with Production.

The QA Manager will schedule and conduct a weekly Safety meeting with the QA staff.

Each week the PRE will schedule and conduct progress job meetings with PM, engineers, inspectors, and Independent Material Testing Agency representatives. Schedules and manpower requirements for the following week will be discussed.

PRE will disseminate meeting information to the QA/CIP Team.

F. Progress of Work

APAC will make a video Cassette Recording or take photographs showing the progress of construction. Each recording or photograph will normally show the date and time. The tapes and photographs made by APAC and/or the Subcontractor will be for their use in reviewing Project status for the administration of contract payments. As applicable, this photographic record of the progress shall accompany the monthly report to VDOT.

G. Environmental Monitoring Program

APAC shall employ a full time Environmental Monitor to ensure compliance with applicable laws and regulations, and serve as a resource in securing permits and as a source of expert advise. The duties shall include but are not limited to:

- Liaison between APAC and Production, and VDOT and regulatory agency personnel to coordinate and solve environmental, and design-engineering issues.
- Implement s contract special provisions and provides on-time technical guidance on the implementation of permit conditions within each phase of the project to analyze and evaluate water quality impacts, construction design and technical data associated with the project.
- Anticipates problems and concerns the environmental regulatory agencies may raise during the construction of the project.
- Facilitates the resolution of engineering, biological, water quality, and wetland-related issues as they arise during project construction. Arranges and conducts meetings with federal and state agencies to solicit comments on project implementation.
- Develops biological, chemical and physical sampling procedures to support regulatory approvals and the Environmental Monitoring Program.
- Project coordinator and expert on the implementation of the requirement s from the Erosion and Sediment Control Law, Storm water Management Law, Virginia Pollution Discharge Elimination System (VPDES) permits, Virginia Water Protection Permits, VMRC Permits and Corps of Engineers Permits.
- Performs scientific field investigations, data collections and wetlands delineation to assess and ensure the implementation of permit conditions during construction activities so that reporting deadlines are met.
- Provide Quality Assurance/Quality Control for the implementation of the permit conditions in accordance and in compliance with current state and federal environmental regulations.
- Prepares, and coordinates permit applications to acquire permit modifications for the project and to acquire permits for support activities.

- Provide Quality Assurance/Quality Control for the implementation of the permit conditions in accordance and in compliance with current state and federal environmental regulations.
- Prepares, and coordinates permit applications to acquire permit modifications for the project and to acquire permits for support activities.

2. ADMINISTRATIVE FUNCTIONS

A. Progress Payment

APAC will be responsible for preparing monthly progress payment requisitions related to the work. A monthly meeting will be conducted with the QA Manager to review and finalize the payment requisition. The QA Manager shall certify that the work represented in the requisition has been accomplished and is in compliance with the contract documents. Before this monthly meeting, the Production must submit to the QA Manager, an invoice including substantiation of material deliveries, so that an agreement on the quantities shown on the invoice can be reached.

B. Working Drawings

Production working drawings shall be submitted through APAC in accordance with the requirements of the specification. In addition, all communication between Production and the PRE, with respect to the working drawings, shall be channeled through APAC.

C. Conformity with Plans and Specifications

All work performed and all materials furnished shall be in conformity with the Contract requirements.

The QA Manager has the authority to enforce requirements of the Contract Document, and Reference Document, when deficient materials or unsatisfactory finished products fail to conform to Contract Documents and Reference Documents. The QA Manager's Quality Assurance Team, in accordance with their assignments, shall monitor, and inspect Production work as it progresses. Work that is not acceptable will be brought to the immediate attention of Production who will have the deficiency corrected before it is covered. All deficiencies that are not corrected (hereinafter referred to as a Non-Conformance), including those pertaining to rules, regulations and permit requirements, will be documented by the QA Manager. A Non-Conformance Report (NCR), referenced by a unique number, will be forwarded to APAC and VDOT within 24 hours of discovery of the Non-Conformance. NCR's can be initiated by the QA Manager, VDOT, APAC, and any agency issuing a permit for the prosecution of this work. In order to maintain Project continuity, all NCRs will be submitted to and coordinated by the QA MANAGER for resolution. PRODUCTION may submit through APAC to the PRE a proposed method of correction for approval. APAC will require Production to remove, replace or correct inferior materials and workmanship. Responsibility for the expense for these corrections will be resolved between APAC and Production. Each item will be placed in a computer database so as to create an ongoing punch list. This punch list will be provided on a monthly basis to APAC and VDOT. The objective is to resolve NCRs within 30 Days.

In certain cases, materials or finished products, are not in strict conformity with the Contract requirements, but the removal of these materials will cause serious schedule and possible completion impacts. In these situations, except for work covered under the Pavement Warranty, the PRE, with the concurrence of VDOT, will make a final determination as to whether the work can be accepted.

In the event that it is accepted, the QA Manager will document the basis of acceptance. APAC and VDOT will be responsible for any decisions as to an appropriate adjustment in the Contract price or other specific requirements or adjustments that are appropriate.

The QA Manager shall have the authority to suspend the work, wholly or in part, by written order for such period as they deem necessary because of any condition considered by them to be unfavorable for the suitable prosecution of the work; or failure on the part of Production to perform any provision of the NCR. A NCR recommending suspension of work can be initiated by any of the parties noted above but must be furnished to the PRE for coordination and concurrence within 24 hours of discovery. VDOT can instruct APAC to suspend the work.

D. As-Built Documentation

APAC shall prepare and furnish red-lined prints of Contract drawings to the QA MANAGER showing significant as-built conditions. All as-built shop drawings, catalog cuts, and diagrams, and other information prepared by APAC, its subcontractors, suppliers and manufacturers, that are necessary to properly maintain the accepted facility, are to be furnished to the PRE and the Department. To control the documentation of the changes made, the PRE shall, on a daily basis maintain at a central location, a complete set of contract full size drawings to reflect "AS-BUILT" conditions with changes marked in green pencil.

E. Interpretations and Requests for Information

Any requests for information shall be submitted to the PRE through the appropriate inspector. The PRE will coordinate the request with the APAC and VDOT. The QA Manager will ensure a timely response to these requests.

F. Extra Work

All requests for extra work will be coordinated by APAC who will inform the PRE so that proper quality control can be performed. All adjustments to contracts as a result of extra work requests will be the responsibility of APAC.

G. Safety

APAC and Production are responsible for the safety of their operations and their employees (a Safety Director will be employed full time by APAC). Whenever unsafe conditions are noticed by the QA staff during the prosecution of the QA/CIP, they will immediately be brought to the attention of the responsible party in charge. If, after notification, satisfactory corrections are not made in a timely manner, the Contractor's Safety Director will be informed and requested to take appropriate action. If satisfactory corrections are not forthcoming, APAC will be informed by the PRE. The QA Manager

shall not advise or issue directions regarding, or assume control over, safety precautions and programs of others.

VDOT shall have the authority to suspend work due to safety violations or unsafe conditions occurring within Project Right of Way. VDOT shall review the signing and traffic control devices where the Project interfaces with existing roadways. VDOT shall also have the authority to suspend work along detours being used by the general public where unsafe conditions or inadequate traffic control measure is noted. Unsafe conditions found by VDOT on Project Site shall be brought to the attention of APAC for disposition as described above.

Appendix 7

NOT USED

DESIGNATION OF AUTHORIZED REPRESENTATIVES

The persons listed below, any of whom may act, are the initial authorized representatives of the Virginia Department of Transportation (the "Department") APAC-Virginia, Inc. and (the "Contractor") as, indicated under a Comprehensive Agreement to Design, Construct and Warrant Route 288 Project dated as of December 18, 2000, and a Design-Build Contract dated as of December 18, 2000 (the "Contract"), between the Department and the Contractor.

Authorized Department Representatives

<u>Name</u>	<u>Title</u>
Charles D. Nottingham	Commonwealth Transportation Commissioner
Thomas F. Boyd	Assistant Commissioner for Finance, Virginia Department of Transportation
C. F. Gee	Acting Chief Engineer, and State Construction Engineer, Virginia Department of Transportation

Authorized Contractor Representatives

William R. Hinds, Jr.
Edward G. Lunceford
Charles F. Potts, Jr.
Robert W. Thompson, Jr.
William H. Tominlinson
Wade C. House
Thomas M. Bartlett
Theodore P. Ferguson
Edward O. Blount
James K. Ewart

Each of the above named persons shall serve in such capacities until such time as his successor has been appointed and written notice of such appointment delivered to the other party to the Contract.

Appendix 9

DESIGN-BUILD CONTRACT

SECTION 101—DEFINITIONS OF ABBREVIATIONS, ACRONYMS, AND TERMS

101.01—Abbreviations and Acronyms.

In these specifications and in other Contract Documents, the following abbreviations and acronyms shall be interpreted as follows:

AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ABS	Acrylonitrilebutadienestyrene (an elastomer)
AC	Alternating current
ACI	American Concrete Institute
ADT	Annual average daily traffic
AED	Associated Equipment Distributors
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute; American Pipe Institute
AREMA	American Railway Engineering and Maintenance-of-Way Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American wire gage
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BOCA	Building Officials and Code Administrators
CBR	California bearing ratio
CRSI	Concrete Reinforcing Steel Institute
DBE	Disadvantaged Business Enterprise
DC	Direct current
DHV	Design hourly volume
EEl	Edison Electric Institute
EEO	Equal employment opportunity
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
EPDM	Ethylenepropylenedienemonomer (an elastomer)
F/A	Filler/asphalt ratio

FHWA	Federal Highway Administration
FS	Federal Specifications, General Services Administration
ICEA	Insulated Cable Engineers Association
IMSA	International Municipal Signal Association
ITE	Institute of Transportation Engineers
LCD	Liquid crystal display
LPG	Liquid petroleum gas
MBE	Minority Business Enterprise
MEKP	Methyl ethyl ketone peroxide
MIL	Military specifications
MSDS	Materials Safety Data Sheet
MUTCD	<i>Manual on Uniform Traffic Control Devices for Streets and Highways</i> and the Virginia supplement to same
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
PCI	Prestressed Concrete Institute
PE	Polyethylene
PTL	Plywood Testing Laboratory
PVC	Polyvinylchloride
PVF	Polyvinylfluoride
REA	Rural Electrification Administration
SAE	Society of Automotive Engineers
SI	The International System of Units
SPIB	Southern Pine Inspection Bureau
SSPC	Steel Structures Painting Council
TAPPI	Technical Association of Pulp and Paper Industry
TFE	Polytetrafluoroethylene
UL	Underwriters' Laboratories, Inc.
VAC	Volts alternating current
VDC	Volts direct current
VDOT	Virginia Department of Transportation
VFA	Voids filled with asphalt
VMA	Voids in mineral aggregate
VOSH	Virginia Occupational and Health Administration
VTM	Virginia test methods; voids in total mix
WBE	Women Business Enterprise

In these specifications and in other Contract Documents, the following terms and pronouns used in place of them shall be interpreted as follows:

- A -

Alkali soil. Soil in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

- B -

Backfill. Material used to replace or the act of replacing material removed during construction; may also denote material placed or the act of placing material adjacent to structures.

Balance point. The approximate point, based on estimated shrinkage or swell, where the quantity of earthwork excavation and borrow, if required, is equal to the quantity of embankment material plus any surplus excavation material.

Base course. A layer of material of specified thickness on which the intermediate or surface course is placed.

Base flood. The flood or tide having a one percent chance of being exceeded in any given year.

Board. Commonwealth Transportation Board of Virginia.

Borrow. Suitable material from sources outside the roadway that is used primarily for embankments.

Brackish water. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Bridge. A structure, including supports, that is erected over a depression or an obstruction, such as water, a highway, or a railway, that has a track or passageway for carrying traffic.

- C -

Calendar day. Any day shown on the calendar.

Camber. A vertical curvature induced or fabricated into beams or girders and a deck slab or slab span formwork; a vertical curvature set in the grade line of a pipe culvert to accommodate differential settlement.

Channel. A water course or drainage way.

Commissioner. Commonwealth Transportation Commissioner.

Composite hydrograph. A graph showing the mean daily discharge versus the calendar day, indicating trends in high and low flow for a one year period.

Construction area. The area where authorized construction occurs.

Construction limits. The intersection of side slopes, including slope rounding, with the original ground, plus slopes for drainage ditches or incidental construction.

Contract time limit. The number of calendar days or calendar date that specifies the time allowed for completion of the work described in the Contract, including authorized extensions.

Contractor. APAC-VIRGINIA, a Delaware company, and its permitted successors and assigns.

Cul-de-sac. An area at the terminus of a dead-end street or road that is constructed for the purpose of allowing vehicles to turn around.

Culvert. A structure that is not classified as a bridge which provides an opening under any roadway.

Cut. The portion of a roadway formed by excavating below the surface of the earth.

- D -

Day. Unless otherwise stated, a calendar day.

Deflection. The vertical movement occurring between the supports of a bridge superstructure or its components (beams, girders, and slabs) that results from their own weight and from dead and live loads. Although all parts of a structure are subject to deflections, usually only those deflections that occur in the superstructure are of significance during construction.

Department. Virginia Department of Transportation.

Deputy Commissioner. The assistant to the Commissioner who performs such of the Commissioner's duties as have been delegated to him by the Commissioner.

Design flood. The magnitude of flood that a given structure can convey without exceeding a designated flood level.

Disposable material. Material generally found to be unsuitable for roadway construction or material that is surplus.

Disposal areas. Areas generally located off the project right of way where unsuitable or surplus material is deposited.

Drainage ditch. An artificial depression constructed to carry off surface water.

- E -

Earthwork. The work consisting of grubbing, drainage, roadway excavation, embankment excavation, borrowing, grading, placing rock, and preparing subgrades.

Easement (Right of way). A grant of the right to use property for a specific use.

Embankment. A structure of soil, soil aggregate, or broken rock between the existing ground and subgrade.

Employee. Any person working on the project specified in the Contract who is under the direction or control of or receives compensation from the Contractor or subcontractor.

Engineer. The VDOT Chief Engineer, who acts directly or through his duly authorized representative. The representative acts within the scope of the particular duties assigned to him or the authority given to him.

Equipment. Machinery, tools, and other apparatus, together with the necessary supplies for upkeep and maintenance, that are necessary for acceptable completion of the work.

- F -

Falsework. A framework of wood or steel used to support forms for the construction of concrete slab spans or t-beams, or provide temporary support for structural units during the construction or reconstruction of permanent supports.

Federal agencies or officers. An agency or officer of the federal government and any agency or officer succeeding in accordance with the law to the powers, duties, jurisdictions, and authority of the agency or officer mentioned.

Flood frequency. A statistical average recurrence interval of floods of a given magnitude.

Formwork. A temporary structure or mold used to retain the plastic or fluid concrete in its designated shape until it hardens. Formwork shall be designed to resist the fluid pressure exerted by plastic concrete and additional fluid pressure generated by vibration and temporary construction loads.

Frontage street or road. A local street or road auxiliary to and located on the side of a highway for service to abutting property and adjacent areas and control of access.

- G -

Gage. U.S. Standard Gage.

Grade separation. Any structure that provides a traveled way over or under another traveled way or stream.

- H -

Highway. The entire right of way reserved for use in constructing or maintaining the roadway and its appurtenances.

Historical flood level. The highest flood level that is known to have occurred at a given location.

Hydrologic data sheet. A tabulation of hydrologic data for facilities conveying a 100 year discharge equal to or greater than 14.15 cubic meters per second.

- I -

Invert. The lowest point in the internal cross section of a pipe or other drainage structure.

- M -

Material. Any substance that is used in the work specified in the Contract.

Median. The portion of a divided highway that separates the traveled ways.

- O -

Ordinary high water. A water elevation based on analysis of all daily high waters that will be exceeded approximately 25 percent of the time during any 12 month period.

Overtopping flood. The magnitude of flood that just overflows the traveled way at a given structure and/or on the approach traveled way of such structure.

- P -

Pavement structure. The combination of subbase, base, and surface courses that is placed on a subgrade to support the traffic load and distribute it to the roadbed.

Plans. The "Plans and Specifications" as defined in the Contract.

Profile grade. The line of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal center line of the roadbed.

- Q -

QA Manager. The specified person responsible for inspecting and testing in accordance with the Quality Assurance and Control Inspection Program as described in Appendix C attached to the Scope of Work attached to the Contract.

- R -

Ramp. A connecting roadway between two highways or traveled ways or between two intersecting highways at a grade separation.

Road. A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way; the entire area reserved for use in constructing or maintaining the roadway and its appurtenances.

Roadbed. The graded portion of a highway within the top and side slopes that is prepared as a foundation for the pavement structure and shoulders.

Roadbed material. The material below the subgrade in cuts, embankments, and embankment foundations that extends to a depth which affects the support of the pavement structure.

Roadside. A general term that denotes the area within the right of way that adjoins the outer edges of the roadway; extensive areas between the roadways of a divided highway.

Roadside development. Items that are necessary to complete a highway that provide for the preservation of landscape materials and features; rehabilitation and protection against erosion of areas disturbed by construction through placing seed, sod, mulch, and other ground covers; and such suitable plantings and other improvements as may increase the effectiveness and enhance the appearance of the highway.

Roadway. The portion of a highway within the limits of construction and all structures, ditches, channels, and waterways that are necessary for the correct drainage thereof.

- S -

Sea water. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent of total solids.

Select borrow. Borrow material that has specified physical characteristics.

Select material. Material obtained from roadway cuts, borrow areas, or commercial sources that is designated or reserved for use as a foundation for the subbase, subbase material, shoulder surfacing, or other specified purposes.

Shoulder. The portion of the roadway contiguous with the traveled way that is for the accommodation of stopped vehicles, emergency use, and lateral support of the base and surface courses.

Sidewalk. The portion of the roadway constructed primarily for the use of pedestrians.

Skew. The acute angle formed by the intersection of a line normal to the center line of the roadway with a line parallel to the face of the abutments or, in the case of culverts, with the center line of the culverts.

Special provision. A document that sets forth specifications or requirements for a particular project.

Specifications. A general term that includes all directions, provisions, and requirements contained herein and those that may be added or adopted as special provisions. All are necessary for the proper fulfillment of the Contract.

Standard drawings. Unless otherwise specified, applicable drawings in VDOT's *Road and Bridge Standards* and such other standard drawings as are referred to on the plans.

State. Commonwealth of Virginia.

Station. When used as a definition or term of measurement, 100 meters Metric, or 100 feet Imperial as indicated on the section documents.

Street. A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way; the entire right of way reserved for use in constructing or maintaining the roadway and its appurtenances.

Structures. Bridges, culverts, catch basins, inlets, retaining walls, cribs, manholes, end walls, buildings, steps, fences, sewers, service pipes, underdrains, foundation drains, and other features that may be encountered in the work and are not otherwise classed herein.

Subbase. A layer(s) of specified or selected material of designed thickness that is placed on a subgrade to support a base course.

Subgrade. The top surface of a roadbed shaped to conform to the typical section on which the pavement structure and shoulders are constructed.

Subgrade stabilization. The modification of roadbed soils by admixing with stabilizing or chemical agents that will increase the load bearing capacity, firmness, and resistance to weathering or displacement.

103.05—Requirements of Contract Bond.

In lieu of payment or performance bonds, the Contractor may furnish a certified check or cash escrow in the face amount required for each of the bonds, which will be held for the full statutory period as applicable for each bond.

103.06—Not Used

103.07—Not Used

103.08—Not Used

SECTION 104—SCOPE OF WORK

104.01—Intent of Contract.

The intent of the Contract is to provide for completion of the work specified therein.

104.02—Not Used

104.03—Not Used

104.04—Maintenance During Construction.

This Section 104.04 applies to the extent it does not conflict with the Construction Traffic Management Plan.

The Contractor shall maintain the work from the beginning of construction operations until final acceptance. Maintenance shall constitute continuous and effective work prosecuted day by day with adequate equipment and forces to such end that the roadway and structures, including barricades and warning signs as provided for in accordance with the requirements of Section 107.10, are maintained in a satisfactory condition at all times.

When a Contract specifies placing the course on another course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

The road shall be kept open to all traffic while undergoing improvements. The Contractor shall keep the portion of the project being used by public, pedestrian, and vehicular traffic in such condition that traffic will be adequately accommodated. However, removal of snow and control of ice on roads open to public travel will be performed by the Department.

The Contractor shall bear all costs of performing maintenance work before final acceptance and of constructing and maintaining necessary approaches, crossings, intersections, and other features without direct compensation except as provided for herein. However, when the Contractor confines his operation to the surface of the roadway and reasonable width of the shoulder and the surface is not disturbed or damaged by his operations or equipment, he shall not be responsible for the maintenance of the surface that remains undisturbed or undamaged.

The Contractor shall keep the portions of the road being used by the public free from irregularities and obstructions that could present a hazard or annoyance to traffic. When directed by the QA Manager, allaying

of dust shall be performed and paid for in accordance with the requirements of Section 511. Holes in hard surface pavements shall be filled with approved asphalt patching material.

- (a) **Detours:** Detours may be indicated on the plans or in the special provisions or used with the approval of the QA Manager. Detours over existing off-project roadways will be designated and the roadways maintained by the Department except municipalities shall be responsible for roadway maintenance within their own corporate limits. Responsibility for installation and maintenance of the temporary directional sign panels shall be in accordance with Section 512.03(a).

If any project is located wholly or in part within the corporate limits of a municipality and through traffic is to be detoured at the request of the municipality, the municipality will:

1. Provide and maintain the detours within the corporate limits
2. Furnish, install and maintain the temporary directional sign panels

The provision of detours and signing of alternate routes will not relieve the Contractor of the responsibility for ensuring the safety of the public or from complying with any requirements of these specifications affecting the rights of the public, including those concerning lights and barricades. Maintenance of all other detours shall be the responsibility of the Contractor.

- (b) **Maintenance of Traffic During Suspension of Work:** During any suspension of work, the Contractor shall temporarily open to traffic such portions of the project and temporary roadways as may be agreed on by the QA Manager.
- (c) **Flagging Traffic:** Certified flaggers shall be provided in sufficient number and locations as necessary for control and protection of vehicular and pedestrian traffic in accordance with the *MUTCD*. Flaggers shall use sign paddles to regulate traffic in accordance with the *MUTCD*.

Certification for flaggers will be awarded upon a candidate's satisfactory completion of an examination. Certification cards shall be carried by flaggers while performing flagging duties. Flaggers found not in possession of their certification card shall be removed from the flagging site and operations requiring flagging will be suspended by the QA Manager. Further, flaggers performing duties improperly will have their certifications revoked.

- (d) **Delays:** Unless otherwise approved, two-way traffic shall be maintained at all times. The Contractor shall not stop traffic without permission.

If one-way traffic is approved, the Contractor shall provide flaggers to direct the traffic. When specified in the Construction Traffic Management Plan, pilot vehicles shall be furnished in accordance with the requirements of Section 512.

- (e) **Connections and Entrances:** Connections with other roads and public and private entrances shall be kept in a reasonably smooth condition at all times. Connections or entrances shall not be disturbed by the Contractor until necessary. Once connections or entrances have been disturbed, they shall be maintained and completed as follows:

1. **Connections:** Connections that had an original paved surface shall be brought to final grade through the intersection. At least two lanes shall be paved as soon as possible after connections are disturbed. Other connections shall be brought to final

grade through the intersection, and the required material or a temporary aggregate stabilization course shall be placed as soon as possible after connections are disturbed.

If there are delays in prosecution of work for connections, connections that were originally paved shall have at least two lanes maintained with a temporary paved surface. Those that were not originally paved shall be maintained with a temporary aggregate stabilization course.

2. **Entrances:** Entrances shall be graded concurrently with the roadway with which they intersect. Once an entrance has been disturbed, it shall be completed as soon as is practicable, including placing the required base and surface course or stabilization. If the entrance must be constructed in stages, such as when there is a substantial change in the elevation of the roadway with which it intersects, the surface shall be covered with a temporary aggregate stabilization course or other salvaged material until the entrance can be completed and the required base and surface or stabilization course can be placed.

When directed by the QA Manager, stabilization or surfacing material shall be applied to connections and entrances. When specified in the Contract, such material will be paid for at the contract unit price. Otherwise, the cost shall be included in the Contract Price.

The Contractor shall schedule construction operations so that approved continuous access is provided for all property adjacent to the construction when the property is shown on the plans to require access. When frontage roads are shown on the plans, they shall be constructed prior to the closing of any access routes unless other approved access is provided and is acceptable to the property owner.

- (f) **Grading Operations:** When the Contractor elects to complete the rough grading operations for the entire project or exceed the length of one full day's surfacing operations, the rough grade shall be machined to a uniform slope from the top edge of the existing pavement to the ditch line.

When the surface is to be widened on both sides of the existing pavement, construction operations involving grading or paving shall not be conducted simultaneously on sections directly opposite each other.

The surface of pavement shall be kept free from soil and other materials that might be hazardous to traffic. Prior to opening of new pavement to traffic, shoulders shall be roughly dressed for a distance of 1 meter from the edge of the paved surface.

- (g) **Hydraulic Embankment:** Where the Contractor's suction or discharge pipes cross the surface of an existing traveled highway, they shall be bridged as directed by the QA Manager. Traffic shall be protected by the display of warning signals both day and night. If dredging operations damage an existing traveled highway, the Contractor shall cease operations and repair damages to the highway.
- (h) **Patching Operations:** Where existing hydraulic cement concrete pavement is to be patched, the operation of breaking and excavating old pavement shall extend for a distance of not more than 3 kilometers. Patching shall be coordinated with excavating so that an area of not more than 1 kilometer in which excavated patches are located shall be left at the end of any day's work. Necessary precautions shall be taken to protect traffic during patching operations.

- (i) **Temporary Structures:** The Contractor shall construct, maintain, and remove temporary structures and approaches necessary for use by traffic. Unless otherwise specified in the Contract, the cost of these operations shall be included in the Contract Price. After new structures have been opened to traffic, temporary structures and approaches shall be removed. The materials contained therein shall remain the property of the Contractor.

The proposed design of temporary structures shall be submitted to the Engineer prior to the beginning of construction in accordance with the requirements of the Contract Documents.

- (j) **Failure To Maintain Roadway or Structures:** If the Contractor fails to remedy unsatisfactory maintenance immediately after receipt of a notice by the QA Manager, the Engineer may proceed with adequate forces, equipment, and material to maintain the project. The cost of the maintenance, plus 25 percent for supervisory and administrative personnel, will be deducted from moneys due the Contractor for the project.
- (k) **Haul Route:** The Contractor shall select haul routes between the project and material source(s) that will minimize disturbance to the community. The QA Manager may select alternate haul routes, divide the hauling traffic over several routes, and impose other restrictions deemed necessary to minimize the impact of the hauling operation on local residents.

104.05—Removing and Disposing of Structures and Obstructions.

The Contractor shall remove and dispose of or store, fences, buildings, structures, or encumbrances within the construction limits. Materials so removed, including existing drains or pipe culverts, shall become the property of the Contractor.

- (a) **Signs:** The Contractor shall relocate street name signs, no parking signs, and other traffic signs within the construction limits that conflict with construction work as approved by the QA Manager. Signs that are not needed for the safe and orderly control of traffic during construction as determined by the QA Manager shall be removed and stored at a designated location within the project limits. The removed signs shall be stored above ground in a manner that will preclude damage and shall be reinstalled in their permanent locations prior to final acceptance. If any of the removed signs are not to be reinstalled, the Contractor shall notify the QA Manager at the time the signs have been properly stored. Such signs will be removed from the storage area by the Contractor. Any sign that is damaged or lost because of the fault of the Contractor shall be repaired or replaced at his expense. Costs for removing, storing, protecting, and reinstalling such signs shall be included in the price for the Contract, and no additional compensation will be made.
- (b) **Mailboxes and Newspaper Boxes:** When removal of mailboxes and newspaper boxes is made necessary by construction operations, the Contractor shall place them in temporary locations so that access to them will not be impaired. Prior to final acceptance, boxes shall be placed in their permanent locations as designated by the QA Manager and left in as good condition as when found. Boxes or their supports that are damaged through negligence on the part of the Contractor shall be replaced at his expense. The cost of removing and resetting boxes shall be included in the Contract Price.

104.06—Cleanup.

Removal from the project of rubbish, scrap material, and debris caused by the Contractor's personnel or construction operations shall be a continuing process throughout the course of the work. The work site shall have a neat and orderly appearance at all times.

Before final acceptance, the highway, borrow pits, quarries, disposal areas, storage areas, and all ground occupied by the Contractor in connection with the work shall be cleaned of rubbish, surplus materials, and temporary structures. All parts of the work shall be left in a neat and orderly condition.

Within 30 days after final acceptance, the Contractor shall remove his equipment from the right of way and property adjacent to the project that he does not own or control.

SECTION 105—CONTROL OF WORK

105.01—Authority of Engineer.

The VDOT Chief Engineer has the authority to suspend the work wholly or in part if the Contractor fails to correct conditions that are unsafe for workers or the general public or carry out the provisions of the Contract. The Engineer may also suspend work for such periods as set forth in the Contract Documents.

105.02—Plans and Working Drawings.

The Contractor shall furnish working drawings as may be required. Working drawings shall not incorporate any changes from the requirements of the Contract unless the changes are specifically denoted, together with justification, and are approved in writing by the Engineer. Working drawings and submittals shall be identified by the complete project identification. Items or component materials shall be identified by the specific contract item number and specification reference in the Contract.

The Contractor may authorize its subcontractor or fabricator in writing to act for him in matters relating to working drawings. Such authorization shall have the force and effect of any other representative of the Contractor's organization.

Working drawings for steel structure, including metal handrails, shall consist of shop detail, erection, and other working drawings showing details, dimensions, sizes of units, and other information necessary for the fabrication and erection of metal work.

Working drawings for falsework supporting a bridge superstructure shall be certified by a Professional Engineer holding a valid license to practice engineering in the Commonwealth of Virginia.

Working drawings for concrete structures and prestressed concrete members shall provide such details as required for the successful prosecution of the work and which are not included in the plans. Drawings shall include plans for items such as prestressing strand details and elongation calculations, falsework, bracing, centering, form work, masonry, layout diagrams, and bending diagrams for reinforcing steel when necessary or when requested.

The Contractor shall submit to the Project Resident Engineer for review three sets of required working drawings. Working drawings shall be submitted in sufficient time to allow discussion and correction prior to the beginning of the work they reference. Work shall not be performed or materials ordered prior to review of the working drawings. One set of working drawings marked with any suggested modifications or comments will be returned to the Contractor. The other sets will be provided to the Department.

Prior to fabrication or construction, the Contractor shall submit for review one original and six copies of each working drawing and design calculation and a Professional Engineer's certification of such design for lighting, signal and pedestal poles, overhead and bridge mounted sign structures, breakaway support systems, anchor bolts, framing units, panels, and foundations. All sheets of these submittals shall include the Professional Engineer's stamp or seal. Certification for foundations will be required only when the designs are furnished by the Contractor. The design shall be in accordance with *AASHTO'S Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals*. The certifications shall be made by a Professional Engineer holding a valid license to practice engineering in Virginia.

When specified, and prior to manufacture of reinforced concrete pipe, the Contractor shall furnish to the Department a certification of the acceptability of the design of such pipe, as determined from a review which shall be made for the Contractor by a Professional Engineer holding a valid license in the Commonwealth of Virginia. Such certification shall cover all design data, supporting calculations, and materials. Pipe designs previously certified or approved by the Department will not require recertification.

105.03—Conformity With Plans and Specifications.

Values for materials to be used in the work shall be in close conformity with the specified values or range of values specified in the Contract. Less than complete conformity may be tolerated if obtaining exact or complete conformity would not be feasible and if authorized by the QA Manager.

Permissible tolerances for the elevation of earthwork and thickness of the several courses of select material, subbases, and bases are specified in these specifications. If permissive tolerances are exceeded or if consistent deviations from the plans or abrupt changes in grade occur, even though within the tolerances, the affected areas shall be reconstructed to conform to the specified tolerance and provide a smooth riding surface. When it is not feasible to reconstruct the areas, payment will be made in accordance with the requirements of the applicable specification for each material placed.

When the plans require the finished surface to tie into any structural item whose elevation is fixed, the elevation of the finished surface shall coincide with the elevation of the structural item.

105.04—Furnishing and Erecting Precast Structures.

Precast units will be allowed by the QA Manager for the construction of standard drainage units and minor structures. Precast box culverts, precast arch, and special design precast structures may be used only in accordance with the plans.

The Contractor shall ensure that the precast unit, as installed at each specific location, will possess the specified structural, functional, aesthetic, and serviceability characteristics of the cast-in-place design. If field conditions make the precast unit unsuitable, the Contractor may modify the unit in a manner that will not be detrimental to the structural design, as approved by the QA Manager, or shall replace the unit with the originally designed cast-in-place unit at his own expense.

Submittal of designs for precast items included in the standard drawings will not be required provided fabrication is in accordance with the standard details. Submittal of designs for precast box culverts on the Department's approval list will not be required provided the Contractor submits a certification that it will be fabricated in accordance with the preapproved design drawings.

Requests for approval of a precast design shall include detailed plans and supporting computations that have been reviewed and approved by a registered Professional Engineer having at least 5 years experience in structural design of the type of precast structures or components proposed. Concrete shall have a design strength at 28 days of at least 30 megapascals and an air content of 6 ± 2 percent. The design of the concrete mixture and the method of casting, curing, handling, and erecting shall be subject to review by the QA Manager. Precast units may be shipped after reaching 85 percent of the design compressive strength as determined by control cylinders tested in accordance with the requirements of Section 404. Units shall retain their structural integrity during shipment and shall be subject to inspection at the job site. Approval to use precast units shall not be construed as waiving the size and weight hauling limitations of Section 105.14.

105.05—Coordination of Plans, Standard Drawings, Specifications, and Special Provisions.

The plans, standard drawings, these specifications, special provisions, and supplementary documents are parts of the Contract. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of a discrepancy, the following will apply:

1. Calculated dimensions, unless obviously incorrect, will govern over scaled dimensions.
2. Plans will govern over these specifications and the standard drawings.
3. Special provisions will govern over these specifications and plans.

105.06—Cooperation of Contractor.

The Contractor shall keep one complete set of plans, standard drawings, contract assemblies, and specifications available on the project at all times. The Contractor shall give the work the constant attention necessary to facilitate progress and shall cooperate with the Engineer and other contractors. If any portion of a project is located within the limits of a municipality, military installation, or other federally owned property, the Contractor shall cooperate with the appropriate officials and agents in the prosecution of the work to the same extent as with the Department.

Subcontractors shall have on the project at all times a competent superintendent capable of reading and understanding the plans and specifications and experienced in the type of work being performed who shall receive instructions from the QA Manager or his authorized representatives.

105.07—Cooperation With Regard to Utilities.

The adjustment of utilities consists of the relocation, removal, replacement, rearrangement, reconstruction, improvement, disconnection, connection, shifting, or altering of an existing utility facility in any manner.

The Contractor shall coordinate project construction with planned utility adjustments and take all necessary precautions to prevent disturbance of the utility facilities.

The Contractor shall perform contract utility work in a manner that will cause the least reasonable inconvenience to the utility owner and those being served by the utility owner.

Existing, adjusted, or new utility facilities that are to remain within the right of way shall be properly protected by the Contractor to prevent disturbance or damage resulting from construction operations. If an

existing utility that requires adjustment is encountered by the Contractor, he shall not interfere with the utility but shall take the proper precautions to protect the facility and shall promptly notify the QA Manager of the need for adjustment.

If the Contractor desires the temporary or permanent adjustment of utilities for his own benefit, he shall conduct all negotiations with the utility owners and pay all costs in connection with the adjustment.

Except as otherwise specified herein, the Department will not be responsible for any claims for additional compensation from the Contractor resulting from delays, inconvenience, or damage sustained by him attributable to interference by utility appurtenances, or the operation of moving the same

105.08—Cooperation Among Contractors.

The Department may at any time contract or approve concurrent contracts for performance of other work on, near, or within the same geographical area of the work specified in an existing contract. Contractors shall not impede or limit access to such work by others.

When separate contracts are awarded within the limits of one project, contractors shall not hinder the work being performed by other contractors. Contractors working on the same project shall cooperate with each other. In case of dispute, the Engineer shall be the referee, and his decision shall be binding on all parties.

When contracts are awarded to separate contractors for concurrent construction in a common area, the contractors, in conference with the Engineer, shall establish a written joint schedule of operations based on the limitations of the individual contracts and the joining of the work of one contract with the others. The schedule shall set forth the approximate dates and sequences for the several items of work to be performed and shall ensure completion within the contract time limit. The schedule shall be submitted to the Engineer for review and approval no later than 30 days after the award date of the later contract and prior to the first monthly progress estimate. The schedule shall be agreeable to, signed by, and binding on each Contractor. The Engineer may allow modifications of the schedule when benefit to the contractors and the Department will result.

Any modification of the schedule shall be in writing, mutually agreed to and signed by the contractors, and shall be binding on the contractors in the same manner as the original agreement.

If the contractors fail to agree on a joint schedule of operations, they shall submit their individual schedules to the VDOT Chief Engineer, who will prepare a schedule that will be binding on each Contractor.

The joint schedule and any modification thereof shall become a part of each contract involved. The failure of any Contractor to abide by the terms of the joint schedule shall be justification for declaring the Contractor in default of his Contract.

Each Contractor shall assume all liability, financial or otherwise, in connection with his Contract and shall protect and save harmless the State from any and all damages and claims that may arise because of any inconvenience, delay, or loss he experiences as a result of the presence and operations of other contractors working in or near the work covered by his Contract. He shall also assume all responsibility for any of his work not completed because of the presence or operation of other contractors.

The Department will not be responsible for any inconvenience, delay, or loss experienced by a Contractor as a result of his failure to gain access to the work at the time contemplated, except as otherwise noted in the Design-Build Document.

The Department will not assume any responsibility for acts, failures, or omissions of one contractor that delay the work of another except as provided herein.

105.09--Holidays.

No work that interferes with traffic shall be performed on Sundays or the following holidays without the permission of the QA Manager: January 1, Memorial Day, July 4, Labor Day, Thanksgiving Day, day after Thanksgiving and Christmas Day.

If any of these holidays occurs on a Sunday, the following Monday shall be considered the holiday.

105.10--Construction Stakes, Lines, and Grades.

The Contractor shall perform all construction and other surveying which the Contractor deems necessary to construct this project in accordance with the Contract Documents. The cost for all surveying performed by the Contractor shall be included in the Contract Price.

105.11--Not Used

105.12--Not Used

105.13--Removal of Unacceptable and Unauthorized Work.

Work that does not conform to the requirements of the Contract will be considered unacceptable work.

Unacceptable work shall be remedied or removed immediately and replaced in an acceptable manner at the Contractor's expense.

No work shall be done until the lines and grades have been established by the Contractor. Work that is done beyond the lines shown on the plans will be considered unauthorized and will not be paid for. Such work may be ordered removed or replaced at the Contractor's expense.

If the Contractor fails to comply immediately with any order of the QA Manager made under the provisions of this section, the QA Manager will have the authority to cause unacceptable work to be removed and replaced and unauthorized work to be removed and to deduct the cost from any moneys due or to become due the Contractor.

105.14--Size and Weight Limitations.

- (a) **Hauling or Moving Material and Equipment on Public Roads Open to Traffic:** The Contractor shall comply with legal size and weight limitations in the hauling or moving of material and equipment on public roads open to traffic unless the hauling or moving is covered by a hauling permit.
- (b) **Hauling or Moving Material and Equipment on Public Roads Not Open to Traffic:** The Contractor shall comply with legal weight limitations in the hauling or moving of material and equipment on public roads that are not open to traffic unless the hauling or moving is permitted elsewhere herein or is otherwise covered by a hauling permit. The Contractor shall be liable for damage that results from the hauling or moving of material and

equipment. The hauling or moving of material and equipment on the pavement structure or across any structure during various stages of construction shall be subject to additional restrictions as specified or directed by the QA Manager.

- (c) **Furnishing Items in Component Parts of Sections:** If the size or weight of fabricated or manufactured items together with that of the hauling or moving vehicle exceeds the limitations covered by hauling permit policies and other means of transportation are not available, permission will be given to furnish the items in component parts of sections with adequately designed splices or connections at appropriate points. Permission for such adjustments shall be requested in writing, and approval in writing shall be secured from the QA Manager prior to fabrication or manufacture of the items. The request shall state the reasons for adjustment and shall be accompanied by supporting data.

105.15--Not Used

105.16--Submission and Disposition of Claims.

Early or prior knowledge by the Department of an existing or impending claim for damages could alter the plans, scheduling, or other action of the Department or result in mitigation or elimination of the effect of the act objected to by the Contractor. Therefore, a written statement describing the act of omission or commission by the Department or its agents that allegedly caused damage to the Contractor and the nature of the claimed damage shall be submitted to the Engineer in accordance with the provisions of the Contract. If such damage is deemed certain in the opinion of the Contractor to result from his acting on an order from the Engineer, he shall immediately take written exception to the order. Submission of a notice of claim as specified shall be mandatory. Failure to submit such notice shall be a conclusive waiver to such claim for damages by the Contractor in accordance with the terms of the Contract. An oral notice or statement will not be sufficient nor will a notice or statement after the event.

At the time of occurrence or prior to beginning the work, the Contractor shall furnish the Engineer an itemized list of materials, equipment, and labor for which additional compensation will be claimed. Only actual cost for materials, labor, and equipment will be considered. The Contractor shall afford the Engineer every facility for keeping an actual cost record of the work. The Contractor and the Engineer shall compare records and bring them into agreement at the end of each day. Failure on the part of the Contractor to afford the Engineer proper facilities for keeping a record of actual costs will constitute a waiver of a claim for such extra compensation except to the extent that it is substantiated by the Department's records. The filing of such notice by the Contractor and the keeping of cost records by the Engineer shall in no way establish the validity of a claim.

If the Contractor's claim contains data furnished by the Contractor that cannot be verified by the Department's records, the data shall be subject to a complete audit by the Department or its authorized representative if they are to be used as a basis for claim settlement.

Upon completion of the Contract, the Contractor may, within 60 days from the time of Final Acceptance, submit to the Department a written claim, an original and three legible copies, for the amount he deems he is entitled to under the Contract. The claim shall set forth the facts upon which the claim is based. The Contractor shall include all pertinent data and correspondence that may substantiate the claim. Only actual cost for materials, labor, and equipment will be considered. Within 90 days from the receipt of the claim, the Department will make an investigation and notify the Contractor by registered mail of its decision. However, by mutual agreement, the Department and Contractor may extend the 90-day period for another 30 days.

If the Contractor is dissatisfied with the decision, he shall notify the Commissioner in writing within 30 days from receipt of the Department's decision that he desires to appear before him, whether in person or through counsel, and present additional facts and arguments in support of his claim. The Commissioner will schedule and meet with the Contractor within 30 days after receiving the request. However, the Commissioner and Contractor, by mutual agreement, may schedule the meeting to be held after 30 days but before the 60th day from the receipt of the Contractor's written request. Within 45 days from the date of the meeting, the Commissioner will investigate the claim, including the additional facts presented, and notify the Contractor in writing of his decision. However, the Commissioner and Contractor, by mutual agreement, may extend the 45-day period for another 30 days. If the Commissioner deems that all or any portion of a claim is valid, he shall have the authority to negotiate a settlement with the Contractor subject to the provisions of Section 2.1-127 of the Code of Virginia 1950 as amended. No suit or action shall be brought against the Department of Transportation by the Contractor or any persons claiming under him or on behalf of a subcontractor of the Contractor or a person furnishing materials for the Contract to the Contractor, arising from the performance of the Contract by the Contractor, subcontractor or person furnishing materials to the Contractor, unless such claimant shall have exhausted the review process provided above. Further, no such action shall be brought unless the same shall be brought within twelve months from receipt of the decision of the Commissioner of the Department of Transportation. In no event shall any delay therein on the part of the Contractor, subcontractor or person furnishing materials be construed as a reason for extending the time within which such suit or action must be brought. Any such case brought on behalf of a subcontractor or person furnishing materials to the Contractor shall only be brought for costs and expenses caused by the acts or omissions of the Department of Transportation and shall not be brought for costs and expenses caused by the Contractor.

Any moneys that become payable as the result of claim settlement after payment of the final estimate will not be subject to payment of interest unless such payment is specified as a condition of the claim settlement.

SECTION 106--CONTROL OF MATERIAL

106.01--Source of Supply and Quality Requirements.

The materials used throughout the work shall conform to the requirements of the Contract. The Contractor shall regulate his supplies so that there will be a sufficient quantity of tested material on hand at all times to prevent any delay of work. Except as otherwise specified, materials, equipment, and components shall be new.

At the option of the QA Manager, materials may be approved at the source of supply. If it is found during the life of the Contract that previously approved sources of supply do not supply materials or equipment conforming to the requirements of the Contract, do not furnish the valid test data required to document the quality of the material or equipment, or do not furnish valid quantities to document payment, the Contractor shall change the source of supply and furnish material or equipment from other approved sources. The Contractor shall notify the QA Manager of this change, and provide the same identifying information noted hereinbefore, at least 60 days prior to their use on the project, but not less than two weeks prior to delivery.

Materials shall not be furnished from a source that has been identified by the Office of Federal Activities as being on the EPA's list of violating facilities.

When optional materials are included in the Contract, the Contractor shall advise the QA Manager in writing of the specific materials selected. Thereafter, the Contractor shall use the selected materials throughout the project unless a change is authorized in writing by the QA Manager. However, when the Contractor has an

option as to the type of pipe that may be used, he may use any one of the approved types for each size of pipe, but he shall use the same type for a particular line. The QA Manager may authorize other types and sources in an emergency that will unreasonably delay delivery of the selected material.

Equipment and material guaranties or warranties that are normally given by a manufacturer or supplier, or are otherwise required in the Contract, shall be obtained by the Contractor and assigned to the State in writing.

106.02--Not Used

106.03--Local Material Sources (Pits and Quarries).

Local material sources shall be concealed from view from the completed roadway and any existing public roadway. Concealment shall be accomplished by selectively locating the pit or quarry and spoil pile, providing environmentally compatible screening between the pit or quarry site and the roadway, or using the site for another purpose after removal of the material. The foregoing requirements shall also apply to any pit or quarry opened or reopened by a subcontractor or supplier. However, the requirements will not apply to commercial sand and gravel and quarry operations actively processing material at the site prior to the date of the execution of the Contract.

The QA Manager shall obtain a statement signed by the property owner in which the property owner agrees to the use of his property as a source of material for the project. Upon completion of the use of the property as a material source, the QA Manager shall obtain a release signed by the property owner indicating that the property has been satisfactorily restored. This requirement does not apply to commercial sources or sources owned by the Contractor.

Local material pits and quarries shall not be opened or reopened without authorization by the QA Manager. The Contractor shall obtain the approval of a site plan from the QA Manager, including (1) the location and approximate boundaries of the excavation with a slope gradient of 3:1 or greater; (2) procedures to minimize erosion and siltation; (3) provision of environmentally compatible screening; (4) restoration; (5) cover vegetation; (6) other use of the pit or quarry after removal of material, including the spoil pile; (7) the drainage pattern on and away from the area of land affected, including the directional flow of water; (8) constructed or natural waterways used for discharge; and (9) a sequence and schedule to achieve the approved plan. The site plan shall also include sediment basins if required. Sediment basins are required if the runoff from a watershed area of 1.2 hectares or more flows across a disturbed area of 930 square meters or greater. The Contractor shall design, construct and maintain the basin to accommodate the anticipated sediment loading from the land disturbing activity. The Contractor shall certify that the sediment basin design is in compliance with the Virginia Erosion and Sediment Control Regulations.

The Contractor's design and restoration shall be in accordance with the Contract and in accordance with the requirements of the federal, state, and local laws and regulations.

If the approved plan provides for the continued use or other use of the pit or quarry beyond the date of final acceptance, the Contractor shall furnish the Department a bond made payable to the Commonwealth of Virginia in an amount equal to the Engineer's estimate of the cost of performing the restoration work. If the pit or quarry is not used in accordance with the approved plan within 8 months after final acceptance, the Contractor shall perform restoration work as directed by the Engineer, forfeit his bond, or furnish the Engineer with evidence that he has complied with the applicable requirements of the State Mining Law.

Topsoil on borrow sites shall be stripped and stockpiled as directed by the QA Manager for use as needed within the construction limits of the project or in the reclamation of borrow and disposal areas.

Substructure. The part of a structure that is below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the back walls, wingwalls, and wing protection railings.

Superstructure. The portion of a structure that is not defined as substructure.

Surface course. One or more layers of a pavement structure designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and disintegrating effects of weather. The top layer is sometimes called the wearing course.

Surplus material. Material that is present on a project as a result of unbalanced earthwork quantities, excessive swell, slides, undercutting, or other conditions beyond the control of the Contractor.

- T -

Temporary structure. Any structure that is required to maintain traffic while permanent structures or parts of structures specified in the Contract are constructed or reconstructed. The temporary structure shall include earth approaches.

Ton. A metric ton, 1,000 kilograms; or an Imperial ton, 2000 pounds as indicated on the section documents.

Top of earthwork. The uppermost surface of the embankment excavation, exclusive of select material, that is shaped to conform with the typical section.

Traveled way. The portion of the roadway for the movement of vehicles, exclusive of shoulders.

- W -

Wearing course. See Surface course.

Work. The furnishing of all materials, labor, tools, equipment, and incidentals necessary or convenient for the successful completion of the project and the carrying out of the duties and obligations specified in the Contract.

Working Drawings. Drawings needed to show things associated with the construction of something to be constructed, but which will not be part of the permanent construction, e.g. formwork.

SECTION 102--NOT USED

SECTION 103--CONTRACT BOND

103.01--Not Used

103.02--Not Used

103.03--Not Used

103.04--Not Used

If the Contractor fails to provide necessary controls to prevent erosion and siltation, such efforts are not made in accordance with the approved sequence, or the efforts are found to be inadequate, he shall take immediate action to abate erosion and siltation. The QA Manager may cause the Contractor to cease all contributing operations and direct efforts toward corrective action or may perform the work with state forces or other means determined by the QA Manager. If the work is not performed by the Contractor, the cost of performing the work, plus 25 percent for supervisory and administrative personnel, will be deducted from moneys due the Contractor.

Costs for applying seed, fertilizer, lime, and mulch; restoration; drainage; erosion and siltation control; regrading; haul roads; and screening shall be included in the Contract Price for the type of excavation or other appropriate items.

If the Contractor fails to fulfill the provisions of the approved plan for screening or restoring material sources, the Department may withhold and use for the purpose of performing such work any moneys due the Contractor. The Contractor will be held liable for penalties, fines, or damages incurred by the Department as a result of his failure to prevent erosion or siltation.

After removing the material, the Contractor shall remove metal, lumber, and other debris resulting from his operations and shall shape and landscape the area in accordance with the approved plan for such work.

If payment is to be made for material measured in its original position, material shall not be removed until cross sections have been taken. The material shall be reserved exclusively for use on the project until completion of the project or until final cross sections have been taken.

106.04--Disposal Areas.

Unsuitable or surplus material whose presence is shown on the plans shall be deposited on approved areas located off the right of way. The Contractor shall obtain the necessary rights to such property provided at least one property owner having a suitable location is willing to enter a reasonable agreement.

The QA Manager shall obtain a statement signed by the property owner in which the owner agrees to the use of his property for the deposit of material from the project. Upon completion of the use of the property as a disposal area, the QA Manager shall obtain a release signed by the property owner indicating that the property has been satisfactorily restored. This requirement will be waived for property that is owned by the Contractor or the Department or for which rights have been procured by the Department.

Prior to opening a disposal area, the Contractor shall obtain the approval of a site plan from the QA Manager. The plan shall show (1) the location and approximate boundaries of the disposal area; (2) all procedures to minimize erosion and siltation; (3) haul roads; (4) provision for environmentally compatible screening; (5) restoration of and cover vegetation for the area following the deposit of material; (6) the drainage pattern on and away from the area affected, including constructed or natural waterways used for drainage; (7) the streams or tributaries receiving the discharge; and (8) a sequence and schedule to complete the work. The site plan shall also include sediment basins if required. Sediment basins are required if the runoff from a watershed area of 1.2 hectares or more flows across a disturbed area of 930 square meters or greater. The Contractor shall design, construct and maintain the basin to accommodate the anticipated sediment loading from the land disturbing activity. The Contractor shall certify that the sediment basin design is in compliance with the Virginia Erosion and Sediment Control Regulations.

Disposal areas shall be cleared but need not be grubbed. The clearing work shall not damage grass, shrubs, or vegetation outside the limits of the approved area and haul roads thereto. After the material has been

deposited, the area shall be shaped to minimize erosion and siltation of nearby streams and landscaped in accordance with the approved plan for such work or shall be used as approved by the QA Manager.

Excavated rock in excess of that used in embankments in accordance with the requirements of Section 303 shall be deposited off the right of way in an approved disposal area. Deposits whose surface is composed largely of rock shall be leveled by special arrangement of the material or reduction of the irregularity of the surface by crushing projections to create a reasonably uniform and neat appearance.

The Contractor's design and restoration shall be in accordance with the requirements of the Contract and federal, state, and local laws and regulations.

If the Contractor fails to provide the necessary controls to prevent erosion and siltation, such efforts are not made in accordance with the approved sequence, or the efforts are found to be inadequate, he shall take immediate action to abate erosion and siltation. The QA Manager shall cause the Contractor to cease all contributing operations and direct efforts toward corrective action. If the work is not performed by the Contractor, the Department may perform the work and in such event the Contractor shall reimburse the Department for the entire cost of performing the work, plus 25 percent for supervisory and administrative personnel. The Department may obtain reimbursement directly from the Bond Trustee and the amount paid to the Department by the Bond Trustee will be deducted from progress payments.

Costs for applying seed, lime, fertilizer, and mulch; reforestation; drainage; erosion and siltation control; regrading; haul roads; and screening shall be included in the Contract Price for excavation.

If the Contractor fails to fulfill the provisions of the approved plan for screening or restoring disposal areas, the Department may withhold and use for the purpose of performing such work any moneys due the Contractor. The Contractor shall be held liable for all penalties, fines, or damages incurred by the Department as a result of his failure to prevent erosion or siltation.

106.05—Rights for and Use of Materials Found on Project.

With approval of the QA Manager, the Contractor may use in the project any materials found in the excavation that comply with the specifications. The Contractor shall replace at his own expense with other acceptable material the excavation material removed and used that is needed for use in embankments, backfills, approaches, or otherwise. The Contractor shall not excavate or remove any material from within the construction limits that is not within the grading limits, as indicated by the slope and grade lines, without authorization by the QA Manager.

106.06—Not Used

106.07—Not Used

106.08—Not Used

106.09—Not Used

106.10—Not Used

106.11—Material Furnished by the Department.

The Contractor shall furnish all materials required to complete the work except those specified to be furnished by the Department.

Material furnished by the Department will be delivered or made available to the Contractor at the points specified in the Contract. The cost of handling and placing materials after delivery to the Contractor shall be included in the Contract Price for the item with which they are used.

The Contractor shall be responsible for material delivered to him, including shortages, deficiencies, and damages that occur after delivery, and any demurrage charges.

106.12--Metric Substitutions

The Department recognizes the fact that certain materials specified in metric units and necessary for construction of this project may not be commercially available at the time they are required for construction. Imperial items may be substituted for metric units provided these items conform to the closest English equivalent in size for the specified metric item.

Direct substitution of reinforcing steel and high strength bolts in accordance with the tables shown herein will be allowed.

REINFORCING STEEL

METRIC	ENGLISH
10	3
13	4
16	5
19	6
22	7
25	8
29	9
32 or 33	10
36	11

HIGH STRENGTH BOLTS

METRIC	ENGLISH
M16	5/8"
M22	7/8"
M27	1-1/8"
M30	1-1/4"

Where the specifications require the Contractor to submit working plans or shop drawings, these drawings shall be provided in metric units or in dual units (English and metric) at the Contractor's option.

SECTION 107--LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.01--Laws To Be Observed

The Contractor shall keep fully informed of federal, state, and local laws, bylaws, ordinances, orders, decrees, and regulations of governing bodies, courts, and agencies having any jurisdiction or authority that affects those engaged or employed on the work, the conduct of the work, or the execution of any documents in connection with the work. The Contractor shall observe and comply with such laws, ordinances, regulations, orders, or decrees and shall indemnify and hold harmless the State and its agents, officers, or employees against any claim for liability arising from or based on their violation, whether by himself, his agents, his employees, or subcontractors. The Contractor shall execute and file the documents, statements, and affidavits required under any applicable federal or state law or regulation affecting his bid or Contract or prosecution of the work thereunder. The Contractor shall permit examination of any records made subject to such examination by any federal or state law or by regulations promulgated thereunder by any state or federal agency charged with enforcement of such law.

107.02--Not Used.

107.03--Not Used.

107.04--Restoration of Work Performed by Others.

The Department may construct or reconstruct any utility service in the highway or street or grant a permit for the same at any time. The Contractor shall not be entitled to any damages occasioned thereby.

When authorized by the QA Manager, the Contractor shall allow any person, firm, or corporation to make an opening in the highway within the limits of the project upon presentation of a duly executed permit from the Department or any municipality for sections within its corporate limits. The Contractor shall satisfactorily repair portions of the work disturbed by the openings.

107.05--Federal-Aid Provisions.

On the section(s) where the U.S. government pays all or any portion of the cost of the project, the Contractor shall observe the federal laws and rules and regulations made pursuant to such laws. The work shall be subject to inspection by the appropriate federal agency.

Such inspection shall in no sense make the federal government a party of the Contract and will in no way interfere with the rights of either party.

107.06--Sanitary Provisions.

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of employees as may be necessary to comply with the requirements of the state and local Board of Health or other bodies or tribunals having jurisdiction.

107.07--Public Convenience and Safety.

The Contractor shall conduct his work so as to ensure the least possible obstruction to traffic. The Contractor shall provide for the safety and convenience of the general public and residents along the highway and the protection of persons and property as specified in Section 104.04.

107.08—Railway-Highway Provisions.

If the Contractor's work requires hauling materials across the tracks of a railway, he shall make arrangements with the railway for any new crossing(s) required or the use of any existing crossing. Charges made by the railway company for the construction or use of new or existing crossings and their subsequent removal and for watchperson or flagger service at such crossings shall be reimbursed by the Contractor directly to the railway company under the terms of their own arrangements before final acceptance.

Work to be performed by the Contractor in construction on or over the railway right of way shall be performed at times and in a manner that will not interfere unnecessarily with the movement of trains or traffic on the railway track. The Contractor shall use care to avoid accidents, damage, or unnecessary delay or interference with the railway company's trains or other property. If any interruption of railway traffic is required by the Contractor's actions, he shall obtain prior written approval from the railway company.

The Contractor shall conduct operations that occur on or over the right of way of any railway company fully within the rules, regulations, and requirements of the railway company and in accordance with the requirements of any agreements made between the Department and railway company that are made a part of the Contract.

- (a) **Flagger or Watchperson Services:** Flagger or watchperson services required by the railway company for the safety of railroad operations because of work being performed by the Contractor or incidental thereto will be provided by the railway company. Any cost of such services shall be borne by the Contractor and shall be paid directly to the railway company(s) under the terms of their own agreement.

No work shall be undertaken on or over the railway right of way until the watchpersons or flaggers are present at the project site. The Contractor shall continuously prosecute the affected work to completion to minimize the need for flagger or watchperson services.

- (b) **Approval of Construction Methods on Railway Right of Way:** The Contractor shall submit to the QA Manager a plan of operations showing the design and method of proposed structural operations and shall obtain its approval before performing any work on the railway company's right of way unless otherwise indicated in the railroad agreement. The plan shall be clear and legible, and details shall be drawn to scale. The plan shall show the following:

1. proximity of construction operations to tracks
2. depth of excavation with respect to tracks
3. description of structural units
4. vertical and horizontal clearances to be afforded the railroad during installation and upon completion of excavation
5. sheeting and bracing
6. method and sequence of operations

Approval shall not relieve the Contractor of any liability under the Contract. The Contractor shall arrange the work so as not to interfere with the railway company's operation except by agreement with the railway company.

- (c) **Insurance:** In addition to insurance or bonds required under the terms of the Contract, the Contractor shall carry insurance covering operations affecting the property of the railway company. The original railroad protective liability insurance policy and certificate of insurance showing insurance carried by the Contractor and any subcontractors shall be submitted to the railway company for approval and retention.

Neither the Contractor nor any subcontractor shall begin any work affecting the railway company until the railway company has received the insurance.

Notice of any material change in or cancellation of the required policies shall be furnished the Department and the railway company at least 30 days prior to the effective date of the change or cancellation. The insurance shall be of the following kinds and amounts:

1. **Contractor's public liability and property damage insurance:** The Contractor shall furnish evidence to the Department with respect to the operations to be performed that he carries regular contractor's public liability insurance. The insurance shall provide for a limit of at least the dollar value specified in the Contract for all damages arising out of bodily injuries to or the death of one person, and subject to that limit for each person, a total limit of at least the dollar value specified in the Contract for all damages arising out of bodily injuries to or death of two or more persons in any one occurrence, and regular contractor's property damage insurance providing for a limit of at least the dollar value specified in the Contract for all damages arising out of bodily injury to or destruction of property in any one occurrence, and subject to that limit per occurrence, a total or aggregate limit of at least the dollar value specified in the Contract for all damages arising out of injury to or destruction of property during the policy period. The Contractor's public liability and property damage insurance shall include explosion, collapse, and underground damage coverage. If the Contractor subcontracts any portion of the work, he shall secure insurance protection in his own behalf under the Contract's public liability and property damage insurance policies to cover any liability imposed on him by law for damages because of bodily injury to, or death of persons and injury to, or destruction of property as a result of work undertaken by the subcontractors. In addition, the Contractor shall provide similar insurance protection for and on behalf of any subcontractors to cover their operation by means of separate and individual contractor's public liability and property damage policies. As an alternative, he shall require each subcontractor to provide such insurance in his own behalf.
2. **Railroad protective insurance and public liability and property damage:** The policy furnished the railway company shall include coverage for contamination, pollution, explosion, collapse, and underground damage. The policy shall be of the type specified hereinafter and shall be expressed in standard language that may not be amended. No part may be omitted except as indicated hereinafter or by an endorsement that states an amendment or exclusion of some provision of the form in accordance with the provisions of a manual rule. The form of the endorsement shall be approved as may be required by the supervising authority of the state in which the policy is issued. A facsimile of the Declarations form as shown in the proposal shall be made a part of the policy and shall be executed by an officer of the insurance

company. The several parts of the requirements and stipulations specified or inferred herein may appear in the policy in such sequence as the company may elect.

a. **For a policy issued by one company:**

(NAME AND LOCATION OF INDEMNITY COMPANY),

a _____ Insurance Company, herein

(Type of Company)

called the Company, agrees with the insured named in the Declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the Declarations made by the named insured and subject to all of the terms of his policy.

For a policy issued by two companies:

(NAME AND LOCATION OF INDEMNITY COMPANY)

and

(NAME AND LOCATION OF INDEMNITY COMPANY),

each a _____ Insurance Company,

(Type of Company)

herein called the Company, severally agree with the insured named in the Declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the Declaration made by the named insured and subject to all of the terms of this policy, provided the named Indemnity Company shall be the insured with respect to Coverage _____ and no other and the named Insurance Company shall be the insurer with respect to Coverage _____ and no other.

b. **Insuring agreements:**

- (1) **Coverages: Coverage A—Bodily injury liability:** To pay on behalf of the insured all sums that the insured shall become legally obligated to pay as damages because of bodily injury, sickness, or disease including death at any time resulting therefrom (hereinafter called bodily injury) either (1) sustained by any person arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Declarations; or (2) sustained at the designated job site by the Contractor, any employee of the Contractor, any employee of the governmental authority specified in Item 5 of the Declarations, or any designated employee of the insured, whether or not arising out of such acts or omissions.

Coverage B—Property damage liability: To pay on behalf of the insured all sums the insured shall become legally obligated to pay as damages because of physical injury to or destruction of property, including loss of use of any property because of such injury or destruction (hereinafter called property damage) arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Declarations.

Coverage C—Physical damage to property: To pay for direct and accidental loss of or damage to rolling stock and other contents, mechanical construction equipment, or motive power equipment (hereinafter called loss) arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Declarations; provided such property is owned by the named insured or is leased or entrusted to the named insured under a lease or trust agreement.

- (2) **Definitions:** *Insured* includes the named insured and any executive officer, director, or stockholder thereof while acting within the scope of his duties as such.

Contractor means the Contractor designated in Item 4 of the Declarations and includes all subcontractors of the Contractor but not the named insured.

Designated employee of the insured means (1) any supervisory employee of the insured at the job site; (2) any employee of the insured while operating, attached to, or engaged on work trains or other railroad equipment at the job site that is assigned exclusively to the Contractor; or (3) any employee of the insured not within (1) or (2) who is specifically loaned or assigned to the work of the Contractor for prevention of accidents or protection of property, the cost of whose services is borne specifically by the Contractor or governmental authority.

Contract means any contract or agreement to carry a person or property for a consideration or any lease, trust, or interchange contract or agreement respecting motive power, rolling stock, or mechanical construction equipment.

- (3) **Defense and settlement supplementary payments:** With respect to such insurance as is afforded by this policy under Coverages A and B, the Company shall defend any suit against the insured alleging such bodily injury or property damage and seeking damages that are payable under the terms of this policy, even if any of the allegations of the suit are groundless, false, or fraudulent. However, the Company may make such investigation and settlement of any claim or suit as it deems expedient.

In addition to the applicable limits of liability, the Company shall pay (1) all expenses incurred by the company, all costs taxed against the insured in any such suit, and all interest on the entire amount of any judgment therein that accrues after entry of the judgment and before the Company has paid or tendered or deposited in court that part of the judgment that does not exceed the limit of the Company's liability thereon; (2) premiums on appeal bonds required in any such suit and premiums on bonds to release attachments for an amount not in excess of the applicable limit of liability of this policy, but without obligation to apply for or furnish any such bonds; (3) expenses incurred by the

insured for first aid to others that shall be imperative at the time of the occurrence; and (4) all reasonable expenses, other than loss of earnings, incurred by the insured at the Company's request.

- (4) **Policy period and territory:** This policy applies only to occurrences and losses during the policy period and within the United States, its territories or possessions, or Canada.

c. **Exclusions:** This policy does not apply to the following:

- (1) liability assumed by the insured under any contract or agreement except a contract as defined herein
- (2) bodily injury or property damage caused intentionally by or at the direction of the insured
- (3) bodily injury, property damage, or loss that occurs after notification to the named insured of the acceptance of the work by the governmental authority, other than bodily injury, property damage, or loss resulting from the existence or removal of tools, uninstalled equipment, and abandoned or unused materials
- (4) under Coverage A(1), B, and C, to bodily injury, property damage, or loss, the sole proximate cause of which is an act or omission of any insured
- (5) under Coverage A, to any obligation for which the insured or any carrier as his insurer may be held liable under any workers' compensation, employment compensation, or disability benefits law or under any similar law; provided that the Federal Employer's Liability Act, U.S. Code (1946) Title 45, Sections 51-60, as amended, shall for the purpose of this insurance be deemed not to be any similar law
- (6) under Coverage B, to injury to or destruction of property owned by the named insured or leased or entrusted to the named insured under a lease or trust agreement
- (7) under any liability coverage, to injury, sickness, disease, death, or destruction (1) with respect to which an insured under the policy is also an insured under a nuclear energy liability policy issued by the Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, or Nuclear Insurance Association of Canada or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or (2) resulting from the hazardous properties of nuclear material and with respect to which any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954 or any law amendatory thereof or the insured is (or had this policy not been issued would be) entitled to indemnity from the United States or any agency thereof under any agreement entered into by the United States, or any agency thereof, with any person or organization

- (8) under any Medical Payments Coverage or any Supplementary Payments provision relating to immediate medical or surgical relief or to expenses incurred with respect to bodily injury, sickness, disease, or death resulting from the hazardous properties of nuclear material and arising out of the operation of a nuclear facility by any person or organization
- (9) under any liability coverage, to injury, sickness, disease, death, or destruction resulting from the hazardous properties of nuclear material if (1) the nuclear material is at any nuclear facility owned or operated by or on behalf of an insured or has been discharged or dispersed therefrom; (2) the nuclear material is contained in spent fuel or waste at any time possessed, handled, used, processed, stored, transported, or disposed of by or on behalf of an insured; or (3) the injury, sickness, disease, death, or destruction arises out of the furnishing by an insured of services, materials, or parts for equipment in connection with the planning, construction, maintenance, operation, or use of any nuclear facility; if such facility is located in the United States, its territories or possessions, or Canada, this exclusion applies only to injury to or destruction of property at such nuclear facility
- (10) under Coverage C, to loss attributable to nuclear reaction, nuclear radiation, or radioactive contamination or to any act or condition incident to any of the foregoing

As used in exclusions 7, 8, and 9, the following definitions apply: *Hazardous properties* include radioactive, toxic, or explosive properties. *Nuclear material* means source material, special nuclear material, or byproduct material. *Source material, special nuclear material, and byproduct material* have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof. *Spent fuel* means any fuel element or fuel component (solid or liquid) that has been used or exposed to radiation in a nuclear reaction. *Disposable material* means material containing byproduct material and resulting from the operation by any person or organization of any nuclear facility included in the definition of nuclear facility under 1 or 2 below. *Nuclear facility* means

- (1) any nuclear reactor
- (2) any equipment or device designed or used for separating the isotopes of uranium or plutonium; processing or utilizing spent fuel; or handling, processing, or packaging waste
- (3) any equipment or device designed or used for the processing, fabricating, or alloying of special nuclear material if at any time the total amount of such material in the custody of the insured at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 (or any combination thereof) or more than 250 grams of uranium 235

- (4) any structure, basin, excavation, premises, or place prepared or used for the storage or disposal of waste (includes the site on which any of the foregoing is located, all operation conducted on such site, and all premises used for such operations)

Nuclear reactor means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material. With respect to injury to or destruction of property, *injury* or *destruction* includes all forms of radioactive contamination of property.

- d. **Conditions:** The following conditions, except conditions (3) through (12), apply to all coverages. Conditions (3) through (12) apply only to the coverage noted thereunder.

- (1) **Premium:** The premium bases and rates for the hazards described in the Declarations are stated therein. Premium bases and rates for hazards not so described are those applicable in accordance with the requirements of the manuals used by the company. The term *contract cost* means the total cost of all work described in Item 6 of the Declaration. The term *rental cost* means the total cost to the Contractor for rental or work trains or other railroad equipment, including the remuneration of all employees of the insured while operating, attached to, or engaged thereon. The advance premium stated in the Declarations is an estimated premium only. Upon termination of this policy, the earned premium shall be computed in accordance with the Company's rules, rates, rating plans, premiums, and minimum premiums applicable to this insurance. If the earned premium thus computed exceeds the estimated advance premium paid, the Company shall look to the Contractor specified in the Declarations for any such excess. If less, the Company shall return to the Contractor the unearned portion paid. In no event shall payment or premium be an obligation of the named insured.
- (2) **Inspection:** The named insured shall make available to the Company records of information relating to the subject matter of this insurance. The Company shall be permitted to inspect all operations in connection with the work described in Item 6 of the Declarations.
- (3) **Limits of liability, Coverage A:** The limit of bodily injury liability stated in the Declarations as applicable to "each person" is the limit of the Company's liability for all damages (including damages for care and loss of services) arising out of bodily injury sustained by one person as the result of any one occurrence. The limit of such liability stated in the Declarations as applicable to "each occurrence" is (subject to the provision respecting each person) the total limit of the Company's liability for all such damage arising out of bodily injury sustained by two or more persons as the result of any one occurrence.
- (4) **Limits of liability, Coverages B and C:** The limit of liability under Coverages B and C stated in the Declarations as applicable to "each occurrence" is the total limit of the Company's liability for all damages

and all loss under Coverages B and C combined arising out of physical injury to, destruction of, or loss of all property of one or more persons or organizations, including the loss or use of any property attributable to such injury or destruction under Coverage B, as the result of any one occurrence. Subject to the provision respecting "each occurrence," the limit of liability under Coverages B and C stated in the declaration as "aggregate" is the total limit of the Company's liability for all damages and all loss under Coverages B and C combined arising out of physical injury to, destruction of, or loss of property, including the loss or use of any property attributable to such injury or destruction under Coverage B.

Under Coverage C, the limit of the Company's liability for loss shall not exceed the actual cash value of the property, or if the loss is a part thereof, the actual cash value of such part, at time of loss, nor what it would then cost to repair or replace the property of such part thereof with other of like kind and quality.

(5) **Severability of interests, Coverages A and B:** The term *the insured* is used severally and not collectively. However, inclusion herein of more than one insured shall not operate to increase the limits of the Company's liability.

(6) **Notice:** In the event of an occurrence or loss, written notice containing particulars sufficient to identify the insured and also reasonably obtainable information with respect to the time, place, and circumstances thereof and the names and addresses of the injured and of able witnesses shall be given by or for the insured to the company or any of its authorized agents as soon as is practicable. If a claim is made or a suit is brought against the insured, he shall immediately forward to the

Company every demand, notice, summons, or other process received by him or his representative.

(7) **Assistance and cooperation of the insured, Coverages A and B:** The insured shall cooperate with the Company and upon the Company's request attend hearings and trials and assist in making settlements, securing and giving evidence, obtaining the attendance of witnesses, and conducting suits. Except at his own cost, the insured shall not voluntarily make any payment, assume any obligations, or incur any expense other than for first aid to others that shall be imperative at the time of an accident.

(8) **Action against Company, Coverages A and B:** No action shall lie against the Company unless as a condition precedent thereto the insured shall have fully complied with all the terms of this policy, nor until the amount of the insured's obligation to pay shall have been finally determined either by judgment against the insured after actual trial or by written agreement of the insured, the claimant, and the Company. Any person or organization or the legal representative

thereof who has secured such judgment or written agreement shall thereafter be entitled to recover under this policy to the extent of the insurance afforded by this policy. No person or organization shall have any right under this policy to join the Company as a part to any action against the insured to determine the insured's liability. Bankruptcy or insolvency of the insured or of the insured's estate shall not relieve the Company of any of its obligations hereunder.

- (9) **Action against Company, Coverage C:** No action shall lie against the Company unless as a condition precedent thereto there shall have been full compliance with all the terms of this policy nor until 30 days after proof of loss is filed and the amount of loss is determined as provided in this policy.
- (10) **Insured's duties in event of loss, Coverage C:** In the event of loss, the insured shall protect the property, whether or not the loss is covered by this policy. Any further loss attributable to the insured's failure to protect shall not be recoverable under this policy. Reasonable expenses incurred in affording such protection shall be deemed incurred at the company's request.

The insured shall also file with the Company, as soon as practicable after loss, his sworn proof of loss in such form and including such information as the Company may reasonably require and shall, upon the Company's request, exhibit the damaged property.

- (11) **Appraisal, Coverage C:** If the insured and the Company fail to agree as to the amount of loss, either may demand an appraisal of the loss within 60 days after the proof of loss is filed. In such event the insured and the Company shall each select a competent appraiser, and the appraisers shall select a competent and disinterested umpire. An award in writing or any two shall determine the amount of loss. The insured and the Company shall each pay his chosen appraiser and shall bear equally the other expenses of the appraisal and umpire. The Company shall not be held to have waived any of its rights by any act relating to appraisal.
- (12) **Payment of loss, Coverage C:** The Company may pay for the loss in money, but there shall be no abandonment of the damaged property to the Company.
- (13) **No benefit to bailee coverage:** The insurance afforded by this policy shall not enure directly or indirectly to the benefit of any carrier or bailee (other than the named insured) liable for loss to the property.
- (14) **Subrogation:** In the event of any payment under this policy, the Company shall be subrogated to all of the insured's rights of recovery therefor against any person or organization. The insured shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The insured shall do nothing after loss to prejudice such rights.

- (15) **Application of insurance:** The insurance afforded by this policy is primary insurance. If the insured has other primary insurance against a loss covered by this policy, the Company shall not be liable under the policy for a greater proportion of such loss than the applicable limit of liability stated in the Contract bears to the total applicable limit of all valid and equitable insurance against such loss.
- (16) **3-year policy:** A policy period of 3 years is comprised of three consecutive annual periods. Computation and adjustment of earned premium shall be made at the end of each annual period. Aggregate limits of liability as stated in this policy shall apply separately to each annual period.
- (17) **Changes:** Notice to any agent of knowledge possessed by any agent or by any other person shall not affect a waiver or a change in any part of this policy or stop the Company from asserting any right under the terms except by endorsement issued to form a part of this policy signed by * _____ provided, however, changes may be made in the written portion of the declaration by * _____ when initialed by such * _____ or by endorsement issued to form a part of this policy signed by such * _____.
[*Insert titles of authorized company representatives.]
- (18) **Assignment:** Assignment of interest under this policy shall not bind the Company until its consent is endorsed hereon.
- (19) **Cancellation:** This policy may be canceled by the named insured by mailing to the Company written notice stating when the cancellation shall become effective. This policy may be canceled by the Company by mailing to the named insured, Contractor, and governmental authority at the respective addresses shown in this policy written notice stating when such cancellation shall be effective (not less than 30 days thereafter). The mailing of notice shall be sufficient proof of notice. The effective date and hour of cancellation stated in the notice shall become the end of the policy period. Delivery of such written notice either by the named insured or the Company shall be equivalent to mailing. If the named insured cancels, the earned premium shall be computed in accordance with the customary short rate table and procedure. If the Company cancels, the earned premium shall be computed pro rata. The premium may be adjusted either at the time cancellation is effected or as soon as practicable after the cancellation becomes effective, but payment or tender of unearned premium is not a condition of cancellation.
- (20) **Declarations:** By acceptance of this policy, the named insured agrees that such statements in the Declarations as are made by him are his agreements and representations, that his policy is issued in reliance on the truth of such representations, and that this policy embodies all agreements existing between himself and the Company or any of its agents relating to this insurance.

e. **For a policy issued by one company:**

In witness whereof, the _____ Indemnity Company has caused this policy to be signed by its president and a secretary at _____ and countersigned on the Declarations page by a duly authorized agent of the Company.

(Facsimile of
Signature)
Secretary

(Facsimile of
Signature)
President

For a policy issued by two companies:

In witness whereof, the _____ Indemnity Company has caused this policy with respect to Coverages _____ and such other parts of the policy as are applicable thereto to be signed by its president and a secretary at _____ and countersigned on the Declarations page by a duly authorized agent of the Company.

(Facsimile of
Signature)
Secretary

(Facsimile of
Signature)
President

- (d) **Submitting Copies of Insurance Policies:** Prior to beginning construction operations on or over the railway right of way, the Contractor shall submit to the Department evidence of the railway company's approval and a copy of the required insurance policies. The State will not be responsible for any claims from the Contractor resulting from delay in the acceptance of any of these policies by the railway company other than consideration of an extension of time. If the delay is caused by the failure of the Contractor or his insurer to file the required insurance policies promptly, an extension of time will not be granted.
- (e) **Beginning Construction:** Preliminary contingent work or other work by the railway company may delay the starting or continuous prosecution of the work by the Contractor. The Contractor shall be satisfied as to the probable extent of such work and its effect on the operations prior to submitting a proposal. The State will not be responsible for any claims by the Contractor resulting from such delays.
- (f) **Arranging for Tests:**
1. **Railroad specifications:** When ordering materials that are to conform to railroad specifications, the Contractor shall notify the railway company, who will arrange for tests. The Contractor shall specify in each order that the materials are to be tested in accordance with the requirements of the railroad specifications and not those of the Department.
 2. **Highway specifications:** When ordering materials that are to conform to highway specifications, the Contractor shall specify in each order that the materials are to be tested in accordance with the requirements of VDOT specifications.

107.09--Construction Over or Adjacent to Navigable Waters.

The Contractor shall conduct the work on navigable waters so as to ensure the least possible obstruction to navigation and that the existing navigable depths will not be impaired except as may be allowed by a permit issued by the U.S. Coast Guard. The Contractor shall also provide and maintain temporary navigation lights and signals required by U.S. Coast Guard regulations for the protection of navigation. When the QA Manager determines that the work has reached a point where such action may be taken, the channel(s) through the structure shall be promptly cleared of falsework, piling, or other obstructions placed therein or caused by the construction of the structure to the satisfaction of the Coast Guard.

107.10--Barricades and Warning Signs.

The Contractor shall take all necessary precautions for the protection of the work and the safety of the public as described herein and in Sections 104.04, 107.07, and 512.

Highways closed to traffic shall be protected by barricades and other warning devices as required by the QA Manager. Barricades and warning devices shall be illuminated where required during darkness and low visibility. The Contractor shall erect warning devices in advance of a location on the project where operations or obstructions may interfere with the use of the road by traffic and at all intermediate points where the new work crosses or coincides with an existing roadway. The Contractor shall maintain sign faces and reflective surfaces of warning devices in a clean and visible condition. Barricades, warning signs, lights, temporary signals, and other protective devices shall conform to the requirements of the *MUTCD*. The reflective surface of signs and safety devices furnished by the Contractor shall be fabricated using encapsulated lens reflective sheeting conforming to the requirements of Section 701.

107.11--Use of Explosives.

The Contractor shall be responsible for damage resulting from the use of explosives. Explosives shall be stored in a secure manner in compliance with federal, state, and local laws and ordinances.

The Contractor shall notify each property and utility owner having a building, structure, or other installation above or below ground in proximity to the site of the work of his intention to use explosives. Notice shall be given sufficiently in advance to enable the owners to take steps to protect their property. Notice shall not relieve the Contractor of responsibility for damage resulting from his blasting operations.

107.12--Protecting and Restoring Property and Landscape.

The Contractor shall preserve property and improvements along the lines of and adjacent to the work unless their removal or destruction is called for by the plans. The Contractor shall use suitable precautions to prevent damage to such property.

When the Contractor finds it necessary to enter on private property, he shall secure from the owner or lessee a written permit for such entry prior to moving thereon. An executed copy of this permit shall be retained by the QA Manager.

The Contractor shall be responsible for damage or injury to property during the prosecution of the work resulting from any act, omission, neglect, or misconduct in the method of executing the work or attributable to defective work or materials. This responsibility shall not be released until final acceptance of the project.

When direct or indirect damage is done to property by or on account of any act, omission, neglect, or misconduct in the method of executing the work or in consequence of the nonexecution thereof on the part of the Contractor, the Contractor shall restore such property to a condition similar or equal to that existing before such damage was done by repairing, rebuilding, or restoring, as may be directed by the QA Manager, or making settlement with the property owner. The Contractor shall secure from the owner a release from any claim against the Department without additional compensation therefor. A copy of this release shall be retained by the QA Manager.

107.13--Responsibility for Damage Claims.

When any act, omission, or other action of the Contractor occurs that affects the health, safety, or welfare of the public, the Engineer will direct the Contractor to take prompt action to repair, replace, or restore the damage or injury within a time frame established by the Engineer. If the Contractor fails to make such repair, replacement, or restoration within the established time frame, the Engineer will have the damage or injury repaired, replaced, or restored and will deduct the cost of such repair, replacement, or restoration from moneys due the Contractor.

107.14--Environmental Stipulations.

The Contractor hereby represents (1) that any facility to be used in the performance of the Contract (unless the Contract is exempt under the Clean Air Act as amended [42 U.S.C. 1857, et seq., as amended by P.L. 91-604], the Federal Water Pollution Control Act as amended [33 U.S.C. 1251 et seq. as amended by P.L. 92-500], and Executive Order 11738 and regulations in implementation thereof [40 C.F.R., Part 15]) is not listed on the EPA's List of Violating Facilities pursuant to 40 C.F.R. 15.20; and (2) that the Department will be promptly notified prior to the award of the Contract if the Contractor receives any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be used for the Contract is under consideration to be listed on the EPA's List of Violating Facilities.

No separate payment will be made for the work or precautions described herein except where provided for in the Contract or except where provision has been made for such payment in these specifications.

- (a) **Erosion and Siltation:** The Contractor shall exercise every reasonable precaution, including temporary and permanent measures, throughout the duration of the project to control erosion and prevent or minimize siltation of rivers, streams, lakes, and impoundments. Siltation control measures shall be applied to erodible material exposed by any activity associated with construction, including local material sources, stockpiles, disposal areas, and haul roads.

Temporary measures shall be coordinated with contract work to the extent practicable to ensure economical, effective, and continuous erosion and siltation control. Permanent erosion control measures and drainage facilities shall be installed as the work progresses.

The Contractor shall inspect erosion and siltation control devices and measures for deficiencies immediately after each rainfall and at least daily during prolonged rainfall. Deficiencies shall be corrected immediately. Failure on the part of the Contractor to maintain erosion and siltation control devices in a functioning condition shall result in the QA Manager notifying the Contractor in writing of specific deficiencies. If the Contractor fails to correct or take appropriate actions to remedy the specified deficiencies within 24 hours after receipt of such notification, the QA Manager shall require the Contractor to discontinue work in other areas and concentrate efforts toward rectifying the specified

deficiencies. If the work is not performed by the Contractor, the Department may perform the work and in such event the Contractor shall reimburse the Department the entire cost of performing the work, plus 25 percent for supervisory and administrative personnel. The Department may obtain reimbursement directly from the Bond Trustee and the amount paid to the Department by the Bond Trustee will be deducted from progress payments.

(b) **Pollution:**

1. **Water:** The Contractor shall exercise every reasonable precaution throughout the duration of the project to prevent pollution of rivers, streams, and impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage, paints, sedimentation, and other harmful material shall not be discharged into or alongside rivers, streams, or impoundments or into channels leading to them.

Construction discharge water shall be filtered to remove deleterious materials prior to discharge into state waters. During specified spawning seasons, discharges and construction activities in spawning areas of state waters shall be restricted so as not to disturb or inhibit aquatic species that are indigenous to the waters. Neither water nor other effluence shall be discharged onto wetlands or breeding or nesting areas of migratory waterfowl. When used extensively in wetlands, heavy equipment shall be placed on mats. Temporary construction fills and mats in wetlands and flood plains shall be constructed of approved nonerodible materials and shall be removed by the Contractor to natural ground when the QA Manager so directs.

If the Contractor dumps, discharges, or spills any oil or chemical that reaches or has the potential to reach a waterway, he shall immediately notify all appropriate jurisdictional state and federal agencies in accordance with the requirements of the Contract and shall take immediate actions to contain, remove, and properly dispose of the oil or chemical.

Excavation material shall be disposed of in approved areas above the mean high water mark shown on the plans in a manner that will prevent the return of solid or suspended materials to state waters. If the mark is not shown on the plans, the mean high water mark shall be considered the elevation of the top of stream banks.

Constructing new bridge(s) and dismantling and removing existing bridge(s) shall be accomplished in a manner that will prevent the dumping or discharge of construction or disposable materials into rivers, streams, or impoundments.

Construction operations in rivers, streams, or impoundments shall be restricted to those areas where channel changes are shown on the plans and to those that must be entered for the construction of structures. Rivers, streams, and impoundments shall be cleared of falsework, piling, debris, or other obstructions placed therein or caused by construction operations.

The Contractor shall prevent stream constriction that would reduce stream flows below the minimum, as defined by the State Water Control Board, during construction operations.

If it is necessary to relocate an existing stream or drainage facility temporarily to facilitate construction, the Contractor shall design and provide temporary channels or

culverts of adequate size to carry the normal flow of the stream or drainage facility. The Contractor shall submit a temporary relocation design to the QA Manager for review and acceptance in sufficient time to allow for discussion and correction prior to beginning the work the design covers. Costs for the temporary relocation of the stream or drainage facility shall be included in the Contract Price for the related pipe or box culvert.

Temporary bridges or other structures shall be used wherever an appreciable number of stream crossings will be made.

2. **Air:** The Contractor shall comply with the provisions of the Contract and the State Air Pollution Control Law and Rules of the State Air Pollution Control Board, including notifications required therein.

Burning shall be performed in accordance with all applicable local laws and ordinances and under the constant surveillance of watchpersons. Care shall be taken so that the burning of materials does not destroy or damage property or cause excessive air pollution. The Contractor shall not burn rubber tires, asphalt, used crankcase oil, or other materials that produce dense smoke. Burning shall not be initiated when atmospheric conditions are such that smoke will create a hazard to the motoring public or airport operations. Provisions shall be made for flagging vehicular traffic if visibility is obstructed or impaired by smoke. At no time shall a fire be left unattended.

Asphalt mixing plants shall be designed, equipped, and operated so that the amount and quality of air pollutants emitted will conform to the Rules of the State Air Pollution Control Board.

Emission standards for asbestos incorporated in the EPA's National Emission Standards for Hazardous Air Pollutants apply to the demolition or renovation of any institutional, commercial, or industrial building, structure, facility, installation, or portion thereof that contains friable asbestos.

3. **Noise:** The Contractor's operations shall be performed so that exterior noise levels measured during a noise-sensitive activity shall be not more than 80 decibels. *Noise-sensitive activity* is any activity for which lowered noise levels are essential if the activity is to serve its intended purpose. Such activities include those associated with residences, hospitals, nursing homes, churches, schools, libraries, parks, and recreational areas.

The QA Manager shall monitor construction-related noise if requested by local agencies, the Department or neighboring property owners. If construction noise levels exceed 80 decibels, the Contractor shall take corrective action before proceeding with operations. The Contractor shall be responsible for costs associated with the abatement of construction noise and the delay of operations attributable to noncompliance with these requirements.

The QA Manager shall determine whether certain portions of the project any work that produce objectionable noise should be restricted or prohibited between 10 P.M. and 6 A.M. If other hours are established by local ordinance, the local ordinance shall govern.

Equipment shall in no way be altered so as to result in noise levels that are greater than those produced by the original equipment.

When feasible, the Contractor shall establish haul routes that direct his vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.

These requirements are not applicable if the noise produced by sources other than the Contractor's operation at the point of reception is greater than the noise from the Contractor's operation at the same point.

- (c) **Forests:** The Contractor shall take all reasonable precautions to prevent and suppress forest fires in any area involved in construction operations or occupied by him as a result of such operations. The Contractor shall cooperate with the proper authorities of the state and federal governments in reporting, preventing, and suppressing forest fires. Labor, tools, or equipment furnished by the Contractor upon the order of any forest official issued under authority granted the official by law shall not be considered a part of the Contract. The Contractor shall negotiate with the proper forest official for compensation for such labor, tools, or equipment.
- (d) **Archeological, Paleontological, and Rare Mineralogical Findings:** In the event of the discovery of prehistoric ruins, Indian or early settler sites, burial grounds, relics, fossils, meteorites, or other articles of archeological, paleontological, or rare mineralogical interest during the prosecution of work, the Contractor shall act immediately to suspend work at the site of the discovery and notify the proper state authority charged with the responsibility of investigating and evaluating such finds. The Contractor shall cooperate and, assist in protecting, mapping, and removing the findings. Findings shall become the property of the State unless they are located on federal lands, in which event they shall become the property of the U.S. government.

107.15—Opening Sections of Projects to Traffic.

When specified in the Contract or when directed by the Engineer, certain sections of the work may be opened to traffic. Such opening shall not constitute acceptance of the work or any part thereof or a waiver of any provision of the Contract.

On any section of the work opened by order of the VDOT Chief Engineer where the Contract does not provide for traffic to be carried through the work and the Contractor has not been dilatory in prosecuting the work, the Contractor will not be required to assume any expense entailed in maintaining the road for traffic. Such expense will be borne by the Department or will be compensated for in accordance with the requirements of the Contract. Repair of slides and repair of damage attributable to traffic will be compensated for in accordance with the requirements of the Contract. The cost of all other repairs shall be borne by the Contractor. Slides shall be removed by the Contractor in accordance with the terms of the Warranty.

On any section of the work opened by order of the Engineer where the Contract does not provide for traffic to be carried through the work, any additional cost for the completion of other items of work that are occasioned because of the changed working conditions will be compensated in accordance with the requirements of the Contract.

If the Contractor is dilatory in completing the work, he shall not be relieved of the responsibility for maintenance during the period the section is opened to traffic prior to final acceptance. Any expense resulting from the opening of such portions under these circumstances, except slides, shall be borne by the Contractor. The Contractor shall conduct the remainder of the construction operations so as to cause the least obstruction to traffic.

107.16—Contractor's Responsibility for Work.

Until final acceptance of the work by the Engineer in accordance with the requirements of the Contract, the Contractor shall have charge and care thereof and shall take every precaution against damage to any part thereof by action of the elements or from any other cause. The Contractor shall rebuild, repair, restore, and make good damage to any portion of the work occasioned by any of the foregoing causes before final acceptance and shall bear the expense thereof.

In case of suspension of work, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the work, provide for erosion control and drainage, and erect any necessary temporary structures, signs, or other facilities at his own expense. During the suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under the Contract and shall take adequate precautions to protect new tree growth and other important vegetation against damage.

107.17—Contractor's Responsibility for Utility Property and Services.

At points where the Contractor's operations are adjacent to the properties of any utility, including railroads, and damage to which might result in considerable expense, loss, or inconvenience, work shall not commence until arrangements necessary for the protection thereof have been completed.

The Contractor shall cooperate with owners of utility lines so that removal and adjustment operations may progress in a reasonable manner, duplication of adjustment work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted.

If any utility service is interrupted as a result of accidental breakage or of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the authority in the restoration of service. If utility service is interrupted, repair work shall be continuous until service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority. When the Contractor's work operations require the disconnection of "in service" fire hydrants, the Contractor shall notify the locality's fire department or communication center at least 24 hours prior to disconnection. In addition, the Contractor shall notify the locality's fire department or communications center no later than 24 hours after reconnection of such hydrants. The Contractor shall be responsible for any damage to utilities that is attributable to his neglect or methods of performing the work.

Nothing in this section shall be construed to be in conflict with Section 107.12.

107.18—Not Used.

107.19—Personal Liability of Public Officials.

In carrying out any of the provisions of these specifications or in exercising any power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the Board, Commissioner,

Engineer, or their authorized representatives, either personally or as officials of the State. In all such matters, they act solely as agents and representatives of the State.

107.20—No Waiver of Legal Rights.

The State shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after final acceptance of the work and payment therefor from showing (1) the true amount and character of the work performed and materials furnished by the Contractor, (2) that any such measurement, estimate, or certificate is untrue or incorrectly made, or (3) that the work or materials do not conform with the provisions of the Contract. The State shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate, and payment in accordance therewith, from recovering from the Contractor or his surety, or both, such damage as it may sustain by reason of his failure to comply with the terms of the Contract. Neither the acceptance by the Department or any representative of the Department nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Department shall operate as a waiver of any portion of the Contract or of any power herein reserved or of any right to damages. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

SECTION 108—PROSECUTION AND PROGRESS OF WORK

108.01—Not Used.

108.02—Not Used.

108.03—Prosecution of Work.

Work shall be conducted in such a manner and with sufficient materials, equipment, tools, and labor as are necessary to ensure its completion in accordance with the plans and these specifications within the time limit specified in the Contract and these specifications. Once the Contractor has begun work, it shall be prosecuted continuously and to the fullest extent possible except for interruptions caused by weather or delays authorized or ordered by the Engineer. If approval is given to discontinue the work temporarily, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

108.04—Not Used.

108.05—Limitation of Operations.

The Contractor shall conduct the work in a manner and sequence that will ensure its expeditious completion with the least interference to traffic and shall have due regard for the location of detours and provisions for handling traffic. The Contractor shall not open any work to the prejudice or detriment of work already started. The Engineer may require the Contractor to finish a section of work before work is started on any other section.

108.06—Gratuities.

Gifts, gratuities, or favors shall not be given or offered by the Contractor or its members to personnel of the Department. A gift, gratuity, or favor of any nature whatsoever or offer of such by the Contractor shall be a violation of this provision.

The Contractor shall not employ any personnel of the Department for any services without the prior written consent of the Engineer.

If the Engineer determines that the Contractor or the Contractor's employees, representatives, or agents of any person acting in his behalf have violated this provision, the Contractor and/or its members may, at the discretion of the Engineer, be disqualified from bidding on future contracts with the Department. Any implicated employees, agents, or representatives of the Contractor and/or its members may be prohibited from working on any contract awarded by the Department. The decision of the Engineer shall be binding on all parties. A contractor so disqualified may be reinstated only by petition to and approval by the Chief Engineer.

108.07--Character of Workers, Work Methods, and Equipment.

Workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special or skilled work shall have sufficient experience in such work and in the operation of equipment required to perform it properly and satisfactorily.

Any person employed by the Contractor or any subcontractor who, in the opinion of the Engineer, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Engineer, be removed forthwith by the Contractor or subcontractor employing the person and shall not be employed again on any portion of the work without the approval of the Engineer. If the Contractor fails to remove the person or furnish suitable and sufficient personnel for proper prosecution of the work, the Engineer may withhold all moneys that are or may become due the Contractor and may suspend the work until the Contractor has complied with the request or order.

Equipment shall be of sufficient size and in such mechanical condition as to meet the requirements of the work and produce a satisfactory quality of work. Equipment shall be such that no damage to the roadway, adjacent property, or other highways will result from its use. The QA Manager shall order the removal and require replacement of unsatisfactory equipment.

When methods and equipment to be used by the Contractor are not prescribed in the Contract, the Contractor is free to use methods or equipment approved by the QA Manager that will accomplish the contract work in conformity with the requirements of the Contract.

When the Contract specifies that construction be performed by the use of particular methods and equipment, they shall be used unless others are authorized by the QA Manager. If the Contractor desires to use a different method or type of equipment, he may request permission from the QA Manager to do so. The request shall be in writing and shall include a full description of the methods and equipment he proposes to use and an explanation of the reasons for desiring to make the change. If permission is given, it will be on the condition that the Contractor shall be fully responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the QA Manager or the Engineer determines that the work produced does not conform to the requirements of the Contract, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of the specified quality or take such other corrective action as the QA Manager or the Engineer may direct. No change will be made in the basis of payment for the construction items involved or the contract time limit as the result of authorizing a change in methods or equipment under these provisions.

108.08--Not Used.

108.09--Not Used.

108.10--Not Used.

108.11--Not Used.

108.12--Not Used.

108.13--Not Used.

108.14--Not Used

108.15--Not Used.

SECTION 109--MEASUREMENT AND PAYMENT

109.01--Measurement of Quantities.

[The following section applies only with respect to unit-priced Work.]

Work specified in the Contract will be measured by the QA Manager according to The International System of Units (SI). The methods of measurement and computations to be used to determine quantities of material furnished and work performed will be those generally recognized as conforming to good engineering practice.

Longitudinal measurements for surface computations will be made horizontally, and transverse measurements will be the surface measure shown on the plans or ordered in writing by the QA Manager. Individual utility encroachment areas of 1 square meter or less will not be deducted from surface areas measured for payment.

Structures will be measured according to neat lines shown on the plans.

Items that are measured by the meter will be measured parallel to the base or foundation upon which they are placed.

Allowance will not be made for surfaces placed over a greater area than shown on the plans or for any material moved from outside the area of the cross section and lines shown on the plans.

When standard manufactured items are specified and are identified by weights or dimensions, such identification will be considered nominal. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

- (a) **Measurement by Mass:** Materials that are measured or proportioned by mass shall be weighed on accurate scales. When material is paid for on a metric tonnage basis, personnel performing the massing shall be certified by the QA Manager and shall be bonded to the Commonwealth of Virginia in the amount of \$10,000 for the faithful observance and performance of the duties of the weighperson required herein. The bond shall be executed on a form having the exact wording as the Weighpersons Surety Bond Form furnished by the Department and shall be submitted to the Department prior to the furnishing of the

metric tonnage material. No payment will be made for materials delivered in excess of the legal load limits established for each truck.

The Contractor shall have the weighperson perform the following:

1. Post and furnish a weekly tare mass of each truck used and keep a record of them for 12 months.
2. Furnish a signed shipping ticket for each load that shows the date, truck number, load number, plant name, size and type of material, project, schedule or purchase order number, and the masses specified herein.
3. Maintain sufficient documentation so that the accumulative metric tonnage and distribution of each lot of material, by contract, can be readily identified.
4. Submit by the end of the next working day a summary of the number of loads and total masses for each type of material by contract.

Trucks used to haul material being paid for by mass shall display the truck uniform identification number and legal gross and legal net mass limits. These markings shall be no less than 50 millimeters high and permanently stenciled on each side of the truck with contrasting color and located as to be clearly visible when the vehicle is positioned on the scales and observed from normal position of the weighperson at the scale house.

Trucks used to haul material shall be equipped with a cover suitable to protect the material and to protect the traveling public.

The truck tare to be used in the massing operation shall be the mass of the empty truck determined with full tank(s) of fuel and the operator seated in the cab. The tare mass of trucks shall be recorded to the nearest 10 kilograms. At the option of the Contractor, a new tare may be determined for each load. When a new tare is obtained for each load, the requirement for full tank(s) of fuel will be waived.

Net rail shipment masses may be used for pay quantities when evidenced by railroad bills of lading. However, such masses will not be accepted for pay quantities of materials that subsequently pass through a stationary mixing plant.

Scales shall conform to the requirements for accuracy and sensitivity as set forth by the *National Institute of Standards and Technology Handbook No. 44 for Specification Tolerances and Requirements for Commercial and Weighing Devices*. Scales used in the massing of materials paid for on a metric tonnage basis shall be approved and sealed in accordance with the requirements of the policies of the Bureau of Weights and Measures of the Department of Agriculture and Consumer Services, or other approved agencies, at least once every six months and upon being moved. Hopper and truck scales shall be serviced and tested by a scale service representative at least once every six months. Hopper scales shall be checked with a minimum 225 kilograms of test weights and truck scales shall be checked with a minimum 9,000 kilograms of test weights.

Copies of scale test reports shall be maintained on file at the scale location for at least 18 months, and copies of all scale service representative test reports shall be maintained by the QA Manager.

The quantity of materials paid for on a metric tonnage basis shall be determined on scales equipped with an automatic printer. Truck scale printers shall print the net mass and either the gross or tare mass of each load. Hopper scale printers shall conform to the requirements of Section 211.11 and shall print the net mass of each load. The shipping ticket shall also show the legal gross mass for material massed on truck scales and the legal net mass for material massed on hopper scales.

If the automatic printer becomes inoperative, the massing operation may continue for 48 hours provided satisfactory visual verification of masses can be made. The written permission of the QA Manager will be required for the operation of scales after 48 hours.

If significant discrepancies are discovered in the printed mass, the ultimate mass for payment will be calculated on volume measurements of the materials in place and unit masses determined by the QA Manager or by other methods deemed appropriate to protect the interests of the State.

- (b) **Measurement by Cubic Meter:** Material that is measured by the cubic meter, loose measurement or vehicular measurement, shall be hauled in approved vehicles and measured therein at the point of delivery. Material measured in vehicles, except stream bed gravel, will be allowed at the rate of $\frac{2}{3}$ the volume of the vehicle. The full volume of the vehicle will be allowed for stream bed gravel. Such vehicles may be of any size or type acceptable to the QA Manager provided the body is of such shape that the actual contents can be readily and accurately determined. Unless all approved vehicles are of uniform capacity, each vehicle shall bear a plainly legible identification mark indicating the specific approved capacity. Each vehicle shall be loaded to at least its water level capacity.

When approved by the QA Manager in writing, material specified to be measured by the cubic meter may be massed and such masses converted to cubic meters for payment purposes. Factors for conversion from mass to volume measurement will be determined by the QA Manager and shall be agreed to by the Contractor before they are used.

- (c) **Measurement by Lump Sum:** When used as an item of payment, the term *lump sum* will mean full payment for completion of work described in the Contract. When a complete structure or structural unit (in effect, lump sum work) is specified as the unit of measurement, the unit will be construed to include necessary fittings and accessories. The quantities may be shown on the plans for items for which lump sum is the method of measurement. If shown, the quantities are approximate and are shown for estimating purposes only. Items that are to be measured as complete units will be counted by the QA Manager in the presence of a representative of the Contractor.

- (d) **Specific Items:**

1. **Concrete:** Concrete will be measured and computed by dividing the work into simple geometrical figures and adding their volumes.
2. **Excavation, embankment, and borrow:** In computing volumes of excavation, embankment, and borrow, methods having general acceptance in the engineering profession will be used. When the measurement is based on the cross-sectional area, the average end area method will be used.

3. **Asphalt:** Asphalt will be measured by the liter, volumetric measurement, based on a temperature of 15 °C using the following correction factors:
- 0.00063 per degree Celsius for petroleum oils having a specific gravity 15/15 °C above 0.966
 - 0.00072 per degree Celsius for petroleum oils having a specific gravity 15/15 °C between 0.850 and 0.966
 - 0.00045 per degree Celsius for emulsified asphalt

Unless volume correction tables are available, the following formula shall be used in computing the volume of asphalt at temperatures other than 15 °C:

$$V^1 = V/K(T - 15) + 1$$

where V = volume of asphalt to be corrected; V^1 = volume of asphalt at 15 °C; K = correction factor (coefficient of expansion); and T = temperature in degrees Celsius of asphalt to be corrected.

When asphalt is delivered by weight, the volume at 15 °C will be determined by dividing the net mass by mass per gallon at 15 °C.

When specified in the Contract, asphalt will be measured by mass. Net certified scale masses, or masses based on certified volumes in the case of rail shipments, will be used as a basis of measurement, subject to correction when asphalt has been lost from the car or the distributor, disposed of, or otherwise not incorporated in the work.

When asphalt is shipped by truck or transport, net certified masses or volumes subjected to correction for loss or foaming may be used to compute quantities.

Only the quantity of asphalt actually placed in the work and accepted will be considered in determining the amount due the Contractor.

4. **Timber:** Timber will be measured in cubic meters actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.
5. **Equipment rental:** Equipment rental will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the project or source of supply and the project except when another method of measurement is specified.

109.02—Not Used

109.03—Not Used

109.04—Not Used

109.05--Not Used

109.06--Not Used

109.07--Not Used

109.08--Not Used

109.09--Not Used

SECTION 110--MISCELLANEOUS PROVISIONS

110.01--Not Used

110.02--Labor and Wages.

The Contractor shall comply with the provisions and requirements of the State's workers' compensation law and public statutes that regulate hours of employment on public work. On all Federally funded portions of the project, the Contractor shall comply with all applicable Federal requirements. Job orders placed with a State Employment Service shall indicate that employment preference will be given to veterans referred for employment. Advertisements in newspapers or other publications for project employees shall include the notation "Employment Preference to Veterans."

Predetermined Minimum Wages: The provisions of laws requiring the payment of a minimum wage of a predetermined minimum wage scale for the various classes of laborers and mechanics, when such a scale is incorporated in the Contract, shall be expressly made a part of this Contract. The Contractor and his agents shall promptly comply with all such applicable provisions.

110.03--Equal Employment Opportunity.

The Contractor shall comply with the applicable provisions of presidential executive orders and the rules, regulations, and orders of the President's Committee on Equal Employment Opportunity.

Subcontracting: The Contractor shall use best efforts to use minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees in accordance with Appendix 7 of the Contract.

110.04--Not Used

110.05--Construction Safety and Health Standards.

It is a condition of the Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Contractor and any subcontractor shall not require any worker employed in performance of the Contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to their health or safety, as determined under construction safety and health standards promulgated by the U.S. Secretary of Labor in accordance with the requirements of Section 107 of the Contract Work Hours and Safety Standards Act.

The Contractor shall comply with the Virginia Occupational Safety and Health Standards adopted under Section 40.1-22 of the Code of Virginia and the duties imposed under Section 40.1-51.1 of the Code. Any violation of the requirements or duties that is brought to the attention of the Contractor by the QA Manager or any other person shall be immediately abated.

110.06--Bulletin Boards and Posting Official Notices.

Contractor shall furnish, erect, and maintain at least two bulletin boards having dimensions of at least 1,200 millimeters in width and 900 millimeters in height at locations readily accessible to all personnel concerned with the project. The boards shall be erected immediately upon initiation of the contract work and shall be maintained until the completion of such work, at which time they shall be removed from the project. Each bulletin board shall be equipped with a removable glass or plastic cover that when in place will protect posters from weather or damage. The Contractor shall promptly post official notices on the bulletin boards. The costs for such work shall be included in the Contract Price.

110.07--Certification of Nonsegregated Facilities.

The Certification of Nonsegregated Facilities, as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities for highway construction contracts exceeding \$10,000 that are not exempt from the provisions of the equal opportunity clause, requires that bidders neither maintain nor provide facilities for employment that are segregated on a basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. If the Contract exceeds \$10,000 and is not exempt from the provisions of the equal opportunity clause, the Contractor will be deemed to have signed and agreed to the provisions of the certification. If the Contract exceeds \$10,000 and is not exempt from the provisions of the equal opportunity clause, the Contractor shall forward the following notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply agreements exceed \$10,000 and are not exempt from the provisions of the equal opportunity clause:

NOTICE TO PROSPECTIVE SUBCONTRACTORS AND MATERIAL SUPPLIERS OF REQUIREMENT FOR CERTIFICATION OF NONSEGREGATED FACILITIES

1. Subcontractors and material suppliers are cautioned as follows: By signing the subcontract or entering into a material supply agreement, the subcontractor or material supplier will be deemed to have signed and agreed to the provisions of the Certification of Nonsegregated Facilities, as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, prior to the award of the subcontract or consummation of a material supply agreement if such subcontract or agreement exceeds \$10,000 and is not exempt from the provisions of the equal opportunity clause. This certification provides that the subcontractor or material supplier does not maintain, or provide for his employees, facilities that are segregated on the basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the subcontractor or material supplier will not maintain such segregated facilities.
2. Subcontractors or material suppliers receiving subcontract awards or material supply agreements exceeding \$10,000, which are not exempt from the provisions of the equal opportunity clause, will be required to provide for the forwarding of this notice to prospective subcontractors for construction

contracts and material suppliers where the subcontracts or material supply agreements exceed \$10,000 and are not exempt from the provisions of the equal opportunity clause.

Appendix 10

Appendix (10)

OUTSTANDING LAND RIGHTS
AND RELOCATIONS

Following is a list of the remaining parcels and expected date of clearance.

SECTION A

<u>Parcel</u>	<u>Landowner</u>	<u>Status</u>	<u>Estimated Acquisition Date</u>
002	David J. Sowers	Negs. Inc.	3/31/2001
003	Gray Land Development Co., LLC	Cert. To Be Filed	3/31/2001
004	Michael L. George	Negs. Inc.	3/31/2001
005	Jean H. Hudson	Relocation (a family & cem.)	7/1/2001
007	Charles W. Wall, III	Relocation	7/1/2001
008	Buford M. Parson	Relocation	6/30/2001
009	Beechwood, Inc.	Negs. Inc.	5/30/2001
010	Carolyn P. Dunbar	Relocation	6/01/2001
011	Richard Cary Kistler	Relocation	5/01/2001
012	Wayne T. & Joan C. Cooper	Relocation	7/01/2001
013	Randal J. Lipps	Relocation	2/01/2001
015	J. S. Leadbetter	Negs. Inc.	3/31/2001
016	W. S. Carnes	Negs. Inc.	5/30/2001
017	Terry M. Phillips	Relocation	2/15/2001
018	Richard C. Napier	Relocation	4/15/2001
019	Richard H. Rose	Relocation	2/01/2001
020	Beechwood, Inc.	Negs. Inc.	3/31/2001
021	W. S. Carnes	Negs. Inc.	3/31/2001

SECTION B

Two parcels (017 & 018) are being acquired under UPC/ID 17155. See previous project.

SECTION C

<u>Parcel</u>	<u>Landowner</u>	<u>Status</u>	<u>Estimated Acquisition Date</u>
012	St. Catherine's School Foundation	Negs. Inc.	4/01/2001
107	Martin H. Unger	Appraisal Being Contracted	4/01/2001
108	Catholic Diocese of Richmond	Appraisal Being Contracted	4/01/2001
200	CSX	Negs. Inc.	4/01/2001

SECTION D

<u>Parcel</u>	<u>Landowner</u>	<u>Status</u>	<u>Estimated Acquisition Date</u>
052	H.B.C. Development Corp.	Negs. Inc.	5/01/2001
160	Motorola	Appraisal Being Contracted	5/01/2001

SECTION E

<u>Parcel</u>	<u>Landowner</u>	<u>Status</u>	<u>Estimated Acquisition Date</u>
001	John C. Bryant	Relocation (1 fam. & 4 tenant bus.)	6/01/2001

002	Noah A. & Anna R. Compton	Relocation (1 fam., 1 tenant fam. & 2 personal properties)	6/15/2001
003	Marley J. White	Relocation (1 fam., personal property & 1 tenant bus.)	6/01/2001
009	Lawrence B. Nuckols, et ux	Appraisals In Progress	3/01/2001
010	Lawrence B. Nuckols, et ux	Appraisals In Progress	3/01/2001
011	Pruitt Properties, Inc.	Appraisals In Progress	4/15/2001
012	North Gayton Company, LLP	Appraisals In Progress	4/15/2001
013	Harry Grandis	Appraisals In Progress	4/15/2001
014	Harry Grandis	Appraisals In Progress	4/15/2001
015	Harry Grandis	Appraisals In Progress	4/15/2001
016	Harriett G. & Harry Grandis	Appraisals In Progress	4/15/2001
017	Pruitt Properties, et al	Appraisals In Progress	4/15/2001
018	Raymond E. Deitrick	Appraisals In Progress	3/31/2001
019	Audrey R. & Randolph Snead	Appraisals In Progress	2/01/2001

Appendix 11

Appendix (11)

UTILITIES

A. From Chesterfield County to South end of the James River Bridge

VERIZON:

Verizon has an existing pole line located along both sides of Route 711 with several underground services crossings. There is an underground service along existing Handcroft Drive and an overhead service across country, north from approximate station 17+45 on Route 711 to approximately 85 meters left of approximate station 163+20 on Route 288 construction centerline. All these facilities will be removed when new facilities have been placed as noted below.

Verizon will replace the above note facility along existing Route 711 to an underground innerduct system. This system will begin at existing pedestal on the southeast corner of Route 649 and follow along the inside of the proposed Right of Way line along proposed Handcroft Drive, to the end of Handcroft Drive. They will bore under proposed Handcroft Drive where it connects to existing Handcroft Drive.

Verizon will precede in an easement along the proposed Right of Way and Limited Access Line to a point near approximate station 154+20 where they will make a temporary overhead crossing. They will place a pole on the grade in such a place so as not to interfere with construction of the mainline.

The contractor is to notify Verizon, Mr. Dan Florey, 804-772-5235, within 48 hours of reaching one-half (1/2) meter of sub-grade, between stations 153+00 & 154+00. At this time Verizon will bore and place their inner duct under Route 288 and will remove the temporary overhead crossing.

Verizon will place inner duct in an easement outside the eastern proposed Right of Way from approximate station 154+20 to the southern proposed Right of Way for Route 711. They will proceed in an easement along the southern proposed Right of Way for Route 711 to approximate station 23+60 where they will come inside the proposed Right of Way to approximate station 25+40 where they will make a bore under Route 711 and intersect their existing facilities.

Verizon will make a bore crossing at approximate station 23+60 on proposed Route 711 and follow the proposed frontage road and intersect their facilities left of approximate station 20+85.

MCI WORLDCOM:

MCI Worldcom has an existing fiber optic cable along the existing Route 711 Right of Way which will be relocated along the same Route as the proposed Verizon facilities.

MCI Worldcom will need the same notification as Verizon to make their bore of Route 288. Contractor is to notify Mr. Gary Markham at 1-800-868-5001, extension 2940, concerning crossing.

MCI Worldcom will connect to their existing facilities approximate station 25+40 of Route 711.

VIRGINIA POWER:

Virginia Power has an existing overhead facility along Route 711 with an underground drop along Handcroft Drive and an overhead service along entrance parallel to proposed Route 288 from left of Station 158+20 to right of Station 167+80.

Virginia Power is proposing to place new overhead facilities from southeast intersection of Route 624 in side proposed Right of Way across proposed Handcroft Drive. They will place proposed facilities behind the proposed limited access line between Handcroft Drive and proposed Route 711 and proposed Southwest connection. At the end of proposed Handcroft Drive to crossing of proposed Route 288 between stations 154+15 and 154+25, they will be with a variable width easement.

Virginia Power will then proceed along the southeast side of proposed Route 288, in a variable width easement to proposed Route 711. They will continue along Route 711 to end of project where they will connect to their existing facilities.

Virginia Power will make one overhead crossing of proposed Route 711 at approximate stations 20+60.

B. James River Bridges

There are no known utilities in conflict with bridge construction

C. From North end of James River Bridges to North of Route 6 Interchange

VIRGINIA POWER

Virginia Power has an existing overhead power line in conflict located left of centerline from approximate station 118+80 to approximate station 121+05. Virginia Power will install a temporary pole line out of conflict of construction then reinstall to present location. Verizon will also attach to the relocated Virginia Power poles during construction phase.

Relocated Virginia Power poles will be at the following approximate locations.

Station: 119+55 left 6.5 M #TB78

119+61 left 24M #TB79

120+58 left 22.5M #VB16

120+65 left 2.9M #VB15

VIRGINIA POWER AT PATTERSON AVE. (RTE.6) PLAN SHEETS 10,10B,10C,10D,103,10N

Virginia Power has relocated the overhead power line which was in conflict located right of centerline from station 302+35 to station 318+20. AT&T Broadband cable television and Cavalier telephone will attach to relocated Virginia Power poles.

The Contractor shall coordinate the project construction with Virginia Power representative, Mrs. Diane Corsello, 2901 Charles City Rd., Richmond, Virginia 23231. Telephone number 804-236-4772 for any notification.

CAVALIER TELEPHONE AT PATTERSON AVE. (RTE.6) PLAN SHEETS 10,10B,10C,10D,10E,10N

Cavalier Telephone has existing aerial facilities in conflict attached to abandoned Virginia Power poles located right of centerline from station 302+35 to station 318+20. Cavalier will be installing new facilities to the relocated Virginia Power poles which are out of conflict.

The Contractor shall contact Mr. Dan Heinze, Cavalier telephone, 2134 Laburnum Ave., Richmond, VA 23227. Telephone number 804-422-4259 for any notification required.

AT&T BROADBAND AT PATTERSON AVE. (RTE.6) PLAN SHEETS 10, 10B, 10C, 10D,10E, 10N

AT&T broadband has existing aerial facilities in conflict attached to abandoned Virginia Power poles located right of centerline from station 302+35 to station 318+20. There is also one span of aerial cable along East side Pagebrook, Road in conflict from Patterson Avenue to station 12+55.

AT&T Broadband will be attached to the relocated Virginia Power poles which are out of conflict along Patterson Avenue and installing buried cable along East side of Pagebrook Road.

The Contractor shall contact Ms. Tammy Watson, AT&T Broadband, 5401 Staples Mill Road, Richmond, VA 23228. Telephone number 804-915-5362 for any notification required.

COLUMBIA GAS TRANSMISSION PLAN SHEET 7

Columbia Gas transmission has relocated and modified their petroleum pipelines out of conflict of construction. Pipelines cross Route 288 centerline between station 117+20 to station 118+00.

COLUMBIA GAS TRANSMISSION AT PATTERSON AVE. (RTE 6) PLAN SHEET 10C

Columbia Gas transmission has relocated and modified their petroleum pipelines out of conflict of construction. Pipelines cross Patterson Avenue centerline at station 304+00.

The Contractor shall contact Mr. Robert Hayslett, 1596 Baxter Rd., Prince George, VA 23875. Telephone number 804-733-2479 for any notification required.

COLUMBIA GAS DISTRIBUTION AT PATTERSON AVE. (RTE 6) PLAN SHEET 10, 10B, 10C, 10D, 10E, 10N

Columbia Gas has a existing 4 inch distribution line in conflict right of centerline from station 302+35 to station 318+20.

Columbia Gas will install new gas line at all areas of conflict right of centerline and deep bore at Route 288 bridge, station 307+14 to station 310+40.

The Contractor shall contact Mr. Erik Ertzner, Columbia Gas 9001 Arboritum Pkwy., Richmond, VA 23235. Telephone number 804-323-5329 for any notification required.

WILLIAMS FIBER SERVICES AT PATTERSON AVE.,(RTE 6) PLAN SHEETS 10, 10B, 10C, 10D, 10E, 10N

Williams Fiber Service has existing buried fiber optic cable in conflict right of centerline from station 302+35 to station 318+20.

Williams will install new facilities out of conflict from station 307+14 to station 310+40 with directional guide drill deep boring. Remaining Williams fiber to follow eisting route and be lowered in place within areas of conflict.

The Contractor shall contact Mr. Larry Landsverk, Williams Fiber Services, 110 West 7th Street, Tulsa, Oklahoma 74119. Telephone number 918-573-9903 for any notification required.

D. From North of Route 6 Interchange to South of Route 250

GOOCHLAND COUNTY

Goochland County has water and sanitary sewer requiring minor adjustments. This work will be handled by the County and the work is expected to be completed by April 1, 2001.

COLUMBIA GAS

Columbia Gas facilities have been relocated for the Ridgefield Parkway Interchange. The south approach to the Ridgefield flyover ramp crosses over the Columbia Gas main and must be protected. Arrangements are being made for this work and is expected to be completed by June 1, 2001.

E. From Route 250 north to Interstate I-64

VERIZON:

Verizon has an existing pole and underground facility along the north side of Route 250. Also there is an existing underground facility along the ease side of Three Chopt Road (Route 622). Verizon is also attached to two Virginia Power poles along WBL I-64 at approximate stations 219+60 and 220+10.

Verizon is proposing to set two (2) manholes and duct system in the paved shoulder on the north side of Route 250.

Verizon will place new underground facilities in easements along Three Chopt Road.

Verizon will reattach their facilities to Virginia Power poles along WBL of I-64.

VIRGINIA POWER:

Virginia Power has an existing overhead facility along the northside of Route 250. Also, there are two (2) poles along the WBL of I-64 at approximate stations 219+60 and 220+10.

Virginia Power is proposing to relocate its overhead facilities along Route 250 outside the proposed Right of Way and limited access lines either side of the bridges.

Virginia Power is proposing to relocate the poles on Route I-64 WBL outside of the proposed Right of Way.

CAVALIER TELEPHONE & AT&T BROADBAND:

Cavalier Telephone and AT&T Broadband have overhead facilities attached to Virginia Power poles along Route 250 and will move facilities onto the new Virginia Power poles.

VERIZON:

Verizon has an existing pole and underground facility along the north side of Route 250. Also there is an existing underground facility along the east side of Three Chopt Road (Route 622). Verizon is also attached to two Virginia Power poles along WBL I-64 at approximate stations 219+60 and 220+10.

F. From Route 76 to Route 60 (Chesterfield County)

All utility relocations have been completed.

Pavement Warranty

This Pavement Warranty ("Warranty") is furnished pursuant to that certain Design-Build Contract, Route 288 Project by and between Virginia Department of Transportation (the "Department" or "VDOT") and APAC Virginia, Inc. ("APAC") executed on December 18, 2000 ("Design Build Agreement") and obligates the warrantor Koch Performance Roads, Inc., a Delaware Corporation, ("Warrantor") to the rights and obligations contained herein.

SECTION 1--WARRANTY

1.1 Warranty. Warrantor warrants that during the term of this Warranty the Pavement shall meet the Pavement Performance Criteria contained in Attachment 1 to this Warranty. SEE BELOW FOR EXCLUSIONS AND LIMITATIONS.

1.2 Exclusions. Warrantor shall have no Warranty responsibility for any failure of the Pavement to satisfy the Pavement Performance Criteria as a result of:

- (a) Non-Warranty Work and Maintenance. Pavement repaired or replaced by Non-Warranty Work unless agreed pursuant to Section 2.9.2, damage to the Pavement resulting from Non-Warranty Work, and damage caused by snow plows, cuts for utility crossings or installations, and the connection of new roads or highways to the Pavement.
- (b) Accidents. Damage to the Pavement due to accidents including spills, fires, explosions, chemicals and releases of Hazardous Materials.
- (c) Disasters. Damage to the Pavement due to an Act of God including Floods, earthquakes, landslides, lightning, falling rocks, tornadoes, hurricanes, collapse, or subsidence.
- (d) Vandalism, Civil Strife and Hostilities. Damage to the Pavement due to vandalism, civil strife, hostilities, strikes, civil commotion, civil strife, riot, terrorism, sabotage, acts of civil or military authorities, Acts of War (declared or undeclared), weapon discharges, military equipment, and that from responses to mobilization of military or emergency forces.
- (e) Heavy Equipment, Trucks and Machinery. Damage to the Pavement resulting from heavy equipment, trucks and machinery operated on the Pavement without an approved permit and in violation of legal weight restrictions or other legal restrictions prohibiting operation of such vehicles upon the Pavement.
- (f) Drainage Pipe or Structure Collapse. Damage to the Pavement resulting from

collapse or failure of drainage pipe or drainage structures.

- (g) Certain Damage to Shoulders. Damage to the Pavement occurring on the Shoulders resulting from the diversion of traffic onto the shoulders because of detours, lane closures and the like.

1.3 Warranty Term and Termination.

1.3.1 Term. The Warranty term shall commence as to each Segment on the date of Substantial Completion for such Segment and shall continue with respect to such Segment until the earlier of:

- (a) Twenty (20) years from the date on which Substantial Completion of said Segment shall occur; or
- (b) The end of the calendar year in which cumulative ESALs for the Segment reach or exceed 12,500,000, determined under **Section 1.3.2** hereof.

Expiration of the Warranty as to one Segment shall not affect the Warranty for other Segments. The foregoing notwithstanding, the term of the Warranty shall expire as to all Segments on the date on which Warrantor's aggregate Expenditures for all Segments equals the amount determined pursuant to **Section 3.3** below.

1.3.2 Calculation of ESALs. VDOT is required under applicable law and regulations to monitor traffic and certify load measurements annually to the FHWA based on measurements taken. Warrantor anticipates that such measurements shall be taken for each Segment beginning with its Substantial Completion. Warrantor shall be entitled to receive copies of such traffic and load measurement reports, including overload permit records, for each Segment by June 1 of each calendar year following the first full calendar year after which Substantial Completion of that Segment shall have occurred. Within thirty (30) Days of Warrantor's receipt from time to time of traffic and load measurement reports certified by VDOT to FHWA, Warrantor shall calculate the number of ESALs reflected thereby, using load-equivalency factors from the AASHTO Guide for the Design of Roadway Structures (1993) (the "1993 AASHTO Guide") for a SN of 5 and Pt of 2.5 and shall report its calculations to VDOT. Warrantor's ESAL calculations shall become final and determinative thirty (30) Days from their delivery to VDOT, absent written notification from VDOT to Warrantor of any discrepancy, or on such later date as the parties shall acknowledge in writing that such discrepancies are resolved. At its sole cost and expense, Warrantor may verify measurements taken by VDOT, provided that Warrantor shall notify VDOT within six (6) months following any determination by Warrantor that any such measurements were not correct. If VDOT shall no longer be required under applicable law and regulations to monitor traffic and certify load measurements to FHWA, such measurements as were previously required shall continue as if the law and regulations remained in effect. Likewise, amendment of the 1993 AASHTO Guide shall have no effect on the load equivalency factor used to convert data from load measurement reports certified by VDOT to FHWA to ESALs for purposes of this Warranty, it being the intent of the

parties that expiration of the term of the Warranty as to a particular Segment shall occur if the cumulative traffic load reaches the number specified in **Section 1.3.1(b)**, determined under equivalency factors set forth in the 1993 AASHTO Guide.

1.3.3 Early Termination of the Design-Build Agreement. If the Design-Build Agreement is terminated for any reason prior to the Substantial Completion of all Segments, this **Section 1.3.3** shall contain the exclusive rights and remedies of the parties. In the event of such termination the parties acknowledge that Department will either take action to (i) terminate APAC and complete the Project in its entirety with another contractor (ii) partially complete the Project with another contractor, or (iii) stop the Project immediately upon notice and do no further work. Under choice (i) Warrantor agrees to undertake its Warranty obligations with a new contractor provided that the new contractor meets its approval, provided that Warrantor continues to have control over the Pavement Quality Assurance aspects during Project construction, and provided that it has received full payment for and continues to receive payment for its Warranty services which shall be assumed by the new Contractor. If the Design-Build Contract is terminated under the circumstances described in (ii) or (iii) above, or if the conditions for Warrantor continuing under (i) above have not been met, then the Department shall have one of two options with respect to this Warranty in accordance with the following: a) the Warranty shall become effective if at all, for all Pavement completed, if either the Pavement from the Powhatan/Chesterfield County line to VA Rt. 6 or the Pavement from VA Rt. 6 to I-64, is Substantially Completed by the date the Design-Build contract was terminated (provided all conditions for Pavement Warranty effectiveness in the Comprehensive Agreement, Section 3.3(c) are otherwise met) or b) the Warranty (except for the termination provisions of this **Section 1.3.3**) shall never take effect. If the Department exercises Option "b", and the Warranty never takes effect, then two principles need be recognized: first that Warrantor has performed work on the Project and is entitled to compensation, and second—that since Warrantor will have no risk or responsibilities regarding future performance of the Pavement, that the Department will be entitled to a refund of certain sums paid APAC under the Design Build Contract and passed to Warrantor which are fairly attributable to the long term Pavement Warranty risk that Warrantor is no longer required to undertake. To avoid future conflicts the Department and Warrantor agree that the value fairly attributable to the long term Pavement Warranty risk that Warrantor is no longer required to undertake for Pavement not Substantially Completed is an amount equal to the number of monthly progress payments paid by the Department under the Design-Build Agreement prior to termination multiplied by \$183,823.53 ("Pavement Warranty Refund"), in an amount not to exceed \$6,250,000. In the event of termination, Department's sole remedy against Warrantor shall be payment of the Pavement Warranty Refund. However, Warrantor's obligation to pay the Pavement Warranty Refund shall be limited if, prior to termination of the Design-Build Contract, APAC has failed to fully pay Warrantor the agreed portion of each progress payment made by Department to APAC, and Warrantor has placed the Department on prompt notice of each of APAC's failure(s) to pay including the amounts owing. In such cases Warrantor may deduct from the Pavement Warranty Refund the total of such amounts owed by APAC.

1.4 Warranty Consideration. This Warranty is provided as a part of the Design-Build Agreement and is included as a part of the Contract Price as set forth in Article 14 of that agreement. The Warranty shall be paid in thirty four equal, and consecutive monthly installments of \$294,117.65 beginning in January, 2001. VDOT acknowledges that Warrantor will receive payment

from APAC for undertaking the Warranty obligations herein, and coupled therewith, VDOT's agreement to abide by the conditions set forth for Warranty effectiveness as set forth in Section 3.3(c) of the Comprehensive Agreement and the other provisions of the Comprehensive and Design Build Agreements protecting Warrantor's interests, constitute the entire consideration for this Warranty.

SECTION 2--IMPLEMENTING THE WARRANTY: CAPITAL RENEWAL, PAVEMENT RECONSTRUCTION AND PREVENTIVE MAINTENANCE; AND REPAIR AND REPLACEMENT

2.1 General. Warrantor shall arrange for and pay for Warranty Work required hereunder, but may on occasion be eligible for reimbursement for a portion of Expenditures in accordance with Attachment 3 of this Warranty. In connection with the Warranty Work Warrantor shall: (i) provide design services if necessary (or if the parties may agree, use VDOT's designs); (ii) arrange for appropriate Contractors to do the Warranty Work; and (iii) provide management and supervision services for the Warranty Work.

2.2 Annual Inspections by Warrantor and Scheduled Repair and Replacement. In accordance with Sections 2.0 and 3.0 of Attachment 1 to this Warranty, Warrantor shall determine the condition of the Pavement at least once each calendar year by inspection conducted during the period from March 1 through May 30. As required by Section 3.0 of Attachment 1, Warrantor shall report to VDOT the results of such determination. Such report shall contain information as to the condition of the Pavement as measured by each performance item of the Pavement Performance Criteria. If the report reveals that the condition of any portion of the Pavement as described in a performance item included in the Pavement Performance Criteria shall fail to meet the applicable Pavement Performance Criteria, Warrantor shall submit to VDOT a schedule for, and thereafter undertake during that calendar year, the Repair and Replacement of such portion(s) in accordance with the schedule and the procedures of this Warranty, to the extent necessary to cause such portion(s) of the Pavement to meet the Pavement Performance Criteria. In addition to the annual review described above, Warrantor shall conduct visual inspections not less than quarterly to assess Pavement condition. The necessity of said quarterly reviews shall be evaluated by Department and Warrantor from time and the frequency adjusted as may be appropriate, but only as the parties can agree.

2.3 Capital Renewal. From time to time Warrantor at its sole discretion may undertake such Pavement Reconstruction or Preventive Maintenance activities as it deems necessary or appropriate even though the Pavement may currently meet all Pavement Performance Criteria. Warrantor shall provide no less than ten (10) Days advance written notice to VDOT of such activities, and written plans, if any, shall also be copied to VDOT.

2.4 Emergency Pavement Repairs. If either party shall at any time become aware that immediate Pavement repairs are necessary to prevent accidents, damage or injury to the public ("Emergency Pavement Repairs"), such party shall immediately notify the other party. VDOT shall carry out Emergency Pavement Repairs in accord with VDOT's statutory duties. Warrantor shall not assume any VDOT statutory duty or other duty to undertake Emergency Pavement Repairs. Unless

an Emergency Pavement Repair is the result of something other than a Performance Failure, or of an event specified in Section 1.2 of this Warranty, Warrantor shall reimburse VDOT the reasonable costs for labor, equipment and materials incurred therefor, within thirty (30) Days of Warrantor's receipt of VDOT's invoice in accordance with Section 2.7.2, but Warrantor shall have no other obligation to VDOT under this Warranty in respect of such Emergency Pavement Repairs.

2.5 VDOT Inspection Rights and Requested Repairs.

2.5.1 VDOT Right to Inspect; Nonscheduled Repair and Replacement. VDOT may at any time at VDOT's expense conduct inspections of the Pavement in order to monitor compliance with the Pavement Performance Criteria, and may advise Warrantor of the results of any such inspection, specify any portions of the Pavement as described in a performance item included in the Pavement Performance Criteria that fail to meet the applicable Pavement Performance Criteria (a "Performance Failure") and/or call the attention of Warrantor to portions of the Pavement whose condition appears to require Warranty Work.

2.5.2. VDOT Warranty Work Requests. If VDOT determines that

- (i) Warrantor has failed to Repair or Replace a portion of the Pavement in accordance with a schedule submitted by Warrantor in accord with Section 2.2, or
- (ii) following Warranty Work undertaken pursuant to any such schedule the portion(s) of the Pavement affected fail to meet the Pavement Performance Criteria, or
- (iii) Warrantor has failed to address problems that VDOT has identified to Warrantor;

then VDOT may request Warrantor to perform Warranty Work to remedy the matter in question ("Warranty Work Request"). A Warranty Work Request shall be in writing and shall, among other things, set forth the basis for VDOT's Warranty Work Request.

2.5.3 Warrantor Submission and Undertaking or Warranty Work Request Response. Within not longer than thirty (30) Days following Warrantor's receipt of a Warranty Work Request, Warrantor shall either

- (i) submit to VDOT a schedule for, and thereafter undertake during that calendar year, if feasible, the Repair and Replacement of the portion(s) of the Pavement that are specified in the Warranty Work Request in accordance with the schedule and the procedures of this Warranty, to the extent necessary to cause such portion(s) of the Pavement to meet the Pavement Performance Criteria or
- (ii) notify VDOT in writing ("Warranty Work Request Response") that

Warrantor disagrees with VDOT's Warranty Work Request and contends that (1) the condition of the portion(s) of the Pavement specified in the Warranty Work Request meet(s) the Pavement Performance Criteria, (2) the timing of performance of Warranty Work requested by VDOT is not feasible in view of seasonal factors or (3) the manner of Repair and Replacement requested by VDOT is not appropriate. Warrantor's Warranty Work Request Response shall set forth the basis for the Warranty Work Request Response. Within twenty (20) Days of VDOT's receipt of any Warranty Work Request Response, VDOT shall confirm, modify or withdraw its Warranty Work Request. If VDOT fails to withdraw or modify its Warranty Work Request to Warrantor's satisfaction, the issue of the need for Warranty Work shall be resolved by agreement of the parties and, if they cannot agree, shall be submitted to dispute resolution as provided in Section 4.4.

2.5.4 VDOT Right to Repair or Replace. If the parties do not agree concerning the need for Warranty Work requested by VDOT pursuant to Section 2.5.2: VDOT may request Warrantor to perform the Warranty Work in question under protest, pending a decision on the need for such Work pursuant to the dispute resolution procedures as provided in Section 4.4, or may itself elect to repair and/or replace the portion(s) of the Pavement so that they once again meet the Pavement Performance Criteria and seek recovery of the costs therefor from Warrantor through such dispute resolution proceedings.

2.5.5. Timeliness of Warranty Work Requests. Warranty Work Requests shall be combined in such a way as will minimize Warrantor's mobilizations for Warranty Work and if issued at or near the end of the normal road construction season shall take into account Warrantor's need to schedule Warranty Work with due attention to seasonal factors.

2.6 VDOT's Rights Regarding Inspection of Warranty Work.

2.6.1 Inspection of Warranty Work. Warrantor shall afford VDOT on reasonable prior notice the opportunity to participate in the inspection of all Warranty Work which shall be scheduled and conducted no earlier than at least seven (7) Days of VDOT's receipt of such notice. If an inspection discloses Warranty Work which has not cured the particular Performance Failures, then Warrantor shall arrange for correction of such Warranty Work, and then afford VDOT additional opportunities as needed to inspect.

2.6.2 Non-Waiver. VDOT's inspection, testing, and/or evaluation of Warranty Work or VDOT's determination that Warrantor has complied with the terms of this Warranty as to Warranty Work on a particular portion of the Pavement shall not affect the continuing applicability to such portion of the terms of this Warranty or relieve Warrantor of its continuing obligations, or waive any of VDOT's rights, under this Warranty.

2.7 Reimbursement for Warranty Work.

2.7.1 Warrantor shall reimburse VDOT for Emergency Pavement Repair expenditures in accord with Section 2.4 and for Pavement repairs made by VDOT that are Warrantor's responsibility, *provided* that Warrantor's reimbursement obligations shall be limited to take account of the inflation limitations determined in accordance with Attachment 3 of this Warranty. Moreover, Warrantor shall have no obligation to reimburse VDOT for payment of taxes of a nature not in effect as of the effective date of the Design-Build Agreement.

Except as provided in Section 2.7.2 hereof, Warrantor shall reimburse VDOT hereunder within thirty (30) Days after the date of VDOT's demand therefor.

2.7.2 If the published data necessary for determining the limitation, if any, on amounts payable under Attachment 3 is unavailable, then within thirty (30) Days following the day on which said necessary data is published, Warrantor shall furnish VDOT written notice setting forth the limitation applicable during such year and the calculation upon which such limitation is based, together with payment of the amount of any reimbursement that has been delayed by reason of this Section.

2.8 VDOT Repairs. If, following VDOT's receipt of notice from Warrantor to such effect or by other means, VDOT shall determine that a condition exists on the Pavement that is the result of an event or condition for which Warrantor has no responsibility under either Section 1.2 hereof or otherwise, VDOT may elect to repair and/or replace such portion so that it once again meets the Pavement Performance Criteria, and so shall be eligible for further Warranty coverage as may be agreed pursuant to Section 2.9.2. In addition, VDOT may elect to construct projects whereby other Virginia roads or highways connect with the Pavement.

At VDOT's request, Warrantor may perform such services as are appropriate to facilitate VDOT's repair and/or replacement of the Pavement or the intersection of another Virginia road or highway pursuant to this Section. Warrantor shall be entitled to such compensation by VDOT for such services as the parties may agree upon.

2.9 Applicability of the Warranty to Certain Portions of the Pavement.

2.9.1 Emergency Pavement Repairs. If VDOT shall perform or cause to be performed Emergency Pavement Repairs on any portion of the Pavement, then the portion of the Pavement affected thereby shall continue to be covered by this Warranty provided that the repairs were necessitated by a Performance Failure.

2.9.2 Non-Warranty Work. If VDOT shall repair and/or replace any portion of the Pavement pursuant to its rights under Section 2 ("Non-Warranty Work") and, Warrantor does not perform or participate in the performance of such Non-Warranty Work, then the portion of the Pavement affected thereby shall not continue to be covered by this Warranty unless Warrantor and VDOT shall have otherwise agreed in writing for the continued applicability of this Warranty.

SECTION 3--DISCLAIMER, LIMITATIONS, LIMITATION ON LIABILITY

3.1 Disclaimer of Implied Warranties. WARRANTOR DISCLAIMS AND VDOT WAIVES THE BENEFIT OF ANY WARRANTY NOT EXPRESSLY PROVIDED FOR HEREIN, INCLUDING ANY WARRANTIES IMPOSED OR IMPLIED BY LAW, IMPLIED WARRANTIES OF MERCHANTABILITY AND ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO STANDARDS OF PERFORMANCE, GUARANTEES OR WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSED HEREIN. ANY WAIVERS AND DISCLAIMERS OF LIABILITY, RELEASES FROM LIABILITY, LIMITATIONS AND APPORTIONMENTS OF LIABILITY AND EXCLUSIVE REMEDY PROVISIONS EXPRESSED THROUGHOUT THIS WARRANTY SHALL APPLY EVEN IN THE EVENT OF THE FAULT, NEGLIGENCE (IN WHOLE OR IN PART) OR STRICT LIABILITY OF THE PARTY RELEASED, OR WHOSE LIABILITY IS WAIVED, DISCLAIMED, LIMITED, APPORTIONED OR FIXED BY SUCH EXCLUSIVE REMEDY PROVISION, AND SHALL EXTEND TO SUCH PARTY'S RELATED OR AFFILIATED ENTITIES AND ITS AND THEIR DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS.

3.2 Limitation On Damages. Under no circumstances shall Warrantor or any of its subconsultants, contractors or vendors of any tier providing equipment, materials or services with respect to this Warranty be liable for incidental or consequential damages. This disclaimer shall remain effective regardless of whether the remedies provided for herein are deemed to fail of their essential purpose. This Warranty does not extend to users of the Pavement, who are not intended to be third party beneficiaries of the provisions set forth herein.

3.3 Warranty Liability Limit. Warrantor's total liability arising under Warranty shall not exceed fifteen million dollars. When the sum of all Expenditures and other claims paid hereunder reaches fifteen million dollars, the Warranty shall hereby terminate without any further action by any party hereto.

SECTION 4--ADDITIONAL PROVISIONS

4.1 Records. Warrantor shall maintain an archive of all documentation of Warranty Work performed under this Warranty, except for any Warranty Work in-progress that is being performed by Warrantor's subconsultants. Article XVIII of the Comprehensive Agreement To Design, Construct and Warranty Route 288 Project (the "Comprehensive Agreement") is herein incorporated by reference as pertaining to "Koch."

4.2 Intent of the Parties. This Warranty is not and shall not be construed as an agreement to indemnify for liability, claims, damages, losses or expenses, including attorney fees, arising out of: (a) the preparation or approval of maps, drawings, opinions, reports, surveys change orders, designs or specifications by VDOT, or the officers, agents or employees of VDOT; or (b) the giving of or the failure to give directions or instructions by VDOT, or the officers, agents or employees of VDOT, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

4.3 Bonds. Warrantor shall procure and maintain at all times and without interruption during the term of the Warranty a series of bonds or other securities in a form acceptable to VDOT. The term of the bond in effect at any time shall be at Warrantor's discretion, so long as no interruptions in coverage shall occur. The surety of such bonds shall be a surety company authorized to transact business in the Commonwealth of Virginia, shall have a current A.M. Best unit rating of not less than "A", and shall be approved in federal circular 570 as published by the United States Treasury Department. Such bonds shall be non-cancelable during their stated term. The bond that is in effect at any time shall provide among other things for a penal amount during the period that such bond is in effect equal to the limit of liability of Warrantor under the Warranty on January 1 of each year that such bond is in effect, taking into account the liability limitation of Section 3.3.

4.4 Dispute Resolution. Disputes between the Department and Warrantor that cannot be resolved shall be jointly submitted to the Department's Commissioner, by a written request stating that the parties desire to appear before the Commissioner, whether in person or through counsel, to present facts and arguments in support of their respective positions. The Commissioner will schedule and meet with the parties within thirty (30) Days after receiving the request. However, the Commissioner and the parties, by mutual agreement, may schedule the meeting to be held after thirty (30) Days but before the 60th day from the receipt of the parties' written request. Within forty-five (45) Days from the date of the meeting, the Commissioner will investigate the claim, including the facts presented, and notify the parties in writing of the decision which shall be non-binding. However, the Commissioner and the parties, by mutual agreement, may extend the 45 day period for another thirty (30) Days. If the Commissioner deems that all or any portion of a monetary claim is valid, he shall have the authority to negotiate a settlement with the Warrantor subject to the provisions of Section 2.1-127 of the Code of Virginia 1950 as amended. Any monies that become payable as the result of claim settlement after payment of the final estimate will not be subject to payment of interest unless such payment is specified as a condition of the claim settlement. In the event the Commissioner is unable to bring Department and Warrantor to a resolution of their dispute, either party may petition for judicial relief. No party may seek judicial relieve until the process described in this Section 4.4 is completed.

4.5 Notices. Notices shall be served (a) personally, (b) by overnight commercial courier, or (c) by U. S. mail, certified, postage prepaid, with return receipt requested, addressed as follows:

If to Warrantor: Koch Performance Roads, Inc.
 4111 East 37th Street North
 Wichita, Kansas 67220
 Attention: Administrator of the Virginia Rt. 288 Warranty

With a copy to: Koch Performance Roads, Inc.
 4111 East 37th Street North
 Wichita, Kansas 67220
 Attention: Law Department

If to VDOT: Virginia Department of Transportation
Attention: Commissioner
4101 East Broad Street
Richmond, VA 23219

With a copy to: Virginia Attorney General
900 E. Main Street
Richmond, VA 23219

Notice served personally shall be deemed delivered upon receipt. Notice served by mail or independent courier shall be deemed delivered on the date of receipt as shown by the addressee's certification receipt or as shown on the records of the U.S. Postal Service or independent courier.

4.6 Force Majeure. Warrantor shall not be considered in default in the performance of its obligations, or any of them, under the Warranty, except the obligation to make payment or reimbursement when due and in accordance with the Warranty, to the extent that performance of such obligations, or any of them, is prevented, hindered or delayed by Force Majeure. If Warrantor shall claim an inability to perform as a result of Force Majeure, it shall immediately upon the occurrence thereof orally advise VDOT of the nature, date of inception and expected duration of the Force Majeure and the extent to which it will prevent Warrantor from performing its obligations hereunder. Warrantor shall also similarly notify VDOT in writing of the occurrence of Force Majeure as soon as practicable. As soon as practicable after an occurrence of Force Majeure impeding its performance, Warrantor promptly, upon VDOT's request, shall take all appropriate action to assist VDOT in remedying any damage to the Pavement that may have occurred as a result of such Force Majeure.

4.7 Headings. The headings or titles to sections in this Warranty are provided for convenience and are not to be considered part of the Warranty.

4.8 Assignability. Warrantor shall have the right to assign this Warranty to any Warrantor Affiliate upon notice to VDOT, and to any third party upon the written consent of VDOT which shall not be unreasonably withheld.

4.9 Entire Agreement. Except for those instances where specific provisions of the Design-Build Agreement and the Comprehensive Agreement are expressly incorporated by reference herein, this Warranty shall contain the entire agreement with respect to the subject matter thereof.

SECTION 5--DEFINITIONS

The following definitional terms shall have the meanings set forth in this Section 5 and shall apply solely for purposes of this Warranty:

AASHTO. The term "AASHTO" shall mean American Association of State Highway and Transportation Officials.

Act of God. The term "Act of God" shall mean an unusual, sudden and unexpected manifestation of the forces of nature, the effect of which could not have been prevented by reasonable foresight, pain and care.

Administrator of the Warranty. The "Administrator of the Warranty" shall be the person authorized to act on behalf of Warrantor and to whom all notices, reports and communications of whatever kind initiated by VDOT shall be communicated during the term of this Warranty.

Affiliate. The term "Affiliate" shall mean, with respect to any Person (as herein defined), any other Person which directly or indirectly Controls, is Controlled by, or is under direct or indirect common Control with such Person. The terms "Control," "Controlling" and "Controlled" shall mean, as to any Person, the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, partnership interests, by contract or otherwise. "Person" or "Persons" shall mean an individual, corporation, partnership, Limited partnership, limited liability company, joint venture, trust, estate, unincorporated association, or other entity.

Base Course. The term "Base Course" shall mean the layer or layers of specified material thickness placed on a Subbase or Subgrade normally used to support a Surface Course.

Capital Renewal. The terms "Capital Renewal," "**Pavement Reconstruction**" and "**Preventive Maintenance**" each means or refers to maintenance or preventive maintenance expenditures of a capital nature which are intended to enable the Pavement to meet the Pavement Performance Criteria.

Comprehensive Agreement. The term "Comprehensive Agreement" shall have the meaning stated in Section 4.1 of this Warranty.

Contract Price. The term "Contract Price" shall have the meaning as set forth in Section 14.1.1 of the Design Build Contract.

Contractor. The term "Contractor" shall mean a contractor under contract with Warrantor or with VDOT to perform services required under this Warranty.

Day or Days. The term "Day" or "Days" shall mean a calendar day or day.

Design-Build Agreement. The term "Design-Build Agreement" shall have the meaning stated in the first paragraph of this Warranty.

Effective Date. The term "Effective Date" means the date of the Design-Build Agreement as approved as to form and legal sufficiency by the Attorney General for the Commonwealth of Virginia.

Expenditures. The term "Expenditures" shall mean:

- (A) all out of pocket payments made by Warrantor for Warranty Work in each case determined at the time of completion of the Work for which payment is made;
- (B) such reasonable internal costs and expenses of Warrantor, including provision for routine, internal overhead calculated as 15% of the payments made in paragraph (A) of this definition; and
- (C) reasonable annual monitoring, analysis, record keeping and reporting expenses.

FHWA. The term "FHWA" shall mean the Federal Highway Administration.

Floods. The term "Floods" shall mean, with respect to any particular portion of the Pavement, an event which results in a water level that exceeds the design subgrade elevation for that portion, as appears on the final design drawings of the Project.

Force Majeure. The term "Force Majeure" shall mean any event or occurrence which is beyond the reasonable control of Warrantor, including but not restricted to, material changes in law, an Act of God, act of the public enemy, act or failure to act of governmental authorities, strikes, secondary boycotts, civil disturbances, war, epidemics, flood, fire, court orders or other occurrences, similar or dissimilar to the foregoing, that prevents, interrupts or delays the work or performance of Warrantor's obligations under the Warranty.

Hazardous Materials. The term "Hazardous Materials" shall mean any substance, product, waste or other material of any nature whatsoever which is or becomes listed, regulated or addressed pursuant to and including without limitation the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601, *et seq.*, the Hazardous Materials Transportation Act, 49 U.S.C. Section 1801, *et seq.*, the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 *et seq.*, the Toxic Substances Control Act, 15 U.S.C. Section 2601 *et seq.*, the Clean Water Act, 33 U.S.C. Section 1251 *et seq.*, the Clean Air Act, 42 U.S.C. Section 7401 *et seq.*, all as amended or as may be amended, or any other federal, state or local statute, law, ordinance, resolution, code, rule, regulation, order or decree regulating, relating to or imposing liability or standards of conduct concerning, any hazardous, toxic or dangerous waste, substance or material.

Pavement. The term "Pavement" shall mean and include (i) the Subgrade, (ii) the combination of Subbase, Base Course and Surface Course placed on a Subgrade to support the traffic load and distribute it to the Roadbed in the Project and (iii) the Shoulders, as defined by a line descending vertically from the outermost edge of the Shoulder to and including the Subgrade for Virginia State Highway 288 mainline and the ramps starting from the Powhatan/Chesterfield County Line northerly to I-64 which have been constructed pursuant to a Performance Roads® Design. Pavement shall not include, and Warrantor shall have no responsibility for, that portion of the Project, if any, where Performance Road Designs have been substituted or modified by change

directive or other order by VDOT under the Design-Build Agreement, nor shall the Pavement include sensors and instrumentation placed in the Pavement, vegetation, landscaping, right of way fencing, pavement markings (except when required during resurfacing), overhead and roadside signs, delineations and object markers, impact attenuators, lighting, guardrails and barriers, Structures, retention ponds/detention basins/outfalls, or cattleguard maintenance.

Pavement Performance Criteria. The term "Pavement Performance Criteria" shall mean the performance criteria set forth in Section 1.0 of Attachment 1 to this Warranty, to be interpreted in accord with the definitions for cracking, rutting, raveling, delamination and potholes as found in the Distress Manual for the Long-Term Pavement Performance Project, SHRP P-338, Chapter 2B, SHRP Program, NRC, Washington D.C., (1993).

Pavement Reconstruction and Preventive Maintenance. See the definition of "Capital Renewal" above.

Performance Failure. The term "Performance Failure" shall have the meaning as stated in Section 2.5.1 of this Warranty.

Performance Roads® Design. The term "Performance Roads® Designs" shall mean those proprietary Pavement Designs developed by Performance Roads Design, Inc. and provided to APAC Virginia, Inc. under the Design-Build Agreement.

Project. The term "Project" shall mean the project of construction for the portion of Virginia Route 288 described in the Design-Build Agreement.

Repair or Replace. The terms "Repair or Replace", "Repair and Replace" and "Repair and Replacement" and similar terms shall mean the removal and/or remediation taken to bring an affected portion of the Pavement into compliance with the Pavement Performance Criteria.

Right of Way. The term "Right of Way" shall mean the real property, air space, and any interests in real property or air space, including fee areas, leased areas and slope easements, necessary for the performance by Warrantor of its obligations under this Warranty.

Roadbed. The term "Roadbed" shall mean the graded portion of the highway with top and side slopes prepared as a foundation for the Pavement.

Segment. The term "Segment" shall mean each of the following Pavement divisions:

- Segment "A"—Pavement from Powhatan County line to VA Rt. 6
- Segment "B"— Pavement from VA Rt. 6 to VA Rt. 250
- Segment "C" -- Pavement from VA Rt. 250 to I-64.

Shoulders. The term "Shoulders" shall mean the paved portion of the Pavement immediately contiguous with the portion of the Right of Way designated for the movement of vehicles, for accommodation of stopped vehicles, for emergency use and for lateral support of the

Pavement.

Structures. The term "Structures" shall mean all bridges, culverts and drainage structures.

Subbase. The term "Subbase" shall mean the layer or layers of specified material thickness placed on a Subgrade to support the Base Course and other Surface Courses.

Subgrade. The term "Subgrade" shall mean the portion of Roadbed prepared as a foundation for the Pavement.

Substantial Completion or Substantially Completed. The term "Substantial Completion" or "Substantially Completed" shall, for any Segment, mean the date on which any part of said Segment is opened for traffic to the public.

Surface Course. The term "Surface Course" shall mean the layer or layers of Pavement designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate.

Warranty. The term "Warranty" shall mean this warranty, as defined in the first paragraph hereof.

Warranty Work. The term "Warranty Work" shall mean all Work for which Warrantor is obligated under this Warranty. Warranty Work shall not include and Warrantor shall have no obligation to reimburse VDOT or others for access rights to the Pavement or for costs and expenses incurred in connection with Warranty Work relating to the removal, relocation and/or protection in place of any utility, public service, railroad track, cable television, fiber optic or other communications facilities located in a particular Segment. This definition shall not affect Warrantor's obligation to exercise reasonable care in the prosecution of its work.

Work. The term "Work" shall mean all of the construction, reconstruction, construction materials, equipment, services and other items furnished or provided by Warrantor as contemplated by this Warranty.

Attachment 1 to Pavement Warranty (Pavement Performance Criteria) PAVEMENT PERFORMANCE CRITERIA

The performance criteria set forth in this Attachment 1 are to be interpreted in accord with the definitions for cracking, rutting, raveling, delamination and potholes as found in the Distress Manual for the Long-Term Pavement Performance Project, SHRP P-338, Chapter 2B, SHRP Program, NRC, Washington D.C., (1993).

1.0 Criteria

PAVEMENT PERFORMANCE CRITERIA BY PERIODS*

Criteria	Measure	Extent	Severity				
			Yrs 1-2	Yrs 3-5	Yrs 6-10	Yrs 11-15	Yrs 16-20
Smoothness	IRI (in/mile)	Mainline	75	80	105	105	110
		Ramps	80	90	115	115	115
Rutting/Shoving	Depth (inch)	Mainline	3/8	3/8	3/8	3/8	3/8
		Ramps	1/2	1/2	1/2	1/2	1/2
Cracks/Joints	Width (inch)	Mainline & Shlds.	1/2	1/2	1/2	1/2	1/2
		Ramps & Shlds.	1/2	1/2	1/2	1/2	1/2
Bleeding	Coeff. of Friction (f)	Mainline	0.05	0.05	0.05	0.05	0.05
		Ramps	0.05	0.05	0.05	0.05	0.05
Ravelling/Weathering	Depth (inch)	Mainline & Shlds.	1/2	1/2	1/2	1/2	1/2
		Ramps & Shlds.	1/2	1/2	1/2	1/2	1/2
Pot Holes	Depth (inch)	Mainline & Shlds.	1	1	1	1	1
		Ramps & Shlds.	1	1	1	1	1

- Smoothness and rutting shall be the average of both wheel paths over a length of 2 miles.
- Longitudinal cracking includes joint separations
- Shoulders are not warranted for smoothness, rutting, or shoving

Period One For each Segment, Period One is the period beginning with Substantial Completion of that Segment and expiring Two (2) Years from the date of Substantial Completion of that Segment.

Period Two For each Segment, Period Two begins on the day following the expiration of Period One and expires on the third anniversary of the beginning date.

Period Three For each Segment, Period Three begins on the day following the expiration of Period Two and expires on the fifth anniversary of the beginning date.

Period Four For each Segment, Period Four begins on the day following the expiration of Period Three and expires on the fifth anniversary of the beginning date.

Period Five For each Segment, Period Five begins on the day following the expiration of Period Four and expires on the fifth anniversary of the beginning date.

2.0 Equipment. For purposes of collecting smoothness (longitudinal profile) measurements, Warrantor shall use test methods, standards and equipment that meets the class 1 criteria of the American Society for Testing and Materials Specification E— 950 (1994) ("ASTM E-950"). Warrantor may use manual inspections or automated equipment for measurement of rutting, cracking, bleeding, raveling, delamination, pot holes, depressions and heaving. Warrantor shall follow the methods outlined in ASTM E-950 for calibration of equipment, including all repeatability requirements. Warrantor shall calibrate measurement equipment in Virginia on VA 288 or on road(s) selected by the Warrantor, with the concurrence of VDOT, that are consistent with VA 288 weather and traffic conditions.

3.0 Performance Evaluations. During the period March 1 through May 30 of each year beginning with the year following the occurrence of Substantial Completion of the last Segment Warrantor shall conduct an evaluation of each Segment of the Pavement to determine its compliance with each performance item then applicable under Section 1.0 of this Attachment. Warrantor shall collect the data necessary for such evaluation from the travel lanes of the Pavement, in both directions. Warrantor may use automated data collection at each mile point to establish compliance with the applicable smoothness criteria. Warrantor shall inspect using automated or manual means for all other distresses, continuously throughout the Pavement. If Warrantor uses manual techniques, inspections must be conducted for tenth of a mile segments of the Pavement, at every third tenth of a mile, sixth tenth of a mile and ninth tenth of a mile from each milepost. Warrantor shall document all manual evaluations in writing and on a form which clearly identifies the location, severity and extent of distress. Warrantor shall provide reasonable advance notice to VDOT of all inspections and afford VDOT the opportunity of observing all such inspections. On or about July 1 of each year, as feasible, Warrantor shall provide data results generated in the course of such inspection to VDOT, in a file format agreed by VDOT and Warrantor.

Attachment 3 to Pavement Warranty
LIMITATION ON WARRANTOR'S INFLATION RISK

The intent of this Attachment 3 is to limit the extent of Warrantor's inflation risk. Warrantor agrees to accept inflation increases averaging 3% per year, but is unwilling to accept cumulative inflation that exceeds an average of 3% per year. As a means to measure cumulative inflation, a published price index reflecting roadway construction costs will be compared yearly to a base index which is increased by 3% each year. The construction cost index shall hereinafter be referred to as the "Virginia Index" (see below) and the base index as the "Calculated Index" (see below). For any current calendar year, Expenditures for Warranty Work shall be adjusted based upon the values for the Virginia Index and the Calculated Index for the immediately prior calendar year, provided that the Virginia Index must exceed the Calculated Index for said prior year (i.e., Ratio greater than 1.0) as a condition for the adjustment to occur. When an adjustment is called for, current year Expenditures for Warranty Work, (i) if made directly by Warrantor shall be subject to reimbursement by VDOT, or (ii) if initially paid for by VDOT shall be reimbursed to VDOT, but at a reduced amount, all in accordance with the following:

- A. Each calendar year during the term of the Warranty Warrantor shall compute the portion of total Expenditures for Warranty Work that is subject to adjustment, if any.
- B. The amount of such adjustment, if any, shall be determined by reference to *The Virginia Bituminous Concrete Index*, as it appears in the periodical *Price Trends for Federal-Aid Highway Construction (1987 Base)* as published or electronically posted by the U.S. Department of Transportation, Federal Highway Administration, or if such Index shall no longer be published, such substitute index as the parties shall mutually agree upon (hereafter the "Virginia Index"), and compared to the "Calculated Index", namely the Virginia Index for the year 2000, increased for each calendar year thereafter by a factor of 1.03 multiplied by the number of years passed since the year 2000. The calculation for the adjustment is made using the following formula:

$$A = E [(IVA/ICI)-1]$$

Where:

A is the portion of Expenditures subject to reimbursement by VDOT to Warrantor, or the reduction of the reimbursement owed to VDOT by Warrantor as applicable.

E is Warrantor's total Expenditures for Warranty Work paid or incurred during any current calendar year.

ICI is the "Calculated Index" for the calendar year prior to the calendar year during which the Expenditure was made..

IVA is the Virginia Index for the calendar year prior to the calendar year during which the Expenditure was made.

For example, if the Virginia Index for the year 2000 is 125, then the Calculated Index for the year 2005 would be:

$$ICI = 125 \times 1.159 = 144.875$$

Further suppose that the Virginia Index ("IVA") for 2005 would be 155 and the Warrantor's Expenditures ("E") for 2006 would be \$1,000,000. The calculation for "A," the payment due Warrantor or reduction to the reimbursement due to VDOT as the case may be is:

$$A = \$1,000,000 \times [(155/144.875) - 1]$$

$$A = \$1,000,000 \times (1.06988 - 1)$$

$$A = \$ 69,880$$