

PART 3

Lump Sum Design-Build Agreement Between Department and Design-Builder

This **AGREEMENT** is made as of the ___ day of _____ in the year of ___, by and between the following parties, for services in connection with the Project identified below.

**VIRGINIA DEPARTMENT OF TRANSPORTATION (“Department”),
An agency of the Commonwealth of Virginia:**

Virginia Department of Transportation
Attention: Chief Engineer
1401 East Broad Street
Richmond, VA 23219

DESIGN-BUILDER:

PROJECT:
0625-053-972, P101,C501
Waxpool Road/Loudoun County Parkway Intersection Improvements
Loudoun County, Virginia

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In consideration of the mutual covenants and obligations contained herein, Department and Design-Builder agree as set forth herein.

Article 1

Scope of Work

1.1 Design-Builder shall perform all design and construction services, and provide all material, equipment, tools and labor, necessary to complete the Work described in and reasonably inferable from the Contract Documents.

Article 2

Contract Documents

2.1 The Contract Documents are comprised of the following:

2.1.1 All written modifications, amendments and work orders to this Agreement issued in accordance with *General Conditions of Contract Between Department and Design-Builder* (“General Conditions of Contract”);

2.1.2 This Agreement (Part 3), executed by Department and Design-Builder, inclusive of all Exhibits;

2.1.3 General Conditions of Contract (Part 4);

2.1.4 Department’s Request for Proposals (“RFP”) dated December 18, 2009 , including all Addenda (track changes depicted in the Addenda have been accepted and are incorporated herein);

.1 Part 1 – Instructions for Offerors

.2 Part 2 – Project Technical Information and Requirements, including RFP Information Package;

2.1.5 Division I Amendments (Part 5) to Standard Specifications, dated _____ (“Division I Amendments”);

2.1.6 Construction Documents prepared and approved in accordance with Section 2.4 of the General Conditions of Contract, and

2.1.7 Design-Builder’s Proposal submitted in response to RFP, including all final modifications: **[\[LIST PROPOSAL MODIFICATIONS BY NUMBER AND DATE\]](#)**.

Article 3

Interpretation and Intent

3.1 The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Time(s) for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards. In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, the Contract Documents shall take precedence in the order in which they are listed in Section 2.1 hereof, provided, however, that Parts 3, 4 and 5 of the RFP shall be deemed superseded by the documents set forth in Sections 2.1.2, 2.1.3 and 2.1.5 hereof.

3.2 Terms, words and phrases used in the Contract Documents, including this Agreement, shall have the meanings given them in this Agreement and the General Conditions of Contract.

3.3 The Contract Documents form the entire agreement between Department and Design-Builder with respect to its subject matter and by incorporation herein are as fully binding on the parties as if repeated herein. The parties have made no oral representations or other agreements, except as specifically stated in the Contract Documents.

3.4 Except as set forth in the last sentence of this Section 3.4, and notwithstanding anything to the contrary in Design-Builder's Proposal, Design-Builder is obligated to perform the Work in full compliance with the RFP Documents. The parties agree, however, that the betterments and higher and/or more stringent standards or specifications and design and construction criteria, concepts, and drawings set forth in the Design-Builder's Proposal (collectively referred to as "Enhancements") shall supersede the minimum requirements of the RFP Documents and Design-Builder is obligated to perform the Work in compliance with the Enhancements.

Article 4

Ownership of Work Product

4.1 Work Product Defined. The term "**Work Product**" is intended to include all drawings, specifications, calculations, reports, and documentation, whether in paper copy or electronic format, produced by or through Design-Builder that is furnished to Department.

4.2 Ownership of Work Product. Department shall own all rights, title and interest in the Work Product upon its receipt of such Work Product. Department's ownership rights, include without restriction or limitation, the right of the Department, and anyone contracting with Department, to incorporate any ideas or information from the Work Product into: (a) any other contract awarded in reference to the Project; or (b) any subsequent procurement by Department on another project. In receiving all rights, title and interest in the Work Product, Department is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Work Product, and Design-Builder agrees that it shall, at the request of Department, execute all papers and perform all other acts that may be necessary (if any) to ensure that Department's rights, title and interest in the Work Product are protected. The rights

conferred herein to Department include, without limitation, Department’s ability to use the Work Product without the obligation to notify or seek permission from Design-Builder.

4.3 Use of Work Product at Department’s Risk. The Department’s use of the Work Product on any subsequent procurement by Department on another project shall be at Department’s sole risk, and Design-Builder neither warrants nor represents that the Work Product is suitable for use on another project without modification. The Department waives any rights to seek recovery from Design-Builder for any claims, damages, liabilities, losses and expenses arising out of or resulting from the Department’s use of the Work Product on another project.

Article 5

Contract Time

5.1 Date of Commencement. The Work shall commence upon Design-Builder’s receipt of Department’s Notice to Proceed or the date set forth in the Notice to Proceed (“**Date of Commencement**”), unless the parties mutually agree otherwise in writing. The Department will issue a Notice to Proceed within fifteen (15) days after the Agreement Date, unless the parties mutually agree otherwise in writing.

5.2 Completion Dates

5.2.1 Substantial Completion Dates. The Design-Builder shall substantially complete the Work and it shall be open for traffic on _____ (the “**Substantial Completion Date**”).

5.2.2 Interim Milestone Dates. (Not Used)

5.3 Final Completion. Final Completion of the Work, and any part thereof, shall be achieved as expeditiously as reasonably practicable, but in no event later than ~~fourteen~~ sixty (1460) days after Substantial Completion of the Work or designated part of the Work (the last day of such ~~fourteen~~ sixty day period being referred to as the “**Final Completion Date**”).

5.4 Adjustments. All of the scheduled completion dates set forth in Section 5.2 through 5.3 above (collectively referred to as “**Contract Times**”) shall be subject to adjustment in accordance with the General Conditions of Contract.

5.5 Time is of the Essence. Department and Design-Builder mutually agree that time is of the essence with respect to the Contract Times.

5.6 Liquidated Damages. Design-Builder understands that if the Contract Times are not attained, Department will suffer damages which are difficult to determine and accurately specify. To compensate Department for such damages, Design-Builder hereby agrees as follows:

5.6.1 If Substantial Completion of the Work is not attained by the Substantial Completion Date, Designer-Builder shall pay Department SIX HUNDRED AND 00/100 Dollars (\$600.00) as liquidated damages for each day that actual Substantial Completion of the Work extends beyond the Substantial Completion Date.

5.6.2 (Not Used)

5.6.3 If Final Completion is not attained by the Final Completion Date, Designer-Builder shall pay Department SIX HUNDRED AND 00/100 Dollars (\$600.00) as liquidated damages for each day that Final Completion extends beyond the Final Completion Date.

5.7 Liquidated Damages Not Penalty. The parties acknowledge, recognize and agree on the following:

5.7.1 that because of the unique nature of the Project, it is difficult or impossible to determine with precision the amount of damages that would or might be incurred by Department as a result of Design-Builder’s failure to complete the Work on or before the applicable Contract Time(s);

5.7.2 that any sums which would be payable under this Article 5 are in the nature of liquidated damages, and not a penalty, and are fair and reasonable and such payment represents a reasonable estimate of fair compensation for the losses that may reasonably be anticipated from such failure; and

5.7.3 that any sums which would be payable herein shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages, whether special or consequential, and of whatsoever nature incurred by Department which are occasioned by any delay in achieving the applicable Contract Times for the above-referenced Work. Notwithstanding the above, liquidated damages are not intended to excuse Design-Builder from liability for any other breach of its obligations under the Contract Documents.

5.8 Early Completion Bonus. (Not Used)

5.9

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Article 6

Contract Price

6.1 Contract Price. Department shall pay Design-Builder in accordance with Article 6 of the General Conditions of Contract the sum of _____Million _____Thousand and 00/100 Dollars (\$_____) (“**Contract Price**”), subject to adjustments made in accordance with the General Conditions of Contract. Unless otherwise provided in the Contract Documents, the Contract Price is deemed to include all sales, use, consumer and other taxes mandated by applicable Legal Requirements.

6.2 Markups for Changes. If the Contract Price requires an adjustment due to changes in the Work, and the cost of such changes is determined under Section 9.4.1 of the General

Conditions of Contract, markups shall be allowed on such changes in accordance with requirements of Section 109.05 of the Division I Amendments to the Standard Specifications.

6.3 Adjustments to Asphalt, Fuel and Steel. Department and Design-Builder agree to adjust prices for asphalt, fuel and steel, in accordance with the Department's pertinent special provisions, attached hereto as Exhibits 6.3(a), 6.3(b), 6.3(c) and 6.3(d) provided Design-Builder declares its intent, in the Price Proposal, to use the provisions for price adjustments, and also submits the information required in the pertinent special provisions with its Proposal. Notwithstanding the special provisions, price adjustments for asphalt, fuel and steel will be based on the quantities identified in the work packages in Design-Builder's Proposal, which quantities shall be specifically summarized and provided in Design-Builder's Price Proposal. Actual quantities shall be monitored and documented by Design-Builder, and submitted to Department in the monthly report required by Section 11.1.8 below, on forms provided by Department.

Article 7

Procedure for Payment

7.1 Progress Payments

7.1.1 Design-Builder shall submit to Department on the tenth (10th) day of each month, beginning with the first month after the Date of Commencement, Design-Builder's Application for Payment in accordance with Article 6 of the General Conditions of Contract.

7.1.2 Department shall make payment within thirty (30) days after Department's receipt of each properly submitted and accurate Application for Payment in accordance with Article 6 of the General Conditions of Contract, but in each case less the total of payments previously made, and less amounts properly withheld under Section 6.3 of the General Conditions of Contract. Department's payment shall comply with VA. CODE §2.2-4347, et seq., which addresses prompt payment.

7.1.3 Pursuant to VA. CODE §2.2-4354, Design-Builder agrees that, within seven (7) days following receipt of monies from the Department for work performed by any Subcontractor, Design-Builder shall either: (a) pay the Subcontractor for the proportionate share of the total payment received from the Department attributable to the work performed by the Subcontractor; or (b) notify the Department and Subcontractor, in writing, of Design-Builder's intention to withhold all or a part of the Subcontractor's payment, specifying the reason for the non-payment. Design-Builder also agrees that it shall include in all of its subcontracts a provision that: (a) obligates Design-Builder to pay interest to Subcontractors on all amounts owed by Design-Builder that remain unpaid after seven (7) days following receipt of monies from the Department for work performed by any Subcontractor, except for amounts withheld as allowed in the preceding sentence; (b) states, "Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month."; and (c) obligates each Subcontractor to include or otherwise be subject to the same payment and interest requirements as specified in this Section 7.1.3 with respect to each lower-tier Sub-subcontractor.

7.1.4 Design-Builder's obligations to pay an interest charge to a Subcontractor pursuant to Section 7.1.3 shall not be construed to be an obligation of the Department, nor shall any modification to this Agreement be allowed for the purpose of providing reimbursement for the interest charge. Cost reimbursement claims shall not include any amount for reimbursement for the interest charge.

7.1.5 Pursuant to VA. CODE §2.2-4354, Design-Builder agrees to provide the Department, within five (5) days of the Agreement Date, its federal employer identification number.

7.2 **Retainage on Progress Payments.** Retainage will not be withheld from Progress Payments.

7.3 **Final Payment.** Design-Builder shall submit its Final Application for Payment to Department in accordance with Section 6.7 of the General Conditions of Contract. Department shall make payment on Design-Builder's properly submitted and accurate Final Application for Payment within thirty (30) days after Department's receipt of the Final Application for Payment, provided that Design-Builder has satisfied the requirements for Final Payment set forth in Section 6.7.2 of the General Conditions of Contract. Department's payment shall comply with VA. CODE §2.2-4347 et seq. dealing with prompt payment.

7.4 **Interest.** Payments due and unpaid by Department to Design-Builder, whether progress payments or Final Payment, shall bear interest commencing seven (7) days after payment is due in accordance with VA. CODE §2.2-4355.

7.5 **Record Maintenance and Retention of Records.** Design-Builder shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and as may be provided in the Contract Documents. During the performance of the Work and for a period of five (5) years after Final Payment, Department and Department's accountants shall be afforded access from time-to-time, upon reasonable notice, to Design-Builder's records, books, correspondence, receipts, subcontracts, purchase orders, vouchers, memoranda and other data, including but not limited to electronic schedules and other electronic data (all collectively referred to as "Books and Records") relating to: (a) changes in the Work performed on a cost basis; or (b) any request by Design-Builder for an adjustment in the Contract Price or Contract Times. Design-Builder shall preserve all of its Books and Records for a period of five (5) years after Final Payment.

Article 8

Termination for Convenience

8.1 Upon ten (10) days written notice to Design-Builder, Department may, for its convenience and without cause, elect to terminate all or part of the Work if Department, in its sole discretion, determines that such a termination is in the Department's best interests. The Department shall notify Design-Builder of the decision to terminate by delivering to Design-

Builder a written notice of termination specifying the extent of termination and its effective date (a “**Notice of Termination**”).

8.1.1 If Department terminates all of the Work for convenience before issuing a Notice to Proceed, Design-Builder agrees that it shall have no right to recover any monies from Department. Design-Builder specifically waives any and all rights to claim from the Department for any cost, profit, overhead contribution or any other monetary relief associated with the Contract Documents or Project, including but not limited to bid and proposal costs, or any services that might have constituted Work under the Contract Documents.

8.1.2 If Department terminates all or part of the Work for convenience after issuing a Notice to Proceed, then Sections 8.2 through 8.8 below shall apply.

8.2 After receipt of a Notice of Termination, and except as directed by Department, Design-Builder shall immediately proceed as follows, regardless of any delay in determining or adjusting any amounts due under this Article 8:

8.2.1 Stop Work as specified in the notice;

8.2.2 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;

8.2.3 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;

8.2.4 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 Design-Builder 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;

8.2.5 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;

8.2.6 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 Design-Builder in and to: (i) the Work in process, completed Work, supplies and other materials produced or acquired for the Work terminated; (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; and (iii) all intellectual property developed specifically for the Project; provided, however, that in the event of such transfer, the Design-Builder shall not be liable for any warranties for Work which has not

achieved Substantial Completion, nor shall the Design-Builder have any liability with respect to any design materials produced with respect to the Project;

8.2.7 Complete performance in accordance with the Contract Documents of all Work not terminated;

8.2.8 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 Design-Builder and in which Department has or may acquire an interest; and

8.2.9 As authorized by Department, use its best efforts to sell at fair market value any property of the types referred to in Section 8.3; provided, however, that Design-Builder: (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.

8.3 Inventory. Design-Builder shall submit to Department a list of termination inventory not previously disposed of and excluding items authorized for disposition by Department; and within thirty (30) days of receipt of the list, Design-Builder shall deliver such inventory to Department and Department shall accept title to such inventory as appropriate.

8.4 Settlement Proposal. After termination, Design-Builder shall submit a final termination settlement proposal to Department in the form and with the certification prescribed by Department. Design-Builder shall submit the proposal promptly, but no later than thirty (30) days from the effective date of termination unless Design-Builder has requested a time extension in writing within such 30-day period and Department has agreed in writing to allow such an extension.

8.5 Amount of Termination Settlement. Design-Builder and Department shall negotiate in good faith to reach agreement on the settlement amount to be paid to Design-Builder by reason of the termination of Work pursuant to this Article 8 and any such settlement shall be subject to the provisions of the Code of Virginia §2.2-514. Such negotiated settlement shall include an allowance for profit solely on Work that has been performed as of the termination date. Such agreed amount or amounts payable for the terminated Work, exclusive of demobilization costs and other shut-down costs, shall not exceed the total Contract Price as reduced by the Contract Price of Work not performed. Upon determination of the settlement amount, this Agreement will be amended accordingly, and Design-Builder will be paid the agreed amount as described in this Section 8.5. 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 Work which has achieved Substantial Completion with all applicable Contract requirements or any of its rights under payment and performance bonds or any of its rights against Subcontractors.

8.6 No Agreement as to Amount of Claim. In the event of failure of Design-Builder and Department to agree upon the amount to be paid Design-Builder by reason of the termination of

Work pursuant to this Article 8, the amount payable (exclusive of interest charges) shall be determined in accordance with the dispute resolution procedures of the General Conditions.

8.7 Reduction in Amount of Claim. The amount otherwise due Design-Builder under this Article 8 shall be reduced by: (a) the amount of any valid claim which Department may have against Design-Builder in connection with this Agreement; and (b) the agreed price for, or the proceeds of sale of, materials, supplies or other things previously paid for by the Department and to be retained by Design-Builder or sold by the Design-Builder (with the proceeds being retained by the Design-Builder), pursuant to the provisions of this Article 8.

8.8 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 Design-Builder in connection with the terminated portion of this Agreement, whenever in the opinion of Department the aggregate of such payments shall be within the amount to which Design-Builder 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 8, such excess shall be payable by Design-Builder to Department upon demand together with interest at a variable rate per annum equal to the reference rate announced by Bank of America, N.A., from time-to-time, plus one percent (1%).

8.9 Inclusion in Subcontracts. Design-Builder 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. Design-Builder shall communicate, immediately upon receipt thereof, any Notice of Termination issued by Department to all affected Subcontractors.

8.10 No Consequential Damages. In the event of a termination for convenience under this Article 8, Design-Builder acknowledges and agrees that it shall not be entitled to any compensation in excess of the value of the Work performed plus its settlement and closeout costs. Under no circumstances shall Design-Builder 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 8. The payment to Design-Builder determined in accordance with this Article 8 constitutes Design-Builder's exclusive remedy for a termination hereunder.

8.11 No Waiver. Anything contained in this Agreement to the contrary notwithstanding, a termination under this Article 8 shall not waive any right or claim to damages which Department may have with respect to Work which has achieved Substantial Completion prior to the date of termination, and Department may pursue any cause of action which it may have by law or under this Agreement on account of such completed Work. The Design-Builder makes no warranties with respect to Work which has not achieved Substantial Completion prior to the date of termination. Department's termination of this Agreement shall not relieve any rights Department has under any performance bonds issued on the Project.

8.12 Dispute Resolution. The failure of the parties to agree on amounts due under Article 8 shall be a dispute to be resolved in accordance with the requirements of the General Conditions,

Article 10.

8.13 Right to Use Work Product. If Department terminates this Agreement pursuant to this Article 8, Department’s rights to use the Work Product shall be as set forth in Article 4 hereof.

Article 9

Representatives of the Parties

9.1 Department’s Representatives

9.1.1 Department designates the individual listed below as its Senior Representative ("Department’s Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.2 of the General Conditions of Contract:

[INSERT DEPARTMENT’S REPRESENTATIVE]

9.1.2 Department designates the individual listed below as its Department’s Representative, which individual has the authority and responsibility set forth in Section 3.4 of the General Conditions of Contract:

[INSERT DEPARTMENT’S REPRESENTATIVE]

9.2 Design-Builder’s Representatives

9.2.1 Design-Builder designates the individual listed below as its Senior Representative ("Design-Builder’s Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.2 of the General Conditions of Contract:

[INSERT DESIGN-BUILDER’S REPRESENTATIVE]

9.2.2 Design-Builder designates the individual listed below as its Design-Builder’s Representative, which individual has the authority and responsibility set forth in Section 2.1.1 of the General Conditions of Contract:

[INSERT DESIGN-BUILDER’S REPRESENTATIVE]

9.3 The Department and Design-Builder shall, in the spirit of cooperation, exchange information in a timely manner. While the Contract Documents establish a timeline and process for making decisions and managing communications on the Project, the parties recognize it is not possible to specify processes for all activities that may occur. The parties shall communicate in a manner consistent with the Special Provision for *Project Communication and Decision Making for Design-Build Projects (August 2009)* included in the RFP Information Package.

Article 10

Bonds and Insurance

10.1 Insurance. Design-Builder shall procure and maintain insurance in accordance with the Contract Documents, including Article 5 of the General Conditions of Contract and Division I Amendments.

10.2 Performance and Payment Bonds. Design-Builder shall procure and maintain performance and payment bonds executed by a surety acceptable to Department, each in the amount of one hundred percent (100%) of the Contract Price, and in accordance with all other requirements of the Contract Documents, including the Division I Amendments.

Article 11

Other Provisions

11.1 Project Management and Reporting Requirements

11.1.1 Proposal Schedule. This schedule shall be the basis for monitoring Design-Builder's performance of the Work until such time as a Baseline Schedule has been approved by Department in accordance with Section 11.1.2 below.

11.1.2 Baseline Schedule. Within thirty (30) days of the Date of Commencement, Design-Builder shall submit to Department, for its review and approval, a CPM schedule that includes, among other things: (a) the order in which Design-Builder proposes to carry out the Work (including each stage of design, right-of-way acquisition, Governmental Approvals (including but not limited to permit acquisition), procurement, manufacture, delivery to Site, construction, inspection and testing); and (b) the times when submissions and approvals or consents by Department are required (provided, however, that such times shall be no less than the Department's minimum review duration identified in Section 3.1 of the General Conditions of Contract). This schedule shall be resource-loaded and cost-loaded, broken down into work packages that are consistent with the Work Breakdown Structure submitted in Design-Builder's Proposal, and in deliverables generally completed within thirty (30) days, with the dollar value (price) of each deliverable being identified. If Department does not approve such submission, Design-Builder shall resubmit a revised schedule to Department within seven (7) days of its receipt of Department's comments on such schedule. This process shall continue until such time as a schedule is so approved by Department ("**Baseline Schedule**"), and the payment schedule is so approved by Department ("**Earned Value Schedule**") as referenced in Section 6.1 of General Conditions of Contract (Part 4). Department reserves the right to withhold approval for all or part of Design-Builder's Applications for Payment until such time Design-Builder furnishes an approved Baseline Schedule.

11.1.2.1 Cost Loading. The Design-Builder shall cost load each activity in the Baseline Schedule for which the Design-Builder expects to receive payment. The Baseline Schedule shall be reasonably cost loaded to allow for an accurate determination of progress of the activity based on earnings. The Baseline Schedule shall be cost loaded in accordance with the following:

- .1 If the "Resource" feature is used to cost-load the Baseline Schedule, the Design-Builder shall define and assign a project-specific resource to applicable activities. The Resource ID shall be unique and prefixed by the Contract number. (e.g. C00012345DB10.00100\$).
- .2 Activities shall be cost-loaded to allow for summarization of the budgeted quantity and budgeted costs by Cost Account ID. Cost Account ID numbers shall be assigned to all applicable activities.
- .3 The aggregate sum of the budgeted costs for all activities shall equal the total contract value. Total contract value will be considered to mean the current contract value including the original amount of the contract and any authorized adjustments for authorized changes to the Work.
- .4 Anticipated payments for adjustments such as asphalt, fuel, retainage, incentives, disincentives, etc., will not be considered in the Baseline Schedule, unless approved by the Engineer.

11.1.2.2 Baseline Schedule Narrative. A Baseline Schedule Narrative shall be submitted with the Baseline Schedule submission. The Baseline Progress Schedule Narrative shall include the following written information:

- .5 The Design-Builder's overall plan describing the proposed overall sequence of construction, including where the work will begin and how the work will progress;
- .6 A description of the project critical path.
- .7 A description of the near critical path(s) (float paths with total float value within twenty (20) workdays of the critical path total float).
- .8 A listing of the major milestone dates, including as applicable contract interim milestone(s), major traffic switches, start and finish milestones for each phase or stage of work, work to be performed by the Department or other third parties.
- .9 A log identifying the schedule constraints used and explanation of the reasons why and the purpose for using each constraint.
- .10 A description of the proposed working calendar(s) to indicate the Calendar ID, number of work days per week, number of shifts per day, and number of hours per day as well as the anticipated number of non-working days per month for each calendar with considerations, as applicable, for holidays, normal weather conditions; as well as for seasonal or other known or specified constraints and restrictions (i.e. traffic, local events, environmental, permits, utility, etc.).
- .11 A log of the applicable DBE participation activities in the Schedule for which the Design-Builder intends to claim credit for attaining the DBE goal required in the

Contract. The list shall indicate the proposed start/finish dates and durations of the DBE participation activities.

- .12 A description of any known problems or anticipated issues that may impact the schedule; and any actions taken or needed to correct the problems.

11.1.3 Schedule Updates. As part of, and in conjunction with, the monthly reports required by Section 11.1.8, Design-Builder shall provide Department with any proposed update of the Baseline Schedule for Department's review and approval and a progress narrative that describes, at a minimum, the overall progress for the preceding month, a critical path analysis including a description of any deviations in the project critical path since the previous schedule submission, a discussion of problems encountered or anticipated since the previous schedule submission and proposed solutions thereof including an explanation of any corrective actions taken or required to be taken, work calendars, constraints, delays experienced and any pending Time Impact Analysis ("TIA"), float consumption as a result of either Department and/or Design-Builder delays, documentation of any logic changes, duration changes, resource changes or other relevant changes. The Schedule Update shall be based on the most recently accepted Schedule. All activities that are completed prior to the current data date shall show actual start and finish dates. All on-going activities shall show an actual start date and remaining duration to indicate the amount of time required to complete the remaining work as of the current data date. Activity percent complete for on-going activities shall be based on amount of work completed as of the current data date relative to the total amount of work planned. Activity relationships for the remaining activities shall be modified as necessary to correct out-of-sequence progress for on-going and remaining activities to reflect the Design-Builder's current plan for completing the remaining work. The Schedule Update shall be calculated using the current data date. The monthly progress narrative shall also include the following:

- .1 Comparisons of actual and planned progress, including: (i) illustrating schedule variance graphically by plotting the Budgeted Cost of Work Performed ("BCWP") and the Budgeted Cost of Work Scheduled ("BCWS"); and (ii) reporting the Schedule Performance Index ("SPI"), defined as the ratio of BCWP divided by BCWS; and
- .2 Statement by the Design-Builder that this is the only schedule being executed to perform the Work; and
- .3 Details of any aspects of the Work which may jeopardize the completion in accordance with the Contract Documents; and
- .4 Measures being (or to be) adopted to overcome such aspects and a list of approvals needed to adopt such measures.
- .5 A description of any deviations from scheduled performance in terms of the scheduled completion dates of the interim milestone(s) and Final Completion since the previous schedule submission, including a statement explaining why any of the schedule milestone date(s) is forecast to occur after the specified date(s).

- .6 A description of any changes in the Design-Builder's work plan in terms of sequence of construction, shifts, manpower, equipment, or materials.
- .7 A description of work planned for the next update period and actions to be taken by the Department or other involved third parties.

If Department believes that the Baseline Schedule needs a specific revision, either in logic, activity duration, manpower or cost, it will submit a written request to Design-Builder. Design-Builder shall respond in writing within seven (7) days, either agreeing with Department's proposed revision, and henceforth including it in the next Baseline Schedule update, or providing justification why it should not be accomplished. If revisions cannot be agreed upon either through written correspondence or subsequent meetings, Department and Design-Builder shall agree to attempt to resolve the issues through a TIA submission as described in Section 8.3 of the General Conditions of Contract or the dispute resolution process of Article 10 in the General Conditions of Contract. If the Department and the Design-Builder cannot agree on the TIA, the Design-Builder shall proceed under the previously approved Baseline Schedule. At no time shall Design-Builder continue to reflect items of non-concurrence from Department in Baseline Schedule updates.

11.1.4 Schedule Format. Design-Builder shall submit for each Proposal Schedule Update, Baseline Schedule and Baseline Schedule Update submission the following submittal items. Each electronic file submittal shall have a unique file name prefixed by the Contract ID to identify the Contract, submission type, and order of submission (e.g. C00012345DB01-B1, C00012345DB01-U1, etc.). The submittals shall include:

- .1 A transmittal letter to the Engineer, identifying the date of submittal and which Progress Schedule is being submitted for review.
- .2 Two (2) sets of data compact disks ("CD") containing the electronic working file of the Schedule in Primavera proprietary exchange format ("XER") file format. Each CD shall be labeled to indicate the Contract ID, type of submission, filename, and data date.
- .3 Two (2) sets of paper copies of the following schedule reports:
 - a) Schedule calculation log.
 - b) A legible time-scaled bar-chart plot of the Schedule to show for each activity: the Activity ID, Activity Name, Original Duration, Remaining Duration, Start and Finish dates, Activity Percent Complete, and Total Float. The bar-chart plot shall identify the project critical path (longest path). The Design-Builder shall prepare the time-scaled bar-chart Schedule using scheduling software that is wholly compatible with the Department's scheduling software system.

- c) A legible network logic diagram plot of the Schedule depicting the order, interdependence of activities, and sequence in which the work will be accomplished. The Design-Builder shall prepare the network logic diagram plot of the Schedule using scheduling software that is wholly compatible with the Department's scheduling software system.
- d) A tabular Predecessor/Successor report sorted in ascending order by Activity ID to show the following:
 - i) Activity ID;
 - ii) Activity Name;
 - iii) Original Duration;
 - iv) Remaining Duration;
 - v) Early Start;
 - vi) Early Finish;
 - vii) Late Start;
 - viii) Late Finish;
 - ix) Total Float;
 - x) Critical (Yes or No);
 - xi) Predecessor Activity ID, Activity Name, Early Start, Early Finish, Relationship Type, Lag, Driving (Yes or No), Constraint, and Constraint Date;
 - xii) Successor Activity ID, Activity Name, Early Start, Early Finish, Relationship Type, Lag, Driving (Yes or No), Constraint, and Constraint Date.

.4 One (1) set of electronic file copies by email of the following:

- a) A working file of the Schedule in XER file format.
- b) Electronic PDF copy of the monthly progress narrative.
- c) Electronic PDF copy of the Activity Cost-loading Report ("ACR"). The ACR shall provide a listing of the budgeted costs for each cost-loaded activity. The ACR shall show the budgeted cost by activity grouped by Cost Account ID and sorted by Activity ID. The ACR shall also show the aggregate sum of the budgeted costs for each Cost Account and an overall summary of the budgeted costs for the project. The ACR shall show for each activity the Activity ID, Activity Name, Price/Unit, Budgeted Unit (Quantity), and Budgeted Cost.
- d) Electronic PDF copy of the Earned Value Schedule S-Curve.

This process shall continue until Final Completion. The first day of the month ("data date") of each Baseline Schedule update shall coincide with Design-Builder's Application for Payment. The Design-Builder shall prepare and maintain the Schedule using scheduling software that is capable of meeting all requirements of this provision. The Design-Builder's scheduling software shall be wholly compatible with the Department's scheduling software system and shall have the

capability to import and export project data in XER format. The Department's scheduling software system is the latest version of Primavera's Project Management software (currently P6 version 6.2). Compatible shall mean that the Design-Builder-provided electronic file versions of the schedule can be imported into the Department's scheduling software system with no modifications, preparation or adjustments. At the Design-Builder's request, secured access via the internet may be granted to allow the Design-Builder to develop and maintain his Schedule in the Department's scheduling software system.

Submission of data from another software system where data conversion techniques or software is used to import into Primavera's scheduling software is not acceptable and will be cause for rejection of the submitted schedule.

The Schedule shall conform to the following software settings:

- a) Define Project ID as the Contract ID number.
- b) Define project "Must Finish By" date equal to the Contract Final Completion date.
- c) Define the baseline for Earned Value calculations as the "Project Baseline".
- d) Define the critical activities as "Longest Path".
- e) Define schedule calculation option to compute total float as "Finish Float = Late Finish – Early Finish".

11.1.5 Other Information and Alteration. Design-Builder shall, whenever required by Department, provide in writing a general description of the arrangements and methods which Design-Builder proposes to adopt for the execution of the Work. No significant alteration to the Baseline Schedule, or to such arrangements and methods, shall be made without informing Department and any alterations made shall reflect the requirement for coordination of the Work with the actions and obligations of Department and the work to be carried out by Department's Separate Contractors. If any alteration affects any such actions, obligations or Work, it shall not be made without the prior approval of Department. If the progress of the Work does not conform to the Baseline Schedule, as updated herein, Department may instruct Design-Builder to revise the Baseline Schedule, showing the modifications necessary to achieve completion within the Contract Times.

11.1.6 Department's Separate Contractors. Design-Builder agrees to include the activities of Department's Separate Contractors into the Baseline Schedule. Design-Builder shall reasonably cooperate with Department's Separate Contractors and coordinate its activities with those of such Separate Contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

11.1.7 Department's Review and Approval of Baseline Schedule. Department's review and approval of the Baseline Schedule or subsequent updates shall not be construed as relieving

Design-Builder of its complete and exclusive control and responsibility over the means, methods, sequences and techniques for executing the Work and does not constitute approval or acceptance of Design-Builder's ability to complete the Work within the Contract Time(s).

11.1.8 Monthly Reports. Monthly reports shall be prepared by Design-Builder and submitted to Department in six (6) copies. The first report shall cover the period up to the end of the calendar month after that in which the Agreement Date occurred; reports shall be submitted monthly thereafter, on or before the tenth (10th) day of each month. Reporting shall continue until Department's determination that the Project has achieved Final Completion. Each report shall include:

.1 Photographs and detailed descriptions of progress, including each stage of design, right-of-way acquisition, Governmental Approvals (including but not limited to permit acquisition), procurement, delivery to Site, and construction;

.2 Charts showing the status of all design documents, purchase orders, right-of-way acquisition, Governmental Approvals (including but not limited to permit acquisition) and construction;

.3 Records of personnel and Design-Builder's equipment;

.4 Copies of quality assurance documents, and test results;

.5 Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations;

.6 Status of approvals for Governmental Approvals, as required by Section 2.6.1 of the General Conditions of Contract;

.7 Monthly updates to the Baseline Schedule and the narrative as set forth in Section 11.1.3 above;

.8 Unresolved claims or disputes that involve requests for extension to the Contract Time(s) or adjustment to any other date or milestone set forth in the Contract Documents or increases in the Contract Price;

.9 All required EEO documentation for federal-aid projects;

.10 Weekly work zone safety reviews, on Department-provided forms;

.11 Erosion & Sediment Control Reports, on Department-provided forms; and

.12 Actual quantities for fuel, asphalt and steel on Department-provided forms.

Failure of Design-Builder to provide complete monthly reports, including but not limited to the monthly schedule updates, shall be grounds for Department to withhold approval for all or part

of Design-Builder’s Applications for Payment until such time Design-Builder furnishes such complete reports.

11.1.9 Project Records. Design-Builder shall organize and maintain its project records in a manner that allows such project records to be filed by work packages, as applicable. Additionally, Design-Builder shall develop a tracking log wherein the project records are provided chronologically, with the file type, description, date received/sent, entity the documentation is from/to, pay package reference, status and electronic location. The Project Record Tracking Log shall be developed in accordance with the format outlined in Attachment 11.1.9. If the project record relates to changes in the Work, preferably only one work package shall be referenced in such project record. If a project record relates to multiple work packages, then all related work packages shall be referenced in such project record. As a condition of Final Payment, Design-Builder shall provide Department with a complete set of all project records by and between Design-Builder and Department exchanged on the Project.

11.2 Miscellaneous

11.2.1 In executing this Agreement, Department and Design-Builder each individually represents that it has the necessary financial resources to fulfill its obligations under this Agreement, and each has the necessary approvals to execute this Agreement and to perform the services and obligations described herein.

11.2.2 The parties acknowledge that as of the Agreement Date, the Virginia General Assembly has appropriated, and the Commonwealth Transportation Board (“CTB”) has allocated, funding for the Project, and the Department’s obligation to pay the Contract Price for the Work is subject to the appropriations and allocations.

11.3 Exhibits

11.3.1 The following exhibits are specifically made part of, and incorporated by reference into, this Agreement (Attachments to Part 3 are included in the RFP Information Package):

- EXHIBIT 6.3(a) -- ADJUSTMENT FOR ASPHALT
- EXHIBIT 6.3(b) -- FORM C-16a (PRICE ADJUSTMENT FOR ASPHALT)
- EXHIBIT 6.3(c) -- ADJUSTMENT FOR FUEL
- EXHIBIT 6.3(d) -- ADJUSTMENT FOR STEEL
- EXHIBIT 11.1.9 -- EXAMPLE CORRESPONDENCE TRACKING LOG

DEPARTMENT:

DESIGN-BUILDER:

Virginia Department of Transportation
(Name of Department)

(Name of Design-Builder)

(Signature)

(Signature)

(Printed Name)

(Printed Name)

Chief Engineer

(Title)

(Title)

Date: _____

Date: _____

END OF PART 3
LUMP SUM DESIGN-BUILD AGREEMENT