



ARLINGTON COUNTY, VIRGINIA  
OFFICE OF THE PURCHASING AGENT  
2100 CLARENDON BOULEVARD, SUITE 500  
ARLINGTON, VIRGINIA 22201

**CONTRACT AWARD COVERPAGE**

<b>TO:</b> TRIANGLE CONTRACTING, LLC 313 E 4 <sup>TH</sup> ST FREDERICK, MARYLAND 21701	DATE ISSUED: 6/23/2023 CONTRACT NO: 23-DES-ITBPW-494 CONTRACT TITLE: SPARROW POND RESTORATION
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**THIS IS A NOTICE OF AWARD OF CONTRACT AND NOT AN ORDER. NO WORK IS AUTHORIZED UNTIL THE VENDOR RECEIVES A VALID COUNTY PURCHASE ORDER ENCUMBERING CONTRACT FUNDS.**

The contract documents consist of the terms and conditions of AGREEMENT No. 23-DES-ITBPW-494 including any attachments or amendments thereto.

**EFFECTIVE DATE:** 6/23/2023  
**EXPIRES:** 365 DAYS AFTER THE ACCEPTANCE OF SUBSTANTIAL COMPLETION  
**RENEWALS:** NONE  
**LIVING WAGE:** N

**EMPLOYEES NOT TO BENEFIT:**  
**NO COUNTY EMPLOYEE SHALL RECEIVE ANY SHARE OR BENEFIT OF THIS CONTRACT NOT AVAILABLE TO THE GENERAL PUBLIC.**

<b><u>VENDOR CONTACT:</u></b> JOSEPH HUMBERTSON	<b><u>VENDOR TEL. NO.:</u></b> (301) 228-9732
<b><u>EMAIL ADDRESS:</u></b> <a href="mailto:JHUMBERTSON@TRIANGLECONTRACTING.COM">JHUMBERTSON@TRIANGLECONTRACTING.COM</a>	
<b><u>COUNTY CONTACT:</u></b> ANKUR PATEL (DES-ENG)	<b><u>COUNTY TEL. NO.:</u></b> (703) 228-7595
<b><u>COUNTY CONTACT EMAIL:</u></b> <a href="mailto:APATEL@ARLINGTONVA.US">APATEL@ARLINGTONVA.US</a>	

**PURCHASING DIVISION AUTHORIZATION**

Lucas Alexander	Procurement officer	6/23/2023
<u>Title</u>		<u>Date</u>



**ARLINGTON COUNTY, VIRGINIA  
OFFICE OF THE PURCHASING AGENT  
SUITE 500, 2100 CLARENDON BOULEVARD  
ARLINGTON, VA 22201**

**AGREEMENT NO. 23-DES-ITBPW-494**

THIS AGREEMENT is made, on the date of execution by the County, between Triangle Contracting, LLC, 313 E 4<sup>th</sup> Street, Frederick, Maryland 21701 ("Contractor") a Maryland limited liability company authorized to do business in the Commonwealth of Virginia, and the County Board of Arlington County, Virginia ("County"). The County and the Contractor, for the consideration hereinafter specified, agree as follows:

**1. CONTRACT DOCUMENTS**

The Contract Documents consist of:

- Agreement No. 23-DES-ITBPW-494 and all modifications properly incorporated into the Agreement
- Exhibit A – Arlington County Invitation to Bid No. 23-DES-ITBPW-494 including DES General Conditions, Special Conditions, and Supplementary Specifications
- Exhibit B – Specifications, Drawings and Construction Notes, hereby incorporated by reference
- Exhibit C – Virginia Department of Labor and Industry Wage Determination Decision
- Exhibit D – Price Bid of Contractor
- Exhibit E – Contractor Performance Evaluation Form

Where the terms and provisions of this Agreement vary from the terms and provisions of the other Contract Documents, the terms and provisions of this Agreement will prevail over the other Contract Documents, and the remaining Contract Documents will be complementary to each other. If there are any conflicts, the most stringent terms or provisions will prevail.

The Contract Documents set forth the entire agreement between the County and the Contractor. The County and the Contractor agree that no representative or agent of either party has made any representation or promise with respect to the parties' agreement that is not contained in the Contract Documents. The Contract Documents may be referred to below as the "Contract" or the "Agreement".

**2. SCOPE OF WORK**

The Contractor will furnish all labor, materials, and equipment for the construction of restoration services at Sparrow Pond (the "Project") and all other work shown, described, and required by the Contract Documents (hereinafter "the Work").

The Work shall be performed according to the standards established by the Contract Documents read together as a single specification. It shall be the Contractor's responsibility, at solely the Contractor's cost, to provide sufficient services to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of its Work.

**3. PROJECT OFFICER**

The performance of the Contractor is subject to the review and approval of the County Project Officer identified in Section 53, Notices, unless the Contractor is otherwise notified in writing.

**4. TIME FOR COMPLETION**

Work under this Agreement shall achieve Substantial Completion no later than two hundred and seventy (270) consecutive calendar days after the commencement date given in a Notice to Proceed provided by the County to the Contractor, subject to any modifications made as provided for in the Contract Documents. This two hundred and seventy (270) day period shall be the Period of Performance for Substantial Completion. No Work shall be deemed Substantially Complete until it meets the requirements of Substantial Completion set forth in the General Conditions. Final Completion of the Work shall be completed no later than three hundred and sixty-five (365) calendar days after the date of acceptance of Substantial Completion by the County Project Officer. Work will not reach Final Completion until it meets the requirements set forth in the General Conditions.

**5. CONTRACT AMOUNT**

The County will pay the Contractor in accordance with the terms of the Progress Payments and Retainage and Payment Terms sections below and at the prices shown in Exhibit D for the Contractor's completion of the Work as required by the Contract Documents provided the Work is performed to the satisfaction of and is accepted by the Project Officer. The Contractor will complete the Work for the total amount specified in this section ("Contract Amount") unless such amount is modified as provided in this Agreement. The Contract Amount includes all of the Contractor's costs and fees (profit) and is inclusive of all anticipated or known site conditions, anticipated or known materials, labor, and equipment costs, or any other costs which should reasonably have been expected by the Contract Documents.

**6. PROGRESS PAYMENTS AND RETAINAGE**

The County will make monthly progress payments to the Contractor upon written application by the Contractor, on the basis of a written estimate of the work performed during the preceding calendar month as approved by the Project Officer. However, 5% of each progress payment will be retained by the County until Final Completion and acceptance of all Work covered by the Agreement.

All material and work covered by partial payments will become the property solely of the County at the time the partial payment is made. However, the Contractor will have the sole responsibility, care and custody for all materials and work upon which payments have been made until Substantial Completion. When calculating payment for materials on-site, the County shall not pay for materials which are not scheduled for incorporation into the Work within sixty (60) days from the date of application for payment.

**7. PAYMENT TERMS**

The Contractor must submit invoices to the County's Project Officer, who will either approve the invoice or require corrections. The County will pay the Contractor 45 days after approval of an invoice for completed work which is reasonable and allocable to the Contract. All payments will be made from the

County to the Contractor via ACH. The number of the County Purchase Order pursuant to work has been performed must appear on all invoices.

**8. PAYMENT OF SUBCONTRACTORS**

The Contractor is wholly responsible for the entire amount owed to any subcontractor with which the Contractor contracts in the performance of this Agreement, regardless of whether the Contractor has received payment from the County. The Contractor is not liable for amounts that are not owed as a result of the subcontractor's breach of its agreement with the Contractor, in which case the Contractor must notify the subcontractor in writing of its intention to withhold payment, in full or in part, and the reason for doing so.

The Contractor is obligated to take one of the two following actions within seven days after receipt of payment by the County for work performed by any subcontractor under this Contract:

- a. Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under this Contract; or
- b. Notify the County and the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The Contractor is obligated to pay interest to the subcontractor on all amounts owed by the Contractor to the subcontractor that remain unpaid after seven days following receipt by the Contractor of payment from the County for work performed by the subcontractor under this Contract, except for amounts withheld as allowed in subsection b., above. Unless otherwise provided under the terms of this Contract, interest will accrue at the rate of 1% per month.

The Contractor must include in each of its subcontracts, if any are permitted, a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this section may not be construed to be an obligation of the County. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

**9. PREVAILING WAGE CONTRACT REQUIREMENTS**

- A. Section 4-104 of the Arlington County Purchasing Resolution (regarding "Prevailing Wage") applies to this Contract. All employees of the Contractor and any subcontractors shall be paid wages, salaries, benefits, and other remuneration at or above the craft or trade category prevailing wage rate indicated by Virginia Commissioner of Labor and Industry (DOLI) and as listed in the contract.

The Contractor and its subcontractors shall submit all certified payrolls and statements of compliance weekly through the [eComply website](#). If the Contractor or any subcontractor does not have an eComply profile, a one-time registration process immediately following the Notice of Award or Notice of Intent to Award and training on system functionality are required for each non-registered entity. The Contractor shall also be responsible for reviewing subcontractor payrolls and ensuring that contract requirements are met.



In addition to applying the prevailing wage rates to its own employees, the Contractor shall include the provisions of this Article 4-104 in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor agrees to assume the obligation that the wage requirements will be observed in fulfilling the requirements of the Contract. The appropriate enforcement sanctions will be invoked against the Contractor and any such subcontractor in the event of such subcontractor's failure to comply with any of the provisions of this Article 4-104.

All wage rates to be used are listed in this Contract in Exhibit \_\_\_\_\_. While DOLI maintains a list of wage determinations online for reference purposes, only the wage determinations made in an official Wage Determination Decision, sent by DOLI to Arlington County, can be used to ascertain the exact rates to be paid for this Contract.

All rates are determined by DOLI and any appeals of specific classification may be made through the Wage Determination Appeal form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Appeal-for-Wage-Determination-Clarification.pdf>.

- B. Upon award of the Contract, the Contractor shall certify, under oath, to the Virginia Commissioner of Labor and Industry and to the County Prevailing Wage Compliance Manager, the pay scale for each craft and trade to be employed for, or to provide labor for, in the Work by the Contractor and any subcontractors. The Contractor's certification shall include all information required by the Code of Virginia § 2.2-4321.3G.
- C. The Contractor shall ensure that each individual providing labor as a mechanic, laborer, worker or equivalent shall be accurately classified in confirmation with the Wage Determination.
- D. The Contractor shall post the prevailing wage rate for each craft and classification involved as determined by DOLI, including the effective date, in a prominent and easily accessible place at the work site during the time work is being performed. The posting must be in English and any other language that is primarily spoken by the individuals at the work site. Within 10 days of such posting the Contractor shall certify to the County Prevailing Wage Compliance Manager and DOLI its compliance with this subsection at [https://www.doli.virginia.gov/wp-content/uploads/2021/04/PW\\_Posting\\_Compliance\\_Form.pdf](https://www.doli.virginia.gov/wp-content/uploads/2021/04/PW_Posting_Compliance_Form.pdf);
- E. The Contractor must fully cooperate with the County Prevailing Wage Compliance Manager to ensure contract compliance requirements, including but not limited to site visits, wage rate signage, contractor employee interviews, and the submission of certified payroll records.
- F. The Contractor must submit to the County Prevailing Wage Compliance Manager and DOLI, within five (5) working days of the end of each month, certification for each craft or trade employed on the project, specifying the total hourly amount paid to employees, including wages and applicable fringe benefits using the Pay Scale Certification Form at <https://www.doli.virginia.gov/wp-content/uploads/2021/04/DOLI-Pay-Scale-Certification-for-Public-Works-Projects.pdf>. The certification must itemize the amount paid in wages and each applicable benefit and list the names and addresses of any third party fund, plan or program to which benefit payments will be made on behalf of employees.

- G. The Contractor shall indemnify and hold harmless the County from any fines, demands, claims, suits, and damages, including attorney's fees, resulting from the Contractor's or any subcontractor's failure to pay the Prevailing Wage.
- H. The Contractor and its subcontractors shall keep, maintain, and preserve (i) records relating to the wages paid to and hours worked by each individual performing the work of any mechanic, laborer, or worker; and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or worker on the construction project is employed each work day and week. The Contractor and its subcontractors shall make such records available to the Prevailing Wage Compliance Manager within 10 days of a request or per a regular schedule established in the Contract, and shall certify that records reflect the actual hours worked and the amount paid to its workers for whatever time period is requested. The Contractor and its subcontractors must preserve these records for a period of six (6) years after the expiration or earlier termination of the applicable contract.
- I. Any Contractor or subcontractor who pays any mechanic, laborer, or worker for services under this Contract less than the Prevailing Wage shall be liable to such individuals for the payment of all wages due, plus interest at an annual rate of eight percent (8%) from the dates wages were due; and shall be disqualified from bidding on public contracts with any public body until the Contractor or subcontractor has made full restitution. A willful violation of Article 4-104 is a Class I misdemeanor.
- J. For questions regarding Prevailing Wage, please email [prevailingwage@arlingtonva.us](mailto:prevailingwage@arlingtonva.us).

**10. RELEASE AND REQUEST FOR FINAL PAYMENT**

In order to receive final payment upon Final Completion of the Project and before Final Acceptance, the Contractor must submit to the Project Officer a signed original notarized copy of the Arlington County Release and Request for Final Payment form per the General Conditions.

**11. LIQUIDATED DAMAGES**

Time is of the essence under this Contract. The Work must be completed within the Time for Completion. The County and the Contractor agree that damages for failure to achieve Substantial Completion of the Work by the date specified under Time for Completion are not susceptible to exact determination but that \$1,308.00 per calendar day is in proportion to the actual loss that the County would suffer from such delay. Therefore, the Contractor will pay the County as liquidated damages \$1,308.00 per day for each and every day beyond the time for Substantial Completion that the County determines Substantial Completion has not achieved. The County and the Contractor also agree that damages for failure to achieve Final Completion of the Work by the date specified under Time for Completion are not susceptible to exact determination but that \$1,308.00 per calendar day is in proportion to the actual loss the County would suffer from such delay. Therefore, the Contractor will pay the County as liquidated damages \$1,308.00 per day for each and every day beyond the time for Final Completion until Final Completion is achieved.

The County will be entitled to deduct liquidated damages against any sums owed by the County to the Contractor under this Contract. The Contractor hereby waives any defense as to the validity of any liquidated damages on grounds that such liquidated damages are void as penalties or are not reasonably related to actual damages.

**12. PERFORMANCE OF WORK BY THE CONTRACTOR**

The Contractor shall perform on site, and with its own organization, at least fifty percent (50%) of the total direct labor and at least fifty percent (50%) of the total work in place to be performed under the Contract.

The self-performance percentage may be reduced by an Amendment to the Contract, if during performance of the Work, the Contractor requests a reduction, and the Project Officer determines that the reduction would be to the advantage of the County.

**13. NON-APPROPRIATION**

All payments by the County to the Contractor pursuant to this Contract are subject to the availability of an annual appropriation for this purpose by the County Board of Arlington County, Virginia ("Board"). In the event that the Board does not appropriate funds for the goods or services provided under this Contract, the County will terminate the Contract, without termination charge or other liability to the County, on the last day of the fiscal year or when the previous appropriation has been spent, whichever occurs first.

**14. ESTIMATED QUANTITIES/NON-EXCLUSIVITY OF CONTRACTOR**

This Contract does not obligate the County to purchase a specific quantity of items or services during Contract Term. Any quantities that are included in the Contract Documents are the present expectations of the County for the period of the Contract; and the County is under no obligation to buy that or any amount as a result of having provided this estimate or of having had any normal or otherwise measurable requirement in the past. The County may require more goods and/or services than the estimated annual quantities, and any such additional quantities will not give rise to any claim for compensation other than at the unit prices and/or rates in the Contract.

The County does not guarantee that the Contractor will be the exclusive provider of the goods or services covered by this Contract. The items or services covered by this Contract may be or become available under other County contract(s), and the County may determine that it is in its best interest to procure the items or services through those contract(s).

**15. COUNTY PURCHASE ORDER REQUIREMENT**

County purchases are authorized only if the County issues a Purchase Order in advance of the transaction, indicating that the ordering County agency has sufficient funds available to pay for the purchase. If the Contractor provides goods or services without a signed County Purchase Order, it does so at its own risk and expense. The County will not be liable for payment for any purchases made by its employees that are not authorized by the County Purchasing Agent.

**16. LIEN**

It is expressly agreed that after any payment has been made by the County either to the Contractor for work done, or labor or material supplied under the Contract, the County will have a lien upon all material delivered to the site either by the Contractor, or for the Contractor, which is to be used in the performance of the Contract.

**17. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED**

During the performance of its work pursuant to this Contract:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, sexual orientation, gender identity, national origin, age,

disability or on any other basis prohibited by state law. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

- B. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation will be deemed sufficient for meeting the requirements of this section.
- C. The Contractor will state in all solicitations or advertisements for employees that it places or causes to be placed that such Contractor is an Equal Opportunity Employer.
- D. The Contractor will comply with the provisions of the Americans with Disabilities Act of 1990 ("ADA"), which prohibits discrimination against individuals with disabilities in employment and mandates that disabled individuals be provided access to publicly and privately provided services and activities.
- E. The Contractor must include the provisions of the foregoing paragraphs in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

**18. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED**

In accordance with §2.2-4311.1 of the Code of Virginia, as amended, the Contractor must not during the performance of this Contract knowingly employ an unauthorized alien, as that term is defined in the federal Immigration Reform and Control Act of 1986.

**19. DRUG-FREE WORKPLACE TO BE MAINTAINED BY CONTRACTOR**

During the performance of this Contract, the Contractor must: (i) provide a drug-free workplace for its employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violating such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of more than \$10,000.00 relating to this Contract so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "workplace" means the site(s) for the performance of the work required by this Contract.

**20. SEXUAL HARASSMENT POLICY**

If the Contractor employs more than five employees, the Contractor shall (i) provide annual training on the Contractor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Department of Human Resource Management, and (ii) post the Contractor's sexual harassment policy in (a) a conspicuous public place in each building located in the Commonwealth that the Contractor owns or leases for business purposes and (b) the Contractor's employee handbook.

**21. PROJECT STAFF**

The County has the right to reasonably reject staff or subcontractors whom the Contractor assigns to the Project. The Contractor must then provide replacement staff or subcontractors satisfactory to the County

in a timely manner and at no additional cost to the County. The day-to-day supervision and control of the Contractor's employees and its subcontractors is the sole responsibility of the Contractor.

**22. FAILURE TO DELIVER**

If the Contractor fails to deliver goods or services in accordance with the Contract terms and conditions, the County, after notice to the Contractor, may procure the goods or services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. The County shall be entitled to offset such costs against any sums owed by the County to the Contractor. However, if public necessity requires the use of nonconforming materials or supplies, they may be accepted at a reduction in price to be determined solely by the County.

**23. UNSATISFACTORY WORK**

If any of the work done, or material, goods, or equipment provided by the Contractor, is unsatisfactory to the County the Contractor must, upon notice from the County, immediately remove at the Contractor's expense such unsatisfactory work, material, goods, or equipment and replace the same with work, material, goods, or equipment satisfactory to the County. If the Contractor fails to do so after fifteen (15) days the County shall have the right to remove or replace the rejected work, material, goods, or equipment at the expense of the Contractor and offset the expense and administrative costs against any sums owed to the Contractor. This provision applies during the Contract term and during any warranty or guarantee period. At the Project Officer's discretion, rather than correction or replacement of the work, an appropriate adjustment to the Contract Amount may be made.

**24. TERMINATION**

The County may terminate this Contract at any time as follows: (1) for cause, if, as determined by the County, the Contractor is in breach or default or has failed to perform the Work satisfactorily; or (2) for the convenience of the County.

Upon receipt of a notice of termination, the Contractor must not place any further orders or subcontracts for materials, services or facilities; must terminate all vendors and subcontracts, except as are necessary for the completion of any portion of the Work that the County did not terminate; and must immediately deliver all documents related to the terminated Work to the County.

Any purchases that the Contractor makes after the notice of termination will be the sole responsibility of the Contractor, unless the County has approved the purchases in writing as necessary for completion of any portion of the Work that the County did not terminate.

If any court of competent jurisdiction finds a termination for cause by the County to be improper, then the termination will be deemed a termination for convenience.

**A. TERMINATION FOR CAUSE, INCLUDING BREACH AND DEFAULT; CURE**

1. Termination for Unsatisfactory Performance. If the County determines that the Contractor has failed to perform satisfactorily, then the County will give the Contractor written notice of such failure(s) and the opportunity to cure them within 15 days or any other period specified by the County ("Cure Period"). If the Contractor fails to cure within the Cure Period, the County may terminate the Contract for failure to provide satisfactory performance by providing written notice with a termination date. Upon such termination, the Contractor may apply for compensation for Contract services that the County previously accepted ("Termination Costs"), unless payment is otherwise barred by the

Contract. The Contractor must submit any request for Termination Costs, with all supporting documentation, to the County Project Officer within 30 days after the expiration of the Cure Period. The County may accept or reject the request for Termination Costs, in whole or in part, and may notify the Contractor of its decision within a reasonable time.

In the event of termination by the County for failure to perform satisfactorily, the Contractor must continue to provide its services as previously scheduled through the termination date, and the County must continue to pay all fees and charges incurred through the termination date.

2. Termination for Breach or Default. If the County terminates the Contract for default or breach of any Contract provision or condition, then the termination will be immediate after notice of termination to the Contractor (unless the County provides for an opportunity to cure), and the Contractor will not be permitted to seek Termination Costs.

Upon any termination pursuant to this section, the Contractor will be liable to the County for costs that the County must expend to complete the Work, including costs resulting from any related delays and from unsatisfactory or non-compliant work performed by the Contractor or its subcontractors. The County will deduct such costs from any amount due to the Contractor; or if the County does not owe the Contractor, the Contractor must promptly pay the costs within 15 days of a demand by the County. This section does not limit the County's recovery of any other damages to which it is entitled by law.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt the notice of the termination.

**B. TERMINATION FOR THE CONVENIENCE OF THE COUNTY**

The County may terminate this Contract in whole or in part whenever the Purchasing Agent determines that termination is in the County's best interest. The County will give the Contractor at least 15 days' notice in writing. The notice must specify the extent to which the Contract is terminated and the effective termination date. The Contractor will be entitled to Termination Costs, as defined above, plus any other reasonable amounts that the parties might negotiate; but no amount will be allowed for anticipatory profits.

Except as otherwise directed by the County, the Contractor must stop work on the date of receipt of the notice of the termination.

**25. INDEMNIFICATION**

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless and indemnify the County and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards and commissions (collectively the "County Indemnitees") from and against any and all claims made by third parties for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability, demands or exposure resulting from, arising out of or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees, vendors, delivery drivers and/or subcontractors, in performance or nonperformance of the Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments

and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

**26. INTELLECTUAL PROPERTY INDEMNIFICATION**

The Contractor warrants and guarantees that in providing services under this Contract neither the Contractor nor any subcontractor is infringing on the intellectual property rights (including, but not limited to, copyright, patent, mask and trademark) of third parties.

If the Contractor or any of its employees or subcontractors uses any design, device, work or material that is covered by patent or copyright, it is understood that the Contract Amount includes all royalties, licensing fees, and any other costs arising from such use in connection with the Work under this Contract.

The Contractor covenants for itself, its employees and its subcontractors to save, defend, hold harmless, and indemnify the County Indemnitees, as defined above, from and against any and all claims, losses, damages, injuries, fines, penalties, costs (including court costs and attorneys' fees), charges, liability or exposure for infringement of or on account of any trademark, copyright, patented or unpatented invention, process or article manufactured or used in the performance of this Contract. This duty to save, defend, hold harmless and indemnify will survive the termination of this Contract. If the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor must reimburse the County for any and all resulting payments and expenses, including reasonable attorneys' fees. The Contractor must pay such expenses upon demand by the County, and failure to do so may result in the County withholding such amounts from any payments to the Contractor under this Contract.

**27. COPYRIGHT**

By this Contract, the Contractor irrevocably transfers, assigns, sets over and conveys to the County all rights, title and interest, including the sole exclusive and complete copyright interest, in any and all copyrightable works created pursuant to this Contract. The Contractor will execute any documents that the County requests to formalize such transfer or assignment.

The rights granted to the County by this section are irrevocable and may not be rescinded or modified, including in connection with or as a result of the termination of or a dispute concerning this Contract.

The Contractor may not use subcontractors or third parties to develop or provide input into any copyrightable materials produced pursuant to this Contract without the County's advance written approval and unless the Contractor includes this Copyright provision in any contract or agreement with such subcontractors or third parties related to this Contract.

**28. OWNERSHIP AND RETURN OF RECORDS**

This Contract does not confer on the Contractor any ownership rights or rights to use or disclose the County's data or inputs.

All drawings, specifications, blueprints, data, information, findings, memoranda, correspondence, documents or records of any type, whether written, oral or electronic, and all documents generated by the Contractor or its subcontractors as a result of this Contract (collectively "Records") are the exclusive property of the County and must be provided or returned to the County upon completion, termination, or cancellation of this Contract. The Contractor will not use or willingly cause or allow such materials to be used for any purpose other than performance of this Contract without the written consent of the County.

The Records are confidential, and the Contractor will neither release the Records nor share their contents. The Contractor will refer all inquiries regarding the status of any Record to the Project Officer or to his or her designee. At the County's request, the Contractor will deliver all Records, including hard copies of electronic records, to the Project Officer and will destroy all electronic Records.

The Contractor agrees to include the provisions of this section as part of any contract or agreement related to this Contract into which it enters with subcontractors or other third parties.

The provisions of this section will survive any termination or cancellation of this Contract.

**29. CONFIDENTIAL INFORMATION**

The Contractor and its employees, agents and subcontractors will hold as confidential all County information obtained under this Contract. Confidential information includes, but is not limited to, nonpublic personal information; personal health information (PHI); social security numbers; addresses; dates of birth; other contact information or medical information about a person; and information pertaining to products, operations, systems, customers, prospective customers, techniques, intentions, processes, plans and expertise. The Contractor must take reasonable measures to ensure that all of its employees, agents and subcontractors are informed of and abide by this requirement.

**30. ETHICS IN PUBLIC CONTRACTING**

This Contract incorporates by reference Article 9 of the Arlington County Purchasing Resolution, as well as all state and federal laws related to ethics, conflicts of interest or bribery, including the State and Local Government Conflict of Interests Act (Code of Virginia § 2.2-3100 et seq.), the Virginia Governmental Frauds Act (Code of Virginia § 18.2-498.1 et seq.) and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Code of Virginia, as amended (§ 18.2-438 et seq.). The Contractor certifies that its bid was made without collusion or fraud; that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor; and that it has not conferred on any public employee having official responsibility for this procurement any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

**31. COUNTY EMPLOYEES**

No Arlington County employee may share in any part of this Contract or receive any benefit from the Contract that is not available to the general public.

**32. FORCE MAJEURE**

Neither party will be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to a fire, riot, rebellion, natural disaster, war, act of terrorism or act of God that is beyond the control of the party and that makes performance impossible or illegal, unless otherwise specified in the Contract, provided that the affected party gives notice to the other party as soon as practicable after the force majeure event, including reasonable detail and the expected duration of the event's effect on the party.

**33. AUTHORITY TO TRANSACT BUSINESS**

The Contractor must, pursuant to Code of Virginia § 2.2-4311.2, be and remain authorized to transact business in the Commonwealth of Virginia during the entire term of this Contract. Otherwise, the Contract is voidable at the sole option of and with no expense to the County.



**34. RELATION TO THE COUNTY**

The Contractor is an independent contractor, and neither the Contractor nor its employees or subcontractors will be considered employees, servants or agents of the County. The County will not be responsible for any negligence or other wrongdoing by the Contractor or its employees, servants or agents. The County will not withhold payments to the Contractor for any federal or state unemployment taxes, federal or state income taxes or Social Security tax or for any other benefits. The County will not provide to the Contractor any insurance coverage or other benefits, including workers' compensation.

**35. ANTITRUST**

The Contractor conveys, sells, assigns and transfers to the County all rights, title and interest in and to all causes of action under state or federal antitrust laws that the Contractor may have relating to this Contract.

**36. REPORT STANDARDS**

The Contractor must submit all written reports required by this Contract for advance review in a format approved by the Project Officer. Reports must be accurate and grammatically correct and should not contain spelling errors. The Contractor will bear the cost of correcting grammatical or spelling errors and inaccurate report data and of other revisions that are required to bring the report(s) into compliance with this section.

Whenever possible, proposals must comply with the following guidelines:

- printed double-sided on at least 30% recycled-content and/or tree-free paper
- recyclable and/or easily removable covers or binders made from recycled materials (proposals with glued bindings that meet all other requirements are acceptable)
- avoid use of plastic covers or dividers
- avoid unnecessary attachments or documents or superfluous use of paper (e.g. separate title sheets or chapter dividers)

**37. AUDIT**

The Contractor must retain all books, records and other documents related to this Contract for at least five (5) years, unless otherwise specified in the Contract, or such period of time required by the County's funding partner(s), if any, whichever is greater, after the final payment and must allow the County or its authorized agents to examine the documents during this period and during the Contract Term. The Contractor must provide any requested documents to the County for examination within 15 days of the request, at the Contractor's expense. Should the County's examination reveal any overcharging by the Contractor, the Contractor must, within 30 days of County's request, reimburse the County for the overcharges and for the reasonable costs of the County's examination, including, but not limited to, the services of external audit firm and attorney's fees; or the County may deduct the overcharges and examination costs from any amount that the County owes to the Contractor. If the Contractor wishes to destroy or dispose of any records related to this Contract (including confidential records to which the County does not have ready access) within five (5) years after the final payment, unless otherwise specified in the Contract, or such period of time required by the County's funding partner(s), if any, whichever is greater, the Contractor must give the County at least 30 days' notice and must not dispose of the documents if the County objects.

The Purchasing Agent may require the Contractor to demonstrate that it has the necessary facilities, ability, and financial resources to comply with the Contract and furnish the service, material or goods specified herein in a satisfactory manner at any time during the term of this Contract.

**38. ASSIGNMENT**

The Contractor may not assign, transfer, convey or otherwise dispose of any award or any of its rights, obligations or interests under this Contract without the prior written consent of the County.

**39. AMENDMENTS**

This Contract may not be modified except by written amendment executed by persons duly authorized to bind the Contractor and the County.

**40. ARLINGTON COUNTY PURCHASING RESOLUTION AND COUNTY POLICIES**

Nothing in this Contract waives any provision of the Arlington County Purchasing Resolution, which is incorporated herein by reference, or any applicable County policy.

**41. DISPUTE RESOLUTION**

All disputes arising under this Agreement or concerning its interpretation, whether involving law or fact and including but not limited to claims for additional work, compensation or time, and all claims for alleged breach of contract must be submitted in writing to the Project Officer as soon as the basis for the claim arises. In accordance with the Arlington County Purchasing Resolution, claims denied by the Project Officer may be submitted to the County Manager in writing no later than 60 days after the final payment. The time limit for a final written decision by the County Manager is 30 days. Procedures concerning contractual claims, disputes, administrative appeals and protests are contained in the Arlington County Purchasing Resolution. The Contractor must continue to work as scheduled pending a decision of the Project Officer, County Manager, County Board or a court of law.

**42. APPLICABLE LAW, FORUM, VENUE, AND JURISDICTION**

This Contract is governed in all respects by the laws of the Commonwealth of Virginia; and the jurisdiction, forum and venue for any litigation concerning the Contract or the Work is in the Circuit Court for Arlington County, Virginia, and in no other court.

**43. ARBITRATION**

No claim arising under or related to this Contract may be subject to arbitration.

**44. NONEXCLUSIVITY OF REMEDIES**

All remedies available to the County under this Contract are cumulative, and no remedy will be exclusive of any other at law or in equity.

**45. NO WAIVER**

The failure to exercise a right provided for in this Contract will not be a subsequent waiver of the same right or of any other right.

**46. SEVERABILITY**

The sections, paragraphs, clauses, sentences, and phrases of this Contract are severable; and if any section, paragraph, clause, sentence or phrase of this Contract is declared invalid by a court of competent jurisdiction, the rest of the Contract will remain in effect.

**47. ATTORNEY'S FEES**

In the event that the County prevails in any legal action or proceeding brought by the County to enforce any provision of this Contract, the Contractor will pay the County's reasonable attorney's fees and expenses.

**48. SURVIVAL OF TERMS**

In addition to any statement that a specific term or paragraph survives the expiration or termination of this Contract, the following sections also survive: INDEMNIFICATION; INTELLECTUAL PROPERTY INDEMNIFICATION; RELATION TO COUNTY; OWNERSHIP AND RETURN OF RECORDS; AUDIT; COPYRIGHT; DISPUTE RESOLUTION; APPLICABLE LAW AND JURISDICTION; ATTORNEY'S FEES, AND CONFIDENTIAL INFORMATION.

**49. HEADINGS**

The section headings in this Contract are inserted only for convenience and do not affect the substance of the Contract or limit the sections' scope.

**50. AMBIGUITIES**

The parties and their counsel have participated fully in the drafting of this Agreement; and any rule that ambiguities are to be resolved against the drafting party does not apply. The language in this Agreement is to be interpreted as to its plain meaning and not strictly for or against any party.

**51. NOTICES**

Unless otherwise provided in writing, all legal notices and other formal communications required by this Contract are deemed to have been given when either (a) delivered in person; (b) delivered by an agent, such as a delivery service; or (c) deposited in the United States mail, postage prepaid, certified or registered and addressed as follows:

**TO THE CONTRACTOR:**

Joseph Humbertson  
Triangle Contracting, LLC  
313 E 4<sup>th</sup> St  
Frederick, Maryland 21701  
Phone: (301) 228-9732  
Email: [jhumbertson@trianglecontracting.com](mailto:jhumbertson@trianglecontracting.com)

**TO THE COUNTY:**

Ankur Patel, Project Officer  
Arlington County Government  
2100 Clarendon Boulevard, Suite 813  
Arlington, Virginia 22201  
Phone: (703) 228-7595  
Email: [apatel@arlingtonva.us](mailto:apatel@arlingtonva.us)

AND

Dr. Sharon T. Lewis, LL.M, MPS, VCO, CPPB  
Purchasing Agent  
Arlington County, Virginia

2100 Clarendon Boulevard, Suite 500  
Arlington, Virginia 22201  
Phone: (703) 228-3294  
Email: [slewis1@arlingtonva.us](mailto:slewis1@arlingtonva.us)

**TO COUNTY MANAGER’S OFFICE (FOR PROJECT CLAIMS):**

Mark Schwartz, County Manager  
Arlington County, Virginia  
2100 Clarendon Boulevard, Suite 318  
Arlington, Virginia 22201

**52. NON-DISCRIMINATION NOTICE**

Arlington County does not discriminate against faith-based organizations.

**53. INSURANCE, PAYMENT AND PERFORMANCE BONDS**

The Contractor shall maintain the required insurance coverage and payment and performance bonds as set forth in the Invitation to Bid through completion of the Contract, including all warranty and guarantee periods.

**54. MATERIAL CHANGES**

The Contractor shall notify Purchasing Agent within seven days of any material changes in its operation that relate to any matter attested regarding certifications on its bid form.

**55. CONTRACTOR PERFORMANCE EVALUATION**

Arlington County will perform written evaluations of the Contractor’s performance at various intervals throughout the term of this Contract. The evaluations will address, at a minimum, the Contractor’s work/performance, quality, cost controls, schedule, timeliness and sub-contractor management. The Project Officer shall be responsible for completing the evaluations and providing a copy to the Contractor and County Procurement Officer.

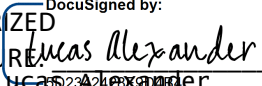
**56. COUNTERPARTS**

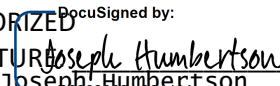
This Agreement may be executed in one or more counterparts and all of such counterparts shall together constitute one and the same instrument. Original signatures transmitted and received via facsimile or other electronic transmission (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall be effective as delivery of a manually executed original counterpart.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON  
COUNTY, VIRGINIA

TRIANGLE CONTRACTING, LLC

DocuSigned by:  
AUTHORIZED SIGNATURE:   
NAME: Lucas Alexander  
TITLE: Procurement Officer  
DATE: 6/23/2023

DocuSigned by:  
AUTHORIZED SIGNATURE:   
NAME: Joseph Humbertson  
TITLE: Managing Member  
DATE: 6/21/2023

**EXHIBIT A**  
**ARLINGTON COUNTY CONSTRUCTION GENERAL CONDITIONS**  
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**A. INTRODUCTION TO TERMS**

- 1) The term "Agreement" means the completed and signed Form of Contract Agreement.
- 2) The term "Award Date" means the date of execution of the Agreement by the Purchasing Agent.
- 3) The term "Business Day" shall refer to any day that the County is open for general business.
- 4) The term "Calendar Day" means any day of twenty-four hours measured from midnight to the next midnight. Included are weekends and holidays. When the term "Day" is used it shall be assumed to refer to a Calendar Day unless otherwise specified.
- 5) The term "Change Order" means a written order to the Contractor, signed by the Project Officer and the Contractor, which authorizes a change in the Work, and/or adjustment to the Contract Amount and/or an adjustment to the Time for Completion. A Change Order once signed by all the parties is incorporated into and becomes part of the Contract.
- 6) The term "Commencement Date" means the date on which the Time for Completion will commence for the Contractor to begin to perform his obligations under the Contract Documents as provided in the Notice to Proceed.
- 7) The term "Construction Change Directive" means a written order issued by the County directing a change in the Work prior to agreement on adjustment, if any, in the Contract Amount or Contract Time, or both.
- 8) The term "Contract Documents" means the Agreement and all the documents and Exhibits and/or Attachments identified therein which shall include the Drawings and the Specifications, and all modifications including amendments and subsequent Change Orders thereto properly incorporated in the Contract.
- 9) The terms "County" and "Contractor" shall mean the respective parties to the Contract. They shall be treated throughout the Contract Documents as though each were of the singular number and masculine gender. Only one Contractor is recognized as a party to this Contract.
- 10) The term "Critical Path Method or CPM" means a step-by-step project management technique for process planning that defines critical and non-critical tasks with the goal of preventing time-frame problems and process bottlenecks. An activity on the critical path cannot be started until its predecessor activity has been completed. is delayed then the entire project is delayed.
- 11) The term "Delay" means an event or condition that results in a work activity starting or being completed later than originally planned.

- 12) The term "Drawings" means all drawings pertaining to the Contract, including the Contract Drawings and Construction Notes which show and describe the locations, character, dimensions, and details of the Work to be performed under the contract.
- 13) The term "Field Order" is a written order to the Contractor, authorized by the Project Officer, which acknowledges a change in the Work that does not adjust the Contract Amount and does not adjust the Time for Completion.
- 14) The term "Final Acceptance" shall mean the date on which the County issues the final payment for the Work.
- 15) The term "Final Completion" shall mean the condition when the County agrees that all the Work has been fully completed in accordance with the Contract Documents and is acceptable. The date of the Final Completion of the Work under the Contract is the date on which Final Completion is accomplished.
- 16) The term "Float" shall represent the amount of time that a task in a project network or sequence can be delayed without causing a delay to: subsequent tasks ("free Float") or project completion date ("total Float"). Float shall belong to the County and shall be used for the successful completion of the Project within the Time for Completion.
- 17) The term "Limits of Disturbance (LOD)" shall represent the area within which land disturbing activities take place. Land disturbing activities include all actions that expose bare soil during construction.
- 18) The term "Limits of Work (LOW)" shall represent the area within which construction activities take place, including but not limited to the Limits of Disturbance area.
- 19) The term "Notice to Proceed" shall mean a written notice issued by the County to the Contractor stating the Commencement Date. The Notice to Proceed will specify the Time for Completion of the Contract.
- 20) The term "Project" means the entire proposed construction to be executed as stipulated in the Contract Documents
- 21) The term "Project Officer" means the County Project Officer assigned by the Director of the County Department responsible for the project, or the Director's designee. When a designee to act on behalf of the Project Officer is used by the County, the name of the designee and the duties and authority of such designee will be identified in the Contract Documents or in a written notice to the Contractor from the Project Officer responsible for the project. The designee may be a professional architect or engineer or other person employed by the County to perform construction services administration, design services, or project oversight.



- 22) The term "Punch List" means unfinished items of the construction of the Project, which unfinished items of construction are minor or insubstantial details of construction, mechanical adjustment or decoration remaining to be performed, the non-completion of which would not materially affect use of the Project, and which are capable of being completed within the time specified for Final Completion after Substantial Completion has been achieved.
- 23) The term "Request for Information" (RFI) means a request originated by the Contractor requesting clarification or additional information from the Project Officer and/or Architect/Engineer concerning information in the construction documents where the Contractor believes there is insufficient information or a conflict in the documents. RFI's shall be submitted by the Contractor sufficiently in advance of the Work to provide time for assessment and response without delay of the Work. Responses to RFI's shall not be construed as authorization for a Change Order.
- 24) The term "Schedule of Values" means a listing of the Contractor's total contract value by Construction Specifications Institute (CSI) divisions, including Division 1, Contractor's General Conditions.
- 25) The term "Site" refers to that portion of the property on which the Work is to be performed or which has otherwise been set aside for use by the Contractor.
- 26) The terms "Special Conditions" mean the written statements modifying or supplementing the Technical Specifications or General Conditions for requirements or conditions peculiar to the Contract.
- 27) The term "Specifications" means and shall include the Technical Specifications, the Special Conditions and all written agreements and instructions pertaining to the performance of the Work.
- 28) When used, the term "Stipulated Price Item" means and includes an item of Work, unanticipated or of unknown quantity at the time of issuance of the solicitation for a Bid and determined to be executed, based on the actual field conditions during the progress of Work under the Contract. The Unit Price for the "Stipulated Price Item", as identified in the "Stipulated Price Items" section of the Bid Form, is predetermined by the County as the current reasonably workable rate for the Item inclusive of all necessary labor, equipment, materials, overheads (provision and installation), and the contractor's profit.
- 29) The term "Subcontractor", shall include only those having a direct contract with the Contractor, and it shall include those who furnish material worked to a special design according to the plans and specifications for this Work but shall not include those who merely furnish material not so worked.

- 30) The term "Substantial Completion" shall mean the condition when the County agrees that the Work, or a specific portion thereof, is sufficiently complete, in accordance with the Contract Documents, so that it can be utilized by the County for the purposes for which it was intended. The date of Substantial Completion of the Work under the Contract is the milestone date on which Substantial Completion condition is accomplished.
- 31) The term "Technical Specifications" means that part of the Contract Documents that describe the quality of materials, method of installation, standard of workmanship, and the administrative and procedural requirements for the performance of the Work under the contract.
- 32) The term "Time for Completion" shall mean the time period set forth in the Agreement.
- 33) The term "Work" shall mean the services performed under this Contract including, but not limited to, furnishing labor, and furnishing and installing materials and equipment required to complete the Project specified in the Contract Documents.

**B. DRAWINGS, SPECIFICATIONS, RELATED DATA AND RECORDS KEEPING**

1. INTENT OF THE DRAWINGS AND SPECIFICATIONS

- a. It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, water haulage, light power, transportation, superintendence, temporary construction of all kinds, and other services and facilities of every nature whatsoever that are necessary to execute and deliver the Work, complete and usable within the scope of the Contract with all parts in working order, and all connections properly made.
- b. The general character and scope of the Work are illustrated by the Drawings and listed in the Specifications. Any additional drawings and or other instructions deemed necessary by the Project Officer or designee will be furnished to the Contractor when required for the Work and shall be incorporated into the Contract Documents.
- c. Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that direction, requirements, permission, or review of Project Officer or designee is intended unless stated otherwise. As used herein, "provide" shall be understood to mean "provide complete in place", that is, "furnish and install."
- d. Unless otherwise specifically noted, the word "similar" where it occurs in the Drawings, shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their locations and their connection with other parts of the Work.
- e. Materials or work described in words which, so applied, have a well-known technical, construction industry, or trade meaning, shall be held to refer to the recognized technical or trade meaning.
- f. The Contract Documents are complementary, and what is called for by any one document shall be as binding as if called for by all documents. In case of conflicting variance between the Contract Documents, the Order of Precedence stated in the Agreement shall govern. Figured dimensions on the plans shall be used; drawings shall not be scaled.
- g. Unless otherwise specifically noted, construction tolerances shall be to the numerical precision presented in the Contract Drawings.

2. DISCREPANCIES AND ERRORS

If the Contractor discovers any discrepancies between the Drawings and Specifications and the site conditions or any errors or omissions in the Drawings or Specifications, the Contractor shall at once, but in no event later than three calendar days after discovery of

the discrepancy or error, report them in writing to the Project Officer or designee. If the Contractor proceeds with any work that may be affected by such discrepancies, errors, or omissions, after their discovery, but before a clarification is provided, such work shall be at the Contractor's risk and expense. Issues affecting critical path activities shall be made known to the Project Officer or designee within one business day after discovery.

3. DIFFERING SITE CONDITIONS

The Contractor shall immediately, and before the conditions are further disturbed, give notice to the Project Officer of subsurface or latent physical conditions at the site which differ materially from those indicated in this Contract, or previously unknown physical conditions discovered at the site of an unusual nature and which differ materially from those ordinarily expected to be encountered at the site. Such notice shall be followed by a written notice provided within 48 hours of discovery.

The Project Officer will investigate the site conditions promptly after receiving the notice. If the conditions do materially differ to the extent that an increase or decrease would result in the Contractor's cost of the Work, or the time required for performing any part of the Work under the contract, an equitable adjustment may be made under this clause and the Contract modified in writing accordingly.

No request by the Contractor for an adjustment to the Contract under this clause shall be allowed, unless the Contractor has given the written notice required. If the Contractor proceeds with any work that may be affected by such differing site conditions before giving notice to the Project Officer as set forth herein, such work shall be at the Contractor's sole risk and expense.

No request by the Contractor for an adjustment to the contract for differing site conditions shall be allowed if made after Final Payment under the Contract.

4. COPIES FURNISHED

Except as provided for otherwise, copies of the Drawings and Specifications reasonably necessary for the execution of the Work will be furnished to the Contractor. One electronic copy of the Contract Drawings and Specifications will be provided by the Project Officer or designee to the Contractor.

5. USE OF CADD FILES

The Contractor may request Electronic CADD files related to the Work or the Project. The CADD files will be provided by the County only if the Contractor completes the Arlington County Electronic CADD Drawing Release Form, which form is then incorporated by reference into this Contract. Use of CADD files is at the Contractor's own risk and in no way alleviates Contractor's responsibility for the Work to conform to the Plans and Specifications.

6. DOCUMENTS ON THE JOBSITE

The Contractor shall keep on the site of the Project a copy of the Drawings and Specifications updated to include all authorized revisions and RFI responses, and

shall at all times give the County and its authorized representatives access thereto. The Contractor shall mark up the Drawings on a daily basis in red. The As-Built Drawings shall be submitted to the County at Substantial Completion as the Final As-Built Drawings.

7. OWNERSHIP OF DRAWINGS AND SPECIFICATIONS

All Drawings and Specifications and copies thereof furnished by the County are the property of the County and shall not be used on other projects. All copies of the Drawings and Specifications except the signed Contract sets shall be returned to the Project Officer or designee at Final Completion.

8. SUBMITTALS

- a. The term "submittals", as used herein, shall include fabrications, erection and setting drawings, manufacturers' standard drawings, schedules, descriptive literature, catalogs, brochures, performance and test data, wiring and control diagrams, and other descriptive data pertaining to the materials and equipment as required to demonstrate compliance with the Contract requirements.
- b. Unless other specified in the Specifications the Contractor shall submit for the review of the Project Officer or designee a listing of all submittals required by the Specifications or requested by the Project Officer or designee within fifteen (15) calendar days after receipt of the Notice to Proceed. This listing shall include due dates for each required submittal, coordinated with the project schedule such that adequate time is allotted for review and potential resubmittals, fabrication and delivery without causing delay. The Contractor bears all risk for delay associated with submittals not received in a timely manner.
- c. Submittals shall be submitted in such number of copies as established in the Specifications. Each submission shall be accompanied by a letter of transmittal, listing the contents of the submission and identifying each item by reference to specification section or drawing. All submittals shall be clearly labeled with the name of the project and such information as may be necessary to enable their complete review by the Project Officer or designee. Catalog plates and other similar material that cannot be so labeled conveniently shall be bound in suitable covers bearing the identifying data.
- d. Submittals shall be accompanied by all required certifications and other such supporting material, and shall be submitted in sequence or groups that all related items can be checked together. When submittals cannot be checked because a submission is not complete, or because submittals on related items have not been received by the Project Officer or designee, then such submittals will be returned without

action or will be held, not checked, until the missing material is received. Incomplete or defective submittals shall not be considered to have been submitted. Failure to deliver submittals within the specified time will not be grounds for additional time or compensation.

- e. Submittals shall have been reviewed by the Contractor and coordinated with all other related or affected work before they are submitted for review and acceptance and shall bear the Contractor's certification that the Contractor has checked and approved them as complying with all relevant information in the Contract Documents. Submittals submitted without such certification and coordination will be returned to the Contractor without action and will not be considered as a formal submission.
- f. If shop drawings show variations from the Drawings and Specifications because of standard shop practice or other reasons, the Contractor shall make specific mention of such variation in the Contractor's letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the Drawings and Specifications even though shop drawings have been accepted.
- g. The Project Officer or designee shall review the shop drawings with reasonable promptness. Review and/or acceptance of shop drawings will be general for conformance with the design concept of the Project and compliance with the information given in the Contract Documents, and will not include quantities, detailed dimensions, nor adjustments of dimensions to actual field conditions. Acceptance shall not be construed as permitting any departure from Contract requirements, as authorization of any increase in price nor as relieving the Contractor of the responsibility for any error in details, dimensions or otherwise that may exist. Review is not intended to relieve the contractor of full responsibility for the accuracy and completeness of the plans and calculations, or for the complete compliance with the contract documents. Contractor is solely responsible for the means and methods of the construction, including temporary items proposed for use.

9. SAMPLES

The Contractor shall submit to the Project Officer or designee, all samples required by the Specifications or requested by the Project Officer or designee. Samples shall be submitted in single units only, unless the Contractor desires additional units for the Contractor's own use. Each sample shall bear a label indicating what the material represented, the name of the producer and the title of the Project. Acceptance of a sample shall be only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents, and only for the characteristics or use named in such acceptance. Such acceptance shall not be construed to change or modify any Contract requirements or the Contract Price. Materials and equipment

incorporated in the Work shall match the accepted samples. The Contractor shall be responsible for researching the availability of the specified product in the dimensions and colors specified at no additional cost to the County. Failure of the Contractor to identify specified products that are not commercially produced within the time required for submittal transmittal in order to meet the project schedule shall not be entitled to additional time or compensation.

10. TESTS

Any specified tests of materials and finished articles shall be made by bureaus, laboratories or agencies approved by the Project Officer or designee and the certified reports of such tests shall be submitted to the Project Officer or designee. All tests shall be in compliance with the Specifications. All costs in connection with the testing and test failures shall be borne by the Contractor. Failure of any material to pass the specified tests or any test performed by the Project Officer or designee, will be sufficient cause for refusal to consider, under this Contract, any further materials of the same brand or make of that material. Samples of various materials delivered on the site or in place may be taken by the Project Officer or designee for testing. Samples failing to meet the Contract requirements will automatically void previous acceptance of the items tested. The Contractor will not be compensated for additional time and/or cost incurred in finding an acceptable replacement or the removal and replacement of the defective item.

11. MATERIALS AND EQUIPMENT LIST

- a. Unless otherwise specified in the Specifications, within thirty (30) days of the Commencement Date the Contractor shall submit to the Project Officer or designee a complete list of materials and equipment proposed for use in connection with the Project. Partial lists submitted from time to time will not be considered unless specifically approved by the Project Officer or designee.
- b. After any material or piece of equipment has been approved through submittal process, no change in brand or make will be permitted unless satisfactory written evidence is presented to prove that the manufacturer cannot make scheduled delivery of the accepted material, or that material delivered has been rejected and the substitution of a suitable material is an urgent necessity, or that other conditions have become apparent which indicate that acceptance of such other material is in the best interest of the County. The Contractor is solely responsible for the cost and time required to obtain and install a suitable replacement.

12. STANDARDS, SUBSTITUTIONS

- a. Any material specified by reference to the number, symbol or title of a specific standard, such as a Commercial Standard, a Federal

Specification, a Trade Association Standard, or other similar standard, shall comply with the requirements in the latest revision of the standards or specification and any amendment or supplement, except as limited to type, class or grade, or as modified in such reference. The standard referred to, except as modified in the Specifications, shall have full force and effect as though printed in the Specifications.

- b. Reference in the Specifications or on the Drawings to any article, device, product, material, fixture, form or type of construction by name, make or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as eliminating from competition other products of equal or better quality by other approved manufacturers. Otherwise, applications for acceptance of substitutions for the specified items will be considered only upon request of the Contractor, not of individuals, trades or suppliers, and only for a specific purpose; no blanket acceptance will be granted. No acceptance of a substitution shall be valid unless it is in written form and signed by the Project Officer or designee.
- c. If any proposed substitution will affect a correlated function, adjacent construction or the work of other contractors, then the necessary changes and modifications to the affected work shall be considered as an essential part of the proposed substitution, to be accomplished by the Contractor without additional expense to the County or an extension of the contract time, if and when accepted. Detail drawings and other information necessary to show and explain the proposed modifications shall be submitted with the request for acceptance of the substitution.

13. SURVEYS AND CONTROLS

Unless otherwise specified, the Contractor shall establish all baselines for the location of the principal component parts of the Work, establish a suitable number of benchmarks adjacent to the Work, and develop all detail surveys necessary for construction by a professional land surveyor licensed in the Commonwealth of Virginia. The Contractor shall carefully preserve benchmarks, reference points and stakes, and in the case of destruction thereof by the Contractor or due to the Contractor's negligence or the negligence of any subcontractor or supplier, the Contractor shall be responsible for expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the loss or disturbance of such benchmarks, reference points and stakes. The Contractor shall within 30 days of NTP perform a full site survey to verify all control points shown on the drawings against existing conditions within the site limits. Any discrepancies found during this effort shall be made known immediately to the Project Officer. Failure to perform this survey and provide proof and acceptance of Project datum, control points, and existing benchmarks will not give rise to any extensions to contract time or amount. The cost of all necessary surveying services shall be considered incidental to the work and, unless otherwise specified, shall be included in the cost of the Work.



14. AS-BUILT DRAWINGS

As-Built Drawings shall be the responsibility of the Contractor. The Contractor shall maintain and mark up one set of prints of the applicable Contract Drawings to portray as-built construction. The prints shall be neatly and clearly marked in red to show all variations between the Work actually provided and that indicated on the Contract Drawings, and all utilities encountered in the Work. All drafting shall conform to good drafting practice and shall include such supplementary notes, legends and details as may be necessary for legibility and clear portrayal of the as-built construction. These drawings shall be marked promptly upon any approved change to the Work or discovery of any undocumented utility or obstruction and shall be submitted to the Project Officer or designee in sufficient time to be approved no later than thirty (30) calendar days after the Substantial Completion Date. The final As-Built Drawings approved by the Project Officer or designee shall be submitted in paper copy and .pdf format electronic files prior to Final Completion. Unless otherwise required under the Contract Documents, incorporation of red-lined changes into CADD format shall be the responsibility of the Architect and/or Engineer of Record, with the exception being any documents prepared by the Contractor in CADD, the record version of which shall also be provided to the County in CADD format by the Contractor. Final payments will be held until the complete set of red-line drawings are submitted to and approved by the Project Officer.

15. WEB BASED RECORDS DOCUMENTATION

Unless instructed otherwise, the Contractor shall use the web based construction management tool, e-Builder for, but not limited to, submittals, record keeping and document storage of all construction files including, invoices, pay applications, RFIs, approved shop drawings, change orders, construction progress meeting minutes, warranties, equipment specifications and brochures, record drawings, automated alerts and reminders for all functions, and Operation and Maintenance (O&M) Manuals.

**C. COUNTY, COUNTY PROJECT OFFICER, AND CONTRACTOR RELATIONS**

1. STATUS OF COUNTY PROJECT OFFICER OR DESIGNEE

The Project Officer or designee shall be the County's representative during the construction period. All Contractor instructions or requests shall be issued from or submitted through the Project Officer or designee. The Project Officer or designee shall have authority to suspend the Work whenever such suspension may be necessary in the responsible opinion of the Project Officer or designee to ensure the proper execution of the Contract. The Project Officer or designee shall also have authority to reject all work and materials that do not conform to the Contract and to decide questions that arise in the execution of the Work. The County Project Officer or designee will, within a reasonable time, make decisions on all matters relating to the execution and progress of the Work.

2. LIMITATION ON COUNTY'S RESPONSIBILITIES

The County shall not supervise, direct, or have control or authority over, nor be responsible for: The Contractor's means, methods, techniques, sequences or procedures of construction; the safety precautions and programs related to safety, or the Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

3. DISPUTES

- a. All disputes or claims arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of Contract shall be submitted in writing to the Project Officer or designee as set forth in these General Conditions. Such claims must set forth in detail the amount of the claim, and shall state the facts surrounding it in sufficient detail to identify it together with its character and scope.
- b. Claims denied by the Project Officer shall be processed in accordance with the procedures outlined in Sections 7-107, Contractual Disputes and 7-108, Legal Actions of the Arlington County Purchasing Resolution and the Dispute Resolution paragraph in the Agreement.
- c. The Contractor shall not cause a delay in the work pending a decision of the Project Officer or designee, County Manager, County Board, or court, except by prior written approval of the Project Officer or designee.

4. INSPECTION OF WORK

The Project Officer or designee and representatives of any public authority having jurisdiction shall, at all times, have access to the Work while in progress. The Contractor shall provide suitable facilities for such access and for proper observation of the Work and shall conduct all special tests required by the Specifications, the Project Officer or designee's instructions, and any laws, ordinances or the regulations of any public

authority applicable to the work. Nothing in this section shall abrogate or otherwise limits or relieves the Contractor's independent duty to inspect the Work.

5. INSPECTION OF MATERIALS

All articles, materials, and supplies purchased by the Contractor for the Work are subject to inspection upon delivery to the site and during manufacturing or fabrication. The County reserves the right to return for full credit, at the risk and expense of the Contractor, all or part of the articles, materials, or supplies furnished contrary to Specifications and instructions. Nothing in this section shall abrogate or otherwise limit or relieve the Contractor's independent duty to inspect materials.

6. EXAMINATION OF COMPLETED WORK

If the Project Officer or designee requests it, the Contractor, at any time before acceptance of the Work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Specifications. Should the work thus exposed or examined prove acceptable, then the uncovering or removing, and the replacing of the covering or making good of the parts removed shall be paid for as extra work, but should the work so exposed or examined prove unacceptable, then the uncovering, removing and replacing shall be at the Contractor's expense.

7. RIGHT TO SUSPEND WORK

The County shall have the authority to suspend the Work, in whole or in part, for such periods and such reasons as the County may deem necessary or desirable. Any such suspension shall be in writing to the Contractor and the Contractor shall obey such order immediately and not resume the Work until so ordered in writing by the County. No such suspension of the Work shall be the basis for a claim by the Contractor for any increase in the Contract Amount provided that the suspension is for a reasonable time under the circumstances then existing. If the suspension of Work is caused by the County's belief that non-conforming work is being installed, and subsequent investigation proves that the Work was non-conforming, the Contractor shall not be awarded additional time or costs.

8. RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a 10-day period after receipt of written notice from the County or such shorter time as may be reasonable under the circumstances, to commence and continue correction of such default or neglect with diligence and promptness, the County may, without prejudice to other remedies the County may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including the County's expenses, and any additional architect or engineering costs necessary by Contractor's default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the County upon demand.

9. CONTRACTOR MANAGEMENT PERSONNEL

The Contractor shall keep a competent superintendent and any necessary assistants on the Site at all times during progress of the Work and such persons shall be satisfactory to the Project Officer or designee. The superintendent or project manager shall not be changed except with the Project Officer or designee's consent. If the Project Officer determines that the superintendent or project manager is no longer satisfactory, then the superintendent or project manager must be replaced within 15 days of the Project Officer's written notice with a replacement superintendent or project manager with equal or superior qualifications and subject to Project Officer approval.

The superintendent and project manager shall represent the Contractor and all directions given to such persons shall be as binding as if given to the Contractor. The Contractor shall at all times enforce strict discipline and good order among the workers performing under this Contract, and shall not employ on the Work any person not reasonably proficient in the Work assigned. Persons permitted to perform Work under Contractor, or any subcontractor, or sub-subcontractor, shall meet all employment eligibility, safety training, security or drug/alcohol testing requirements required by law or by the County. Any person not complying with all such requirements shall be immediately removed from the Site.

The Contractor shall have a qualified and experienced person who can clearly communicate technical matters regarding the subject project. This person shall be available via phone to respond to emergency situations on the project 24 hours a day.

10. DRUG-FREE POLICY

The Contractor is responsible for ensuring that the Site remains a drug-free site. Contractor will require that employees undergo random drug/alcohol screening on a quarterly interval. Any employee who fails the test must be removed from the Site immediately. Random screening shall be performed by a third party licensed to do so in the Commonwealth of Virginia. The Contractor shall provide its random testing policy and schedule to the Project Officer within 30 days of Notice to Proceed. The Contractor will include this provision in every subcontract relating to this Contract. Any infraction by an employee of the Drug-Free policy shall be reported to the Project Officer within 24 hours.

11. LANDS BY COUNTY

The County shall provide access to the lands shown on the Drawings upon which the Work under the Contract is to be performed and to be used for rights of way and for access. In case all the lands, rights-of-way or easements have not been obtained as herein contemplated before construction begins, then the Contractor shall begin its work on such lands and rights-of-way that the County has acquired access to. No additional time or compensation shall be awarded to the Contractor for modifying work location and sequence provided other locations are available for work.

Contractor shall verify the acquisition of all off-site easements and Rights-of-Way prior to the start of off-site construction. Restore all off-site easements to the conditions existing prior to the start of work.

The Contractor shall confine all activities at the site associated with construction activities, to include storage of equipment and or materials, access to the work, formwork, etc. to within the designated Limits of Disturbance (LOD).

12. LANDS BY CONTRACTOR

If the Contractor requires additional land or lands for temporary construction facilities and for storage of materials and equipment other than the areas available on the site or right-of-way, or as otherwise furnished by the County, then the Contractor shall provide such other lands and access thereto entirely at the Contractor's own expense and without liability to the County. The Contractor shall not enter upon private property for any purpose without prior written permission of all of the persons and entities who own the property. The Contractor shall provide copies of all agreements to the County and shall include language in the agreement indemnifying and holding the County harmless for any damages, repairs, restoration or fees associated with the use of the property. Upon termination of the agreement, the Contractor shall provide to the County a fully executed release from the property owner.

13. PROTECTION OF WORK AND PROPERTY

- a. The Contractor shall continuously maintain and protect all of its Work from damage and shall protect the County's property from damage or loss arising in connection with this Contract until Substantial Completion. After Substantial Completion, the maintenance or protection of any incomplete or remedial Work identified on the punch list that requires maintenance or protection in order to allow for the final completion and acceptance of such Work shall be the responsibility of the Contractor until Final Completion. The Contractor shall make good any such damage or loss, except such as may be caused by agents or employees of the County. Failure to adequately protect the Work shall not be grounds for additional compensation for any maintenance and/or repairs to such Work.
- b. The Contractor shall not place upon the Work, or any part thereof, any loads which are not consistent with the design strength of that portion of the Work.
- c. The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, etc., along and adjacent to the street and/or right-of-way, and shall use every precaution to prevent damage to pipes, conduits and other underground structures, curbs, pavements, etc., except those to be removed or abandoned in place and shall protect carefully from disturbance or damage all monuments and property marks until an authorized agent has witnessed or otherwise

referenced their location and shall not remove them until directed. Any damage which occurs by reason of the operations under this Contract, whether shown or not on the approved construction plans, shall be completely repaired or replaced to the County's satisfaction by the Contractor at the Contractor's expense. The Contractor shall be responsible for all damages caused by their construction activities.

- d. Prior to commencing construction activity at the Site, the Contractor shall videotape the Site and an additional fifty (50) feet outside the perimeter of the Site. Contractor shall submit a copy of high resolution digital recording on a DVD or flash drive to the County. The recording shall be stable, continuous, and contain all items within the limits of Work. Submission of the DVD to the County shall be a condition precedent to any obligation of the County to consider an Application for Payment. The DVD shall be the property of the County, and the County shall be permitted to reproduce such DVD's and use the same for any purpose without limitation or claim of ownership or compensation from any party. Contractor shall incorporate the cost of the preconstruction survey in the bid amount or the unit prices of the bid items, as applicable. No additional payment will be made by the County.
- e. The Contractor shall shore, brace, underpin, secure, and protect, as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site that may be affected in any way by excavations or other operations connected with the work required under this Contract. The Contractor shall be responsible for giving any and all required notices to owners or occupants of any adjoining or adjacent property or other relevant parties before commencement of any work. Contractor shall provide all engineering (signed and sealed) for items listed in this section per the Specifications. The Contractor shall indemnify and hold the County harmless from any damages on account of settlements or loss of all damages for which the County may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- f. In an emergency affecting the safety of life or of the Work, or of adjoining property, the Contractor, without special instruction or authorization from the Project Officer or designee, or the County, is hereby permitted to act, at the Contractor's discretion, to prevent such threatened loss or injury, and the Contractor shall so act without appeal, if so instructed or authorized.
- g. The Contractor shall contact "Miss Utility" at 811 for marking the locations of existing underground utilities (i.e. Water, sewer, gas, telephone, electric, and cable tv) at least 72 hours prior to any excavation or construction. The Contractor is required to identify and protect all other utility lines found in the work site area belonging to other owners that are not members of "Miss Utility". Private water

and/or sewer laterals will not be marked by "Miss Utility" or the County. The Contractor shall locate and protect these services during construction.

14. SEPARATE CONTRACTS

- a. The County reserves the right to let other contracts in connection with this Project. The Contractor shall afford other contractors reasonable access to the Project including storage of their materials and the execution of their work, and shall properly connect and coordinate its work with the work of other such contractors.
- b. If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the Project Officer or designee any defects in such work that renders it unsuitable for such proper execution and results. The Contractor's failure to so inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of the Contractor's work, except as to defects which may develop in other contractor's work after its execution.
- c. If the Contractor or any of the Contractor's subcontractors or employees cause loss or damage to any separate contractor on the Work, the Contractor agrees to settle or make every effort to settle or compromise with such separate contractor. If such separate contractor sues the County on account of any loss so sustained, the County shall notify the Contractor, who shall indemnify and save the County harmless against any expense, claim or judgment arising therefrom, including reasonable attorney's fees.
- d. In case of a dispute arising between two or more separate contractors engaged on adjacent work as to the respective rights of each under their respective contracts, the Project Officer shall determine the rights of the parties.

15. SUBCONTRACTS

- a. Unless otherwise specified, the Contractor shall, within fifteen (15) calendar days after the execution of the Contract by the County, provide to the Project Officer or designee, in writing, the names of all subcontractors proposed for the principal parts of the Work and for such others as requested by the Project Officer or designee, and shall not employ any subcontractors that the Project Officer or designee may object to as incompetent or unfit after an appropriate determination of the subcontractor's ability. No proposed subcontractor will be disapproved except for cause.

- b. The Contractor shall make no substitutions for any subcontractor previously selected/approved unless first submitted to the County for approval.
- c. The Contractor shall be as fully responsible to the County for the acts and omissions of the Contractor's subcontractors as the Contractor is for the acts and omissions of persons directly employed by the Contractor.
- d. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind subcontractors to the Contractor by the terms of the General Conditions of the Contract, Special Provisions and other Contract Documents comprising the Contract insofar as such documents are applicable to the work of subcontractors.
- e. Nothing contained in the Contract shall be construed to create any contractual relation between any subcontractor and the County, nor shall it establish any obligation on the part of the County to pay to, or see to the payment of any sums to any subcontractor. The County will not discuss, negotiate or otherwise engage in any contractual disputes with any subcontractor.
- f. If requested by the County, the Contractor shall replace any subcontractor at no cost to the County within 30 days of the Project Officers written notice or as otherwise specified. No additional time or compensation will be provided in the event a subcontractor is removed due to non-compliance of the requirements outlined within the Contract.

16. ELIMINATED ITEMS

If any item(s) in the Contract are determined to be unnecessary for the proper completion of the Work contracted, the Project Officer or designee may, upon written notice to the Contractor, eliminate such item(s) from the Contract. Payment will not be made for such item(s) so eliminated; except that the Contractor will be compensated for the actual cost of any work performed and the net cost of materials purchased before the item(s) was eliminated from the Contract, including freight and tax costs, as evidenced by invoice. No additional compensation will be made for overhead or anticipated profit. The County will receive the full unit price credit for work eliminated prior to production or installation.

17. COUNTY ORDINANCES

The Contractor shall comply with all applicable County ordinances, including but not limited to: the *Noise Control*, *Erosion & Sediment Control*, *Storm Water Management*, and *Chesapeake Bay Preservation ordinances (Chapters 15, 57, 60, and 61 of the County Code)*.



**D. MATERIALS AND WORKMANSHIP**

1. MATERIALS FURNISHED BY THE CONTRACTOR

Unless otherwise specified, all materials and equipment incorporated in the Work under the Contract shall be new. All work shall be accomplished by persons qualified in the respective trades.

2. IBC AND VUSBC REQUIREMENTS

The Contractor certifies that all material supplied or used under this Contract meets all current International Building Code (IBC) requirements and the requirements of the Virginia Uniform Statewide Building Code (VUSBC); and further certifies that, if the material delivered or used in the performance of the work is found to be deficient in any of the applicable state or national code requirements, all costs necessary to bring the material into compliance with the requirements shall be borne by the Contractor. The County shall be entitled to offset such costs against any sums owed by the County to the Contractor under this Contract.

3. ADA COMPLIANCE

The Contractor shall ensure that all Work performed under this Agreement is completed in accordance with the Contract Documents, including Work intended to meet the accessibility requirements of the Americans with Disabilities Act (ADA).

The Contractor is not required to ascertain whether the Contract Documents meet ADA design standards and guidelines. However, should the Contractor discover any non-conformity with such requirements, the Contractor shall immediately inform the County and its design consultant, if applicable, to allow for corrective action.

The Contractor shall defend and hold the County harmless from any expense or liability arising from the Contractor's non-compliance in meeting its obligations herein. The Contractor shall be responsible for all costs related to permitting delays, redesign, corrective Work, and litigation relating to such non-compliance.

4. MANUFACTURER'S DIRECTIONS

Manufactured articles, material, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's directions as accepted by the Project Officer or designee, unless herein specified to the contrary.

5. WARRANTY

All material provided to the County shall be fully guaranteed by the Contractor against manufacturing defects within the period of the manufacturer's standard warranty. Such defects shall be corrected by the Contractor at no expense to the County. The Contractor shall provide all manufacturers' warranties to the Project Officer by the date of Final Completion.

All Work is guaranteed by the Contractor against defects resulting from the use of inferior or faulty materials. The Contractor warrants that the Work will conform to the

requirements of the Contract Documents and will be free from defects or inferior or faulty workmanship, or work not in accordance with the Contract Documents for one (1) year from the date of Substantial Completion or as set forth in the Specifications of the work by the County in addition to and irrespective of any manufacturer's or supplier's warranty.

No date other than Substantial Completion or as set forth in the Specifications shall govern the effective date of the Warranty, unless that date is agreed upon by the County and the Contractor in advance and in a signed writing.

The Contractor shall promptly correct any defective work or materials after receipt of a written notice from the County to do so. If the Contractor fails to proceed promptly or use its best efforts and due diligence to complete such compliance as quickly as possible, the County may have the materials or work corrected and the Contractor and its Sureties shall be liable for all expenses and costs incurred by the County.

Nothing contained in this section shall be construed to establish a period of limitations with respect to other obligations the Contractor may have under this Contract.

6. INSPECTION AND ACCEPTANCE OF MATERIALS

Inspection and acceptance by the County will be at the work site in Arlington County, Virginia and within ten (10) calendar days of delivery unless otherwise provided for in the Contract Documents. The County will not inspect, accept, or pay for any materials stored or delivered off-site by the Contractor, except as provided by the Payment for Stored Materials clause of these General Conditions and other requirements of the Contract Documents. The County's right of inspection shall not be deemed to relieve the Contractor of its obligation to ensure that all articles, materials and supplies are consistent with Specifications and instructions and are fit for their intended use. The County reserves the right to conduct any tests or inspections it may deem appropriate before acceptance. The Contractor shall be responsible for maintaining all materials and supplies in the condition in which they were accepted until they are used in the work.

The Contractor is to coordinate its work and request inspections in such a manner as to minimize the cost to the County without impacting the overall schedule of the Project within reason. All costs associated with re-inspection shall be borne by the Contractor.

7. CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the work shall be purchased by the Contractor or any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that it has good title to, and that it will require all subcontractors to warrant that they have good title to, all materials and supplies for which the Contractor invoices for payment. The County may request proof of title or payment prior to acceptance of the Contractor's invoice.

8. TITLE TO MATERIALS AND WORK COVERED BY PARTIAL PAYMENTS

All material and work covered by partial payments made by the County will become the property solely of the County at the time the partial payment is made. However, risk of

loss or damage to all items shall be the responsibility of the Contractor until Final Acceptance by the County. This provision will not be construed as relieving the Contractor from having sole responsibility for all materials and work upon which payments have been made and for the restoration of any damaged work or replacement or repair at the County's option of any damaged materials. This provision will not be construed as a waiver of the County's right to require fulfillment of all terms of the Agreement, including full rights under the terms of the Warranty provisions of the Agreement, nor shall payment indicate acceptance of the materials or work.

9. CONNECTING WORK

The Contractor shall do all cutting, patching, or digging of the Contractor's work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors as shown upon or reasonably implied by the Drawings and Specifications for the completed Project and shall make good after them as the Project Officer or designee may direct. This work will be performed in a workmanlike manner utilizing proper care and equipment to achieve proper line and grade. The Contractor shall not endanger any work by cutting, patching, or digging, or otherwise, and shall not cut or alter the work of any other contract except with the prior written consent of the Project Officer or designee.

10. REJECTED WORK AND MATERIALS

- a. Any of the Work or materials, goods, or equipment which do not conform to the requirements of the Contract Documents, or are not equal to samples accepted by the Project Officer or designee, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, shall be rejected and replaced immediately so as not to cause delay to the Project or work by others. Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, shall be removed and the work shall be re-executed by the Contractor at the Contractor's expense. The fact that the Project Officer or designee may have previously overlooked such defective work shall not constitute acceptance of any part of it.
- b. If the Contractor fails to proceed at once with the replacement of rejected material and/or the correction of defective workmanship when notified to do so by the Project Officer or designee, the County may, by contract or otherwise, replace such material or correct such workmanship and charge the cost to the Contractor. This clause applies during the Contract and during any warranty or guarantee period.
- c. The Contractor shall be responsible for managing, addressing within a timely manner, and formally closing out all notices of non-compliance issued by the inspector of record, Arlington County Inspection Services, or the Design Team. The Contractor shall be solely liable for any costs or time associated with the corrective action to address any notices of non-compliance. The Contractor must work directly with the entity issuing the notice of non-compliance.

- d. If the Project Officer or designee deems it expedient not to require correction of work which has been damaged or not done in accordance with the Contract, an appropriate adjustment to the Contract Price may be made.

11. PROHIBITION AGAINST ASBESTOS CONTAINING MATERIALS

No goods or equipment provided to the County or construction material installed shall contain asbestos. If a Contractor or supplier provides or installs any goods, equipment, supplies, or materials that contain asbestos in violation of this prohibition, the Contractor shall be responsible for all costs related to the immediate removal and legal disposal of the goods, equipment or materials containing asbestos and replacement with County-approved alternate. The Contractor shall be responsible for all goods, equipment, supplies or materials installed or provided by any of its employees, agents or subcontractors in connection with the work under this contract. The Contractor shall also reimburse to the County all costs of such goods, equipment, supplies or materials installed if not corrected by the Contractor.

**E. LEGAL RESPONSIBILITY AND PUBLIC SAFETY**

1. SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and locations of the work of the Contract, and that it has investigated and satisfied itself as to the general and local conditions and factors which can affect the Work or its cost, including but not limited to:

- a. conditions bearing upon transportation, disposal, handling, and storage of materials;
- b. the availability of labor, water, electric power, and roads;
- c. uncertainties of weather, river stages, tides, or similar physical conditions at the site;
- d. the information and conditions of the ground; and
- e. the character of equipment and facilities needed before and during work performance.

The Contractor, by executing the Contract, represents that it has reviewed and understands the Contract Documents and has notified the County of and obtained clarification of any discrepancies which have become apparent during the bidding period. During the Contract, the Contractor must promptly notify the County in writing of any apparent errors, inconsistencies, omissions, ambiguities, construction impracticalities or code violations discovered as a result of the Contractor's review of the Contract Documents including any differences between actual and indicated dimensions, locations and descriptions, and must give the County timely notice in writing of same and of any corrections, clarifications, additional Drawings or Specifications, or other information required to define the Work in greater detail or to permit the proper progress of the Work. The Contractor must provide similar notice with respect to any variance between its review of the Site and physical data and Site conditions observed. If the Contractor performs any Work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission or code violation in the

Contract Documents of which the Contractor is aware, or which could reasonably have been discovered, without prompt written notice to the County and request for correction, clarification or additional information, as appropriate, the Contractor does so at its own risk and expense and all related claims are specifically waived.

The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the County, as well as from the Drawings and Specifications made a part of this Contract. Unless otherwise specified, all existing structures, materials and obstructions that interfere with the new construction shall be removed and disposed of as part of this Contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the Work without additional expense to the County.

The locations of existing utilities, including underground utilities, which may affect the Work, are indicated on the Drawings or in the Specifications insofar as their existence and location were known at the time of preparation of the drawings. However, nothing in these Drawings or Specifications shall be construed as a guarantee that such utilities are in the location indicated or that they actually exist, or that other utilities are not within the area of the operations. The Contractor shall make all necessary investigations to determine the existence and locations of such utilities. Should uncharted or incorrectly charted utilities be encountered during performance of the Work, notify the Project Officer or designee immediately for instructions. The Contractor will be held responsible for any damage to and maintenance and protection of existing utilities and structures, of both public and private ownership. However, if it is determined that such existing utility lines or structures require relocation or reconstruction or any other work beyond normal protection, then such additional work will be ordered under the terms of the clause entitled "Changes in Work." At all times, cooperate with the County and utility companies to keep utility services and facilities in operation.

The County assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the County. The County assumes no responsibility for any understanding reached or representation made concerning conditions which can affect the Work by any of its officers or agents before the execution of this Contract, unless that understanding or representation is expressly stated in this Contract.

2. PUBLIC CONVENIENCE

The Contractor shall at all times so conduct its Work as to ensure the least possible obstruction to traffic (vehicular, bicycle and pedestrian) and inconvenience to the general public, County employees, and the residents in the vicinity of the Work. Traffic shall be maintained in accordance with the approved Maintenance of Traffic (MOT) plan. No road, street or sidewalk shall be closed to the public except with the permission of the Project Officer or designee and or proper governmental authority. Fire hydrants on or adjacent to the Work shall be kept accessible to firefighting equipment at all times. Temporary provisions shall be made by the Contractor and included in the cost of

the Work to ensure the use of sidewalks, trails, and transit facilities compliant with all applicable ADA and other regulations, as well as the proper functioning of all gutters, drainage inlets, drainage ditches, and irrigation ditches, which shall not be obstructed except as approved by the Project Officer or designee.

The Contractor is responsible for securing its work area for safety and security. The Contractor shall confine its construction and presence to the Limits of Work, unless otherwise approved by the County Project Officer.

3. SAFETY AND ACCIDENT PREVENTION

The Contractor shall comply with, and ensure that the Contractor's employees and subcontractors comply with, all current applicable local, state and federal policies, regulations and standards relating to safety and health, including, by way of illustration and not limitation, the U.S. Department of Labor's Occupational Safety and Hazard Administration (OSHA) Construction Industry Regulations, the standards of the Virginia Occupational Safety and Health program of the Department of Labor and Industry for General Industry and for the Construction Industry, the Federal Environmental Protection Agency Standards and the applicable standards of the Virginia Department of Environmental Quality.

The Contractor shall provide, or cause to be provided, all technical expertise, qualified personnel, equipment, tools and material to safely accomplish the Work specified to be performed by the Contractor and subcontractor(s).

The Contractor shall identify to the County Project Officer at least one on-site person who is the Contractor's competent, qualified, and authorized safety officer on the worksite and who is, by training or experience, familiar with and trained in policies, regulations and standards applicable to the work being performed. The competent, qualified and authorized person must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, shall be capable of ensuring that applicable safety regulations are complied with, and shall have the authority and responsibility to take prompt corrective measures, which may include removal of the Contractor's personnel from the work site.

The Contractor shall provide to the County, within 7 days of issuance of the Notice to Proceed, a copy of the Contractor's written safety policies and safety procedures applicable to the scope of work. Failure to provide this information within may result in cancellation of the Contract.

The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all injury to persons and damage to property either on or off the site, which occur as a result of the Contractor's prosecution of the Work.

The Contractor shall take or cause to be taken such additional safety and health measures as the County may determine to be reasonably necessary. Machinery, equipment, and all hazards shall be guarded in accordance with the safety provisions of

the current version of "Manual of Accident Prevention" published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable local laws. The Contractor is directed to the "Rules and Regulations Governing Construction, Demolition and All Excavation" and adopted by the Safety Codes Commission of Virginia, 1966, or latest edition, covering requirements for shoring, bracing, and sheet piling of trench excavations.

4. HAZARDOUS MATERIALS

Arlington County is subject to the Hazard Communication Standard, 29 CFR §1910.1200 (Standard). The Contractor agrees that it will provide or cause to be provided Safety Data Sheets (SDS) required under the Standard for all hazardous materials supplied to the County or used in the performance of the work. Such SDS shall be delivered to the County no later than the time of actual delivery of any hazardous materials to the County or use of such material in the performance of work under the Contract by the Contractor or its subcontractors, whichever occurs first. Container labeling meeting the requirements of the Standard shall be appropriately affixed to the shipping or internal containers. The County reserves the right to refuse shipments of hazardous materials not appropriately labeled, or when SDS have not been received prior to or at the time of receipt of the shipment for use by the County or for use by the Contractor in the performance of the Contract, or whenever the material is delivered in a manner inconsistent with any applicable law or regulation. Any expenses incurred due to the refusal or rejection of SDS are the responsibility of the Contractor. The Contractor shall comply with all federal, state, and local laws governing the storage, transportation, and use of toxic and hazardous materials. The Contractor shall maintain onsite an up to date SDS binder for all material used and delivered to the Project. The County Project Officer or his designee shall be allowed access to the SDS book at all times.

5. HAZARDOUS WASTE

Hazardous Waste Generator/Hazardous Waste Disposal: The County Board of Arlington County, Virginia and the Contractor shall be listed as Co-generators. The Contractor shall assume all the duties pertaining to the Waste Generator, including signing the Waste Shipment Record ("WSR") and manifest. The Contractor shall supply the County Project Officer with the executed original Owner's Copy of the WSR, as required by applicable regulatory agencies within 35 days from the time the waste was accepted by the initial waste transporter, and prior to request for final payment. A separate WSR shall be submitted for each shipment to the disposal site.

Delayed Waste Shipment Records: The Contractor shall report in writing to the EPA Region III office within 45 days if an executed copy of the WSR is not received from the operator of the disposal site. The report to the EPA regional office shall include a copy of the original WSR and a cover letter signed by the Contractor stating the efforts taken to locate the hazardous waste shipment and the results of those efforts.

Temporary Hazardous Waste Storage Prohibited: The Contractor shall not temporarily store hazardous waste unless pre-approved by the County in writing. If so approved, hazardous waste stored off-site in a temporary facility shall be monitored and records shall be kept on the number of containers, size, and weight. The Contractor shall inform the County when the hazardous waste is to be transported to the final disposal site. The

County has the right to inspect the temporary site at any time. The Contractor shall submit copies of all relevant manifests, Waste Shipment Record(s), and landfill receipts to the County Project Officer prior to the request for final payment. All paperwork shall be signed by the Contractor and disposal site operator as required.

6. ASBESTOS

Whenever and wherever during the course of performing any work under this Contract the Contractor discovers the presence of asbestos or suspects that asbestos is present, the Contractor shall stop work immediately, secure the area, notify the County Project Officer immediately and await positive identification of the suspect material. During the downtime in such a case, the Contractor shall not disturb any surrounding surfaces but shall protect the area with suitable dust covers. Work shall not proceed without an Asbestos-Related Work Authorization executed by the County Asbestos Program Manager.

7. CROSSING UTILITIES

When construction crosses highways, railroads, streets, waterways, or utilities under the jurisdiction of State, County, City, or other public agency, public utility, or private entity, the Contractor shall secure written permission where necessary from the proper authority before executing such new construction. A copy of such written permission must be filed with the County before any work is started. The Contractor shall be required to furnish a release from the proper authority before Final Acceptance of the Work.

8. OVERHEAD HIGH VOLTAGE LINES SAFETY ACT

If any work required herein will be performed within ten feet of an overhead high voltage line, the provisions of Virginia Statute 59.1-406, et. seq., "Overhead High Voltage Line Safety Act" (Act) shall apply. The "person or contractor responsible for the work to be done", as that term is used in the Act, will be interpreted to mean the Contractor. The Contractor shall notify the owner or operator of the high voltage line in the manner prescribed in Section 59.1-411 of the Act in sufficient time prior to the time work is to be commenced to avoid any delays in the work. The County will not pay for lost time, profits, or permit any extension of the work for any delays caused by the failure of the Contractor to make such arrangements in a timely manner. All costs for the work shall be paid by the Contractor. The County shall reimburse the Contractor for the actual reasonable cost paid to the owner or operator of the high voltage line by the Contractor on presentation to the County by the Contractor of original invoices from the owner or operator of the high voltage line in the same manner as for other Contractor invoices submitted for work performed. Retention, if applicable to the Contract, shall not be withheld from the payment to the Contractor by the County for this work. No processing, administrative, or other charges above the actual amount charged by the owner or operator of the high voltage line shall be paid to the Contractor by the County.

9. SANITARY PROVISIONS

The Contractor shall provide and maintain such sanitary accommodations for the use of the Contractor's employees and those of its subcontractors as may be necessary to



comply with the requirements and regulations of OSHA and of the local and State departments of health.

10. SITE CLEAN-UP AND WASTE DISPOSAL

The Contractor shall frequently remove and properly dispose of all refuse, rubbish, scrap materials, and debris from the site resulting from the Contractor's operations during the performance of this contract. The Contractor shall ensure the work site presents a neat and orderly appearance at all times. The Contractor shall isolate any and all dumpsters, trash cans and recycling bins provided for the Project from public use until Final Acceptance.

Unless otherwise stated, the Contract Amount and any unit prices shall include all costs and fees for removal and disposal of all waste and debris, whether disposed of at a County site or at any other location.

The Contractor shall remove all surplus material, false work, temporary structures including foundations thereof, and debris resulting from the Contractor's operations at work completion and before Final Acceptance. The County shall reserve the right to remove the surplus material, false work, temporary structures including foundations and debris. The County will restore the site to a neat, orderly condition if the Contractor fails to do so. The County shall be entitled to offset such cost against any sums owed by the County to the Contractor under this Contract.

11. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

When the Project includes an approved SWPPP, the Contractor shall strictly abide by this plan which includes: a Pollution Prevention (P2) Plan, an Erosion and Sediment Control (E&S) Plan, and a Stormwater Management Plan. If the Contractor proposes to deviate from this approved plan, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes.

No separate payment shall be made by the County for SWPPP implementation, with the exception of E&S items as specified on the E&S plans or listed as pay items. The Contractor shall not be entitled to any additional payment for changes to the SWPPP which are the result of the Contractor's work schedule or resource allocation, weather delays, or other factors not controlled by the County.

**F. PROGRESS AND COMPLETION OF THE WORK**

1. NOTICE TO PROCEED

The Contractor shall be given written Notice to Proceed with the Work. Such Notice to Proceed shall state the date on which the Work is to be commenced, and every calendar day thereafter shall be counted in computing the actual Time for Completion.

2. TIME FOR COMPLETION

It is hereby understood and mutually agreed by and between the Contractor and the County that the Commencement Date, the rate of progress, and the Time for

Completion of the Work to be done hereunder are essential conditions of the Contract. The Contractor agrees that the Work shall be started promptly upon receipt of a written Notice to Proceed in accordance with the accepted schedule. The Work shall be prosecuted regularly, diligently, and uninterruptedly at a rate of progress that will ensure full completion of the Project within the Time for Completion specified in the Contract Documents.

3. SCHEDULE OF COMPLETION

Unless otherwise specified, the Contractor shall within 10 business days after the Award Date, or prior to the pre-construction meeting, whichever occurs first, submit schedules which show the order in which the Contractor proposes to carry on the Work, with dates for starting and completing the various activities of the Work. The Contractor shall submit an updated schedule monthly with the request for partial payment. Review and acceptance by the County of the Contractor's schedule of completion shall in no way relieve the Contractor of its responsibility to complete the Work within the contract time. If the Work falls behind the schedule, the County may require the Contractor to prepare and submit, at no extra cost to the County, a recovery schedule indicating by what means the Contractor intends to regain compliance with the schedule. The recovery schedule must be submitted to the County for review by the date indicated in the County's written demand.

4. CONDITIONS FOR COMPLETION

- a. **SUBSTANTIAL COMPLETION:** The Work will be considered Substantially Complete when all of the following conditions have been met and accepted by the Project Officer, and a Certificate of Substantial Completion has been issued:
1. The Contractor has provided formal notice that the Work is substantially complete, and the Project Officer has agreed that the condition of the Work warrants a Substantial Completion inspection;
  2. The Contractor has provided a Punch List and that list has been reviewed and approved by the Project Officer. Failure to include an item on the Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents;
  3. Final test reports as required by the Contract and certificates of inspection and approval required for use and occupancy;
  4. Fire Marshal's report, if applicable;
  5. Approval forms and transfer documents for all utilities;
  6. All life safety systems, including fire alarms, visual and audios alarms, fire detectors and fire alarm annunciator system, sprinkler systems, and all mechanical and electrical systems are complete and working in an automatic mode, and the County has been adequately trained in the operation of the systems;

7. The HVAC system Testing and Balancing Report and build air quality test results as required for LEED certification have been accepted by the Project Officer;
  8. Operation and Maintenance Manuals have been submitted for review;
  9. All documents and verification of training required in accordance with any Commissioning Plan;
  10. Mark-ups of construction drawings showing the As-Built or "Record" condition have been submitted for review and approval by the Project Officer;
  12. Entrances and egress pathways have been constructed and can remain clear of construction activities;
  13. A Certificate of Occupancy has been issued for the space by the County's Inspection Services Division;
  14. All Commissioning has performed and completed to the satisfaction of the Project Officer; and
  15. Schedule to complete the Punch List and value of Work not yet complete.
- b. Upon the Contractor providing notice that the Work is substantially complete, the Project Officer or designee will invite all relevant parties to perform an inspection of the Work, and any noted deficiencies or incomplete items not indicated on the Contractor's punch list will be added. All punch list items, whether generated by the Contractor or any other party on behalf of the County, shall be completed within thirty (30) days of the date of Substantial Completion, unless otherwise agreed to by the County due to seasonal or other extenuating circumstances.
- c. FINAL COMPLETION: The Work will be considered Finally Complete when all of the following conditions have been met and accepted and a Final Completion Notice has been issued by the Project Officer:
1. The Contractor has provided formal notice that the Work is complete, and the Project Officer has agreed that the condition of the Work warrants a Final Completion inspection;
  2. All construction deficiencies and punch list items have been closed and all construction deficiencies corrected and accepted by the Project Officer;

3. All spare parts and attic stock have been delivered, stored in an orderly manner in a space designated by the Project Officer and a complete inventory list has been verified and accepted by the Project Officer;
4. All warranties and manufacturer certificates and contact information for parties providing warranties have been delivered and accepted by the Project Officer;
5. All final Operating and Maintenance manuals have been delivered and approved and accepted by the Project Officer;
6. All final As-Built Drawings in .pdf format on a CD delivered and accepted by the Project Officer;
7. All commissioning has been completed and any open construction items in the commissioning agent's report have been closed and accepted by the Project Officer; and
8. All LEED documents and submittals, if applicable, to be provided by the Contractor or sub-contractors have been submitted and accepted by the Project Officer.

5. USE OF COMPLETED PORTIONS

The County shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding that the time for completing the entire Work or such portions may not have expired; but taking such possession and use shall not be deemed an acceptance of any work not done in accordance with the Contract Documents. If the Contractor claims that such prior use increases the cost or delays, the completion of remaining work, or causes refinishing of completed work, the Contractor may submit a claim for compensation or extension of time, or both.

**G. MEASUREMENT AND PAYMENT**

1. PAYMENTS TO CONTRACTOR

The County will make partial payments, less retainage, to the Contractor monthly on the basis of the Contractor's written estimate of the work performed during the preceding calendar month as approved by the Project Officer or designee.

The Contractor's application for payment shall indicate the amount of work completed to date in a format consistent with the accepted bid and as indicated below:

- a. Lump Sum: For lump sum contracts, the Contractor shall provide to the Project Officer a Schedule of Values, and the application for payment will reflect the Schedule of Values and the amount of work completed in those units.

For contracts that include multiple lump sum line items, the application for payment shall reflect the percentage of work completed for each lump sum item. If requested by the Project Officer, the Contractor shall provide a Schedule of Values for each lump sum line item in the contract.

- b. Unit Price: The schedule of unit prices in the accepted bid shall be used as the basis for preparing the estimates, and each partial payment shall represent the total value of all units of work completed, computed at the unit prices stated in the Contract, less the aggregate of previous payments.

At the discretion of the Project Officer, payments may alternatively be based on actual quantities and site measurements taken in the field by County staff using the Contract Unit Prices.

If Stipulated Price Items are included in the contract, Work on such Stipulated Price Items shall be carried out only upon written order by the Project Officer. The payment for a Stipulated Price Item shall be made by the County to the Contractor at the related unit price specified in the 'Stipulated Price Items' section of the Bid Form on the same basis as the payment for any other regular Bid Item.

In addition to the amount of work completed to date, the application for payment shall indicate the aggregate of all previous payments for each line item, the retainage previously withheld, and the total payment requested this period.

The Contractor's application for payment will not be reviewed or processed unless an updated schedule is attached. The pay application shall also contain a certification by the Contractor that due and payable amounts have been paid by the Contractor, including payments to subcontractors, for work which previous payment was received by the Contractor from the County.

5. PAYMENT FOR STORED MATERIALS

When requested in writing by the Contractor, payment allowances may be made for material secured for use on the Project and secured at the project site. Such payments will only be made for materials scheduled for incorporation into the work within sixty (60) days.

Payment for materials stored offsite may be considered at the discretion of the Project Officer. Any such request shall be made in writing, and the Contractor shall provide photographs of materials stored offsite, bills of sale, and proof of insurance on the premises at which off-site materials are stored with the application for payment. Payment for stored materials may also be subject to additional requirements contained elsewhere in the Contract Documents.

3. PAYMENTS WITHHELD

The Project Officer or designee may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate for payment to the extent necessary to protect the County from loss on account of defective work not remedied or withhold payment for violation of any contract term or condition not remedied after sufficient notice given to the Contractor.

Any such withholding shall not result in any liability to the Contractor for damages.

4. COUNTY ORDERED CHANGES IN WORK

The County, without invalidating the Contract, may order extra Work or make changes by addition, deletion or revision in the Work, with the total Contract Amount being adjusted accordingly if applicable. All such work shall be executed under the conditions of the original Contract, except that modification of the Time for Completion caused thereby shall be made at the time of approving such change.

- a. Changes in the Work which do not involve extra cost and are not inconsistent with the purpose of the Project can be directed by means of a Field Order. Otherwise, except in an emergency endangering life or property, no extra Work or change shall be made unless in pursuance of a written Construction Change Directive or Change Order and no claim for an addition to the Contract Amount or Contract Time shall be valid unless so ordered.
- b. The Contractor shall review any County requested or directed change and shall respond in writing within 14 days after receipt of the proposed change stating the effect of the proposed change upon Contractor's work, including any increase or decrease in Contract time and price. The Contractor shall furnish the County an itemized breakdown of the quantities and prices used in computing the proposed change. The Contractor shall also furnish any sketches, drawings, and or pictures to properly explain the change or impact to the Project Officer. It is the sole responsibility of the Contractor to provide adequate change order backup to satisfy the Project Officer.

- c. The value of any such extra work or change shall be proposed by the Contractor in one or more of the following ways: (a) by estimate in a lump sum; (b) by cost and fixed fee; (c) by unit price additions or deletions of quantities stated in the unit price contract; or (d) by any other method permitted under the Arlington County Purchasing Resolution. The Project Officer will determine the method appropriate based on the nature of the changes.
  
- d. If none of the aforementioned methods is agreed upon the Contractor shall proceed with the work without delay under force account, provided the Contractor receives a Construction Change Directive. In such case, the Contractor shall keep and present in such form as the Project Officer or designee may direct, a correct account of the cost, together with vouchers. The Project Officer or designee shall be permitted to verify such records on a daily basis and may require such additional records as are necessary to determine the cost of the change to the Work. The Project Officer or designee shall certify to the amount due to the Contractor, including a reasonable lump sum allowance for overhead and profit. A complete accounting of the extra cost shall be made within 14 days after completion of the work involved in the claim. Refer to Paragraph G.5, *Force Account Work*, below for a description of allowable costs when work is performed under force account.
  
- e. A cost proposal for a change in the Work shall provide a complete breakdown itemizing the estimated quantities and costs of labor, materials, and equipment (base cost) required in addition to any markup used. The allowable percentage markups for overhead and profit for a non-force account change to the Work performed by the Contractor's own forces or performed by the Subcontractor shall be negotiated based on the nature, size, and complexity of the Work involved but shall not exceed the percentages for each category listed below.
  - 1) Subcontractor's markup for overhead and profit for the work it performs in a change to the Work shall be a maximum of fifteen (15%).
  - 2) Contractor's markup for overhead and profit on the Subcontractor's base cost in a change to the Work shall be a maximum of ten percent (10%).
  - 3) Contractor's markup for overhead and profit (including bonds and insurance) for work it performs in a change to the Work shall be a maximum of fifteen percent 15%.
  - 4) The markup for overhead and profit of a sub-subcontractor at any tier on a change to the Work it performs shall be a maximum of fifteen percent (15%). The Contractor and all intervening tiers of subcontractors' markup on such sub-subcontractor's base cost in the change to the Work shall not exceed a total of ten percent (10%).
  
- f. Base Cost is defined as the total of labor, material, and equipment costs, it does not include markup for overhead and profit. The labor costs include only the

costs of employees directly constructing or installing the change in the Work and exclude the costs of employees coordinating or managing the work.

- g. The allowable percentage markups for overhead and profit stated above shall compensate the Contractor, subcontractor, and sub-subcontractor for all other costs associated with or relating to the change to the Work including by way of illustration and not limitation, general conditions, supervision, field engineering, coordination, insurance, bond(s), use of small tools, incidental job costs, and all other general and administrative home and field office expenses.
- h. Allowable costs for changes in the Work shall not include home office expenses including payroll costs for the Contractor's officers, executives, administrators, project managers, estimators, clerks timekeepers, and other administrative personnel employed by the Contractor, whether at the Site or in the Contractor's principal or branch office for general administration of the Work. These costs are deemed overhead included in the percentage markups in Subsection (e) above.
- i. If the change to the Work also changes the Time for Completion by adding days to perform the Work, an itemized accounting of the following Site direct overhead expenses for the change to the time may be considered as allowable costs for compensation in addition to the base cost indicated above:
  - 1) site superintendent's pro-rata salary
  - 2) temporary site office trailer expense
  - 3) temporary site utilities including basic telephone service, electricity, heat, water, and sanitary/toilet facilities.

All other direct and indirect overhead expenses are considered covered by and included in Subsection (e) markups above. In no case shall subcontractor extended overhead be submitted or considered. The County does not have a direct contractual relationship with any subcontractor or supplier and therefore will not direct, discuss or negotiate with subcontractors employed by the Contractor.

- j. If Contractor requests an extension to the Time for Completion due to changes in the Work it must provide to the Project Officer adequate documentation substantiating its entitlement for the time extension. The documentation must demonstrate an anticipated actual increase in the time required to complete the Work beyond that allowed by the Contract as adjusted by prior changes to the Work, not just an increase or decrease in the time needed to complete a portion of the total Work. In the event a Critical Path Method (CPM) schedule is required by the Contract, no extension to the Time for Completion shall be granted unless the additional or change to the Work increases the length of the critical path beyond the Time for Completion as demonstrated on the approved CPM schedule or bar chart schedule. Any Float belongs to Arlington County. A written statement in addition to a CPM analysis shall be prepared explaining how no other sequence of work activities could have been performed to



decrease the impact or eliminate the impact altogether. If requested by the Project Officer the Contractor must provide alternate documentation detailing the claim to the County's satisfaction.

- k. Any change that will increase the Contract Amount more than 10% will require notice to sureties and require that Performance and Payment Bonds be increased by the Contractor. The increased Performance and Payment Bonds must be sent to the County's Office of the Purchasing Agent within 15 calendar days of the County's approval of such change.

5. FORCE ACCOUNT WORK

A Force Account may be used at the County's discretion and only when either 1) agreement on the valuation of a change cannot be made using the methods described in the preceding paragraph, *County Ordered Changes in the Work*, or 2) the County cannot firmly establish an applicable and acceptable estimate for the cost of the work because the level of effort necessary to perform and complete the work cannot be reasonably estimated or anticipated but can only be determined by performing the work. Because of the significant burden on the County to monitor and control the work, Force Account work is not a preferred method, and it shall be the responsibility of the Contractor to provide all necessary documentation and justification of costs. The rates for labor, equipment and materials to be used in cases of work performed on a force account basis will be compensated as documented below. No costs other than those explicitly listed below shall be allowed:

- a. Labor: Before any Force Account work begins, the Contractor shall submit for approval to the Project Officer the proposed hourly rates and associated labor costs (benefits and payroll burden) for all laborers and forepersons to be engaged in the work. The number of laborers and forepersons engaged in the work will be subject to regulation by the Project Officer and shall not exceed the number that the Project officer deems most practical and economical for the work. For all labor and forepersons in direct charge of the force account work, excluding general superintendence, compensation will be as follows:
  - 1) Certified Pay Rate: The Contractor will receive the actual rate of wage or scale as set forth in his most recent payroll for each classification of laborers, and forepersons who are in direct charge of the specific operation. The time allowed for payment will be the number of hours such workers are actually engaged in the work. If overtime work is authorized by the County, payment will be at the normal overtime rate set forth in the Contractor's most recent payroll.
  - 2) Benefits: The Contractor will be entitled to receive the actual cost for any fringe benefits that are regularly provided to the classes of laborers and forepersons engaged in the work and that are not included in the certified pay rate.

- 3) Payroll Burden: The Contractor will be entitled to receive the actual cost for all costs associated with required payroll taxes and payroll benefits not covered in 2) above, including:
    - Social Security Tax
    - Medicare Tax
    - Unemployment Tax
    - Worker's Compensation Insurance
    - Contractor's Public Liability Insurance
    - Contractor's Property Damage Liability Insurance
  - 4) If the Contractor is unable to provide the necessary documentation for Benefits and Payroll Burden as identified above, the Contractor will be entitled to an additive of 20% of the Certified Hourly Pay Rate as full and final compensation for Benefits and Payroll Burdens
  - 5) Overhead and Profit: The Contractor will be entitled to an additive of 10% on all properly documented and approved costs established in paragraphs 1), 2), 3), and 4) above for all administrative, overhead, and profit associated with labor costs.
  - 6) Subsistence and lodging allowances may be allowed by the Project Officer at the actual and documented costs for lodging and meals if the following conditions are met and the applicable rates and authorization for such costs are established prior to beginning the work. No additives for overhead, administrative, profit, or any other costs will be permitted for subsistence and lodging.
    - i. The specific Force Account work is outside the scope of the original contract, requires mobilization of a separate crew not intended to be used on the original contract, and the Contractor's base location is more than 50 miles from the work site, or
    - ii. Forces which have been working on the Contract will be used for the Force Account work and have been routinely staying overnight during the life of the Project, and the Force Account Work will warrant an extension of the contract time, and the distance from the Contractor's base location to the work site is more than 50 miles
- b. Materials: The Contractor will receive the actual cost of materials accepted by the Project Officer that are delivered and used for the work including taxes, transportation, and handling charges paid by the Contractor, not including labor and equipment rentals as herein set forth, to which 15 percent (15%) of the cost will be added for administration and profit. The Contractor shall make every reasonable effort to take advantage of trade discounts offered by material suppliers. Any discount received shall pass through to the County. Salvageable temporary construction materials will be retained by the County, or their appropriate salvage value shall be credited to the County, at the County's

discretion.

- c. Equipment: For all equipment other than small tools, the Contractor will be entitled to rental rates as established herein, and agreed to in writing before the work is begun. Transportation costs directly attributable to Force Account work will be as stated below. Small tools will be considered any equipment which has a new cost of \$1000 or less, and will not be eligible for any compensation. The Contractor shall provide the Project Officer a list of all equipment to be used in the work. For each piece of equipment, the list shall include the serial number; date of manufacture; location from which equipment will be transported; and, for rental equipment, the rental rate and name of the company from which it is rented. The number and types of equipment engaged in the work will be subject to regulation by the Project Officer as deemed to be the most practical and economical for the work. No compensation will be allowed for equipment which is inoperable due to mechanical failure. Compensation for equipment shall be as follows:
- 1) Hourly Base Equipment Rental Rates (Owned Equipment) – For equipment authorized for use in the Force Account work that is owned by the Contractor, the Contractor shall be entitled to an Hourly Base Rental Rate as detailed in the following paragraphs. The Hourly Base Rental Rate for Contractor owned equipment will not exceed 1/176 of the monthly rates of the schedule shown in the *Rental Rate Blue Book* modified in accordance with the *Rental Rate Blue Book* rate adjustment tables that are current at the time the force account is authorized. The rates for equipment not listed in the *Rental Rate Blue Book* schedule shall not exceed the hourly rate being paid for such equipment by the Contractor at the time of the force account authorization. In the absence of such rates, prevailing rates being paid in the area where the authorized work is to be performed shall be used.
  - 2) Hourly Base Equipment Rental Rates (Rented Equipment) – If the Contractor does not possess or have readily available equipment necessary for performing the force account work and such equipment is rented from a source other than a company that is an affiliate of the Contractor, payment will be based on actual invoice rates when the rates are reasonably in line with established rental rates for the equipment in question and are approved by the Project Officer.
  - 3) Hourly Operating Rates – Hourly Operating Rates shall be as established in the Blue Book estimated operating cost per hour. This operating cost will be full compensation for fuel, lubricants, repairs, servicing (greasing, fueling, and oiling), small tools, and any and all incidentals. If rental rates for the equipment being used in the work are not listed in the Blue Book or otherwise readily available, the Hourly Operating Cost will be 15% of the established Hourly Base Rental Rate. If invoices for Rental Equipment include the furnishing of fuel, lubricants, repair, and

servicing, then the Contractor will not be entitled to any Hourly Operating costs for that equipment.

- 4) Equipment Usage - Equipment usage will be measured by time in hours of actual time engaged in the performance of the work. The Contractor shall be entitled to the applicable Hourly Base Equipment Rental Rate and Hourly Operating Rate for all approved Equipment Usage.
  - 5) Equipment Standby – Standby time is defined as the period of time equipment authorized for Force Account work by the Project Officer is available on-site for the work but is idle for reasons not the fault of the Contractor or normally associated with the efficient and necessary use of that equipment in the overall operation of the work at hand. Hourly rates for Contractor owned equipment on standby, will be at 50 percent (50%) of the rate paid for equipment performing work. Operating costs will not be allowed for equipment on Standby. When equipment is performing work less than 40 hours for any given week and is on standby, payment for standby time will be allowed for up to 40 hours, minus hours performing work. Payment for Standby will be allowed only for working days. Payment for Standby will not be made for the time that equipment is on the Project in excess of 24 hours prior to its actual performance in the force account work.
  - 6) Transporting Costs – When it is necessary to obtain equipment exclusively for Force Account work from sources beyond the Project limits and the Project Officer authorizes the transporting of such equipment to the Project site, the cost of transporting the equipment will be allowed as an expense. Where the transport requires the use for a hauling unit, the allowable expense will consist only of the actual cost incurred for the use of the hauling equipment, or the applicable Blue Book cost, whichever is less. When equipment is transferred under its own power, the allowable Transporting cost shall be 50% of the Hourly Base Equipment Rental Rate.
  - 7) Overhead and Profit – The Contractor shall be entitled to an additive of 10% on all appropriate and approved Equipment Rental, Operating, and Transporting costs as defined above.
- d. Subcontracting: The Contractor shall receive the cost of work performed by a subcontractor as determined in (a), (b), and (c) above. In addition, the Contractor will be allowed an allowance per the schedule below for administrative costs and profit.

Total Cost of Subcontract Work: Rate Schedule

\$0 - \$10,000	10%
> \$10,000	\$1,000 + 5 % above \$10,000

- e. Other Costs: The Contractor shall not be entitled to any costs associated with Force Account Work other than those specifically identified in this section.
- f. Statements: Payments will not be made for work performed on a force account basis until the Contractor has furnished the Project Officer duplicate itemized statements of all costs of such work detailed as follows:
  - 1. Payroll indicating name, classification, date, daily hours, total hours, rate, and extension of each laborer, foreperson
  - 2. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of equipment
  - 3. Quantities of materials, prices, and extensions
  - 4. Transportation of materials
  - 5. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the Force Account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his stock; that the quantity claimed was actually used; and that the price, transportation, and handling claimed represented his actual cost.

6. CLAIMS FOR EXTRA COST

If the Contractor claims that any event will give rise to a claim for an increase in the Contract Amount or that any instructions from the Project Officer, by drawings or otherwise, will incur him extra cost under the Contract, then, except in emergencies endangering life or property, it shall give the Project Officer written notice thereof no later than three (3) days of the event or instruction. The Contractor thereafter must provide to the Project Officer a full cost proposal within 14 days detailing the amount of additional compensation claimed, together with the basis therefore and documentation supporting the claimed amount. No such claims shall be valid unless so made. If the Project Officer agrees that such event or instructions involve extra cost to the Contractor, any additional compensation will be determined by one of the methods provided in the Changes in Work paragraph of these General Conditions as selected by the Project Officer. All pricing and supporting documentation requirements of the Changes in the Work clause shall apply to claims for extra cost deemed valid under this paragraph.

7. DAMAGES FOR DELAY; EXTENSION OF TIME OTHER THAN FOR WEATHER

a. Excusable Non-Compensable Delays: If and to the extent that the Contractor is delayed at any time in the progress of the Work by a Force Majeure event or other causes outside of the County's control or the Contractor's control and which the Contractor could not have reasonably foreseen, the Contractor may request an extension of the Time for Completion. To be considered for an extension of the Time for Completion, the Contractor shall give the Project Officer timely written notice at the inception of the delay. The Contractor thereafter must provide to the Project Officer a full claim within 14 calendar days of the cessation of the delay and demonstrate that the delay affected the critical path of the accepted schedule and any Float has been consumed. If the Project Officer

agrees with the existence and impact of the delays, the Project Officer shall extend the Time for Completion for the length of time that the Time for Completion was actually delayed thereby. The Contractor shall not be due compensation or damages of any kind as a result of such delay. Delays caused by weather are addressed in Section G.8.

b. Excusable Compensable Delays: If and to the extent that the Contractor is unreasonably delayed at any time in the progress of the Work by any act or omission of the County, its agents or employees, due to causes within the County's control, the Contractor may request an extension of the Time for Completion and/or additional compensation. The Contractor shall give notice to the Project Officer immediately at the time of the occurrence giving rise to the delay and shall give written notice no later than five (5) calendar days after the inception of the delay. The Contractor's written notice shall specify the nature of the delay claimed, the cause of the delay, and the impact of the delay on the Contractor's schedule. Thereafter the Contractor shall provide to the Project Officer a full claim within 14 calendar days of the cessation of the delay. The claim must detail the amount of additional contract time or compensation claimed, together with the basis therefor along with itemized documentation supporting the claim. The itemized documentation must demonstrate that the claimed delay directly affected the critical path of the accepted schedule and any Float has been consumed and the time and/or costs incurred by the Contractor are directly attributable to the delay in the work claimed. The Contractor shall be entitled to additional compensation only if the delay was caused solely by acts or omission of the County, its agents or employees, or due to causes within their control.

If the Contractor is entitled to compensation, an itemized accounting of the following direct site overhead expenses will be considered as allowable costs to be used in determining the compensation due the Contractor: the site superintendent(s) (as identified at the inception of the work) pro rata salary, temporary site facilities, temporary site office expense, and temporary site utilities including basic telephone service, electricity, heat, water, and sanitary/toilets. A fifteen percent (15%) markup of these expenses will be allowed to compensate the Contractor for home office and other direct or indirect overhead.

Furthermore, compensation for the delay shall be calculated from the contractual Time for Completion, as adjusted by Change Order, and shall not be calculated based on any early completion planned or scheduled by the Contractor

c. Non-Excusable Non-Compensable Delays: The Contractor shall not be entitled to an extension of the Time for Completion or to any additional compensation for delays if and to the extent they are caused by acts, omissions, fault, or negligence of the Contractor or its subcontractors, agents, or employees or due to foreseeable causes within their control, including, but not limited to, delays resulting from defective work, including workmanship and/or materials, from rejected work which must be corrected before dependent work can proceed, from defective work or rejected work for which corrective action must be determined before like work can proceed, from incomplete,

incorrect, or unacceptable Submittals or samples, or from the failure to furnish enough properly skilled workers, proper materials or necessary equipment to diligently perform the work in a timely manner in accordance with the Project schedule.

d. No extension of time or additional compensation shall be given for a delay if the Contractor failed to give notice in the manner and within the time prescribed herein. Furthermore, no extension of time or additional compensation shall be given for any delay unless a full claim is made to the Project Offer within 14 days of the end of the delay. Failure to give written notice or failure to present a timely claim shall constitute a waiver of any claim for extension or additional compensation based upon that cause.

e. If the Contractor submits a claim for damages pursuant to this Section, the Contractor shall be liable to the County for a percentage of all costs incurred by the County in investigating, analyzing, negotiating and litigating the claim, which percentage shall be equal to the percentage of the Contractor's total delay claim that is determined through litigation to be false or to have no basis in law or fact (Virginia Code §2.2-4335).

f. Any change in the Time for Completion or additional compensation shall be accomplished only by the issuance of a Change Order.

8. TIME EXTENSIONS FOR WEATHER

The Contractor's sole relief on any claims for delay which is caused by abnormal weather shall be an extension of the Time for Completion provided the Contractor gave the Project Officer written notice no later than five (5) calendar days after the onset of such delay and provided the weather affected the Critical Path. A fully-documented claim for a time extension under this Section must be submitted no later than thirty (30) calendar days after the cessation of the delay. It shall be the Contractor's responsibility to provide the necessary documentation to satisfy the Project Officer that the weather conditions claimed were encountered, which may include daily reports by the Contractor, copies of notification of weather days to the Project Officer, NOAA backup, and pictures from each day claimed.

The Time for Completion will not be extended due to inclement weather conditions which are normal, as defined below, for Arlington County. The Time for Completion includes an allowance for workdays (based on five (5) day workweek) which according to historical data may not be suitable for construction work. The Contractor may request extension to the Time for Completion if it can demonstrate unusual and disruptive weather conditions per the requirements below:

- a. That one or more of the Weather Conditions listed below was encountered; and,
- b. The occurrence of the Weather Condition(s) resulted in an inability to prosecute work which would have otherwise been performed on the day(s) the Weather Condition(s) occurred; and,
- c. The work which was not able to be completed was on the Critical Path and could not be completed **only** due to the Weather Condition(s) claimed.

The Project Officer will determine the Contractor’s entitlement to an extension of the Time for Completion. A time extension of no more than one (1) day will be granted for one (1) day of lost work which satisfies the requirements above, regardless of the number of Weather Conditions encountered. The Contractor’s sole relief shall be an extension of the Time for Completion and no claim for an increase in Contract Amount will be allowed.

The Weather Conditions listed below will be the only basis for consideration by the County, based upon the requirements listed above, as an extension of the Time for Completion due to inclement weather or weather-related site conditions.

**Weather Condition #1: Unusually Heavy Precipitation** - Figure 1 illustrates the anticipated monthly inclement weather due to precipitation (Rain Days). If the number of days with precipitation in excess of 0.10”, as recorded at Washington Reagan National Airport, exceeds the anticipated Rain Days, the Contractor will be entitled to an extension of one (1) day on the Time for Completion for every day in excess of the Rain Days illustrated in Figure 1. The anticipated value of Rain Days for partial months at the beginning and end of the Contract shall be evaluated on a pro-rated basis.

**FIGURE 1**

Average days with precipitation of 0.1” or more

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7	6	7	6	8	6	7	6	6	5	6	6

Weather days are not exclusive to the individual months that they represent in Figure 1. If weather days are not used in a previous month(s) they can be used to offset weather delays in subsequent months. This will be reviewed on a case by case basis and is subject to reconciliation at the end of the Project.

**Condition #2: Temperature** – The Contractor may be entitled to an additional day for every day that the recorded high temperature at Washington Reagan National Airport is 32 degrees Fahrenheit or less, that has not already been incurred under Weather Condition #1 above. This condition does not apply to vertical construction as defined by the Arlington County Vertical Construction Standards.

9. RELEASE OF LIENS

The County, before making final payment, shall require the Contractor to furnish a complete release of all liens arising out of this Contract. The Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the County, to indemnify him against any lien. If any lien remains unsatisfied after all payments have been made, the Contractor shall refund to the County all money that the latter may be compelled to pay in discharging such lien. However, the County may make payments in part or in full to the Contractor without requiring the releases or receipts, and the payments so made shall not impair the obligations of any Surety or Sureties on any bond or bonds furnished under this Contract.



10. FINAL PAYMENT

After the Contractor has completed all work and corrections to the satisfaction of the Project Officer or designee and delivered all maintenance and operating instructions, schedules, quantities, bonds, certificates of inspection, maintenance records, As-Built Drawings, and other items required as final payment submittal documents, the Contractor may make application for final payment following the procedure for progress payments. The Final Application for Payment shall be accompanied by all documents required in the Contract, including a complete and signed and notarized copy of the Final Payment Release Form as follows:

**RELEASE AND REQUEST FOR FINAL PAYMENT**

CONTRACT NUMBER: \_\_\_\_\_ CONTRACTOR NAME: \_\_\_\_\_

FINAL PAYMENT AMOUNT: \_\_\_\_\_

The Contractor hereby requests final payment in the amount indicated on the above referenced Contract. The Contractor agrees that its acceptance of final payment releases and forever discharges Arlington County and its officers, employees, servants and agents from any and all actions, claims, demands and liability of whatever nature now existing or which may hereafter arise as a result of or in connection with the above referenced Contract.

The Contractor certifies that all of the debts for labor, materials, and equipment incurred in connection with the above referenced Contract have been fully paid.

AUTHORIZED SIGNATURE DATE: \_\_\_\_\_

The date of Final Acceptance is the date on which the County issues the final payment for the work performed.

COMMONWEALTH OF VIRGINIA

COUNTY OF ARLINGTON

On this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me, personally appeared \_\_\_\_\_, who acknowledged himself/herself to be \_\_\_\_\_ in the above instrument, and that he/she, as such \_\_\_\_\_, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing his/her name by himself/herself as \_\_\_\_\_.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

#### **IV. INSURANCE REQUIREMENTS**

Review this section carefully with your insurance agent or broker prior to submitting a bid or proposal. See the Insurance Checklist (part of the Bid or Proposal Forms) for specific coverages applicable to this Contract. The term "Contract," as used in this section, shall mean the fully executed Agreement covering the work entered into between the County and the Contractor.

##### **1. General**

- 1.1 The Contractor shall provide insurance as specified in the Insurance Checklist found on the last page of the bid or proposal form.
- 1.2 The Contract with the Contractor will not be executed by the County until the Contractor has obtained, at its own expense, all of the insurance called for hereunder and such insurance has been approved by the County; additionally, the Contractor shall not allow any subcontractor to start work on any subcontract until all insurance required of the subcontractor has been so obtained and approved by the Contractor. The Contractor shall submit to the County Purchasing Agent copies of all required endorsements and documentation of coverage consistent with the requirements herein or, alternately, at the County's request, certified copies of the required insurance policies in compliance with the insurance requirements. All endorsements and documentation shall state this Contract's number and title.
- 1.3 The Contractor shall require all subcontractors to maintain during the term of this Agreement, Commercial General Liability insurance, Business Automobile Liability insurance, and Workers' Compensation, Employers' Liability insurance, or any other insurance required by the Contract in the same manner and form as specified for the Contractor. The Contractor shall furnish subcontractors' evidence of insurance and copies of endorsements to the County Purchasing Agent immediately upon request by the County and/or prior to the subcontractor's performance of work related to this Contract.
- 1.4 If there is a material change or reduction in coverage, nonrenewal of any insurance coverage or cancellation of any insurance coverage required by this contract, the Contractor shall notify the Purchasing Agent immediately. It is the Contractor's responsibility to notify the County upon receipt of a notice indicating that the policy will not be renewed or will be materially changed. Any policy on which the Contractor has received notification from an insurer that the policy has or will be cancelled or materially changed or reduced must be immediately replaced with another policy consistent with the terms of this Contract and in such a manner that there is no lapse in coverage, and the County immediately notified of the replacement. Not having the required insurance throughout the Contract is considered a material breach of this Contract and grounds for termination. The Contractor shall also obtain an endorsement providing to the County thirty (30) days advance notice of cancellation or nonrenewal (ten days for nonpayment of premium. A copy of that endorsement shall be provided to the County Purchasing Agent prior to the execution of this Contract or any Contract extension thereafter.
- 1.5 No acceptance and/or approval of any insurance by the County shall be construed as relieving or excusing the Contractor, any surety, or any bond, from any liability or obligation imposed under this Agreement.
- 1.6 Arlington County, and its officers, elected and appointed officials, employees, and agents are to be listed as additional insureds under all coverages except Workers' Compensation, Professional

Liability, and Automobile Liability, and the endorsement must clearly identify the County as an additional insured permitted to enjoy all the benefits under the applicable policy of insurance. The certified policy, if requested, must so state coverage afforded under this paragraph shall be primary as respects the County, its officers, elected and appointed officials, agents and employees. The following definition of the term "County" applies to all policies issued under the Contract and to all applicable endorsements:

"The County Board of Arlington County and any affiliated or subsidiary Board, Authority, Committee, or Independent Agency (including those newly constituted), provided that such affiliated or subsidiary Board, Authority, Committee, or Independent Agency is either a Body Politic created by the County Board of Arlington County, Virginia, or one in which controlling interest is vested in Arlington County; and Arlington County Constitutional Officers."

- 1.7 The Contractor shall be responsible for the work performed under the Contract Documents and every part thereof, and for all materials, tools, equipment, appliances, and property of any description used in connection with the work. The Contractor assumes all risks for direct and indirect damage or injury to the property or persons used or employed on or in connection with the Work contracted for, and of all damage or injury to any person or property wherever located, resulting from any action, omission, commission or operation under the Contract, or in connection in any way whatsoever with the contracted work.
- 1.8 The insurance coverage required shall remain in force throughout the Contract or as otherwise stated in the Contract Documents or these Insurance Requirements. If the Contractor fails to provide acceptable evidence of current insurance within seven (7) days of written notice at any time during the Contract, the County shall have the absolute right to terminate the Contract without any further obligation to the Contractor.
- 1.9 Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the County from supervising or inspecting the work as to the end result. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it and of the subcontractors and any persons employed by the subcontractor and/or carriers delivering and receiving materials from the Project.
- 1.10 If any policy contains a warranty stating that coverage is null and void (or words to that effect) if the Contractor does not comply with the most stringent regulations governing the work, such policy shall be modified so that coverage shall be afforded in all cases except for the Contractor's willful or intentional noncompliance with applicable government regulations.
- 1.11 All policies shall include the following language: "The insolvency or bankruptcy of the insured or of the insured's estate will not relieve the insurance company of its obligations under this policy."
- 1.12 All policy forms must "Pay on behalf of" rather than "Indemnify" the insured.
- 1.13 Nothing contained in these Insurance Requirements or the Contract Documents shall be construed as creating any contractual relationship between any subcontractor and the County. The Contractor shall be as fully responsible to the County for the acts and omissions of its subcontractors and of persons employed by them as it is for acts and omissions of persons directly employed by it.

- 1.14 Precaution shall be exercised by the Contractor at all times for the protection of persons, (including employees) and property. All existing structures, utilities, roads, services, trees and shrubbery shall be protected against damage or interruption of service at all times by the Contractor and its subcontractors during the term of the Contract, and the Contractor shall be held responsible for any damage to property occurring by reason of its work under the Contract whether identified on the Contract Documents or not.
  - 1.15 For any claims related to this work, The Contractor's insurance shall be deemed primary and non-contributory to all other applicable coverage and in particular with respect to Arlington County, its representatives, officials, employees, and agents. Any insurance or self-insurance maintained by Arlington County shall be excess and noncontributory of the Contractor's insurance. The Contractor shall waive its right of subrogation for all insurance claims.
  - 1.16 If the Contractor does not meet the insurance requirements set forth by the Contract Documents, alternate insurance coverage or self-insurance, satisfactory to the Purchasing Agent, may be considered. Written requests for consideration of alternate coverages including the Contractor's most recent actuarial report and a copy of its self-insurance resolution to determine the adequacy of the insurance funding must be received by the County Purchasing Agent at least ten (10) working days prior to the date set for receipt of bids or proposals. If the County denies the request for alternate coverages, the specified coverages will be required to be submitted. If the County permits alternate coverage, an Addendum to the Insurance Requirements will be prepared and distributed prior to the time and date set for receipt of bids or proposals.
  - 1.17 All required insurance coverages must be acquired from insurers authorized to do business in the Commonwealth of Virginia and acceptable to the County. The insurers must also have a policyholders' with a rating of "A-VII" in the latest edition of the A.M. Best Co.'s Insurance Reports, unless the County grants specific approval for an exception, in the same manner as described in 1.16 above.
  - 1.18 The Contractor shall be responsible for payment of any deductibles applicable to the coverages.
  - 1.19 The Contractor must disclose the amount of any deductible or self-insurance component applicable to the General Liability, Automobile Liability, Professional Liability, Intellectual Property or any other policies, if any. The County reserves the right to request additional information to determine if the Contractor has the financial capacity to meet its obligations under a deductible. Thereafter, at its option, the County may require a lower deductible, funds equal to the deductible be placed in escrow, a certificate of self-insurance, collateral, or other mechanism in the amount of the deductible to ensure additional protection for the County.
2. Contractor's Insurance:
- 2.1 The Contractor shall purchase the following insurance coverages, including the terms, provisions and limits shown in the Insurance Checklist.
    - 2.1.1 Commercial General Liability - Such Commercial General Liability policy shall include any or all of the following as indicated on the Checklist:

- i. General aggregate limit is to apply per project;
- ii. Premises/Operations;
- iii. Actions of Independent Contractors;
- iv. Products/Completed Operations to be maintained for five (5) years after completion of the Work;
- v. Contractual Liability, including protection for the Contractor from claims arising out of liability assumed under this Contract;
- vi. Personal Injury Liability including, including but not limited to, coverage for offenses related to employment and copyright infringement;
- vii. Explosion, Collapse, or Underground (XCU) hazards.

2.1.2 Business Automobile Liability, including coverage for any owned, hired, or non-owned motor vehicles, Uninsured Motorists coverage, and automobile contractual liability.

2.1.3 Workers' Compensation - statutory benefits as required by Virginia law or the U.S. Longshoremen's and Harbor Workers' Compensation Act, or other laws as required by labor union agreements, including standard Other States coverage; Employers' Liability coverage. The policy shall not contain any provision or definition which would serve to eliminate third party action over claims, including exclusion for bodily injury to an employee of the insured, employees of the premises owner, or employees of the general contractor to which the insured is subcontracted; or employees of the insured's subcontractor.

2.2 The Contractor shall take reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to, its employees on the job, and others. The Contractor shall comply with all applicable provisions of federal, state and municipal safety laws, insurance requirement's, standard industry practices, the requirements of the operations and this contract, the Contractor, directly through its subcontractors, shall effect and properly maintain at all times, as required by the conditions and progress of the work, necessary safeguards for safety and protection of the public, including securing areas, posting danger signs, placarding, labeling or posting other forms of warning against hazards.

3. Commercial General or other Liability Insurance - Claims-made Basis:

3.1 If Commercial General or other liability insurance purchased by the Contractor has been issued on a claims-made basis, the Contractor must comply with the following additional conditions. The limits of liability and the extensions to be included as described in the Insurance Checklist remain the same. The Contractor must either:

- i. Agree to provide insurance, copies of the endorsement and certified documentation evidencing the above coverages and naming the County as an additional insured for a period of five (5) years after final payment under the Contract. Such documentation shall evidence a retroactive date, no later than the beginning of the Contractors or subcontractors' work under this Contract, or

- ii. Purchase an extended (minimum five [5] years) reporting period endorsement for the policy or policies in force during the term of this Contract and evidence the purchase of this extended reporting period endorsement by means of a copy of the endorsement itself. The extended reporting period will begin upon final payment under the Contract.

**INSURANCE CHECKLIST**

**CERTIFICATE OF INSURANCE MUST SHOW ALL COVERAGE AND ENDORSEMENTS MARKED "X".**

**COVERAGES REQUIRED**

**LIMITS (FIGURES DENOTE MINIMUMS)**

- 1. Workers' Compensation.....Statutory limits of Virginia
- 2. Employer's Liability.....\$500,000/accident, \$500,000/disease, \$500,000/disease policy limit
- 3. Commercial General Liability..... \$1,000,000 CSL BI/PD each occurrence, \$2 Million annual aggregate
  - 4. Premises/Operations.....\$1, Million CSL BI/PD each occurrence, \$ 2 Million annual aggregate
  - 7. Independent Contractors.....\$1 million CSL BI/PD each occurrence, \$2 Million annual aggregate
  - 8. Products Liability..... \$1 million CSL BI/PD each occurrence, \$2 Million annual aggregate
  - 9. Completed Operations..... \$1 million CSL BI/PD each occurrence, \$2 Million annual aggregate
  - 10. Contractual Liability (Must be shown on Certificate.... \$1 million CSL BI/PD each occurrence, \$2 Million annual aggregate
  - 11. Personal and Advertising Injury Liability.....\$1 million each offense, \$2 Million annual aggregate
  - 21. Moving and Rigging Floater.....Endorsement to CGL
  - 24. XCU Coverage.....Endorsement to CGL
- 5. Automobile Liability.....\$1 million CSL BI/PD each accident, Uninsured Motorist
  - 6. Owned/Hired/Non-Owned Vehicle.....\$1 million BI/PD each accident, Uninsured Motorist
  - 16. Motor Carrier Act (MCS-90) and CA9948 (or equivalent) Endorsements .....\$ 2 million BI/PD each accident, Uninsured Motorist
- 12. Umbrella/Excess Liability.....\$1 million Bodily Injury, Property Damage and Personal Injury
- 13. Per Project Aggregate for  General Liability or  Umbrella/Excess Liability (check coverage)
- 14. Professional Liability/ Errors and Omission (E&O)
  - a. Architects and Engineers.....\$1 million per occurrence/claim
  - b. Asbestos Removal Liability .....\$3 million per occurrence/claim
  - c. Medical Malpractice.....\$2.55 million per occurrence/claim or the statutory VA annual claim cap whichever is greater
  - 15. Miscellaneous E&O.....\$1 million per occurrence/claim
- 17. Motor Cargo Insurance.....\$ \_\_\_\_\_ (to the total value of the goods being transported)
- 18. Garage Liability.....\$1 million Bodily Injury, Property Damage per occurrence
- 19. Garage Keepers Liability.....\$1Million Comprehensive, \$1 Million Collision
- 20. Inland Marine-Bailee's Insurance..... \$ \_\_\_\_\_ (maximum value of goods under Contractor's care)
- 22. Crime Liability/ Employee Dishonesty insurance or Dishonesty Bond.....\$ \_\_\_\_\_  
(Maximum value of revenue or goods that can be taken at one time)
- 23. Builder's Risk.....\$ \_\_\_\_\_ (Provide Coverage in the full amount of contract)
- 25. USL&H.....Federal Statutory Limits
- 26. Carrier Rating shall be Best's Rating of A-VII or better or its equivalent
- 27. Notice of Cancellation, nonrenewal or material change in coverage shall be provided to County at least thirty (30) days prior to action .
- 28. The County shall be named Additional Insured on all policies except Workers Compensation, Errors, and Omissions/Professional Liability and auto.
- 29. Certificate of Insurance shall show Bid Number and Bid Title.
- 30. Environmental Impairment Liability, including coverage of on-site clean up.....BI/PD \$3 Million per occurrence or \$6 Million Aggregate
  - a. If work requires clean up, remediation, and/or removal of bio -solids, bio-hazards waste, and any hazardous or toxic material via transportation request Business Auto Liability add #16 from this checklist.
- 31. Cyber insurance with Technology E&O..... \$2 Million per occurrence
- 32. OTHER INSURANCE REQUIRED: \_\_\_\_\_

**BIDDER'S STATEMENT:**

If awarded the contract, I will comply with contract insurance requirements.

BIDDERNAME: \_\_\_\_\_



**ARLINGTON COUNTY DES SPECIAL CONDITIONS**

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## PROJECT SUMMARY

The project is a pond retrofit project, which converts an existing wet pond to a constructed wetland. The project includes but is not limited to clearing and grubbing, water management, earthwork including exporting unsuitable material and importing suitable material, grading, concrete work, storm sewer, asphalt pavement, erosion and sediment control, landscaping and tree planting, fence and various other improvements.

Two years of post-construction plant maintenance is also included in this project. The post construction maintenance period shall begin at substantial completion. In addition to the standard one year warranty in accordance with DES General Conditions, the contractor shall ensure additional 1-yr warranty for all the landscape planting proposed with this project. The 2-yr warranty for landscape planting shall be incidental to the contract.

There is a 30" existing sanitary sewer pipe running along the edge of the pond and a 12" watermain and 8" sanitary sewer pipe under the access trail from S Park Drive. There is an existing AT&T line running under the W&OD trail that needs to remain in service during construction. The contractor must take all the necessary precautions during the construction to not damage the utility lines.

Contractor to follow all applicable guidelines of the Dominion Consent Agreement for Right of Way Encroachment that has been included with the contract documents. Contractor shall not disturb within 25 feet of transmission towers, as shown as a 25 feet buffer in the contract documents.

Contractor must adhere to the conditions noted in the NVRPA license agreement attached with the ITB.

The proposed constructed wetland will be an "on-line" facility and flows from the perennial stream, Arlington Branch, will need to be safely managed during construction.

A pedestrian bridge will need to be utilized during excavation and installation of the box culvert. Contractor will need to limit disruptions to the W&OD traffic, and ensure the safety of trail users at all times. Contractor will need to coordinate with NRVPA a minimum of 14 calendar days prior to excavation activities within the W&OD trail. Contractor will need to coordinate with Arlington County a minimum of 14 calendar days prior to excavation activities within the Four Mile Run Trail. Contractor to follow sequence of construction as shown in the contract documents.

The Contractor shall provide all resources to successfully perform the terms of this contract in accordance with project plans, and in compliance with Arlington County and VDOT Standards and Specifications. The Contractor shall perform the work complete, in place, tested, and ready for continuous service.

All work within the County Right-Of-Way shall be in accordance with the Arlington County Standards and Specifications, unless otherwise noted.

## SUPPLEMENTS TO THE GENERAL CONDITIONS

These Conditions modify the Arlington County Construction General Conditions. All provisions that are not modified or deleted by these Supplemental Conditions shall remain in full force and effect.

The address system used in these Supplemental Conditions is the same as the address system used in the General Conditions, with the prefix “SC” added thereto.

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### ARTICLE B – DRAWINGS, SPECIFICATIONS AND RELATED DATA

#### **SC-B.10 TESTS**

*Add the following new language to Paragraph B.10:*

All materials testing shall be in compliance with the Arlington County Materials Testing Specification Reference. This document specifies the method and frequency of testing for Arlington County projects. A copy of this document is included in the bid documents. This shall be incidental to the work and no separate payment will be made.

The Contractor shall engage the services of a geotechnical company, acceptable to both the County and VDOT, to conduct all materials testing per the County and VDOT Specifications. If it is observed that samples for testing are being improperly taken or that samples are being taken from an area that is not fully representative of all project conditions, then Contractor shall take and test additional samples at the County Project Officer’s request from areas designated by the County Project Officer and at the Contractor’s expense.

In addition, the Contractor shall provide the County with unfettered site access as needed for VDOT/County personnel or VDOT/County consultants to enter the site, inspect, and perform any additional testing for any and all materials (including soil, concrete, asphalt, etc.).

Compaction results must meet VDOT Specifications and be certified by a Geotechnical Engineer licensed in Virginia. This work shall be at no cost to the County.

#### **SC-B.13 SURVEYS AND CONTROLS**

*Delete Paragraph B.13 in its entirety and insert the following in its place:*

Unless otherwise stated, the County will provide horizontal and vertical reference points necessary for the Contractor to proceed with the Work. The Contractor shall carefully preserve all reference points, and in the case of destruction thereof by the Contractor or due to the negligence of the Contractor or of any subcontractor, the Contractor shall be responsible for expense and damage resulting therefrom and shall be responsible for any mistakes or construction errors that may be caused by the loss or disturbance of such reference points. The Contractor shall be responsible for laying out the Work and shall retain a professional land surveyor licensed in the Commonwealth of Virginia to survey and provide all necessary construction layouts and to establish all control lines, grades, and elevations during construction.

#### **SC-B.14 AS-BUILT DRAWINGS**

The Contractor shall also provide a final topographic survey – within 60 days of project completion, the contractor shall submit a field run topographic survey prepared by a licensed

professional surveyor in electronic CAD file format to establish the surface in Civil 3D. The survey shall include the following at a minimum:

1. Horizontal locations and vertical elevations of the openings and inverts of the riser structure, the utility access manholes, and associated storm structures and pipe connections.
2. Surface grading of the pond with sufficient spot elevations to document the above-ground size and shape of each pool and forebay. The spot elevations shall be taken at each grade break and a minimum of 20-foot spacing in areas of continuous grade.

#### ARTICLE C – COUNTY, COUNTY PROJECT OFFICER, AND CONTRACTOR RELATIONS

##### **SC-C.4 INSPECTION OF WORK**

*Add the following new language to Paragraph C.4:*

Contractor shall notify the Project Officer at least 3 working days prior to disturbing any existing, or installing any new traffic signs, signals, or other traffic control devices. The Contractor shall allow 3 working days for the inspection and approval of the premarkings prior to placing the permanent markings.

##### **SC-C.9 SUPERINTENDENCE BY CONTRACTOR**

*Add the following new language to Paragraph C.9:*

###### Emergency Contact:

The Contractor shall have a qualified and experienced person who can clearly communicate technical matters regarding the subject project. This person shall be available via phone to respond to emergency situations on the project 24 hours a day.

###### Site Supervisor:

The Contractor shall have a qualified and experienced site supervisor who can clearly communicate technical matters on-site at all times when construction activity is occurring or when the site is not in a secure state.

###### Safety Project Officer:

The Contractor shall have at least one (1) employee certified by VDOT in Basic Work Zone Traffic Control on-site at all times that work is occurring and be responsible for the following:

- Placement, maintenance, and removal of work zone traffic control devices,
- Compliance with permit requirements and conditions, approved plans and specifications, the Virginia Work Area Protection Manual, and the Manual of Uniform Traffic Control Devices.

The flagger shall be certified in accordance with the VDOT Flagger Certification Program, the American Traffic Safety Services Association Flagger Certification Program or any other VDOT approved flagger program. The flagger shall have his/her certification card with them at all times while performing flagging activities.

The Contractor shall have at least one (1) employee certified in OSHA 10 on-site at all times that work is occurring. The employee shall have served as a Project Safety Officer on at least three

(3) prior projects. If the contractor has multiple employees with these requirements, the Contractor shall clearly identify which employee shall serve as the Project Safety Officer.

Environmental Project Officer:

For each task order, the Contractor shall have at least one (1) employee that has successfully completed the VDOT Erosion & Sediment Control Contractor Certification training. The contractor employee shall be on-site during all land disturbance activities. The Contractor shall be responsible for ensuring compliance with all applicable local, State, and Federal erosion and sediment control regulations and permits during land disturbance activities.

If the Contractor proposes to deviate from the approved Erosion and Sediment Control Plan, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes.

**SC-C.11 LANDS BY COUNTY**

*Add the following new language at the end of C.11:*

The Contractor shall confine all activities at the site associated with construction activities, to include storage of equipment and or materials, access to the work, formwork, etc. To within the designated Limits of Work (LOW).

**SC-C.13 PROTECTION OF WORK AND PROPERTY**

*Add the following new language to Subparagraph C.13.c:*

The Contractor shall be responsible for all damages caused by their construction activities. The Contractor shall perform or provide repairs, replacements, and restoration to all property that has been damaged resulting from construction operations performed by the Contractor, and shall meet the following requirements:

1. Restore all areas to conditions that existed prior to construction. Remove and Replace damaged items with items equal to or better than the damaged items.

**ARTICLE E – LEGAL RESPONSIBILITY AND PUBLIC SAFETY**

**SC-E.1 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK**

*Add the following new language at the end of E.1:*

When construction activity reaches in proximity to existing utilities, the trench(es) shall be opened a sufficient distance ahead of the work or test pits shall be made to verify the exact location and inverts of the utility to allow for possible changes in the line or grade as directed by the Project Officer. This shall be incidental to the work and no separate payment shall be made.

**SC-E.2 PUBLIC CONVENIENCE**

*Add the following new language to Paragraph E.2:*

The Contractor shall set up controls at the beginning of each work day and take down controls at the end of each work day for the duration of the project. At all times the Contractor shall maintain safe two-way vehicular traffic, and safe accessible pedestrian traffic in conformance with County and VDOT standards. At the end of each work day, the road surface shall be brought flush with the adjacent surface using hot mix asphalt. A minimum of 4" of hot mix asphalt shall be installed. All lanes shall be open for traffic during non-work hours unless

otherwise directed in writing by the Project Officer. The Contractor shall maintain all road surfaces within the work area to provide a smooth drivable surface with no significant potholes, dips, or bumps of any kind. Installation and maintenance of temporary repairs shall be considered incidental to the Contract and therefore no additional payment shall be made for this work.

At all times the Contractor shall use the personnel and traffic control signs and devices necessary to comply with the Virginia Work Area Protection Manual and Part VI of the "National Manual on Uniform Traffic Control Devices." The Contractor has sole responsibility for ensuring that its operations are conducted in a safe manner and notwithstanding any other provision to the contrary, shall fully indemnify Arlington County, its officers, agents and employees for any damage or injury related to traffic operations which is caused by negligent or otherwise improper or deficient performance under the Contract or nonperformance of the terms of the Contract. All personnel, signs, barricades and any other items necessary for the maintenance of traffic and safety shall be provided by the Contractor.

When conditions warrant due to traffic volumes, patterns, or special events, the County may suspend or otherwise direct the Contractor's activities to protect the public and or the County's transportation network.

When the project includes a VDOT and/or County approved MOT Plan (or Plans), the Contractor shall strictly abide by this plan. If the Contractor proposes to deviate from the approved MOT Plan for a County road, it shall be the Contractor's responsibility to coordinate and obtain approval from the County Project Officer prior to implementing any changes. If the Contractor proposes to deviate from the approved MOT Plan for a VDOT road, it shall be the Contractor's responsibility to coordinate and obtain approval directly from VDOT prior to implementing any changes.

Prior to any lane closures within the VDOT Right-of-Way, the County Project Officer and VDOT Field Inspector must be notified in advance of such lane closure in accordance with VDOT requirements.

The Contractor shall not be entitled to any additional payment for changes to MOT which are the result of the Contractor's work schedule or resource allocation, weather delays, or other factors not controlled by the County.

Failure of the Contractor to correct any MOT deficiency immediately upon notification may result in the project being shut down until the deficiency is corrected, and a reduction from the amount of payment due in the amount of \$1,000.00 per violation. Repeated violations of this provision may result in contract termination.

The Contractor shall install project information signs (size -24"x36") at least two (2) different locations for each site. Signs will be supplied by the County. Sign posts and incidentals necessary for a complete installation of the signs shall be furnished by the Contractor. Signs shall be installed at least two (2) weeks prior to the start of the construction. The Contractor shall coordinate the location of the signs with the Project Officer. After the project has been completed the Contractor shall remove and return the signs to the County Project Officer. The cost for this work shall be considered incidental to other items within the Contract and no separate payment will be made.

At the close of each work day, the area of work shall be confined to the smallest area possible, but in no event larger than the area designated in the Construction Documents, so that the maximum use of the street and sidewalk shall be restored and the hazard to traffic reduced to the minimum.

The Contractor shall preserve all bus stops, including maintaining adequate accessibility through and adjacent to the construction for buses and their passengers. The Contractor shall not close, relocate, or otherwise modify a bus stop without prior request of the Project Officer. Any relocation or closure of a bus stop will require at least four weeks advance notice for coordination with the county's bus stop coordinator.

At least one of the two trails adjacent to the pond (W&OD and Four Mile Run) shall remain open to pedestrian traffic throughout the duration of the project

### **SC-E.10 SITE CLEAN-UP AND WASTE DISPOSAL**

*Add the following new language to Paragraph E.10:*

The County's Earth Products Recycling Yard (located at 4300 29<sup>th</sup> Street South, Arlington, VA) shall **not** be used on an as-needed basis for unspecified quantities of waste (due in part to the limited size of the Yard). Although atypical, the Yard **may** be considered, on a case-by-case basis, for disposal of specific types/quantities of waste from County construction projects. In such cases disposal arrangements must be approved by the County Project Officer, be made in advance, depend on available space and the type/quantity of waste, and comply with certain requirements (for example, concrete shall be broken into pieces no longer than 24" in any dimension, contain less than 20% soil content, and be free of rebar).

### **SC-E.11 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

*Delete Paragraph 2.*



ARTICLE F– PROGRESS AND COMPLETION OF THE WORK

**SC-F.2 TIME FOR COMPLETION**

*Delete Paragraph F.2 and replace with the following language:*

It is hereby understood and mutually agreed by and between the Contractor and the County that the Commencement Date, the rate of progress, and the Time for Completion of the Work to be done hereunder are essential conditions of the Contract. The Contractor agrees that the Work shall be started promptly upon receipt of a written Notice to Proceed in accordance with the accepted schedule. Additional time shall not be allowed for holidays or weather delays except as allowed in the contract.

ARTICLE G– MEASUREMENT AND PAYMENT

**SC-G.1 PAYMENTS TO CONTRACTOR**

*Add the following new language to Section G.1:*

Payments will be based on actual quantities and site measurements of the approved work taken in the field by the County Project Officer using the Contract Unit Prices. Any Work that is not shown on the approved plans that has not been previously authorized in writing by the Project Officer shall be at the Contractor's expense, and at no cost to the County.

No additional payment for any incidentals will be made unless specifically requested through, and authorized by, the County Project Officer prior to the work. Such determination of additional payment will be at the sole discretion of the County Project Officer, and will be based upon the determination that there exist exceptional conditions which will necessitate significant expenditures of material and/or labor above and beyond the typical installation conditions which could be anticipated in Arlington County.

SPECIAL CONDITIONS

These Special Conditions include any project-specific requirements in addition to the General Condition, Supplementary Specifications, and the County Standards Referenced herein.

---

*1. CONSTRUCTION STANDARDS*

All work shall conform to project plans and specifications along with the current edition of following County and VDOT construction standards and specifications:

- **The Arlington County Department of Environmental Services (DES) Bike Parking Standards**, a copy of which may be downloaded at no charge from the internet at: <https://info.arlingtontransportationpartners.com/arlington-county-bike-parking-standards>
- **The Arlington County Department of Environmental Services (DES) Construction Standards and Specifications**, a copy of which may be downloaded at no charge from the internet at: <http://topics.arlingtonva.us/building/construction-standards-specifications/>
- **The Arlington County Department of Environmental Services (DES) Traffic Signal Specifications**, a copy of which may be downloaded at no charge from the internet at: <https://transportation.arlingtonva.us/traffic-signal-specification-updates/>
- **The Arlington County Department of Environmental Services (DES) Streetlight Specifications**, a copy of which may be downloaded at no charge from the internet at: <https://transportation.arlingtonva.us/streets/street-lights/lighting-standards-specifications-updates/>
- **The Arlington County Department of Environmental Services (DES) Pavement Marking Specifications**, a copy of which may be downloaded at no charge from the internet at: <http://transportation.arlingtonva.us/streets/traffic-signals/>
- **The Arlington County Department of Parks and Recreation (DPR) Specifications**, a copy of which may be downloaded at no charge from the internet at: <https://www.arlingtonva.us/Government/Departments/Parks-Recreation/About/Design-Standards>
- **The Virginia Department of Transportation (VDOT) Road and Bridge Standards and Specifications**, a copy of which may be downloaded at no charge from the internet at: <http://www.virginiadot.org/business/const/spec-default.asp>
- **The Virginia Work Area Protection Manual (WAPM)**, a copy of which may be downloaded at no charge from the internet at: <https://www.virginiadot.org/business/trafficeng-WZS.asp>
- **Manual on Uniform Traffic Control Devices(MUTCD)**, a copy of which may be downloaded at no charge from the internet at: [http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf\\_index.htm](http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm)
- **The Arlington County Department of Environmental Services (DES) Dechlorination and Disposal Procedures**, a copy of which may be downloaded at no charge from the internet at: <https://www.arlingtonva.us/Government/Programs/Water-Utilities/Discharging-Chlorinated-Water>

- **The Supplementary Specifications listed within the Contract.**

In case of a discrepancy, the following order of priority will apply, with the highest governing item appearing first and the least governing item appearing last:

The Contract Bid Items

Special Conditions

Contract Drawings

Supplemental Specifications

Arlington County Construction Standards and Specifications

External Agency Specifications

## 2. *PERMITS*

Permits required for the project include, but are not limited to:

- **County Land Disturbing Activities (LDA) permit**
- **County Public Right-Of-Way (PROW) permit**
- **County Transportation Right-Of-Way (TROW) permits**
- **County Resource Protection Area (RPA) permit**
- **VA DEQ Virginia Storm Water Management Program (VSMP) permit**
- **Northern Virginia Regional Park Authority (NVRPA) permit**
- **Dominion Consent Agreement for Right of Way Encroachment**
- **U.S. Army Corps of Engineers Nationwide Permit**
- **DEQ Section 401 Water Quality Certification**

All fees for County permits will be waived by Arlington County, and fees for non-County permits will be paid by Arlington County.

The County will obtain the County LDA permit, the County RPA permit, VSMP Permit, U.S. Army Corps of Engineers Nationwide Permit, and then NVRPA permits prior to the start of work. The Contractor shall transfer the County LDA permit, U.S. Army Corps of Engineers Nationwide Permit, and the VSMP Permit in the Contractors name as the permittee and/or responsible party prior to the start of Work.

The Contractor shall provide a Responsible Land Disturber (RLD) that meets all the required qualifications of the permits. The Contractor shall complete and sign the RLD certificate and submit to the County Project Officer prior to the start of Work.

The Contractor shall obtain the County PROW permit, the County TROW permits and the County Water Meter and Fire Hydrant permits. The Contractor is responsible for investigating and satisfying all permit requirements for the above-mentioned permits.

## 3. *RFIs AND SUPPLEMENTAL INSTRUCTIONS*

Request for Information (RFIs) shall be submitted in writing by the Contractor using a County RFI form (sample attached for information only and is subject to change at the County's discretion) and transmitted via email to the County Project Officer. Only the Contractor, and not Subcontractors, shall submit RFIs.

RFIs shall only be used to request interpretation or clarification of apparent issues or problems found within the contract documents. The Contractor shall clearly identify and detail the issue and provide its own interpretation within the RFI. Upon receipt of the RFI, the County shall respond to the Contractor via email within five (5) business days.

The following are not considered RFI's and may be rejected by the County if submitted as an RFI

by the Contractor:

- Routine project correspondence
- Material or shop drawing submittals
- Substitution requests
- Change orders
- Responses to non-conformance notices
- Similar project communications

Responses to RFIs shall not be construed as authorization for a change order. The County may initiate a change to the contract by noting in the RFI response that a change order will be required. If the Contractor considers an RFI response to be a change to the contract, then the Contractor must notify the County Project Officer in writing immediately.

If changes occur after the individual project assignment is awarded that affect the project plans and specifications, and such change does not affect the contract schedule or cost, then a supplemental instruction may be issued by the County. Supplemental instructions are formal notifications to the Contractor providing additional instructions or to order minor project changes. These adjustments to the project plans and specifications may be the result of RFIs, value engineering, recognition of error/omission, changed conditions, requests for substitutions, etc.

#### *4. STAKEOUT AND CUT-SHEETS*

The Contractor shall be responsible for laying out the work and shall retain a professional land surveyor licensed in the Commonwealth of Virginia to provide all necessary construction layouts and establish all control lines, grades, and elevation during construction. The Contractor shall submit a copy of all cut-sheets for review, per the Arlington County Specifications. All cut-sheets for layout and construction shall be provided as submittals at least seven (7) calendar days prior to construction of the work included on that cut-sheet. The cost of all necessary surveying services shall be considered incidental to the work and no separate payment shall be made.

#### *5. SCHEDULE, DURATION, AND PHASING REQUIREMENTS*

The Contractor shall provide a schedule for all work listed on plans including any additional work not specifically mentioned on plans but was agreed upon with the County prior to work commencing.

Work Duration per task order shall be calculated in accordance with Supplements to the General Condition "SC-F.2 TIME FOR COMPLETION". The Time for completion shall be used as the basis for the project schedule.

Contractor shall make sure that the submittals/shop drawings are reviewed and accepted and materials ordered and delivered on site as no additional time will be granted for this.

#### *6. WORK HOURS*

The Contractor shall comply with **normal daytime working hours** as defined in the County Noise Control Ordinance unless otherwise defined by the project plans and specifications, or approved by the Project Officer.

The Contractor shall comply with **restricted working hours** of 9:00 am to 3:00 pm when working in Arlington County arterial streets unless otherwise indicated on the Maintenance of Traffic Plans for each project.

The Contractor shall comply with **restricted working hours** as defined by VDOT and as noted on the approved VDOT permit when working within the VDOT Right-Of-Way. For restricted work hours in VDOT ROW, see attached "Lane Closure Guidelines in NOVA District". The

Contractor is responsible for satisfying all VDOT Permit requirements found at:  
<http://www.virginiadot.org/business/fairfax-permits-main.asp>.

In addition, the County reserves the right to restrict working days and hours to accommodate special site conditions as required.

#### *7. GENERAL SITE SECURITY AND CONTROLS*

The Contractor is responsible for securing its work area for safety and security. The Contractor shall confine its construction and presence to the Limits of Work, unless otherwise approved by the County Project Officer.

The Contractor shall provide, erect, and maintain barricades, fences, and/or signage as required to protect the general public, workers, and adjoining properties at no additional cost to the County. Before leaving the site at the end of each day, the Contractor shall replace any and all sections of the security fence or barricade moved or removed during work hours.

The Contractor shall maintain clear vehicular access to existing driveways and entrances at all times unless such access is otherwise addressed on County-approved project plans, precluding concrete pouring and curing of such access points, unless otherwise directed by the County Project Officer.

Homeowners shall be notified by the Contractor a minimum of fourteen (14) calendar days in advance of any driveway closure, and driveways can only be closed for a maximum of five (5) calendar days.

The Contractor shall monitor parking of construction personnel's private vehicles and ensure that the public has unobstructed access to and through parking areas.

#### *8. SPECIAL TRAFFIC MAINTENANCE CONSIDERATIONS*

Entrance to work area shall be from S Park Dr via a trail access road. The W&OD and Four Mile Run trails shall only be closed when working within the extents of those trails. The W&OD and Four Mile Run trails shall not be closed at the same time. The construction path adjacent to the W&OD trail shall be constructed first and must be utilized for construction traffic. No access for construction vehicles shall be permitted on the W&OD trail, except to access the box culvert outfall at the Four Mile Run stream. Contractor shall use flaggers as necessary to minimize traffic interruptions for pedestrians and cyclists on the S Park Dr trail.

#### *9. REQUIREMENTS FOR WORK IN RESPECT TO FINISHED SURFACES*

Existing manhole frames, covers, valve boxes and other appurtenances shall be adjusted to the final grade or replaced, as necessary. Unless otherwise specified, the cost for this shall be considered incidental to work and shall be incorporated into the cost for relevant items.

Removal of concrete pavement, if encountered, will be to the next joint. In some cases, and when approved by the County Project Officer, the Contractor may be allowed to saw cut a neat joint mid-span of the existing concrete pavement. The limits of concrete pavement restoration shall be determined by the County Project Officer.

#### *10. PAVEMENT RESTORATION FOR UTILITY CUTS*

Pavement restoration for utility cuts in VDOT Right-Of-Way shall be in accordance with the detail shown in the LUP-OC NOVA Land Use Permit's Special provisions for pavement open cuts.

Pavement restoration for utility cuts in County Right-of-Way shall be in accordance with the Arlington County DES Standard Detail M-6.0 and M-6.1.

Temporary top asphalt installed to provide even grades with the existing roadway before the paving of the entire roadway shall be considered incidental and no payment shall be made by the County for furnishing materials and installation.

#### *11. PAVEMENT MARKING*

The Contractor shall have a certified VDOT Pavement Marking Technician present during pavement marking operations. Pavement markings shall be installed prior to opening the roadway to traffic as described in the Supplementary Specifications which includes requirements for temporary pavement markings.

Pavement markings disturbed by construction shall be restored immediately upon restoring pavement and shall be included in the pavement restoration price and shall not be paid as a separate item.

#### *12. TEST PITS*

Protecting existing utilities is the Contractor's responsibility and any test pits performed to protect the existing utilities shall be incidental to the work and no separate payment shall be made for that purpose. Only test pits shown on the approved plan will be paid on a per unit basis. Test pits were performed for the S Park Dr section of the project and have been included as an attachment under the title "S Park Dr Test Holes".

#### *13. GENERAL EXCAVATION*

During construction if the need arises for additional excavation not included in the Contract Documents, the Contractor shall request in writing the need for additional excavation. The Contractor must request approval from the County Project Officer prior to performing the work. If over-excavation is approved by the County Project Officer, and the additional excavation is not authorized by a change order, the excavation will be incidental to the unit bid price. Failure by the Contractor to obtain written approval from the County Project Officer prior to performing any additional excavation will be performed at the Contractor's expense and there will be no cost to the County.

Excavation and shoring of any pits or shafts for trenchless or open trench methods of pipe installation, and any shoring left in place during installation shall be considered incidental to the installation of the pipe and shall be included in the unit price for installation of the pipe.

All sheeting, shoring, and bracing shall be in accordance with the current version of VDOT Specifications. Sheeting and shoring, if utilized may be abandoned in place up to five (5) feet below grade which shall be backfilled, etc. in accordance with the construction documents. The maximum length of open trench shall be no more than one hundred (100) feet in roadways and three hundred (300) feet elsewhere unless written permission is obtained from the County Project Officer

No excavation shall remain open within the roadway, trail, or sidewalk without the approval of the County except when the excavation can be safely bridged with the use of steel plates or other materials acceptable to the County. When areas of excavation do remain open with the use of steel plates, warning signs shall be posted.

Steel plates may not be used within the VDOT Right-Of-Way from November 1st through April 1st. If steel plates are used during the allowable time period of April 2nd through October 31st, then their use shall comply with the most current VDOT Standards and Specifications.

#### *14. BYPASS PUMPING/TEMPORARY FLOW DIVERSION/DEWATERING*

The Contractor shall utilize temporary pumps to divert storm sewer, sanitary sewer, and stream flows during construction as required. All equipment used for these purposes shall comply with the requirements of the Arlington County Noise Ordinance. The Contractor shall be responsible



for the installation, operation, and removal of the temporary pumps. The Contractor shall be responsible for utilizing pumps sufficient to bypass the normal flow and dewater the work area. The Contractor shall furnish, install, operate and maintain all sumps, pumps, casings, wellpoints, dewatering device, portable dams/barriers and other equipment needed to perform the temporary flow diversion and dewatering of the construction site as needed for proper execution of the construction work.

The Contractor shall furnish to the County in writing, a plan for diverting flows and removal of water from the work area before beginning the construction work. Acceptance of this plan will not relieve the Contractor of responsibility for completing the work as specified

The cost for bypass pumping and dewatering shall be incidental to other items in the Contract; therefore, there will be no separate payment for bypass pumping.

#### *15. TREE PROTECTION AND TRIMMING*

Minimizing damage to existing trees is very important. The critical root zone of existing trees is shown on the Construction Plans. Construction within the critical root zone of trees to remain requires root pruning to be performed as shown on the approved Plans in advance of the construction. If roots for trees not marked 'to be removed' on the Construction Plans are found during construction, the Contractor shall notify the Project Officer. The Project Officer shall consult with the Arlington County Urban Forester, then the Project Officer shall determine if additional root pruning is required. The additional root pruning performed by the Contractor shall be considered incidental to the lump sum bid price.

#### *16. RESTRICTION ON LAND DISTURBANCE*

Contractor shall not disturb entire area within the Limits of Disturbance at once. Refer to the sequence construction in the Maintenance of Traffic Notes & Details. Any changes to the sequence shall require prior approval from the project officer.

#### *17. SUBSTANTIAL COMPLETION AND WARRANTY*

The determination of substantial completion will be made by the Project Officer. Wetland landscaping must have been installed and approved and site restoration must be complete, as determined by the Project Officer, for the project to be determined substantially complete. The warranty period (one year for the project overall and two years for landscaping and invasive control) will start on the date of substantial completion as determined by the Project Officer.

#### *18. GEOTECHNICAL REPORTS*

Geotechnical reports have been included in the contract documents titled, "Sparrow Pond Stability Study," dated June 12, 2018, and "Geotechnical Engineering Report," dated May 18, 2022.

#### *19. HABITAT ELEMENTS*

The Contractor shall coordinate with the Department of Parks and Recreation for the following instances:

1. When performing tree removal during clearing and grubbing, contractor shall notify Parks and Recreation at least 2 weeks prior. Representative from Parks and Recreation will be on site to designate up to 5 removed trees to be set aside for habitat purposes. These trees will be re-used as basking logs and Parks and Recreation may require the contractor to place the basking logs into the pond after grading of the pond is complete.



2. Contractor shall coordinate with Parks and Recreation (DPR) at the beginning of construction to determine a time and date to allow DPR to place nest boxes within the pond area
3. DES or DPR may re-purpose some trees during construction. Trees will be identified during construction.

#### *20. ARCHEOLOGICAL OBSERVATION*

Contractor to retain an archeological consultant to oversee excavation of existing grade only within the existing pond limits. Archeological services will not be required elsewhere within the limits of disturbance unless directed by project officer. The archeological consultant will be expected to complete the following four (4) tasks:

- 1) Remain on-site throughout the duration of initial ground excavation activities, when excavating below existing grade within the existing pond (this will be considered ground disturbance for this work)
- 2) Monitor the ground disturbance for the presence of artifacts
- 3) Record and photograph pertinent information if artifacts are uncovered
- 4) Organize and temporarily store any recovered artifacts for transmittal to Arlington County.

If artifacts are uncovered, artifact analysis will be handled by the County. As such, the only project deliverables at this time will be the transfer of any recovered artifacts to the County within thirty (30) business days of completion of the archaeological monitoring services.

#### *21. SPOTTED LANTERNFLY QUARANTINE*

The Contractor shall demonstrate compliance with all applicable Spotted Lanternfly quarantine requirements.

The Spotted Lanternfly (SLF) is an invasive insect from Asia that threatens numerous agricultural commodities including grape, hardwood, tree fruit, landscape and nursery plants. In order to control the spread of this invasive insect the PA Department of Agriculture has issued a quarantine for 26 counties, concentrated in southeastern Pennsylvania. Quarantine areas have also been established within New Jersey, Maryland, Delaware and Virginia.

A map of the quarantine areas is available at:

<https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/spotted-lanternfly-ipm/introduction-native-range-and-current-range-us/>

Included in the quarantine order is a requirement to inspect all items moving within or out of the quarantine areas to prevent the transport of any living stage of the pest.

In order to comply with the quarantine and avoid spreading the Spotted Lanternfly:

1. Businesses operating in the quarantine zones who ship products or move equipment and vehicles within and out of the zone must have permits to move equipment, products or vehicles.

2. Prior to leaving the quarantined area inspect all items that travel within or through the quarantine zone. Remove and destroy any SLF found before moving the item. Also check all vehicles, trailers, campers and equipment including around windshield wipers, grills, wheel wells, and truck beds. Inspect plant material, woody debris, construction supplies, tools, and all solid objects. Remove SLF manually or use a pressure washer. Mobile stages of SLF can be destroyed by mechanically crushing them. Destroy eggs by smashing them or scraping them into a container of rubbing alcohol.

Businesses from quarantined areas that do not have or do not display their permit hangtags when goods, equipment, or vehicles are moved outside the quarantine zone may be subject to penalties.

National information is maintained at:

<https://www.invasivespeciesinfo.gov/terrestrial/invertebrates/spotted-lanternfly>

Information on the PA quarantine, including online training for Business Permits for companies that ship goods or move equipment or vehicles within or out of the quarantine zones can be found at: <https://extension.psu.edu/spotted-lanternfly>

Information on the NJ quarantine can be found at:

<https://www.state.nj.us/agriculture/divisions/pi/prog/spottedlanternfly.html>

Information on the MD quarantine can be found at:

<https://mda.maryland.gov/plants-pests/pages/spotted-lantern-fly.aspx>

Information on the VA quarantine can be found at:

<https://www.vdacs.virginia.gov/plant-industry-services.shtml>

Information on the DE quarantine can be found at:

<https://agriculture.delaware.gov/plant-industries/spotted-lanternfly/>

SUPPLEMENTS TO THE DES CONSTRUCTION STANDARDS AND SPECIFICATIONS

SECTION 01500 – TEMPORARY EROSION AND SEDIMENT CONTROL

PART 3 - EXECUTION

PARAGRAPH 3.1 Installation and Maintenance of Erosion and Sediment Controls

**Delete**

3.1.E The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations must be included as part of the erosion and sediment control plan.

**Add**

3.1.E The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County's storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations shall be prepared by the Contractor.

END SECTION

SECTION 01551 - INVASIVE SPECIES CONTROL

PART 1 — GENERAL

This work shall consist of activities to control or eradicate invasive vegetation within the project area. Control areas shall include floodplain, side slopes, and upland forested areas. Contractor to ensure that vehicles and equipment are free of invasive species and use weed-free materials while on-site. The effort

will continue invasive species control and is comprised of pre-construction control and eradication, control during construction, and post construction control for a period of two (2) years following substantial completion of the project as determined by the Project Officer through the application of approved herbicides, and may include hand extraction, or grubbing in combination with the herbicide application.

Related specifications include:

Section 329200 – Seeding and Sodding  
 Section 329300 – Exterior Plants  
 Section 329301 – Live Stakes  
 Section 329500 – Post-Construction Vegetation Maintenance

All work shall be performed in accordance with this specification, the plans, and as directed by the County. Invasive vegetation control shall include plants on the Virginia Department of Conservation & Recreation (DCR) Division of Natural Heritage *Virginia Invasive Plant Species List* and the *Non-Native Invasive Plants of Arlington County, Virginia Plant List* (<https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/13/2013/11/invasive-1.pdf>), and other species designated by the County.

#### PART 2 — MATERIALS

All herbicides shall be EPA registered chemicals that are approved for use in or adjacent to waterways to control and prevent re-growth of undesirable vegetation. The Contractor shall use triclopyr, glyphosphate, or imazapyr using application methods appropriate to the size and quantity of invasive plants at a rate as approved by the County. The Contractor shall select herbicide appropriate to the species being managed and shall submit selection to the County for approval. The Contractor shall submit a written request for use of herbicides other than those listed above and receive written approval prior to use of such chemicals on the project. Manufacturer's specification sheets (labels) for herbicide, wetting agent, basal oil, and dyes shall be submitted to the County. A colorant shall be added to the herbicide in order to easily identify plants that have been treated.

#### PART 3 — EXECUTION

Herbicide application is strictly regulated, and the Contractor must ensure that all regulations are followed. Application equipment, personal protective equipment and application rates of the herbicide shall be in conformance with manufacturer's recommendations as shown on the product label and in accordance with state pesticide application laws.

1. **Pre-Construction Meeting:** A pre-construction meeting shall be scheduled prior to commencement of invasive plant control operations. Meeting shall include Arlington County Department of Parks and Natural Resources Natural Resource Division staff.
2. **Qualifications:** The Contractor shall employ at least one Botanist, Practical Botanist, Species Surveyor, Certified Arborist or Landscape Architect that is

qualified to distinguish between beneficial native plant species and harmful invasive plants. Additional qualifications are as follows:

- a. One such contractor professional shall directly supervise all work being performed.
  - b. Any person working on this scope of work shall receive training that will minimize non-target damage.
  - c. All field staff shall receive training that will minimize non-target damage.
  - d. All laborers shall receive basic safety instructions before beginning work at each site.
  - e. The County reserves the right to conduct random tests of project staff and shall have the authority to direct the Contractor to remove certain staff from the project if, in the County's opinion, such staff is not qualified to do the work.
  - f. The Contractor shall ensure that the herbicide applicator is certified by the Virginia Department of Agriculture and Consumer Services for Category VI herbicide application. The Contractor shall be responsible for obtaining all necessary permits prior to initiating application and will ensure that all regulations are followed. The Contractor shall submit qualifications of key personnel who will be performing and/or supervising work on site, including a copy of the herbicide applicator's license.
3. Notification: The Contractor shall notify the County at least 48 hours prior to all herbicide applications.
  4. Flagging: The areas planned for treatment shall be clearly flagged in the field and reviewed by the County and Natural Resources Division Staff prior to commencement of treatment activities. The Contractor shall be prepared to discuss invasive species control and native plant preservation methodologies during this field review.
  5. Timing of Herbicide Application: Herbicide shall be applied at the time of year most suitable for eradication of the target species, as specified on the plans. Herbicide application shall only be conducted during appropriate weather conditions as indicated on the product label. The herbicide shall not be applied when it is raining or if rain is forecasted within 24 hours of the planned application. The wind speed cannot be greater than 10 mph at the time of application.
  6. Application Method: Herbicide application shall be selective low volume treatments with a backpack sprayer, truck mounted spray rig with low volume pump and spray gun, squirt bottle, injection gun, paint brush or other methods, as approved by the County. Broadcast high volume applications will not be permitted. The herbicide shall be applied with approved spraying apparatus directly to the target plant. Extreme caution shall be used when spraying adjacent to off-target, non-invasive vegetation or directly adjacent to any waterways/wetlands. Overspray of herbicide onto non-target plants shall be avoided to the greatest extent possible. The Contractor shall be responsible for any act of negligence in applying and handling of the herbicide on the project.

7. Pre-Construction Invasive Plant Eradication: The Contractor shall conduct a field walk of the project area to identify the location and density of the invasive plant species to be managed prior to construction. At the direction of the Project Officer, pre-construction invasive species control may include area 25 feet outside the LOD as depicted on the approved plans. Once the Contractor has identified these areas and approved the locations and methods to be used, he will manage the invasive plants as described below.
  - a. Dense stands of invasive plants: Thoroughly wet all leaves with approved herbicides. Cut large stems and apply approved herbicides to cut surfaces immediately using spray bottle or paint brush. Bamboo stands shall be cleared and grubbed and treated with herbicide upon re-emergence.
  - b. Individual plants or small patches of invasive plants: Utilize spot treatment methods being sure to minimize over spray onto surrounding desirable plants. Cut large stems and apply these herbicides to cut surfaces immediately using spray bottle or paint brush.
8. Maintenance prior to Substantial completion: Inspect planted areas monthly during the growing season (April to October) and undertake manual invasive species control as necessary to maintain the planted areas prior to substantial project completion as determined by the Project Officer. Chemical control shall not be used unless authorized by the Project Officer.
9. Post-Construction Invasive Plant Eradication: The Contractor will be responsible for post-construction management of invasive plants for two (2) years starting from the date of substantial completion.
  - a. Inspect all areas within the limits of work bi-monthly during the growing season (April to October). Identify and flag individual plants and areas dominated by invasive plants. Manually pull plants and treat the remnants left in the ground at the appropriate time of year to best control the target plant, between July 1<sup>st</sup> and October 1<sup>st</sup> for most species. Spot treat individual invasive plants being sure to minimize over spray onto surrounding desirable plants. Cut large stems and apply these herbicides to cut surfaces immediately using spray bottle or paint brush.
10. Herbicide Handling: The Contractor shall store, transport and handle the herbicide in accordance with the manufacturer's recommendations. Materials shall be stored in the original container at a secured location. Any spills or leaks must be cleaned up immediately.
11. Mapping: Contractor shall provide survey and/or GPS services for locating and/or establishing property lines, RPA boundaries, specific areas to be treated, etc. All

completed work shall be submitted to the Arlington County Project Manager in digital format.

- a. Maps/data shall be fully compatible with Arlington County's GIS (Arc) System.
- b. Maps/data shall contain at a minimum: Delineations of treatment areas in polygon format with attribute data that includes the names of invasive plants treated, their density, chemicals used, percent of chemical used, treatment method, type of equipment used, weather conditions, and date of treatment.

12. Site Cleanup: During the execution of invasive vegetation control measures, all areas shall be kept neat and clean and free of trash and debris. Final cleanup shall be the responsibility of the Contractor and shall consist of the removal of all trash and materials incidental to the project to an approved off-site disposal location.

13. Replacement of Native Plants Damaged: The Contractor shall be responsible for replacing and/or pruning of any native plant material that is killed or damaged through any act of negligence by the Contractor in applying and handling of the herbicide on the project.

14. Final Inspection: The Contractor shall be responsible for correcting all deficiencies within seven (7) calendar days of inspection. The County's representative and the Contractor shall perform a final inspection and any corrective actions at the closeout of the contract.

#### PART 4 — MEASUREMENT AND PAYMENT

Pre-construction invasive species control shall be measured and paid for at the unit price for Invasive Species Control as accepted by the Project Officer. Such price and payment shall be full compensation for the work, including materials, including chemicals, equipment, tools, transport and disposal, and incidentals needed to perform the intended work. Invasive species control performed to maintain planted areas following planting, but prior to the date of substantial completion shall not be measured, but shall be considered incidental to the work.

END SECTION

## SECTION 02200 – EARTHWORK

### PART 3 - EXECUTION

#### PARAGRAPH 3.5 Dewatering

**Delete**

3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County’s storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations must be included as part of the erosion and sediment control plan.

**Add**

3.5.C The Contractor shall conduct dewatering operations in a manner to prevent sediment or other pollutants from discharging to the County’s storm drain system, which includes the curb and gutter, or any surface water. Dewatering operations shall not create any erosion or flooding. Dewatering discharges that contain chemicals, hydrocarbons, or sewage shall not be discharged to the storm drain system. Any discharge from dewatering operations shall be properly filtered prior to being discharged. A dewatering plan with sufficient detail to ensure the proposed dewatering shall comply with applicable regulations shall be prepared by the Contractor.

**Add**

3.14 Clay Core

A. Clay core to be installed per section 5.7.3 “Clay Core at Outlet Pipe” of Langan geotechnical report dated, May 18, 2022.

### PART 4 - MEASUREMENT AND PAYMENT

#### PARAGRAPH 4.1 Excavation

**Add**

C. Measurement of excavation quantity is based on difference between proposed and existing grade. Contractor to verify quantities prior to work.

D. Field survey data to be provided with every progress invoice for excavation to verify quantities.

E. Excavation in excess of that shown on the approved plans will not be compensated, unless specifically approved in advance by the Project Officer. Payment will include all labor, materials, and equipment and will include excavation, handling, storage and disposal of materials, backfilling, compaction, testing, and all other activities necessary to comply with these Specifications. Payment for excavation documented by an approved change order shall be measured by the cubic yard as approved by the Project Officer.



F. Over-excavation to be approved in advance by the Project Officer.  
Measurement to be in cubic yards below final grade. Quantity to be included under excavation.

**PARAGRAPH 4.2 Fill**

**Add**

C. Measurement of earthwork quantity is based on difference between proposed and existing grade. Contractor to verify quantities prior to work.

**Add**

4.7 Clay Core

A. The measurement of clay core to be paid for shall be per cubic yard. Payment to include the cost of all labor, materials, and other expenses necessary to complete the work in accordance with the approved plans and specifications.

**END SECTION**

## SECTION 02228 - EROSION CONTROL MATTING

## PART 1 – GENERAL

Erosion control matting will be used to stabilize channel banks and floodplain areas.

## PART 2 – MATERIALS

## 1. Erosion Control Matting

Erosion control matting shall be machine-produced mat made of 100% coconut fiber with properties as follows:

<b>Property</b>	<b>Requirement</b>	<b>Test Method</b>
matrix	100% coconut fiber	ECTC*
roll size	6.6 feet x 165 feet	ECTC*
Thickness	0.30inches (minimum)	ASTM D5199
Elongation (Dry)	40% x 33% (maximum)	ECTC*
Elongation (Wet)	69% x 34% (maximum)	ECTC*
Flexibility	12896 x 8132 mg-cm	ECTC*
mass per unit area	20.6 ounces per square yard (minimum)	ASTM D5261
stable flow velocity	12 feet per second (minimum)	ECTC*
open area (measured)	50% (maximum)	ECTC*
wide width tensile (dry)	126 x 86 pounds per inch	ASTM D5035
wide width tensile (wet)	77 x 57 pounds per inch	ASTM D5035
'C' factor	0.002	ASTM D5035

\*Testing methods specified by Erosion Control Technology Council (ECTC) guidelines.

## 2. Stakes

All stakes used to secure fabric will be 12" Ecostake, or approved equal. No metal stakes will be accepted.

## PART 3 – EXECUTION

The Contractor will install erosion control mat in locations and to the widths and lengths as shown on the plans and details or as directed. Mat will be secured with stakes installed at three (3) feet center in offset rows to affect a diamond pattern. Fabric overlap at seams will be a minimum of

6". Fabric will be overlapped so that the upstream mat end is on top of the downstream mat start. Stakes will secure fabric at three (3) foot spacing on the overlapping seams. Mat will be installed in a six (6) inch deep trench at the toe of slope and at the top of slope as shown in the details. Mat will be dry when installed. Mat will be installed to lie on slopes not too loosely but not in tension. Prior to mat placement, proposed grades shall be achieved and no voids will occur in the slope. The area will be treated with fertilizer, soil amendments, and or seeding as specified in the approved plans and Sections 329100 Planting Preparation and 329200 Seeding and Sodding. Straw mulch will be used to cover the finished grade to achieve 60% coverage on the soil.

#### PART 4 – MEASUREMENT AND PAYMENT

Erosion control mat shall be paid under the Erosion and Sediment Control line item on the bid sheet. No separate measurement will be made for overlapping fabric at seams or for material required for trenching at toe and top of slope.

Such price and payment shall be full compensation for all work covered by this section, including but not limited to all labor, machinery, maintenance, hauling, preparation and installation to complete the work in an acceptable manner. Wooden stakes will be considered incidental to erosion control mat installation.

END SECTION

SECTION 02500 – GRAVITY SEWERS AND APPURTENANCES

PART 4 – MEASUREMENT AND PAYMENT

PARAGRAPH 4.1 Sewer

**Delete**

4.1.A Sewer pipe for the various materials, classes, and sizes shown on the plans shall be measured in linear feet along the center line of the pipe and shall be measured from inside wall of structure to inside wall of structures. Payment shall include the furnishing of all pipe and fittings, all necessary tests, excavation, removal and disposal of existing pipes, removal and disposal of unsuitable or surplus material, placement of bedding and backfill as shown in Standard M-3.0, restoration of roadways as shown in Standard M-6.1, all other restoration, and all other work required to providing a complete sewer installation in compliance with the Construction Documents.

**Add**

4.1.A Sewer pipe for the various materials, classes, and sizes shown on the plans shall be measured in linear feet along the center line of the pipe and shall be measured from inside wall of structure to inside wall of structures. Payment shall include the furnishing of all pipe and fittings, all necessary tests, excavation, abandonment and/or removal and disposal of existing pipes, removal and disposal of unsuitable or surplus material, placement of bedding and backfill as shown in Standard M-3.0, restoration of roadways as shown in Standard M-6.1, all other restoration, and all other work required to providing a complete sewer installation in compliance with the Construction Documents.

END SECTION

SECTION 02600 - BITUMINOUS ROADWAY PAVEMENTS

PART 4 – MEASUREMENT AND PAYMENT

**Delete**

4.2 Subbase shall be measured to the width and depths shown on the approved plans as verified in the field by the Project Officer or his designee. Payment shall be in cubic yards of material.

**Add**

4.2 Subbase shall be measured to the width and depths shown on the approved plans as verified in the field by the Project Officer or his designee. Payment shall be in cubic yards of material and shall include demolition, excavation, and the necessary preparation of the sub grade surface.

END SECTION

SECTION 02804 - WETLAND PLANTING

PART 1 – GENERAL

1.1. Description of Work

Provide all plant, materials and labor required to execute wetland planting as indicated on the approved plans, as specified and as necessary to complete the Contract, including, but not limited to, soil treatment; planting of trees, shrubs, and herbaceous plants; protection, maintenance, warranty, and replacement of plants; related items of work as indicated on drawings; inspection; and maintenance.

1.2. Related Work Specified Elsewhere

Arlington County Department of Environmental Services Construction Standards and Specifications (Arlington County Specifications):

- a. Section 02100 - Clearing and Grubbing
- b. Section 02200 – Earthwork
- c. SECTION 329200 – SEEDING AND SODDING
- d. SECTION 329300 – EXTERIOR PLANTS

1.3. Applicable References

- a. Arlington County Cooperative Extension Office
- b. Erosion and Sediment Control Ordinance (Chapter 57 of the Arlington County Code)
- c. Hortus III, 1979 Edition
- d. American Association of Nurseryman's Standards
- e. Maryland Forest Conservation Manual

1.4. Plant Warranty and Replacement

- a. Warranty: Guarantee that plants will be alive and in satisfactory growth for a period of two (2) Years, beginning the date of substantial completion as determined by the Project Officer.
- b. Inspect herbaceous wetland plants annually in late summer to determine required replacement for the following spring. Replace dead or dying herbaceous plants between April 1 and May 15 of each year at no additional cost to the County. Inspect woody wetland plants annually in spring following leaf out to determine required replacement for the subsequent fall. Replace dead or dying woody plants between September 15 and December 1 of each year at no additional cost to the County.
- c. Plants used for replacement shall be the same species and size as specified in Plant List; plant, mulch, maintain and warrant as specified.

- d. Properly maintain all planting and planting areas during the warranty period to include as needed watering, invasive control, excessive soil rutting/erosion, and pruning.

1.5. Submittals

Submittals shall be in accordance with Section 329300 (1.3) .

1.6 Quality Assurance

- a. Pre-installation Conference: Conduct conference at Project site with Project Officer, Arlington County Urban Forester and/or Department of Parks and Recreation (DPR) representative or County Landscape Architect.
- b. Urban Forester Notification: Notify the Project Officer at least 72 hours prior to commencement of tree planting operations, so that the County's Urban Forester can be present on-site to observe the work.
- c. The Contractor shall provide a minimum of seven (7) business days' notice to the Project Officer prior to installing the plant material (this is not the same as inspection notification).
- d. The Urban Forester may perform periodic inspections to check on tree plantings.

1.7 Workmanship

In accordance with Section 329300 (1.5).

1.8 Watering Requirements

- a. Initial Waterings: The Contractor shall supply water for all plantings and shall water all plants at time of installation and 48 hours after installation, even if it is raining.
- b. Contractor shall then water plantings at least twice per week at amounts specified below until wetland conditions are established (as agreed to by the Project Officer) or substantial completion of the work. Each watering shall consist of:
  - 20 gallons per individual tree
  - 4 gallons per individual shrub

1.9 Final Inspection

In accordance with Section 329300 (3.5).

1.10 Maintenance Prior to Substantial completion

Contractor shall maintain plantings at his/her own expense until substantial completion of the plantings. Maintenance shall include watering, removal of invasive species and resetting to proper grades or vertical position, as required

to establish healthy, viable plantings. Contractor shall perform invasive plant removal monthly from April through October if time between planting and substantial completion extends through any months of the growing season.

## PART 2 – MATERIALS

### 2.1 Herbaceous Plants, Shrubs and Trees

Herbaceous plants, shrubs and trees shall be of a variety, size and quantity as shown on the approved plans and shall be planted where shown on the planting plan. Deep plugs/peat pot shall have a minimum soil volume of 10 in<sup>3</sup> and a minimum depth of four (4) inches. Plants shall be symmetrical, typical for variety and species, sound, vigorous, free from plant disease, insect pests or their eggs, and shall have healthy, normal root systems, well filling their containers, but not to the point of being root-bound. Plants not conforming to these requirements shall be considered defective, and shall be removed from the site immediately, and replaced with approved stock at the Contractor's expense. Plants shall be locally native or mid-Atlantic stock.

### 2.2 Water

Water shall be provided by the Contractor for use of this trade.

### 2.3 Miscellaneous

Mulch: None.

Soil: Natural for the area, fertile, friable and within acceptable pH limits for the herbaceous plants, shrubs and trees.

Fertilizer: None.

## PART 3 – EXECUTION

### 3.1 Delivery and Storage

Deliver plants to the site in a healthy condition and properly store and protect for planting.

### 3.2 Grading

Do not plant until finish grades are established and planting areas are properly prepared and graded.

### 3.3 Planting of Herbaceous Plants, Shrubs and/or Trees

- a. Plant herbaceous plants between Apr 1 and May 15. Plant shrubs and trees between March 15 and May 15 or between September 15 and December 1, unless otherwise directed by the Project Officer and Urban Forester.
- b. Remove canned stock by cutting can vertically on two opposite sides of can with instrument approved for the purpose.
- c. Spacing: Spacing and density shall be as specified on the plans. Plants shall be arranged in a natural random planting scheme that avoids repetitive patterns, rows, or unnatural planting schemes.



- d. Dig tree and shrub pits 2 times as wide as the root ball and to a depth such that the top of the root ball is flush with the surrounding grade.
- e. Setting: Plants shall bear some relation to soil level when planted as they did when in container. Place each plant in center of plant pit.
- f. Cut burlap, twine and wire baskets from top 12 inches of rootball and remove from site.
- g. Backfill with clean existing soil.
- h. Firmly tamp backfill material into plant pits around and under the root ball to force out all air pockets.

#### PART 4 – MEASUREMENT AND PAYMENT

The measurement for Wetland Planting shall be per unit. Payment to include the labor, materials, and equipment necessary for a proper and complete installation and for required maintenance prior to substantial completion.

The measurement for Wetland Plants Warranty and Post-construction Maintenance shall be lump sum. Payment to include all invasive species control, watering, pruning, and plant replacement in wetland planting areas during the two (2) year warranty and post construction maintenance period, which shall initiate upon the date of substantial completion as determined by the Project Officer. Payment will be made in two installments, each 50 percent of the total lump sum payment, One payment shall occur at the end of the first year of maintenance and the second at final project acceptance.

END SECTION

SECTION 02900 - PAVEMENT MARKINGS

PART 3 - EXECUTION

PARAGRAPH 3.2 Provision for Temporary Markings

**Add**

B. All Type D pavement markings shall conform to the latest VDOT requirements.

PART 4 - MEASUREMENT AND PAYMENT

PARAGRAPH 4.4 Removal/Eradication of Existing Pavement Markings

**Delete**

A. Payment for pavement line markings (type, class, width) removal and/or eradication shall be paid by actual work performed as listed in the contract and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to remove and/or eradicate the line markings as specified.

**Add**

A. Payment for pavement line markings (type, class, width) removal and/or eradication shall be incidental to the work and no separate payment shall be made.

**Add**

PARAGRAPH 4.5 Pavement Message Marking

A. Measurement of pavement message markings (type, class, size) shall be in units of each furnished and installed.

B. Payment for pavement message markings (type, class, size) shall be in units of each and shall include all labor, materials, tools, equipment, transportation, supplies, and incidentals required to furnish and install the message markings as specified.

END SECTION

**SECTION 13148 - AMORFLEX ARTICULATING CONCRETE BLOCK (ACB) SYSTEM****PART 1 – GENERAL****1.1 Scope of Work**

The contractor shall furnish all labor, materials, equipment, and incidentals required for, and perform all operations in connection with, the installation of the Articulating Concrete Block (ACB) system in accordance with the lines, grades, design and dimensions shown on the Contract Drawings and as specified herein.

**1.2 Submittals**

- a. The Contractor shall submit to the Engineer of Record (EOR) evidence of full-scale hydraulic testing in accordance with ASTM D-7277, and if necessary, Factor of Safety (FoS) calculations in support of the proposed ACB system stamped and signed by a Professional Engineer licensed to practice in the state where the project is located. The Contractor shall also submit to the EOR an appropriate geotextile, selected for the site being protected on the basis of the gradation and permeability of the surface soils, which information shall have been provided by the EOR or the designated geotechnical engineer.
- b. The Contractor shall furnish manufacturer's certificates of compliance for ACBs/mats, revetment cable, geotextile, and any revetment cable fittings and connectors. The Contractor shall also furnish the manufacturer's specifications, literature, preliminary shop drawings for the layout of the mats, installation and safety instructions, and any recommendations, if applicable, that are specifically related to the project. If a color has been specified for the block, the Contractor shall submit a color chart indicating the specified standard color.
- c. The Tapered Series Armorflex ACB system, or approved equal, shall be installed. The Tapered Series Armorflex, or approved equal, is considered a system composed of a site specific geotextile placed on a properly compacted subgrade. This geotextile is overlaid with a 4" to 6" thick layer of crushed, angular, free-draining stone having a maximum equivalent diameter no greater than 1.5" and being free of fines, followed by a layer of geogrid. The geogrid apertures will be sized smaller than the D<sub>50</sub> of the specified crushed stone. The tapered blocks are then placed upon the geogrid. Specifications of the geogrid and geotextile are found in Part 3 of this document.
- d. Alternative materials from qualified suppliers may be considered; to qualify, proposed alternative suppliers must own and operate their own manufacturing facility, and shall directly employ a minimum of five (5) registered Professional Engineers. Full documentation consistent with the foregoing must be submitted in writing to the EOR a minimum of twenty (20) business

days prior to bid date, and must be pre-approved in writing as an addendum to the bid documents and drawings by the EOR at least ten (10) business days prior to bid date. Submittal packages must also include, as a minimum, the following:

- Evidence of satisfactory full-scale laboratory testing in accordance with *ASTM D 7277, Standard Test Method for Performance Testing of Articulating Concrete Block (ACB) Revetment Systems for Hydraulic Stability in Open Channel Flow*, performed on behalf the submitting manufacturer on a qualifying test flume of sufficient length for the test flows to achieve normal depth in all cases, and associated engineered calculations quantifying the FoS of the proposed ACB system under the design conditions of the specific project, stamped and signed by a registered Professional Engineer residing in and licensed to practice in the state where the project is located;
- A list of 5 comparable projects, in terms of size and applications, in the United States, where the satisfactory performance of the specific alternate ACB system can be verified after a minimum of five (5) years of service life;
- Information about, or certifications of, all materials associated with the ACB system as detailed above, including (but not limited to) cable, fittings, geotextile, and any other materials required for satisfactory installation in accordance with *ASTM D 6884, Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems*;
- The names and contact information (phone numbers and e-mail addresses, at a minimum) for the suppliers' representatives, for technical, production or logistics questions, at least one of whom must reside in the state where the project is located.

## PART 2 – PRODUCTS

### 2.1 General

- a. All ACB mats shall be prefabricated as an assembly of concrete blocks having specific hydraulic capacities, and laced with revetment cables. The ACB system may also be assembled on-site by hand-placing the individual units either with or without subsequent insertion of cables.
- b. Individual units in the system shall be staggered and interlocked for enhanced stability. The mats shall be constructed of open cell units only as shown on the contract drawings. The open cell units have two (2) vertical openings of rectangular cross section with sufficient wall thickness to resist breakage during shipping and installation. The open cell units have an open area of 18-23% as measured from the base of the mat. Parallel strands of cable shall extend through a minimum of two (2) cable ducts in each block allowing for

longitudinal binding of the units within the mat and subsequent ability of the blocks to move freely along the cable. Each row of units shall be laterally offset by one-half of a block width from the adjacent row so that any given block is cabled to four other blocks (two in the row above and two in the row below).

- c. Each block shall incorporate interlocking surfaces that minimize lateral displacement of the blocks within the mats when they are lifted by the longitudinal revetment cables. The interlocking surfaces must not protrude beyond the perimeter of the blocks to such an extent that they reduce the flexibility or articulation capability of the mats or become damaged or broken when the mats are lifted during shipment or placement. Once the mats are in place, the interlocking surfaces shall minimize the lateral displacement of the blocks even if the cables should become damaged or removed. The mats must be able to flex a minimum of 18° between any given row or column of blocks in the uplift direction and a minimum of 45° in the downward direction.
- d. The cables inserted into the mats shall form lifting loops at one end of the mat with the corresponding cable ends spliced together to form a lifting loop at the other end of the mat. The EOR shall approve appropriate sleeves for use in order to splice the lifting loop. The cables shall be inserted after sufficient time has been allowed for the concrete to complete the curing process.
- e. The ACB mats shall be placed on a filter fabric as specified herein. Under no circumstances shall the filter fabric be permanently affixed or otherwise adhered to the blocks or mats; i.e., the filter fabric shall be independent of the block system.
- f. **Certification (Open-Channel Flow):** ACB mats will only be accepted when accompanied by documented hydraulic performance characteristics that are derived from tests under controlled flow conditions. Testing shall conform to *ASTM D 7277, Standard Test Method for Performance Testing of Articulating Concrete Block (ACB) Revetment Systems for Hydraulic Stability in Open Channel Flow*, as amended and updated from time to time. Note that all hydraulic performance testing shall be performed in a 2H:1V flume, and that the tested length be long enough that the test flows achieve normal depth in all cases. Analysis and interpretation of the test data shall conform to the guidance contained in *ASTM D 7276, Standard Guide for Analysis and Interpretation of Test Data for Articulating Concrete Block (ACB) Revetment Systems in Open Channel Flow*, as amended and updated.

**Performance (Open-Channel Flow):** The design of the ACB mats shall be in accordance with the Factor-of-Safety design methodology as described in "Erosion and Sedimentation" by Pierre Julien, Cambridge University Press, Second Ed. 2010. The minimum designed safety factor shall be 1.5 by utilizing the following equation.

$$SF = ((\vartheta_2 / \vartheta_1) \alpha_0) / ((1 - \alpha_0^2)^{0.5} \cos \beta + \eta (\vartheta_2 / \vartheta_1) + (\vartheta_3 F_d' \cos \delta + \vartheta_4 F_1') / \vartheta_1 W_s) \geq 1.5$$

where  $\vartheta_1$ ,  $\vartheta_2$ ,  $\vartheta_3$ , and  $\vartheta_4$  are geometric properties of the block,  $\alpha_0$ ,  $\beta$ , and  $\delta$  are angles characteristic of the site and application,  $\eta$  is the stability number for a sloped surface,  $F_d$  &  $F_l$  are the drag and lift forces, respectively, and  $W_s$  is the submerged weight of the block. ArmorFlex block geometric parameters are available upon request.

The analysis shall be performed based upon the stability of the ACBs due to gravity forces alone, neglecting conservative forces added by cabling, mechanical anchorage, contact with adjacent blocks, or other restraints not attributable to gravity based forces. The analysis must be in accordance with *ASTM D 6884, Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems*.

**All design calculations submitted must be based upon the smallest block utilized in the mats. Partial “half blocks” must be analyzed separately.**

In order to analyze the performance of the unit, the hydraulic information listed below is required:

#### ACB HYDRAULIC INFORMATION

Design Volumetric Flow Rate (ft <sup>3</sup> /sec)	20
Minimum Shear Stress (lb/ft <sup>2</sup> )	-
Channel Friction or Bed Slope (ft/ft)	0.04 (controlling)
Channel Side Slopes (H:1V)	3H:1V
Channel Bottom Width (ft)	46 (average)
Allowable Unit Protrusion (in)	0.5

## 2.2 Articulating Concrete Blocks

- a. **Scope:** This specification covers ACB mats used for general erosion control, spillway armoring, steep channel armoring, channel protection and other high-velocity applications. Concrete units covered by this specification are made from lightweight or normal weight aggregates, or both. The values stated in U.S. customary units are to be regarded as the standard.
- b. **Materials:** Cementitious Materials - Materials shall conform to the following applicable ASTM specifications:
  - i. Portland Cements - Specification C 150, for Portland Cement.
  - ii. Blended Cements - Specification C 595, for Blended Hydraulic Cements.

- iii. Hydrated Lime Types - Specification C 207, for Hydrated Lime Types.
  - iv. Pozzolans - Specification C 618, for Fly Ash and Raw or Calcined Natural Pozzolans for use in Portland Cement Concrete.
  - v. Aggregates – Specification C 33, for Concrete Aggregates, except that grading requirements shall not necessarily apply.
- c. **Casting:** The ACB units shall be produced using a dry cast method. Dry cast units obtain strength more quickly than wet cast blocks, and will also achieve a greater uniformity of quality and greater durability.
- d. **Physical Requirements:** At the time of delivery to the work site, the ACB units shall conform to the physical requirements prescribed in Table 2 listed below.

Compressive Strength Net Area Min. p.s.i (mPa)		Water Absorption Max. lb/ft <sup>3</sup> (kg/m <sup>3</sup> )	
Avg. of 3 units	Individual Unit	Avg. of 3 units	Individual Unit
4,000 (27.6)	3,500 (24.1)	9.1 (160)	11.7 (192)

Units will be sampled and tested in accordance with *ASTM D 6684, Standard Specification for Materials and Manufacture of Articulating Concrete Block (ACB) Revetment Systems*.

- e. **Visual Inspection:** All units shall be sound and free of defects which would interfere with the proper placement of the unit, or which would impair the performance of the system. Surface cracks incidental to the usual methods of manufacture, or surface chipping resulting from customary methods of handling in shipment and delivery, shall not be deemed grounds for rejection.
- f. Cracks exceeding 0.25" (.60 cm) in width and/or 1.0" (2.5 cm) in depth, or chipping resulting in a weight loss exceeding 10% of the average weight of a concrete unit, shall be deemed grounds for rejection.
- g. Blocks rejected prior to delivery from the point of manufacture shall be replaced at the manufacturer's expense. Blocks rejected at the job site shall be repaired with structural grout or replaced upon request at the expense of the contractor.
- h. **Sampling and Testing:** The purchaser (or their authorized representative) shall be accorded access to the relevant manufacturing facility or facilities, if desired, in order to inspect and/or sample the ACB units from lots ready for delivery prior to release for delivery to the job site. Such inspections are at the sole expense of the requesting entity.

- i. Field installation shall be consistent with the way the system was installed in preparation for hydraulic testing pursuant to *ASTM D 7277, Standard Test Method for Performance Testing of Articulating Concrete Block (ACB) Revetment Systems for Hydraulic Stability in Open Channel Flow*. Any external restraints, anchors, or other ancillary components (such as synthetic drainage mediums) shall be employed as they were during testing; e.g., if the hydraulic testing installation utilized a drainage layer, then the field installation must also utilize a drainage layer. This does not preclude the use of other section components for other purposes, e.g., a geogrid for strengthening the subgrade for vehicular loading, or an intermediate filter layer of sand to protect very fine-grained native soils.
- j. Hydraulic testing shall be conducted on the thinnest block in a “family” of similar blocks (i.e., same footprint but different thicknesses), with the tested critical shear value then converted to a critical shear at 0° before extrapolation to thicker blocks within the same family. Such extrapolation may not be made from a thicker block to a thinner block. The extrapolation method is detailed in the National Concrete Masonry Association (NCMA) “Design Manual for Articulated Concrete Block (ACB) Revetment Systems”, section 4.2.
- k. Purchaser may request additional testing other than that provided by the manufacturer as needed. Such requested testing will extend any stated lead times for manufacturing and delivery, if the results of such testing are a prerequisite to approval (i.e., approval for release to manufacturing). Costs associated with such testing shall be borne by the purchaser.

### 2.3 Manufacturer

The articulating concrete block system shall be the Tapered Series by Armorflex, or approved equal, and shall have the following characteristics:

CLASS	TYPE	MIN. BLOCK WEIGHT		BLOCK SIZE			OPEN AREA %
		Lbs.	Lbs./ft <sup>2</sup>	Length, in.	Width, in.	Height, in.	
40T	Open	58.1	32.8	17.4	15.5	4.0	20

### 2.4 Revetment Cable and Fittings

- a. **Option 1. Polyester Revetment Cable and Fittings:** Revetment cable shall be constructed of high tenacity, low elongating, and continuous filament



polyester fibers. Cable shall consist of a core construction comprised of parallel fibers contained within an outer jacket or cover. The size of the revetment cable shall be selected such that the minimum acceptable strength is at least five (5) times that required for lifting of the mats, in accordance with ASTM D-6684 paragraph 5.5.2.

- b. Elongation requirements specified below are based upon stabilized new, dry cable. Stabilization refers to a process in which the cable is cycled fifty (50) times between a load corresponding to  $200D^2$  and a load equal to 10%, 20% or 30% of the cable's approximate average breaking strength. Relevant elongation values are as shown in the table below. The tolerance on these values is  $\pm 5\%$ .

ELASTIC ELONGATION		
at Percentage of Break Strength		
10%	20%	30%
0.6	1.4	2.2

- c. The revetment cable shall exhibit resistance to most concentrated acids, alkalis and solvents. Cable shall be impervious to rot, mildew and degradation associated with marine organisms. The materials used in the construction of the cable shall not be affected by continuous immersion in fresh or salt water.
- d. Selection of cable and fittings shall be made in a manner that insures a safe design factor for mats being lifted from both ends, thereby forming a catenary. Consideration shall be taken for the bending of the cables around hooks or pins during lifting. Fittings such as sleeves and stops shall be aluminum and washers shall be plastic unless otherwise shown on the Contract Drawings.
- e. **Option 2. Galvanized Steel Revetment Cable and Fittings:** Revetment cable shall be constructed of preformed galvanized aircraft cable (GAC). The cables shall be made from individual wires and strands that have been formed during the manufacture into the shape they have in finished cable.
- f. Cable shall consist of a core construction comprised of seven (7) wires wrapped within seven (7) or nineteen (19) wire strands. The size of the revetment cable shall be selected such that the minimum acceptable strength is at least five (5) times that required for lifting of the mats.
- g. The revetment cable shall exhibit resistance to mild concentrations of acids, alkalis, and solvents. Fittings such as sleeves and stops shall be aluminum, and the washers shall be galvanized steel or plastic. Furthermore, depending on material availability, the cable type (7x7 or 7x19) can be interchanged while

always ensuring the required factor of safety for the cable.

- h. Selection of cable and fittings shall be made in a manner that insures a safe design factor for mats being lifted from both ends, thereby forming a catenary. Consideration shall be taken for the bending of the cables around hooks or pins during lifting. Revetment cable splicing fittings shall be selected so that the resultant splice shall provide a minimum of 75% of the minimum rated cable strength.

## 2.5 Anchors

- a. The specifying EOR *may* require, at his/her discretion, permanent anchoring of the mats, e.g., by the use of ancillary earth anchors or attachment to other structures using the lifting cable loops, or through the open cells of an open-cell block. The design of the ArmorFlex system is intended to provide hydraulic stability without the use of such anchors; consequently, any such anchor design shall be by others as approved by the EOR.

## 2.6 Filter Fabric

- a. The geotextile filter shall meet the minimum physical requirements listed in Table No. 3 of these Specifications. Consultation with the manufacturer is recommended; the standard for sizing geotextile for these applications is AASHTO M-288, Permanent Erosion Control. Either woven or non-woven geotextile are acceptable, as long as they meet the other project requirements.
- b. The geotextile must be permitted to function properly by allowing relief of hydrostatic pressure; therefore fine soil particles shall not be allowed to clog the filter fabric.
- c. The geotextile fiber shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of propylene, ethylene, ester, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic, if necessary, to make the filaments resistant to deterioration due to ultraviolet and heat exposure. The edges of the geotextile shall be finished to prevent the outer fiber from pulling away from the geotextile.
- d. The Contractor shall furnish manufacturer's certified test results to the EOR, showing actual test values obtained when the physical properties are tested for compliance with the specifications.
- e. During all periods of shipment and storage, the filter fabric shall be protected

from direct sunlight, UV radiation, and temperatures greater than 140°F. To the extent possible, the fabric shall be maintained wrapped in its protective covering. The geotextile shall not be exposed to sunlight or UV radiation until the installation process begins.

#### PHYSICAL REQUIREMENTS

Physical Property	Test Procedure	Minimum Value
Grab Tensile Strength (Unaged Geotextile)	ASTM D4632	<i>IAW AASHTO M288 Class 2</i>
Breaking Elongation (Unaged Geotextile)	ASTM D4632	50% max.(in any principal direction)
Burst Strength	ASTM D3786	<i>IAW AASHTO M288 Class 2</i>
Puncture Strength	ASTM D4833	<i>IAW AASHTO M288 Class 2</i>
A.O.S., U.S. Std. Sieve	ASTM D4751	0.425mm minimum
Permittivity	ASTM D4491	0.05 sec <sup>-1</sup>

- f. Final acceptance of the filtration geotextile must be made by the Project Officer based on project specific soil information. Soil characteristics such as grain size distribution, permeability, and plasticity shall be determined for every 200,000 square feet of geotextile installed or for each source of borrow material used during construction. Significant differences in soil characteristics may require the performance of further sieve and possible hydrometer testing at the discretion of the Project Officer. The locations for which the material to be tested is extracted shall be approved by the Project Officer. The Contractor shall provide the site-specific soil and modified proctor curves for the site soil, at his own expense, to the manufacturer. Also, the contractor shall be responsible for the performance of the test by a certified independent laboratory experienced in performing such test. The test shall be performed under the actual field soil conditions or as otherwise required by the Project Office.
- g. At the time of installation, the filter fabric shall be rejected if it has been removed from its protective cover for over 72 hours or has defects, tears, punctures, flow deterioration, or damage incurred during manufacture, transportation or storage. With the acceptance of the EOR, placing a filter fabric patch over the damaged area prior to placing the mats shall repair a torn or punctured section of fabric. The patch shall be large enough to overlap a minimum of three (3) feet in all directions.

#### 2.7 Size of ACB Mats

- a. **General:** The concrete blocks, cables and fittings shall be fabricated at the manufacturer or another approved location into mats with a width of up to eight (8) feet and a length up to forty (40) feet, which is approved by the Project Office. The maximum mat length may be shorter for heavier blocks.
- b. **Mat Length:** The ACB mats shall have the ability for fabrication in various lengths, widths, and in combinations of length and/or widths. Special mats are a combination of two opposing dimensions either in the longitudinal or transverse direction of the mats. The special mats are available in various dimensions that allow for a custom fit to a site-specific project. Obstructions, such as manholes, pipe outfalls, or other fixed structures, will be accommodated to the extent that accurate information is provided about them prior to the preparation of mat layout drawings.

## 2.8 Geogrid

- a. **Description:** The geogrid shall be a regular grid structure of polymeric material and shall have aperture geometry, rib and junction cross-sections sufficient to permit significant mechanical interlock and retain the underlying material. The geogrid shall impart a) high resistance to loss of load capacity or structural integrity when the geogrid is subjected to mechanical stress during installation, b) high resistance to deformation when the geogrid is subjected to applied force in use, and c) high resistance to loss of load capacity or structural integrity when the geogrid is subjected to all forms of ultraviolet, biological or chemical degradation normally encountered in earthwork construction.
- b. **Construction Requirements:** All areas immediately beneath the installation area for the geogrid shall be prepared properly as shown on the plans, as specified, or as directed by the Engineer. The geogrid shall be installed in accordance with the manufacturer's recommendations. Only that amount of geogrid required for immediately pending work shall be placed to prevent undue exposure or damage to the geogrid. The geogrid shall be placed taut prior to concrete block placement. After a layer of geogrid has been placed, suitable means shall be used to anchor the geogrid in position until the concrete blocks can be placed. Adjacent rolls of geogrid shall be overlapped by 12 inches minimum.
- c. **Measurement and Payment:** This item of work shall be measured and paid for by the square yard, completed in place. No allowances shall be made for overlap, splices or material cut off or wasted. Payment for geogrid shall include furnishing the material, labor and equipment required to furnish, place

and anchor the geogrid, and any hand work necessary to establish grades, make geogrid splices and repairs to protective coatings.

## PART 3 – FOUNDATION PREPARATION, GEOTEXTILE AND MAT PLACEMENT

### 3.1 Subgrade Preparation

- a. **General:** All subgrade preparation shall be performed in accordance with ASTM D 6884, Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems, as updated and amended.
- b. **Grading:** The slope shall be graded to a smooth plane surface to ensure that intimate contact is achieved between the slope face and the geotextile (filter fabric), and between the geotextile and the entire bottom surface of the individual ACBs. All slope deformities, roots, grade stakes, and stones which project normal to the local slope face must be re-graded or removed. No holes, "pockmarks", slope board teeth marks, footprints, or other voids greater than 0.5 inch in depth normal to the local slope face shall be permitted. No grooves or depressions greater than 0.5 inches in depth normal to the local slope face with a dimension exceeding 1.0 foot in any direction shall be permitted. Where such areas are evident, they shall be brought to grade by placing compacted homogeneous material. The slope and slope face shall be uniformly compacted, and the depth of layers, homogeneity of soil, and amount of compaction shall be as required by the EOR.
- c. Excavation and preparation for all termination trenches or aprons shall be done in accordance to the lines, grades and dimensions shown in the Contract Drawings. The termination trench hinge-point at the top of the slope shall be uniformly graded so that no dips or bumps greater than 0.5 inches over or under the local grade occur. The width of the termination trench hinge-point shall also be graded uniformly to assure intimate contact between all ACBs and the underlying grade at the hinge-point.
- d. **Inspection:** Immediately prior to placing the filter fabric and ACB mats, the prepared subgrade shall be inspected by the EOR as well as the owner's representative. No fabric or blocks shall be placed thereon until that area has been approved by each of these parties.

### 3.2 Placement of Geotextile Filter Fabric

- a. **General.** All placement and preparation should be performed in accordance with ASTM D 6884, Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems, as updated and amended.
- b. Filter Fabric, or filtration geotextile, as specified elsewhere, will be placed within the limits of ACBs shown on the Contract Drawings.

- c. **Placement.** The filtration geotextile shall be placed directly on the prepared area, in intimate contact with the subgrade, followed by a 4- to 6-inch thick granular drainage layer consisting of angular crushed rock with no fines (max.  $D^{100}$  is 1.5"; other stone types to be discussed with manufacturer). The geotextile shall be free of folds or wrinkles prior to placement of the granular drainage layer. The geotextile will not be walked on or disturbed when the result is a loss of intimate contact between the ACB and the geotextile or between the geotextile and the subgrade. The geotextile filter fabric will be placed so that the upstream strip of fabric overlaps the downstream strip. The longitudinal and transverse joints will be overlapped at least one and a half (1.5) feet for dry installations and at least three (3) feet for below-water installations. The geotextile will extend at least one (1) foot beyond the top and bottom revetment termination points, or as required by the EOR.

### 3.3 Placement of ACBs/Mats

- a. **General.** ACB placement and preparation should be performed in accordance with *ASTM D 6884, Standard Practice for Installation of Articulating Concrete Block (ACB) Revetment Systems*, as amended and updated.
- b. ACB block/mats, as specified in Part 2:A of these Specifications, will be constructed within the specified lines and grades shown on the Contract Drawings.
- c. **Placement.** The articulating concrete block mats shall be placed on a minimum 6-inch thick granular drainage layer. No individual block within the plane of placed concrete blocks shall protrude more than one-half inch or as otherwise specified by the Project Office. ACBs should be flush and develop intimate contact with the drainage layer confinement geogrid, as approved by the Project Office. Proposed hand placing is only to be used in limited areas, specifically identified by the Project Office or manufacturers' mat layout drawings, as approved by the Project Office.
- d. If assembled and placed as large mattresses, the ACB mats will be attached to a spreader bar or other approved device to aid in the lifting and placing of the mats in their proper position by the use of a crane or other approved equipment. The equipment used should have adequate capacity to place the mats without bumping, dragging, tearing or otherwise damaging the underlying fabric. The mats will be placed side-by-side, so that the mats abut each other, and/or end-to-end. Mat seams or openings between mats greater than two (2) inches will be backfilled with 4000 p.s.i. non-shrink grout, concrete or other material approved by the Project Office. Whether placed by hand or in large mattresses, distinct changes in grade that results in a discontinuous revetment surface in the direction of flow will require backfill at the grade change location so as to produce a continuous surface.
- e. Termination trenches will be backfilled and compacted flush with the top of the blocks. The integrity of the trench backfill must be maintained so as to

ensure a surface that is flush with the top surface of the ACBs for its entire service life. Termination trenches will be backfilled as shown on the Contract Drawings. Backfilling and compaction of trenches will be completed in a timely fashion. No more than 500 linear feet of placed ACBs with non-completed termination trenches will be permitted at any time.

- f. **Finishing.** The cells or openings in the ACBs will be backfilled and compacted with suitable material, as specified by the Project Office. Backfilling and compaction will be completed in a timely manner so that no more than 500 feet of exposed mats exist at any time. Finishing requirements are explicitly at the discretion of the Project Office.
  
- g. **Consultation.** The manufacturer of the ACBs/mats shall provide design and construction advice during the design and initial installation phases of the project when required or as necessary, at the discretion of the Project Office. The ACB supplier shall provide, at a minimum, one full day or two half-days of on-site project support upon request.

#### PART 4- MEASUREMENT AND PAYMENT

ACB system will be measured as per square foot. Payment shall include the labor, materials and equipment necessary for a proper and complete installation.

END SECTION

SECTION 329200 – SEEDING AND SODDING

PART 3 - EXECUTION

3.7 MAINTENANCE FOR SEEDED OR SODDED TURFGRASS

*Delete Paragraph C and replace with the following language:*

C. Inspection and removal of invasive plant species shall be undertaken monthly during the growing season until the end of the warranty period per Section 3.10 “Warranty”. Manual removal methods only shall be used, unless otherwise approved by the Project Officer, as authorized by the Landscape Architect

**Add**

3.10 WARRANTY

- A. The warranty period of care and replacement shall begin after substantial completion as determined by the project officer. An inspection will take place prior to the end of the warranty period to determine areas where reseeding is necessary.
- B. Seeding and sodding warranty replacements shall be performed in accordance with the Contract Documents and these specifications.
- C. The Contractor shall include necessary care and replacement to achieve the required coverages per Section 3.9 “Acceptance” at the end of the warranty period.

END SECTION



SECTION 329100 - PLANTING PREPARATION

PART 4 - MEASUREMENT AND PAYMENT

**Add**

4.10 The measurement of CONTINUOUS SOIL PANEL to be paid for shall be per CUBIC YARD of the amended soil in accordance with the plans, specifications and to the satisfaction of the Project Officer.

4.11 The unit price for CONTINUOUS SOIL PANEL shall include the cost of furnishing all labor, materials, equipment and incidental expenses, including but not limited to imported topsoil, vapor barrier, 4" UD-4 underdrain (per VDOT specification), bedding material per Continuous Soil Panel and Tree Pit Drainage Details, and connection to storm sewer system.

END SECTION

SECTION 329300 – EXTERIOR PLANTS

PART 3 - EXECUTION

3.1 EXTERIOR PLANTING

**Add**

G. DEER AND BEAVER PROTECTION

- A. Contractor shall provide deer and beaver protection as required by Urban Forester.
- B. If Deer and beaver protection is required, the Contractor shall provide and install deer and beaver protection in accordance with details included in the Contract Documents.

3.6 MAINTENANCE

*Delete Paragraph H and replace with the following language:*

H. Invasive Plant Control: Contractor shall inspect the planting area (including areas 20 feet beyond the Limits of Disturbance) monthly during the growing season for invasive plants and control plants using manual methods as needed to maintain healthy and viable plantings. Inspection and removal of invasive species shall continue until the end of the warranty period per Section 3.7 “Warranty”. Use of chemical control methods may occur with the approval of the Project Officer for approval as authorized by the Landscape Architect and the Urban Forester.

**Add**

3.7 WARRANTY

- A. The warranty period of care and replacement shall begin after substantial completion as determined by the project officer and continue for 2 years, with an inspection prior to the end of the warranty period to determine quantities of replacement vegetation needed. A potential plant replacement period may follow the warranty inspection.
- B. Tree and shrub warranty replacements shall be performed in accordance with the Contract Documents and these specifications.
- C. The Contractor shall maintain a 2-year care and replacement warranty in accordance with specification 329500 Post-Construction Vegetation Maintenance

PART 4 - MEASUREMENT AND PAYMENT

**Add**

4.6 The measurement of DEER AND BEAVER PROTECTION to be paid for shall be per EACH. Payment to include the cost of all labor, materials, and other expenses necessary to complete the work in accordance with the approved plans and specifications.

END SECTION

## SECTION 329301- LIVE STAKES

### PART 1 – GENERAL

#### 1.1. Description of Work

This work consists of furnishing and installing live stakes on stream banks and other areas as applicable to the plans and details. Live staking is a standard bioengineering technique which involves planting of dormant plant cuttings using species known to produce roots from cuttings. The quantity of live stakes to be installed will be affected by the actual conditions that occur during the construction of the project. The quantity of live stakes may be increased, decreased, or eliminated entirely as directed. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

#### 1.2. Related Work Specified Elsewhere

- A. Section 02100 - Clearing and Grubbing
- B. Section 02228 – Erosion Control Matting
- C. Section 329100 – Planting Preparation
- D. Section 329200 – Seeding and Sodding
- E. Section 329300 – Exterior Plants

#### 1.3. Submittals

In accordance with Section 0329300 – Exterior Plants

### PART 2 – MATERIALS

Live stake cuttings shall be approximately one half inch to one and one half inches (0.5" to 1.5") in diameter. Cuttings will not exceed two inches (2") in diameter and shall not be less than 0.25" in diameter. Cuttings shall be three feet (3') in length minimum and reasonably straight. Live stakes shall be cut at a 45° angle at the basal end and cut flat on the top end. The basal end is the end that will take root and will be the end installed in the ground.

Plant material with excessive damage or oblique cuts, or with excessive damage to the bark, will not be acceptable. All live materials shall be properly stored to insure viability.

### PART 3 – EXECUTION

#### 1.1 Protection of Plant Materials

Contractors shall protect plant materials from drying and overheating during transport and during the installation process. Live plant material shall receive continuous shade and well as protection from the wind. Shade fabric, heeling, mulches, plastic and watering are all techniques that may be used.

#### 1.2 Installation

Installation locations shall be determined in the field and approved by the Project Officer and Urban Forester. Live stake harvesting and installation shall occur during the growing season as determined by local NRCS WETS data. Using the published growing season dates for a local WETS station, the growing season will be defined as that period of time with a 50% probability that the average daily temperature is less than 28 degrees, based on historic weather data. Live

stakes shall be installed according to the Planting Summary Notes and Details. Live stakes will be installed in the ground using a dead blow hammer. The top end of the stake will protrude approximately 3" above the finished ground elevation. On sloped ground surfaces, stakes will be installed perpendicular to the finished grade slope.

The Live Stakes/Posts shall be placed so that 80% of their length is buried. All live stakes shall be planted such that the stake is tamped, and has full contact between the soil and cutting. In the event of hard ground, a 0.5" metal bar may be used to initiate a pilot hole for live stakes. The rod must be carefully removed without rotating to enlarge the hole.

Live Stake/Posts shall be installed at the spacing and density as shown in the project drawings or as directed by the Project Officer. Typical spacing for Live Stakes will be 2'-3' apart using a diamond-pattern spacing.

Live stakes should not be split during installation. Live stakes which are split shall be removed and replaced, or if the split is less than 1/6 of the cutting length, the top may be re-trimmed after installation to remove the damaged portion.

### 1.3 Warranty

A. Guarantee that plants will be alive and in satisfactory growth for a period of two (2) years beginning the date of substantial completion as determined by the Project Officer. The target survival rate for live stakes is 80 percent based on the installed quantity identified on the approved plan.

B. Contractor shall maintain, inspect, and replace plants in accordance with this Section and Section 329500 Post-Construction Vegetation Maintenance.

## PART 4 – MEASUREMENT AND PAYMENT

Live stakes will be measured and paid for at the unit price per stem. Such payment shall be considered full compensation for the item of work, including the cost for furnishing all materials, labor, equipment, incidentals, storage, preparation and planting of the live stakes.

Inspection and maintenance, including replacement, of live stakes during the 2 year post-construction warranty period shall not be measured. The cost thereof shall be incidental to the lump sum price for Planting Warranty and Post-Construction Maintenance.

END SECTION

## SECTION 329500 POST-CONSTRUCTION VEGETATION MAINTENANCE

### PART 1 – GENERAL

#### 1.1. Description of Work

Warranty all plants for two (2) years beginning with the date of substantial completion as determined by the Project Officer. Provide all materials and labor required to maintain installed vegetation for two (2) years post-construction including watering, Deer protection maintenance, and plant maintenance and replacement.

#### 1.2. Related Work Specified Elsewhere

- Section 01551 – Invasive Species Control
- Section 329200 – Seeding and Sodding
- Section 329300 – Exterior Plants
- Section 329301 – Live Stakes

#### 1.3. Plant Warranty and Replacement

Warranty: Guarantee that plants will be alive and in satisfactory growth for a period of two (2) years, beginning the date of substantial completion as determined by the Project Officer.

### PART 2 – MATERIALS

Materials shall be in accordance with the approved plans and specifications herein.

### PART 3 – EXECUTION

#### 3.1 Watering

In accordance with the approved plans, 20-gallon gator bags, or approved equal, shall be installed on all upland and steep slope trees. Trees shall be watered weekly during periods with rainfall of <1 inch from installation to two (2) year following the date of substantial completion.

#### 3.2 Tree Shelter Maintenance

Tree shelters shall be inspected bi-monthly during the growing season (April to October) and maintained for two (2) years following the date of substantial completion.

#### 3.3 Plant Maintenance and Replacement

- a. All plantings shall be inspected annually during the growing season (April to October)

starting with the first growing season following substantial completion.

- b. Dead, dying and diseased plants shall be replaced. Any plant that is 25% dead or more shall be considered dead and shall be replaced at no charge to the County. A tree shall be considered dead when the main leader has died back, or 25% of the crown is dead.
- c. The Contractor shall submit an inspection report summarizing the inspection findings and proposed replacement species, quantities and schedule to the Project Officer by 10/15 of each year.
- d. Live Stakes: A target survival rate of 80 percent shall apply to live stakes, based on the installed quantity from the approved plan. The Contractor shall replace any dead live stakes with bare root plants to account for lost growth, unless otherwise authorized by the Project Officer.
- e. Herbaceous Plants: Replace dead or dying herbaceous plants between April 1 and May 15 of each year at no additional cost to the County.
- f. Woody Plants: Inspect woody plants annually in spring following leaf out to determine required replacement for the subsequent fall. Replace dead or dying woody plants between March 15 and May 15 or between September 15 and December 1, unless otherwise directed by the Project Officer and Urban Forester.
- g. Plants used for replacement shall be the same species and size as specified in Plant List; plant, mulch, maintain and warrant as specified.
- h. Properly maintain all planting and planting areas during the warranty period to include as needed watering, invasive control, repair of excessive soil rutting/erosion, and pruning.
- i. All replacement plants shall be furnished and installed in accordance with the relevant technical specifications.

#### PART 4 – MEASUREMENT AND PAYMENT

The measurement for Post-construction Vegetation Maintenance shall be lump sum, to include all watering, tree shelter maintenance, pruning, and plant replacement during the two (2) year warranty period.

END SECTION

## EXHIBIT C



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF LABOR AND INDUSTRY**

**Gary G. Pan**  
 COMMISSIONER

Main Street Centre  
 600 East Main Street, Suite 207  
 Richmond, Virginia 23219  
 PHONE (804) 371-2327  
 FAX (804) 371-6524

Virginia Department of Labor and Industry Wage Determination Decision

Project Name	Sparrow Pond Restoration
County Project Code	23-DES-ITBPW-494
DOLI Project Number	ARLC-23-0012 UPDATE
County or Independent City	Arlington County
Publication Date	06/12/2023
Construction Type	Heavy

Wage Determinations	Wage	Fringe
Carpenter, Includes Form Work	\$31.40	\$13.86
Cement Mason/Concrete Finisher	\$28.82	\$11.68
Diver	\$23.73	\$4.21
Diver Tender	\$22.53	\$3.98
Electrician*	\$33.95	\$20.01
Glazier (Contracts \$2 Million and Under)	\$29.92	\$13.35
Glazier (Contracts over \$2 Million)	\$34.16	\$13.35
Ironworker, Reinforcing	\$22.45	\$11.85
Ironworker, Structural	\$20.55	\$8.25
Laborer: Common or General	\$12.00	\$1.32
Laborer: Flagger	\$12.00	\$0.20
Laborer: Landscape	\$12.00	
Laborer: Pipelayer	\$27.77	\$8.63
Mason - Stone	\$40.81	\$19.43

Wage Determinations	Wage	Fringe
Power Equipment Operator: 35-ton Cranes and Above**	\$40.45	\$11.07
Power Equipment Operator: Backhoe	\$18.47	\$0.75
Power Equipment Operator: Bobcat/Skid Loader	\$12.00	
Power Equipment Operator: Bulldozer	\$17.54	
Power Equipment Operator: Cranes Below 35 tons***	\$37.98	\$11.07
Power Equipment Operator: Excavator	\$17.79	
Power Equipment Operator: Loader	\$18.99	\$0.75
Power Equipment Operator: Mechanic****	\$40.45	\$11.07
Power Equipment Operator: Tower and Climbing Cranes*****	\$42.56	\$11.07
Power Equipment Operator: Tower Cranes and Cranes 100 Tons and Over*****	\$42.56	\$11.07
Power Equipment Operator: Trackhoe	\$12.75	\$1.24
Power Equipment Operator: Tugboat	\$19.00	
Truck Driver, Includes All Dump Trucks	\$12.14	\$0.75

## Additional Notes

\* Electrician \* PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day. \*

\*\* Power Equipment Operator: 35-ton Cranes and Above \*\* PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day. \*\*

\*\*\* Power Equipment Operator: Cranes Below 35 tons \*\*\* PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day. \*\*\*



\*\*\*\* Power Equipment Operator: Mechanic \*\*\*\* PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day. \*\*\*\*

\*\*\*\*\* Power Equipment Operator: Tower and Climbing Cranes \*\*\*\*\* PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day. \*\*\*\*\*

\*\*\*\*\* Power Equipment Operator: Tower Cranes and Cranes 100 Tons and Over \*\*\*\*\* PAID HOLIDAYS: New Year's Day, Inaugural Day, Decoration Day, Independence Day, Labor Day, Martin Luther King's Birthday, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving and Christmas Day. \*\*\*\*\*

All wage rates to be used on a contract will be set at the time the contract is awarded. While DOLI maintains a list of wage determinations online for reference purposes, only the wage determinations made in an official Wage Determination Decision, sent by DOLI to the contracting agency, can be used to ascertain the exact rates to be paid for a specific contract.

All rates are determined by DOLI and any appeals of specific classifications may be made through the Wage Determination Appeal form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Appeal-for-Wage-Determination-Clarification.pdf>

Any additional classifications may be requested through the Additional Wage Classification form available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/Request-for-Additional-Wage-Classification.pdf>

Understand your duties as a contractor under Virginia law by referencing our Contractor Responsibilities information sheet available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-CONTRACTOR-RESPONSIBILITIES.pdf>

Your employees have specific rights, which can be found on our List of Employee Rights information sheet available at <http://www.doli.virginia.gov/wp-content/uploads/2021/04/PREVAILING-WAGE-EMPLOYEE-RIGHTS.pdf>

Any further questions should be directed to [PrevailingWage@doli.virginia.gov](mailto:PrevailingWage@doli.virginia.gov)

**CONSTRUCTION COST ESTIMATE DETAIL**

PREPARED BY: \_\_\_\_\_

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) Triangle Contracting, LLC IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2705159250 WAS ISSUED ON THE 18th DAY OF December, 2015. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: \_\_\_\_\_

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
<b>C1 GENERAL EARTH WORK</b>					
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02200-C1-00050	Select Borrow (VDOT Section 207 - Select Material, Type I) and Bringing to Final Grade	1800	CY	\$50.00	\$90,000.00
02200-C1-00100	Aggregate, VDOT #1 (Compacted in Place per VDOT standards & Specs)	180	CY	\$100.00	\$18,000.00
02200-C1-00130	Aggregate, VDOT #21-A (Compacted in Place per VDOT standards & Specs)	425	CY	\$85.00	\$36,125.00
02210-C1-00180	Riprap, Dry Class II	86	SY	\$150.00	\$12,900.00
02210-C1-00200	Riprap, Grouted	421	SY	\$85.00	\$35,785.00
02200-C1-SP015	Excavation and Bringing to Final Grade	6700	CY	\$55.00	\$368,500.00
01400-C1-00030	Test Pits (or Test Bores), Up to 6' Deep (with restoration)	1	EA	\$400.00	\$400.00
0200-C1-SP055	Clay Core (GC, SC, CL Soils with 95% Compaction)	250	CY	\$125.00	\$31,250.00
02200-C1-SP075	Tri-Axial Geogrid - Tensar TX140 or approved equivalent. Only for use within the pond when weak soils are encountered and over excavation is needed.	1450	SY	\$7.00	\$10,150.00
				<b>SUBTOTAL</b>	<b>\$603,110.00</b>

**C2 CONCRETE WORK**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02750-C2-00060	Concrete Curb & Gutter, Standard C-2 and C-2R (Arlington County Detail R-2.0), includes curb & gutter for aprons, ramps, etc.	12	LF	\$200.00	\$2,400.00
				<b>SUBTOTAL</b>	<b>\$2,400.00</b>

**C3 ASPHALT WORK**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
02600-C3-00030	Asphalt Concrete, Base Course (VDOT BM-25.0A)	105	TON	\$350.00	\$36,750.00
02600-C3-00060	Asphalt Concrete, Surface Course (VDOT SM-9.5A)	42	TON	\$525.00	\$22,050.00
				<b>SUBTOTAL</b>	<b>\$58,800.00</b>

**CONSTRUCTION COST ESTIMATE DETAIL**

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CHECKED BY: \_\_\_\_\_

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
<b>C4</b>	<b>STORM SEWER UTILITY WORK</b>				
MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02500-C4-00650	18" Pipe, RCP Class III, In Place 6' to 9' Deep	12	LF	\$140.00	\$1,680.00
02500-C4-00720	30" Pipe, RCP Class III, In Place Up to 6' Deep	96	LF	\$225.00	\$21,600.00
02500-C4-00730	30" Pipe, RCP Class III, In Place 6' to 12' Deep	112	LF	\$300.00	\$33,600.00
02500-C4-00020	Storm Manhole PH-1 (Arlington County Detail D-3.1), In Place, DEPTH 8'	5	EA	\$12,000.00	\$60,000.00
02505-C4-00250	Curb Drop Inlet, Standard VDOT DI-3B (12" to 30" Pipe), In Place Up to 8' Deep, Inlet Throat Length 4' to 20'	1	EA	\$14,500.00	\$14,500.00
02505-C4-00400	Yard Inlet Pre-Cast (Arlington County Detail D-1.11), In Place Up to 6' Deep	1	EA	\$6,000.00	\$6,000.00
02500-C4-03410	Standard wing for 4' high box culvert ( 1 side only)- VDOT Road and Bridge Standards - Section 1000	2	EA	\$13,350.00	\$26,700.00
02500-C4-02340	Standard Endwall for pipe culverts 36" circular (VDOT standard EW-1)	1	EA	\$11,500.00	\$11,500.00
02500-C4-02510	Standard Endwall for pipe culverts 48" circular (VDOT standard EW-2)	1	EA	\$25,000.00	\$25,000.00
02500-C4-00021	Storm Manhole PH-1 (Arlington County Detail D-3.1), In Place, PER ADDITIONAL VF OVER 8'	8	VF	\$1,200.00	\$9,600.00
02500-C4-SP765	36" Pipe, RCP Class V, In Place Up to 6' Deep	23	LF	\$500.00	\$11,500.00
02500-C4-SP032	4'x8' single box culvert (Fills to 25')- VDOT Road and Bridge Standards - Section 1000	114	LF	\$2,150.00	\$245,100.00
				<b>SUBTOTAL</b>	<b>\$466,780.00</b>

**C10 PAVEMENT MARKING AND SIGNAGE WORK**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02900-C10-00040	Eighteen (18) Inch Transverse Markings	10	LF	\$13.00	\$130.00
02900-C10-00070	Four (4) Inch Longitudinal Solid Line	84	LF	\$6.50	\$546.00
02900-C10-00120	Six (6) Inch Longitudinal Solid Line	20	LF	\$13.00	\$260.00
02619-C10-00410	Traffic Control Sign (Typical Stop, Yield, No Parking, Speed Limit, or Similar)	4	EA	\$1,000.00	\$4,000.00
				<b>SUBTOTAL</b>	<b>\$4,936.00</b>



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CHECKED BY: \_\_\_\_\_

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
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**LANDSCAPE AND HARDSCAPE****C11****RESTORATION WORK**


MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
02200-C11-00010	Imported Topsoil	392	CY	\$100.00	\$39,200.00
02800-C11-00500	Tree/Stump Removal - Class A. Remove and Dispose, Up to 6" DBH to 12" DBH (Diameter at Breast Height)	73	EA	\$160.00	\$11,680.00
02800-C11-00501	Tree/Stump Removal - Class B. Remove and Dispose, over 12" DBH to 18" DBH (Diameter at Breast Height)	22	EA	\$565.00	\$12,430.00
02800-C11-00502	Tree/Stump Removal - Class C. Remove and Dispose, over 18" DBH to 24" DBH (Diameter at Breast Height)	8	EA	\$1,000.00	\$8,000.00
02800-C11-00503	Tree/Stump Removal - Class D. Remove and Dispose, over 24" DBH to 30" DBH (Diameter at Breast Height)	7	EA	\$2,250.00	\$15,750.00
02800-C11-00504	Tree/Stump Removal - Class E. Remove and Dispose, over 30" DBH to 36" DBH (Diameter at Breast Height)	2	EA	\$3,150.00	\$6,300.00
02800-C11-00602	Trees, Deciduous - 1.5 to 2.0" caliper	120	EA	\$460.00	\$55,200.00
02800-C11-01000	Herbaceous plants ( 3" Deep plug Minimum)	1420	EA	\$6.50	\$9,230.00
02800-C11-01100	Shrub (#3 Container)- Container or B&B	200	EA	\$60.00	\$12,000.00
02800-C11-SP055	Ripariain Seed Mix (Planting Plan)	4200	SY	\$2.00	\$8,400.00
02800-C11-SP056	Turfgrass Seed Mix (Planting Plan)	500	SY	\$1.50	\$750.00
	Deer and Beaver Protection	200	LF	\$10.00	\$2,000.00
	Live Stakes	200	EA	\$6.50	\$1,300.00
	Pre-Construction Invasive Species Control	2	AC	\$4,000.00	\$8,000.00
	Post-Construction Maintenance of Landscape	1	LS	\$11,040.00	\$11,040.00
				<b>SUBTOTAL</b>	<b>\$178,940.00</b>

**C17****STORMWATER WORK**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
ACSWM-C17-00350	30mil HDPE or PVC Impermeable liner installed in place	85	SY	\$40.00	\$3,400.00

BIDDER Triangle Contracting, LLC

Signature \_\_\_\_\_



Page 3 of 4

**CONSTRUCTION COST ESTIMATE DETAIL**

PREPARED BY: \_\_\_\_\_

THE UNDERSIGNED CERTIFIES THAT (CONTRACTOR NAME) Triangle Contracting, LLC IS CURRENTLY REGISTERED WITH THE VIRGINIA STATE BOARD OF CONTRACTORS AS REQUIRED BY THE CODE OF VIRGINIA. CERTIFICATE NUMBER 2705159250 WAS ISSUED ON THE 18th DAY OF December, 2015. THE UNDERSIGNED FURTHER CERTIFIES THAT THE REGISTRATION FEE AND ALL RENEWAL FEES REQUIRED UNDER LAW HAVE BEEN PAID. THE CONTRACTOR AGREES TO FURNISH ALL NECESSARY LABOR, EQUIPMENT, MATERIALS, AND ALL THINGS NECESSARY TO PERFORM THE WORK AS SET FORTH IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR AGREES TO PERFORM RELATED WORK FOR THE FOLLOWING ITEMS AT THE FOLLOWING STIPULATED PRICES: (ALL PRICES INCLUDE PROVISION AND INSTALLATION).

CHECKED BY: \_\_\_\_\_

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
ASCWM-C17-SP235	Riser structure and appurtenances (hand rail, trash rack, beaver leveler, etc.). Furnish and install per plan specifications	1	LS	\$100,000.00	\$100,000.00
ASCWM-C17-SP236	Storm manhole for box culverts - Detail D05	1	LS	\$100,000.00	\$100,000.00
	Armorflex ARTICULATING CONCRETE BLOCK (ACB) SYSTEM	1340	SF	\$40.00	\$53,600.00
	Pond Access Gate	1	LS	\$5,500.00	\$5,500.00
				<b>SUBTOTAL</b>	<b>\$203,400.00</b>
<b>CONTRACT TOTAL (EXCLUDING PERCENTAGE ITEMS)</b>					<b>\$1,518,366.00</b>

**PCT PERCENTAGE LINE ITEMS**

MASTER ITEM #	DESCRIPTION	QTY	UNIT	UNITPRICE	TOTAL
01500-C13-10000	Temporary Erosion and Sediment Controls	NA	%	9.71%	\$147,450.00
01000-C16-00010	Maintenance of Traffic (MOT)	NA	%	0.80%	\$12,075.00
01000-C16-00030	Mobilization and De-Mobilization	NA	%	5.00%	\$75,918.00
01500-SA-00200	SWPPP Administration	NA	%	0.41%	\$6,180.00
<b>PERCENTAGE LINE ITEMS SUBTOTAL</b>					<b>\$241,623.00</b>

PRIMARY CONTRACT : **\$1,759,989.00**

**EXHIBIT E - CONTRACTOR PERFORMANCE EVALUATION FORM**

**ARLINGTON COUNTY GOVERNMENT**  
**Contractor Performance Evaluation Form**

Contractor Name: \_\_\_\_\_ Contract No.: \_\_\_\_\_

Date: \_\_\_\_\_ Project/Contract Name: \_\_\_\_\_

Interim Evaluation \_\_\_\_ Final Evaluation \_\_\_\_

Scope of Work/Services Provided:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contract Start Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Contract End Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Actual Completion Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Please rate the effectiveness of the Contractor’s performance on the Contract/Project across the following dimensions:

Evaluation Criteria: Unacceptable Poor Satisfactory Excellent

Written comments to explain assigned ratings are required for any performance ratings below “satisfactory” or an “excellent” in any category.

Evaluation Questions

1. Quality of Workmanship

Rate the quality of the Contractor’s workmanship. Were there quality-related or workmanship problems on the Contract? Was the Contractor responsive to remedial work required?

\_\_\_\_ Unacceptable      \_\_\_\_ Poor      \_\_\_\_ Satisfactory      \_\_\_\_ Excellent      \_\_\_\_ N/A

2. Problem Solving and Decision Making

Rate the Contractor’s ability to provide effective and creative problem solving, coordination and fair decision making on Contract/Project.

\_\_\_\_ Unacceptable      \_\_\_\_ Poor      \_\_\_\_ Satisfactory      \_\_\_\_ Excellent      \_\_\_\_ N/A

3. Project Schedule

Rate the Contractor's performance with regard to adhering to contract schedules. Did the Contractor meet the contract schedule, or the schedule as revised by approved change orders? If not was the delay attributable to the Contractor?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory \_\_\_ Excellent      \_\_\_ N/A

4. Subcontractor Management

Rate the Contractor's ability, effort and success in managing and coordinating subcontractors (if no subcontractors rate the Contractor's overall project management). Was the Contractor able to effectively resolve problems?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory \_\_\_ Excellent      \_\_\_ N/A

5. Safety

Rate the Contractor's safety procedures on this Contract/Project? Were there any OSHA violations or serious safety accidents?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory \_\_\_ Excellent      \_\_\_ N/A

6. Environmental Compliance

Did the Contractor comply with local, state, and federal environmental standards in the performance of the Contract? Did the Contractor comply in good faith with local erosion and sedimentation control requirements and/or any Stormwater Pollution Prevention Plan?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory \_\_\_ Excellent      \_\_\_ N/A

7. Change Orders

Did the Contractor unreasonably claim change orders or extras? Were the Contractor's prices on change orders and extra work reasonable?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory \_\_\_ Excellent      \_\_\_ N/A

8. Paperwork Processing

Rate this Contractor's performance in completing and submitting required project paperwork (i.e. change orders, submittal, drawings, invoices, workforce reports, etc.) Did the Contractor submit the required paperwork promptly and in proper form?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory \_\_\_ Excellent      \_\_\_ N/A

9. Supervisory Personnel

Rate the general performance of this Contractor's supervisory personnel. Did they have the knowledge, management skills and experience to run a project of this size and scope?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory      \_\_\_ Excellent      \_\_\_ N/A

10. Expertise, Knowledge and Experience

Rate this Contractor's personnel. Were they dedicated, experienced and qualified for the duration of project.

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory      \_\_\_ Excellent      \_\_\_ N/A

11. Project/Contract Closeout

Rate the Contractor's performance on timeliness and quality of closeout deliverables such as As-Built Drawings, Operation and Maintenance Manuals, and training. Did the Contractor complete the tasks or Project on schedule; was the punch list completed within the allotted time?

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory      \_\_\_ Excellent      \_\_\_ N/A

12. Level of Overall Performance

\_\_\_ Unacceptable      \_\_\_ Poor      \_\_\_ Satisfactory      \_\_\_ Excellent      \_\_\_ N/A

Based on these comments, would you recommend this Contractor for comparable work in the future?

Yes       No

Please provide any comments regarding the Contractor's performance or the quality of its work. The Contractor can also provide any comments or clarification on the evaluation in the box below.

(Project Officer or Contractor, use additional sheets, if Necessary):

Signatures and Certifications:



1. The information contained in this evaluation form represents, to the best of my knowledge, a true and accurate analysis of the Contractor’s performance record on this Contract; and,
2. The contents on the evaluation form and the ratings were not negotiated with the Contractor or its representative for any reason.

Evaluator’s Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Evaluator’s (PJO) Printed Name \_\_\_\_\_ Evaluator’s Title: \_\_\_\_\_

Contractor’s signature below acknowledges receipt and the opportunity to respond:

Contractor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

EVALUATION RATINGS DEFINITIONS

Rating	Definition	Notes
Excellent	Performance meets contractual requirements and exceeds many to the County’s benefit. The contractual performance of the element or sub-element being evaluated was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.	To justify an Exceptional rating, identify multiple significant events and state how they were of benefit to the County. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified.
Satisfactory	Performance meets contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.	To justify a Satisfactory rating, there should have been only minor problems, or major problems the contractor recovered from without impact to the contract/order. There should have been NO significant weaknesses identified. A fundamental principle of assigning ratings is that contractors will not be evaluated with a rating lower than Satisfactory solely for not performing beyond the requirements of the contract/order.
Poor	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being evaluated reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor’s proposed actions appear only marginally effective or were not fully implemented.	To justify poor performance, identify a significant event in each category that the contractor had trouble overcoming and state how it impacted the County. A poor rating should be supported by referencing the management tool that notified the contractor of the contractual deficiency (e.g., management, quality, safety, or environmental deficiency report or letter).

Unacceptable	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains a serious problem(s) for which the contractor’s corrective actions appear or were ineffective.	To justify an Unsatisfactory rating, identify multiple significant events in each category that the contractor had trouble overcoming and state how it impacted the County. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating. An Unsatisfactory rating should be supported by referencing the management tools used to notify the contractor of the contractual deficiencies (e.g., management, quality, safety, or environmental deficiency reports, or letters).
Not Applicable (N/A)	N/A (not applicable) should be used if the ratings are not going to be applied to a particular area for evaluation.	

END