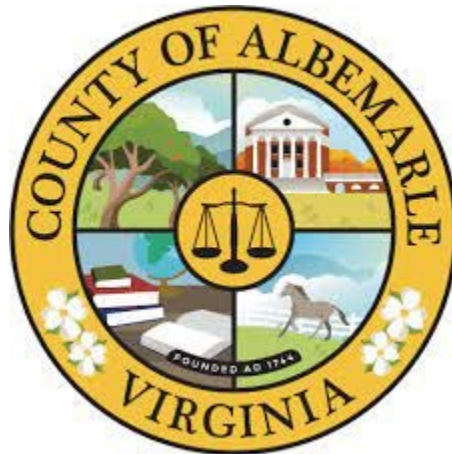


BID MANUAL

Biscuit Run Park Grass Athletic Fields, Entry Road, and Parking Lot

Albemarle County, Virginia



2026-IFB-3102125

A. MORTON THOMAS AND ASSOCIATES, INC.
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September 8, 2025

INVITATION FOR BIDS
2026-IFB-3102125
Biscuit Run Park - Grass Athletic Fields, Entry Road and Parking Lot

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**NOTICE OF
INVITATION FOR BIDS
2026-IFB-3102125**

Sealed bids are invited for the construction of Biscuit Run Park - Grass Athletic Fields, Entry Road, and Parking Lot at 2020 Scottsville Road, Charlottesville, Virginia 22902. The project is generally described as the Construction and Installation of a paved park entrance roadway, a 70-space parking lot with a vault toilet building, two natural grass athletic fields, athletic field irrigation systems with an irrigation supply water main, and related work.

Sealed bids will be received at the Albemarle County Procurement Office, Room 248, Albemarle County Office Building, 401 McIntire Road, Charlottesville, Virginia. Alternatively, electronic bids may be submitted in .pdf format (Adobe), by submitting all required bid documents, and posted addenda, electronically by the stated due date and time, or as modified by an addendum hereto, through the [Albemarle County Procurement Intake Form](https://www.albemarle.org/government/finance/procurement/solicitations) on the Albemarle County Procurement Solicitations Page: <https://www.albemarle.org/government/finance/procurement/solicitations>. The deadline for submitting bids is 2:00 P.M., as determined by the Purchasing Agent, on October 21, 2025. The bids will be opened publicly and read aloud immediately following the receipt of bids. If the County of Albemarle is closed for business at the time scheduled for bid opening, for whatever reason, sealed bids will be accepted and opened on the next scheduled business day, at the originally scheduled time.

The estimated construction cost range for this project is \$3M-\$5M. A Bid Bond is required for any bid which exceeds \$100,000. The “Time for Completion” will be as detailed in the Bid Form.

Bids to be considered shall be received in a sealed envelope marked as follows: County of Albemarle, Procurement Office, Room 248, Albemarle County Office Building, 401 McIntire Road, Charlottesville, VA 22902 / Biscuit Run Park - Grass Athletic Fields, Entry Road, and Parking Lot / IFB No. 2026-IFB-3102125

Procedures for submitting a bid, claiming an error, withdrawal of bids, and other pertinent information are contained in the Instructions to Bidders, which is part of the Invitation for Bids. Withdrawal due to error in bid shall be permitted in accord with Section 9 of the Instructions to Bidders and §2.2-4330A (i), Code of Virginia. The Owner reserves the right to reject any or all bids.

An In-Person pre-bid conference will be held on site at 2020 Scottsville Road, Charlottesville, Virginia 22902 at 10am, on Thursday, October 2, 2025. Attendance will be optional for those submitting a bid.

The contract shall be awarded on a lump sum basis as follows: the Total Base Bid Amount plus such successive Additive Bid Items as the Owner in its discretion decides to award.

Contractor registration in accordance with Title 54.1, Chapter 11, of the Code of Virginia, is required. See the Instructions to Bidders for additional qualification requirements.

The Invitation for Bids for the above project, including the drawings and the specifications prepared by AMT and containing the information necessary for bidding, may be downloaded online from the Albemarle County Procurement web site at <https://www.albemarle.org/government/finance/procurement/solicitations>. Please note that Bidders are responsible to check the Procurement web site and download any Addenda issued for this Bid.

The County of Albemarle does not discriminate on the basis of race, religion, color, sex, national origin, age or disability, or against faith-based organizations as defined under the Virginia Public Procurement Act on the basis of such organization’s religious or charitable character.

INSTRUCTIONS TO BIDDERS

The Invitation For Bids (IFB) consists of the Notice, this Instructions to Bidders, the Bid Form, the Pre-Bid Question Form, the Construction Contract General Conditions, the Supplemental General Conditions (if any), the Special Conditions (if any), the Forms to be used, and the Scope of Work as described by the Plans and Specifications, other documents listed in the Specifications, and any addenda which may be issued, all of which request qualified bidders to submit competitive prices or bids for providing the described work on the project.

1. **CONDITIONS AT SITE OR STRUCTURE:** Bidders shall be responsible for ascertaining pertinent local conditions such as location, accessibility, general character of the site or building, and the character and extent of existing work within or adjacent to the site. Claims, as a result of failure to have done so, will not be considered by the Owner. See Section 7 of the General Conditions entitled “Conditions at Site.”

2. **EXPLANATIONS TO BIDDERS:** Bidders may not rely on any oral explanation in regard to the meaning of drawings and specifications or oral instructions given before the award of the contract. Discrepancies, omissions or doubts as to the meaning of drawings and specifications shall be communicated in writing to the Architect/Engineer for interpretation. Bidders must use the “Prebid Question Form” provided in the bid documents. Bidders must so act to assure that questions reach the Architect/Engineer at least seven (7) days prior to the time set for the receipt of bids to allow a sufficient time for an addendum to reach them before the submission of their bids. If an addendum is required for clarification or interpretation of the Bid Documents, the addendum will be issued not later than five (5) days prior to the date set for the receipt of bids except an addendum withdrawing the invitation for bid or one which includes postponement of the date set for the receipt of bids. Any interpretation made will be in the form of an addendum to the Invitation For Bids, which will be made available to all bidders, and its receipt shall be acknowledged, in writing, by the bidder on the Bid Form.

3. **TIME FOR COMPLETION:**
 - (a) “Time for Completion” shall be designated by the Owner on the Invitation for Bids or other pre-bid documents and shall mean the number of consecutive calendar days following the issuance of the Notice to Proceed which the Contractor has to substantially complete all Work required by the Contract. In some instances, the Time for Completion may be stated in the form of a Contract Completion Date based on a stipulated date of Notice to Proceed.

Unless otherwise specified, the Contractor shall achieve Final Completion within thirty (30) days after the date of Substantial Completion.
 - (b) When the Notice to Proceed is issued, it will state a Contract Completion Date, which has been set by the Owner based on date of the Notice to Proceed and the Time for Completion.
 - (c) The Contractor, in preparing and submitting his bid, is required to take into consideration normal weather conditions. No additional compensation will be paid to the Contractor because of adverse weather conditions; however, an extension of time for abnormal weather will be considered by the Owner as indicated in the General Conditions.

4. PREPARATION AND SUBMISSION OF BIDS:

- (a) Bids shall be submitted on the forms furnished, or copies thereof, and shall be signed in ink. Erasures or other changes in a bid must be explained or noted over the signature of the bidder. Bids containing any conditions, omissions, unexplained erasures, alterations or items not called for in the proposal, or irregularities of any kind, may be rejected by the Owner as being incomplete or nonresponsive.
- (b) Each bid must give the complete legal name and full business address of the bidder and be signed by the bidder, or the bidder's authorized representative, with his usual signature. Bids by partnerships must be signed in the partnership name by one of the general partners of the partnership or an authorized representative, followed by the designation/title of the person signing. Bids by corporations must be signed with the legal name of the corporation followed by the name of the state in which it is incorporated and by the signature and title of the person authorized to bind it in this matter. The name of each person signing shall be typed or printed below the signature. A signature on a bid by a person who identifies his title as "President," "Secretary," "Agent" or other designation without disclosing the principal firm, shall be held to be the bid of the individual signing. When requested by the Owner, satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished. Trade or fictitious names may be referenced by using "t/a ___" but bids shall be in the legal name of the person or entity submitting the bid.
- (c) Bids with the bid guarantee shall be enclosed in a sealed envelope which shall be marked and addressed as indicated by the advertisement. If a contract is for one hundred twenty thousand dollars (\$120,000) or more, or if the total value of all construction, removal, repair or improvements undertaken by the bidder within any twelve-month period is seven hundred fifty thousand dollars (\$750,000) or more, the bidder is required under Title 54.1, Chapter 11, Section 1100, Code of Virginia, as amended, to be licensed in Virginia as a "Class A Contractor." If a contract is for ten thousand dollars (\$10,000) or more, but less than one hundred twenty thousand dollars (\$120,000), or if the total value of all construction, removal, repair or improvements undertaken by the bidder within any twelve-month period is one hundred fifty thousand dollars (\$150,000) or more, but less than seven hundred fifty thousand dollars (\$750,000), the bidder is required to be licensed in Virginia as a "Class B Contractor."

If the bidder is not properly licensed in Virginia at the time the bid is submitted, or if the bidder fails to provide this information on his bid or fails to promptly provide said Contractor license number to the Owner in writing when requested to do so after the opening of bids, he shall be deemed to be in violation of Section 54.1-1115 of the Code of Virginia, as amended, and his bid will not be considered.

- (d) The Board for Contractors has interpreted its regulations to mean "a licensed Contractor can bid on a contract which contains work outside his license classification(s) as long as he subcontracts those items for which he is not qualified to licensed contractors with the appropriate License Classification and the work of the second party is incidental to the contract." Therefore, the Owner may, as a part of determining whether the bidder is "responsible," require the apparent low bidder

to submit a listing of his subcontractors along with the license number and classification or specialty of each.

- (e) The bidder must also place its Employer Identification Number (SSN or FEIN) in the space provided on the Bid Form.
- (f) Every bidder organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership must be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia, as amended, or as otherwise required by law. Any bidder organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 must include in its bid the identification number issued to it by the State Corporation Commission. Any bidder that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the bidder or offeror is not required to be so authorized. A bidder required to be authorized to transact business in Virginia that fails to provide the required information shall not receive an award unless a waiver of this requirement and of any administrative policies and procedures established to implement Section 2.2-4311.2 of the Code of Virginia, as amended, is granted by the Owner.

If awarded the Contract, the bidder shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the Contract. Doing so shall be deemed to be a violation of Section 2.2-4311.2 and the bidder understands and agrees that the Owner may void the Contract if the bidder fails to comply with this provision.

5. BID GUARANTEE:

- (a) Any bid (including the Total Base Bid plus all Additive Bid Items) which exceeds one hundred thousand dollars (\$100,000) shall be accompanied by a Bid Bond payable to the Owner as obligee in an amount equal to five percent (5%) of the amount of the bid. A Bid Bond may be required for projects having bids of less than one hundred thousand dollars (\$100,000) if such requirement is stated in the Notice of Invitation for Bids. The Bid Bond must be issued by a surety company which is legally authorized by the Virginia State Corporation Commission to do fidelity and surety business in the Commonwealth of Virginia. **The bid bond shall identify the name and address of an attorney-in-fact who is appointed to act on behalf of the surety. The attorney-in-fact shall affix to the bond a certified and current copy of the power of attorney.** Such Bid Bond shall guarantee that the bidder will not withdraw his bid during the period of sixty (60) days following the opening of bids; that if his bid is accepted, he will enter into a formal contract with the Owner in accordance with the Contract Between Owner and Contractor included as a part of the IFB Documents; that he will submit a properly executed and authorized Standard Performance Bond and Standard Labor and Material Payment Bond on the forms included in the IFB documents; and that in the event of the withdrawal of said bid within said period, or failure to enter into said contract and give said bonds within ten (10) days after he has received notice of acceptance of his bid, or other forfeiture under the Bid Bond, the bidder shall be liable to the Owner for the difference between the amount specified in said bid and such larger amount for which the Owner may contract with another party to perform the work covered by said bid, up to the amount of the bid guarantee.

This amount represents the damage to the Owner on account of the default of the bidder in any particular hereof. See §2.2-4336 of the Code of Virginia.

- (b) See §2.2-4338 of the Code of Virginia for provisions allowing alternative forms of bid security in lieu of a Bid Bond.
- (c) The Bid Bonds or other bid security will be returned to all except the three lowest bidders after the formal opening of bids. The remaining Bid Bonds or bid security will be returned to the bidders after the Owner and the accepted bidder have executed the Contract and the Performance Bond and the Payment Bond have been approved by the Owner.
- (d) If the required Contract and bonds have not been executed within sixty (60) days after the date of the opening of the bids, then the bond or other bid security of any bidder will be returned upon his request, provided he has not been notified of the acceptance of his bid prior to the date of such request.

6. WITHDRAWAL OR MODIFICATION OF BIDS:

- (a) **WITHDRAWAL:** Bids may be withdrawn by written or telefaxed notice received from bidders prior to the deadline fixed for bid receipt. The bidder has sole responsibility to ensure that such notice is received by the Owner in the appropriate office designated in the Instructions to Bidders, and the Owner shall not be responsible for ensuring accurate or prompt delivery. A withdrawal must be signed by the person signing the sealed bid or by other individual(s) who is authorized to act on behalf of the bidder. Such authorization must be provided in writing at the time of withdrawal, and stated on the face of the withdrawal notice. Withdrawn bids may be resubmitted by the bidder up to the deadline fixed for bid receipt.
- (b) **MODIFICATION:** Bids may be modified only in the following manner. E-mail or telefaxed modifications are not acceptable. All modifications must be signed by the person signing the sealed bid or by an individual(s) who is authorized by him/her on the face of the bid. Written modifications may only be made on the bid form itself. Written modifications must be signed by the person making the modification. The modification must state specifically what is to be modified and by what amount or it must state the item to be modified and what the corrected amount should be. (e.g. “Deduct \$25,000 from Part A and from the Total Base Bid Amount”; or “Add \$23,456 to the Total Base Bid Amount”; or “Deduct \$15,650 from the Additive # 2 amount”. A modification to “Deduct \$25,000 from Part A” will only be applied to Part A and not to the Total Base Bid Amount). Unless otherwise specified by the Bidder in the modification, the modification will be applied to the TOTAL BASE BID AMOUNT shown on the Bid Form (e.g. a modification stating only “Deduct \$25,000” which is properly signed will be deducted from the Total Base Bid Amount shown on the Bid Form).

7. RECEIPT OF BIDS:

- (a) Bids will be received at or before the date and the hour and at the place stipulated in the Invitation for Bids as may be modified by subsequent Addenda.
- (b) It is the responsibility of the bidder to assure that his bid and any bid modifications are delivered to the place designated for receipt of bids by the date and hour (deadline) set for receipt of bids.

Therefore, it is the bidder's responsibility to take into account all factors which may impact on its bid deliverer/courier's ability to deliver the bid and to implement whatever actions are necessary to have the bid delivered to the proper bid receipt location prior to the bid receipt deadline. No bids or bid modifications submitted or offered after the date and hour designated for receipt of bids will be accepted or considered.

- (c) The Purchasing Agent is the Owner's representative designated to receive bids at the time and place noted in the IFB and to open the bids received at the appointed time.
- (d) The official time used for the receipt of responses is determined by reference to the clock designated by the Purchasing Agent. The Purchasing Agent shall determine when the Bid Receipt Deadline has arrived and shall announce that the Deadline has arrived and that no further bids or bid modifications will be accepted. All bids and bid modifications in the possession of the Purchasing Agent and his assistants at the time the announcement is completed are deemed to be timely, whether or not the bid envelope has been physically date/time stamped or otherwise marked by the time the Purchasing Agent makes the deadline announcement.

8. OPENING OF BIDS:

- (a) Bids will be opened at the time and place stated in the Invitation for Bids or as modified by subsequent Addenda, and their contents publicly announced. The Purchasing Agent shall decide when the specified time for bid opening has arrived. No responsibility will be attached to any officer or agent for the premature opening of a bid not properly addressed and identified.
- (b) The provisions of §2.2-4342 of the Code of Virginia shall be applicable to the inspections of bids received.

- 9. ERRORS IN BIDS:** A bidder may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn. The bidder shall give notice of a claim to withdraw a bid, in writing, and submit his original work papers, documents and materials used in the preparation of his bid, to the Purchasing Agent within two business days after the conclusion of the opening of bids. §2.2-4330(B)(1) of the Code of Virginia.

Failure of a bidder to give notice and submit his original work papers, documents and materials used in the preparation of his bid on or before the time, date and place required shall constitute a waiver by that bidder of his right to withdraw his bid due to a mistake.

No bid may be withdrawn under this section when the result would be the awarding of the Contract on another bid of the same bidder or of another bidder in which the ownership of the withdrawing bidder is more than five percent (5%).

No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the Contract is awarded

or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted. The person or firm to whom the Contract was awarded and the withdrawing bidder are jointly liable to the Owner in an amount equal to any compensation paid to or for the benefit of the withdrawing bidder without such approval.

If a bid is withdrawn under authority of this section, the lowest remaining bid shall be deemed to be the low bidder on the project.

- 10. REJECTION OF BIDS:** The Owner reserves the right to cancel the Invitation for Bids, to reject any and all bids at its sole discretion when such rejection is in the interest of the Owner, or to reject the bid of any bidder who is determined to be not responsive or not responsible. See §2.2-4319, Code of Virginia.

11. DETERMINATION OF RESPONSIBILITY:

Each bidder shall be prepared, if so requested by the Owner, to present evidence of his experience, qualifications and financial ability to carry out the terms of the Contract.

Prior to award of the Contract, an evaluation will be made to determine if the low bidder has the capability, in all respects, to perform fully the contract requirements and the moral and business integrity and reliability which will assure good faith performance, and who has been prequalified, if required. Factors to be evaluated may include, but are not limited to:

- (a) sufficient financial ability to perform the contract as evidenced by the bidder's ability to obtain payment and performance bonds from an acceptable surety;
- (b) appropriate experience to perform the Work described in the bid documents;
- (c) any judgments entered against the bidder, or any officers, directors, partners or owners for breach of a contract for construction;
- (d) any substantial noncompliance with the terms and conditions of prior construction contracts with a public body without good cause where the substantial noncompliance is documented; or
- (e) a conviction of the bidder or any officer, director, partner, project manager, procurement manager, chief financial officer, or owner in the last five years of a crime relating to governmental or nongovernmental construction or contracting;
- (f) any current debarment of the contractor, any officer, director or owner, from bidding or contracting by any public body of any state, any state agency, or any agency of the federal government.

The Owner reserves the right to disqualify or refuse to accept the bid of any bidder who has been convicted, or entered a plea of guilty or nolo contendere, in any federal or state court to any charge involving any unlawful, corrupt or collusive practice involving a public contract whether federal, state, or local, or who has been determined in any judicial proceeding to have violated any antitrust, bid-rigging or collusive practice statute in connection with any public contract, or against whom such formal criminal prosecution or other judicial proceeding has been initiated.

A bidder who, despite being the apparent low bidder, is determined not to be a responsible bidder shall be notified in writing in conformance with the procedures in §2.2-4359 of the Code of Virginia.

12. AWARD OF CONTRACT:

- (a) **Basis for Contract Award:** The Contract, if awarded, will be awarded to the lowest responsive and responsible bidder, if any, provided his bid is reasonable and it is in the best interest of the Owner to accept it and subject to the Owner's right to reject any and all bids and to waive informality in the bids and in the bidding. The Bid Form may contain a multi-part Base Bid and may contain Additive Bid Items. Determination of the lowest responsive bidder, if any, will be based on the Total Base Bid amount entered on the Bid Form including any properly submitted bid modifications plus as many Additive Bid Items taken in sequence as the Owner in its discretion chooses to Award. Where the sum of the values entered in the multiple parts do not agree with the Total Base Bid amount, the Total Base Bid amount entered on the Bid Form, including any properly submitted bid modifications, shall take precedence. In the event that the Total Base Bid from the lowest responsible bidder exceeds available funds, the Owner may negotiate the Total Base Bid amount with the apparent low bidder to obtain a contract price within available funds, pursuant to §2.2-4318 of the Code of Virginia and Section 12(c) herein.
- (b) **Informalities:** The Owner reserves the right to waive any informality in the bids when such waiver is in the interest of the Owner.
- (c) **Negotiation With Lowest Responsible Bidder:** If award of a contract to the lowest responsive and responsible bidder is precluded because of limitations on available funds, under the provisions of §2.2-4318 of the Code of Virginia (the Public Procurement Act), the Owner reserves the right to negotiate the Total Base Bid amount with the lowest responsive, responsible bidder to obtain a contract price within the available funds. This may involve changes in either the features or scope of the work included in the Base Bid. Such negotiations with the apparent low bidder may include reducing the quantity, quality, or other cost saving mechanisms involving items in the Total Base Bid. The Owner shall notify the lowest responsive and responsible bidder that such a situation exists and the Owner and bidder shall then conduct their negotiations in person, by mail, by telephone or by any means they find convenient. If an acceptable contract can be negotiated, the changes to the Invitation for Bid documents agreed upon in the negotiations shall be summarized in a "Post Bid Modification" and included in the contract. If an acceptable contract cannot be negotiated, the Owner shall terminate negotiations and reject all bids.
- (d) **Notice of Intent to Award or Notice of Award:** The Notice of Award or the Notice of Intent to Award will be posted on the Albemarle County Purchasing Office web site with the Invitation for Bid procurement documents (www.albemarle.org/purchasing). Any bidder or offeror who desires to protest the award or decision to award a contract shall submit the protest in writing to the Albemarle County Purchasing Agent no later than ten days after the posting of the Notice of Award or Notice of Intent to Award, whichever comes first (§ 2.2-4360).

- 13. CONTRACT SECURITY:** For contracts of more than \$100,000, the Standard Performance Bond (Form AC-10) and the Standard Labor and Material Payment Bond (Form AC-10.1) shall be required, as specified in the Invitation for Bids documents. See the General Conditions and §2.2-4337 and §2.2-4338 of the Code of Virginia. The Owner reserves the right to require such bonds for contracts less than \$100,000. If the Owner so elects, the requirement shall be set forth in the Invitation for Bids. **The bonds shall identify the name and address of an attorney-in-fact who is appointed to act on behalf of the surety within the Commonwealth of Virginia. The attorney-in-fact shall affix to the bond a certified and current copy of the power of attorney.**

14. **CERTIFICATION:** The bidder, by his signature on the Bid Form, certifies that neither his organization nor any of its officers, directors, partners or owners is currently barred from bidding on contracts by the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government. See the statement “Disqualification of Contractors” in the Bid Form.
15. **ETHICS IN PUBLIC CONTRACTING:** The provisions, requirements and prohibitions as contained in Chapter 43, Article 6, §2.2-4367 et seq, Code of Virginia, pertaining to bidders, offerers, contractors, and subcontractors are applicable to this project.
16. **BUILDING PERMITS:** The Virginia Uniform Statewide Building Code shall apply to the Work and shall be administered by the local Building Official. The Building Permit will be obtained by the Contractor and paid for by the Owner. All other permits, local license fees, business fees, taxes, or similar assessments shall be obtained and paid for by the Contractor. See Section 25 of the General Conditions for utility connection fees and services.
17. **MINORITY UTILIZATION:** The County of Albemarle, Virginia, encourages the participation of minority businesses in public procurement activities. Towards that end, the Owner encourages firms to provide for the participation of minority owned businesses through partnerships, joint ventures, subcontracts, and other contractual opportunities.
18. **BID DOCUMENTS:** Bid Documents are the property of the Owner and are available electronically through the Albemarle County Purchasing Office web site at www.albemarle.org/purchasing. Bidders are responsible to check the Purchasing web site and download any Addenda issued for the bid. A deposit is not required for downloading of electronic documents through the web site. The bidder is responsible for the cost of printing any contract documents necessary for bidding. If awarded a contract, the Owner will provide the contractor with two sets of contract documents (i.e. full sized drawings and specifications) for use in the field and the contractor will be responsible for the cost of printing any additional contract documents that may be needed.
19. **GENERAL CONDITIONS:** The County of Albemarle Construction Contract General Conditions are incorporated in the bid documents. If the General Conditions are incorporated by reference, the bidder may obtain a copy of the current edition of the Construction Contract General Conditions at no cost by request to the County of Albemarle, Facilities & Environmental Services - Project Management Division, 401 McIntire Road, Charlottesville, Virginia 22902 (434-960-7718).
20. **PREBID CONFERENCE:** See the Invitation for Bids for requirements for a prebid conference and whether such conference is mandatory or optional.
21. **INSPECTION OF BID DOCUMENTS:** Copies of the Invitation for Bids documents including Plans and Specifications will, upon request, be made available for inspection at the Albemarle County Facilities & Environmental Services Department - Project Management Division, or the A/E’s office.
22. **DRUG-FREE WORKPLACE REQUIRED:** Bidders are reminded that §2.2-4312 of the Code of Virginia requires that during the performance of the contract resulting from this solicitation, the contractor agrees to (i) provide a drug-free workplace for the contractor’s 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 violations of 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 over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this solicitation, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

- 23. CERTIFICATION OF CRIMES AGAINST CHILDREN:** Pursuant to Virginia Code §22.1-296.1(C), as a condition of awarding a contract for the provision of services that require the contractor or his employees to have direct contact with students on school property during regular school hours or during school-sponsored activities, the School Board requires the contractor to provide certification that all persons who will provide such services have not been convicted of a felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child. Any person making a materially false statement regarding any such offense shall be guilty of a Class 1 misdemeanor and, upon conviction, the fact of such conviction shall be grounds for the revocation of the contract to provide such services and, when relevant, the revocation of any license required to provide such services. This requirement does not apply to a contractor or his employees providing services to the School Board in an emergency or exceptional situation, such as when student health or safety is endangered or when repairs are needed on an urgent basis to ensure that school facilities are safe and habitable, when it is reasonably anticipated that the contractor or his employees will have no direct contact with students.

PREBID QUESTION FORM
(Use separate form for each question submitted.)

DATE: _____

PROJECT: 2026-IFB-3102125 - Biscuit Run Park - Grass Athletic Fields, Entry Road and Parking Lot

The following question concerns Drawing Sheet (number) _____:

The following question concerns Specifications Section (number) _____, page _____, paragraph _____:

All responses to questions will be made by Addendum.

Questions submitted by: _____
Name Organization

Email Form To: County of Albemarle Purchasing – Vidhi Danak vdanak@albemarle.org
County of Albemarle Project Manager Scott Reuschling, sreuschling2@albemarle.org
AMT Engineers - A/E Don Rissmeyer, drissmeyer@amtengineering.com

Or

Mail Form to: County of Albemarle
Office of Procurement
401 McIntire Road
Charlottesville, Virginia 22902-4596

And

A. Morton Thomas & Associates, Inc.
100 Gateway Centre Parkway, Suite 140
Richmond, Virginia 23235

BID FORM

DATE: _____

PROJECT TITLE: Biscuit Run Park - Grass Athletic Fields, Entry Road and Parking Lot

IFB No: 2026-IFB-3102125

TO: County of Albemarle, Virginia,
Office of Procurement – Room 248
Albemarle County Office Building
401 McIntire Road
Charlottesville, VA 22902

In compliance with and subject to your Invitation for Bids and the documents therein specified, all of which are incorporated herein by reference, the undersigned bidder proposes to furnish all labor, equipment, and materials and perform all work necessary for construction of this project, in accordance with the Plans and Specifications dated September 8, 2025 for the consideration of the following amount:

BASE BID (including the following parts):

PART A.

Lump sum price for *construction of the sitework including the irrigation water main, except for the excavation of additional unsuitable material (Part B), excavation of rock material (Part C), excavation of rock material at trenches (Part D), and imported topsoil (Part E), complete and in accordance with the Plans and Specifications:*

PART A = _____ Dollars (\$ _____)
(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.)

Base Bids for PARTS B, C, D and E shall be based on the estimated quantities indicated on this bid form to be provided complete and in accordance with the applicable portions of the plans and specifications. Payment amounts for each of these items will be based on the actual quantities authorized, provided and approved times the unit prices indicated by the bidder. The final contract amount shall be adjusted upward or downward based on the actual payment amounts versus the bid amounts for PARTS B, C, D and E. No adjustments in the unit price will be allowed due to the change in actual quantities.

PART B. EXCAVATION OF ADDITIONAL UNSUITABLE MATERIAL

Excavation of unsuitable material, where authorized or directed, below or in addition to the levels required for the Work in Part A including all backfill with suitable, compacted material per the specifications. (Price per cubic yard.) Final amount shall be adjusted upward or downward based on actual quantity authorized.

Estimated quantity of (500) cy @ \$ _____ per cy = _____

PART B = _____ Dollars (\$) _____
(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.)

PART C. EXCAVATION OF ROCK MATERIAL

Excavation of ROCK material, where authorized or directed, and proper disposal off-site of excess material, complete per specifications. (Price per cubic yard.) Final amount shall be adjusted upward or downward based on actual quantity authorized.

Estimated quantity of (1,000) cy @ \$ _____ per cy = _____

PART C = _____ Dollars (\$) _____
(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.)

PART D. EXCAVATION OF ROCK MATERIAL IN TRENCHES

Excavation of ROCK material in trenches, where authorized or directed, proper disposal off-site of excess material and backfill with compacted trench fill material per specifications. (Price per cubic yard.) Final amount shall be adjusted upward or downward based on actual quantity authorized.

Estimated quantity of 500 cy @ \$ _____ per cy = _____

PART D = _____ Dollars (\$) _____
(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.)

PART E. PLACEMENT OF IMPORTED TOPSOIL

Placement of IMPORTED TOPSOIL, on the two turf athletic fields or elsewhere when authorized or directed, per specifications. (Price per cubic yard.) Final amount shall be adjusted upward or downward based on actual quantity authorized.

Estimated quantity of 1,700 cy @ \$ _____ per cy = _____

PART E = _____ Dollars (\$) _____
(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.)

TOTAL BASE BID AMOUNT (For PARTS A, B, C, D & E) IS:

_____ Dollars (\$) _____
(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.)

Contract award will be based on the **TOTAL BASE BID AMOUNT shown above** (including any properly submitted bid modifications) plus as many Additive Bid Items as the Owner in its discretion decides to award.

The undersigned understands that time is of the essence and agrees that the time for Substantial Completion of the entire project shall be September 15, 2026 assuming timely execution of the Contract with contract Notice to Proceed on or before November 24, 2025, and Final Completion shall be achieved within 60 consecutive calendar days after the date of Substantial Completion as determined by the A/E.

* * * * *

Acknowledgment is made of receipt of the following Addenda:

If notice of acceptance of this bid is given to the undersigned within 60 days after the date of opening of bids, or any time thereafter before this bid is withdrawn, the undersigned will execute and deliver a contract in the prescribed form (County of Albemarle Contract Between Owner and Contractor, Form AC-9) within 10 days after the contract has been presented to him for signature. The required payment and performance bonds, on the forms prescribed, shall be delivered to the owner along with the signed Contract.

Immigration Reform and Control Act of 1986: The undersigned certifies that it does not and will not during the performance of the Contract for this project violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

DISQUALIFICATION OF CONTRACTORS: By signing this bid or proposal, the undersigned certifies that this Bidder or any officer, director, partner or owner is not currently barred from bidding on contracts by any Agency of the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government, nor is this Bidder a subsidiary or affiliate of any firm/corporation that is currently barred from bidding on contracts by any of the same. We have attached an explanation of any previous disbarment(s) and copies of notice(s) of reinstatement(s).

CERTIFICATION OF NO COLLUSION: The undersigned does hereby certify in connection with the procurement and bid to which this Certification of No Collusion is incorporated that:

This bid is not the result of, or affected by, any act of collusion with another person engaged in the same line of business or commerce; nor is this bid the result of, or affected by, any act of fraud punishable under Article 1.1 of Chapter 12 of Title 18.2 of the Code of Virginia, 1950, as amended (18.2-498.1 et seq.).

The undersigned declares that they are fully authorized to sign the proposal on behalf of the firm listed and to all conditions and provisions thereof. The firm name given below is the true and complete name of the bidder and the bidder is legally qualified and licensed by the Commonwealth of Virginia, Department of Commerce, State Board for Contractors, to perform all Work included in the scope of the Contract.

Virginia License No. _____

Bidder _____
(Name of Firm)

Contractor Class _____

By _____
(Signature)

Valid Until _____

(Typed Name)

FEIN/SSN: _____

Title _____

If Partnership (List Partner's Names)

If Corporation, affix Corporate Seal & list
State of Incorporation

State: _____
(Affix Seal)

Business Address:

Telephone No.: _____

Fax No.: _____

Email: _____

STATE CORPORATION COMMISSION & REGISTERED AGENT FORM

Virginia State Corporation Commission (SCC) registration information.

Code of Virginia § 13.1-757. A foreign corporation may not transact business in the Commonwealth until it obtains a certificate of authority from the Commission.

The bidder:

| | |
|--------------------------|---|
| <input type="checkbox"/> | is a corporation or other business entity with the following Virginia SCC identification number: _____ -OR- |
| <input type="checkbox"/> | is not a corporation, limited liability company, limited partnership, registered limited liability partnership, or business trust -OR- |
| <input type="checkbox"/> | is not required to obtain a certificate of authority from the Virginia SCC, pursuant to <i>Virginia Code</i> § 13.1-757(B) because its sole contact(s) with the Commonwealth consist(s) of: <ol style="list-style-type: none"> 1. <input type="checkbox"/> Maintaining, defending, or settling any proceeding; 2. <input type="checkbox"/> Holding meetings of the board of directors or shareholders or carrying on other activities concerning internal corporate affairs; 3. <input type="checkbox"/> Maintaining bank accounts; 4. <input type="checkbox"/> Maintaining offices or agencies for the transfer, exchange, and registration of the corporation's own securities or maintaining trustees or depositories with respect to those securities; 5. <input type="checkbox"/> Selling through independent contractors; 6. <input type="checkbox"/> Soliciting or obtaining orders, whether by mail or through employees or agents or otherwise, if the orders require acceptance outside this Commonwealth before they become contracts; 7. <input type="checkbox"/> Creating or acquiring indebtedness, deeds of trust, and security interests in real or personal property; 8. <input type="checkbox"/> Securing or collecting debts or enforcing deeds of trust and security interests in property securing the debts; 9. <input type="checkbox"/> Owning, without more, real or personal property; 10. <input type="checkbox"/> Conducting an isolated transaction that is completed within 30 days and that is not one in the course of repeated transactions of a like nature; 11. <input type="checkbox"/> For a period of less than 90 consecutive days, producing, directing, filming, crewing or acting in motion picture feature films, television series or commercials, or promotional films which are sent outside of the Commonwealth for processing, editing, marketing and distribution. The term "transacting business" as used in this subsection shall have no effect on personal jurisdiction under § 8.01-328.1; or 12. <input type="checkbox"/> Serving, without more, as a general partner of, or as a partner in a partnership which is a general partner of, a domestic or foreign limited partnership that does not otherwise transact business in the Commonwealth. 13. <input type="checkbox"/> Transacting business in interstate commerce. |
| <input type="checkbox"/> | is an out-of-state business entity that is including with this bid <u>an opinion of legal counsel</u> which accurately and completely discloses the undersigned bidder's current contacts with Virginia and describes why those contacts do not constitute the transaction of business in Virginia within the meaning of § 13.1-757 or other similar provisions in Titles 13.1 or 50 of the Code of Virginia. Attach opinion of legal counsel to this form. |

Registered Agent Information

Please specify the Registered Agent who will accept service of process on your behalf.

Agent Name: _____

Physical Address (no Post Office Boxes):

I certify the accuracy of this information.

Signed: _____ Title: _____ Date: _____

OFFEROR DATA SHEET

Note: The following information is required as part of your response to this solicitation. Failure to complete and provide this sheet may result in finding your bid nonresponsive.

1. Qualification: The vendor must have the capability and capacity in all respects to satisfy fully all of the contractual requirements.

2. Vendor's Primary Contact:

Name: _____ Phone: _____

3. Years in Business: Indicate the length of time you have been in business providing this type of good or service:

_____ Years _____ Months

4. Vendor Information:

FIN or FEI Number: _____ If Company, Corporation, or Partnership

5. Indicate below a listing of at least four (4) recent projects, either educational or governmental, that your company has successfully completed with similar scope, cost and complexity, include the date of services and the name, address, and email address, and telephone number of the point of contact.

| | | |
|----|-------------------------|-----------------|
| A. | Company: _____ | Contact: _____ |
| | Phone: _____ | Email: _____ |
| | Dates of Service: _____ | \$ Value: _____ |

| | | |
|----|-------------------------|-----------------|
| B. | Company: _____ | Contact: _____ |
| | Phone: _____ | Email: _____ |
| | Dates of Service: _____ | \$ Value: _____ |

| | | |
|----|-------------------------|-----------------|
| C. | Company: _____ | Contact: _____ |
| | Phone: _____ | Email: _____ |
| | Dates of Service: _____ | \$ Value: _____ |

| | | |
|----|-------------------------|-----------------|
| D. | Company: _____ | Contact: _____ |
| | Phone: _____ | Email: _____ |
| | Dates of Service: _____ | \$ Value: _____ |

I certify the accuracy of this information.

Signed: _____ Title: _____ Date: _____

**CERTIFICATION OF CRIMES AGAINST CHILDREN
AND ACTS OF MORAL TURPITUDE**

Contractor acknowledges that the implementation of this contract requires Contractor, Contractor's employees and/or subcontractors to have direct contact with Albemarle County Public Schools' students. Therefore, Contractor hereby certifies that neither Contractor nor, to the best of Contractor's knowledge, its employees and/or subcontractors have been convicted of a felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child.

Contractor further certifies and shall indicate below whether Contractor and, to the best of Contractor's knowledge, its employees and/or its subcontractors, who will have direct contact with Albemarle County Public School students, have been convicted of a crime of moral turpitude. Crimes of "moral turpitude" are those crimes involving lying, cheating or stealing.

For the purposes of this certification, "direct contact with students" means being in the presence of students during regular school hours or during school sponsored activities.

Contractor understands that, pursuant to Code of Virginia §22.1-296.1, making a materially false statement regarding offenses which are required to be included in the certification referenced above is a Class 1 misdemeanor and, upon conviction, the fact of such conviction shall be grounds for the revocation of the contract to provide such services and, when relevant, the revocation of any license required to provide such services. Albemarle County Public Schools shall not be liable for materially false statements regarding the certifications required under this Contract.



Have you or, to the best of your knowledge, any of your employees and/or subcontractors who will have direct contact with students been convicted of a crime of moral turpitude?

NO

YES (please explain)

Contractor

Date

By: _____

Title: _____



**Bid Receipt and Bid Reading Procedures
September 26, 2025**

2026-IFB-3102125 - Biscuit Run Park - Grass Athletic Fields, Entry Road and Parking Lot

The following Albemarle County Purchasing Procedures shall be in effect:

1. Paper bids shall be prepared as usual and shall be delivered to the County Office Building at 401 McIntire Road, Charlottesville, VA 22902. Bids will be received in a secure manner and will be stored in such manner as to keep them in a secure status.
2. A secure lock box will be available, at the exterior of the County Office Building, at the front Visitors Entrance, and will be labeled **Vendor/Contractor Bids or Proposals Only**. Bids shall be placed in this box, prior to the established due date and time for each solicitation.
3. Alternatively, electronic bids may be submitted in .pdf format (Adobe), by submitting all required bid documents, and posted addenda, electronically by the stated due date and time, or as modified by an addendum hereto, through the [Albemarle County Procurement Intake Form](#) on the Albemarle County Procurement Solicitations Page:
<https://www.albemarle.org/government/finance/procurement/solicitations>

It is the Offeror's responsibility to ensure that bids are received prior to the established bid due date and time.

4. Bids will be received in the lockbox and electronically until **2:00 pm ET on Tuesday, October 21, 2025**. Any further bids received will be ruled as late bids and will be retained un-opened. Late bids will not be considered. If you have any difficulty utilizing the lockbox please call the Purchasing Office, at 434- 296-5854.
5. Bid readings will be held at 2:30 pm on **Tuesday, October 21, 2025**. At the appointed time as noted below, the bids will be virtually opened and read aloud by Purchasing personnel. Public attendance at the Bid Reading will be by virtual attendance through MS Teams Meeting.
6. The bids shall be examined for conformance of all requirements of the solicitation including a signature, acknowledgement of addenda, and presence of a bid bond, when required. At the conclusion of the reading of the bids, Purchasing staff will complete the due diligence to examine bids for determination of complete responsiveness and vendor responsibility and additional information, including the bid tabulation, will be provided as it becomes available.
7. On **Tuesday, October 21, 2025, at 2:30 pm ET**, the Virtual Bid Reading may be attended through the following MS Teams Meeting link:

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 265 997 970 211 3

Passcode: N4nX3ou9

Dial in by phone

[+1 540-613-8851,,882447538#](#) United States, Roanoke

[Find a local number](#)

Phone conference ID: 882 447 538#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

COUNTY OF ALBEMARLE



CONSTRUCTION CONTRACT GENERAL CONDITIONS

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1. DEFINITIONS

Whenever used in these Construction Contract General Conditions (“General Conditions”) or in the Contract Documents, the following terms have the meanings indicated, which are applicable to both the singular and plural and the male and female gender thereof:

Architect, Engineer, Architect/Engineer or A/E: The term used to designate the Architect and/or the Engineer that contracts with the Owner to provide the Architectural and Engineering services for the Project. The A/E is a separate contractor and not an agent of the Owner. The term includes any associates or consultants employed by the A/E to assist in providing the A/E services.

Beneficial Occupancy: The condition after Substantial Completion but prior to Final Completion of the Project at which time the Project, or portion thereof, is sufficiently complete and systems operational such that the Owner could, after obtaining necessary approvals and certificates, occupy and utilize the space for its intended use. Guarantees and warranties applicable to that portion of the Work begin on the date the Owner accepts the Project, or a portion thereof, for such Beneficial Occupancy, unless otherwise specified in the Supplemental General Conditions or by separate agreement.

Building Permit: See “Permit” below.

Change Order: A document (Form AC-11) issued on or after the effective date of the Contract Between Owner and Contractor (Form AC-9) which is agreed to by the Contractor and approved by the Owner, and which authorizes an addition, deletion or revision in the Work, including any adjustment in the Contract Price and/or the Contract Completion Date. A Change Order once signed by all parties, with the exception of a Unilateral Change Order that is only signed by the Owner, is incorporated into and becomes a part of the Contract.

Claim: A demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract. The term “claim” also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claims must be made by written notice. The responsibility to substantiate claims shall rest with the party making the claim.

Code of Virginia: 1950 Code of Virginia as amended. Sections of the Code referred to herein are noted by §xx-xx.

Construction: The term used to include new construction, reconstruction, renovation, restoration, major repair, demolition and all similar work upon buildings and ancillary facilities, including any draining, dredging, excavation, grading or similar work upon real property.

Contract: The Contract Between Owner and Contractor, Form AC-9, hereinafter referred to as the Contract.

Contract Completion Date: The date by which the Work must be substantially complete. The Contract Completion Date is customarily established in the Notice To Proceed, based on the Time for Completion. In some instances, however, the Contract contains a mandatory Contract Completion Date, which shall be stated in the Invitation for Bid or Request for Proposal, as applicable.

Contract Documents: The Contract Between Owner and Contractor (Form AC-9) signed by the Owner and the Contractor and any documents expressly incorporated therein. Such incorporated documents customarily include the bid submitted by the Contractor, these General Conditions, any Supplemental General Conditions, any Special Conditions, the plans and the specifications, and all modifications, including addenda and subsequent Change Orders.

Contract Price: The total compensation payable to the Contractor for performing the Work, subject to modification by Change Order.

Contractor: The person with whom the Owner has entered into a contractual agreement to do the Work.

Date of Commencement: The date as indicated in the written Notice to Proceed or a date mutually agreed to between the Owner and Contractor in writing.

Day(s): Calendar day(s) unless otherwise noted.

Defective: An adjective which, when modifying the word Work, refers to Work that is unsatisfactory, faulty, deficient, does not conform to the Contract Documents or does not meet the requirements of inspections, standards, tests or approvals required by the Contract Documents, or Work that has been damaged prior to the A/E's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion or Beneficial Occupancy).

Drawing: A page or sheet of the Plans which presents a graphic representation, usually drawn to scale, showing the technical information, design, location, and dimensions of various elements of the Work. The graphic representations include, but are not limited to, plan views, elevations, transverse and longitudinal sections, large and small scale sections and details, isometrics, diagrams, schedules, tables and/or pictures.

Emergency: Any unforeseen situation, combination of circumstances, or a resulting state that poses imminent danger to health, life or property.

Field Order: A written order issued by the A/E or Owner which clarifies or explains the plans or specifications, or any portion or detail thereof, without changing the design, the Contract Price, the Time for Completion or the Contract Completion Date.

Final Completion Date: The date of the Owner's acceptance of the Work from the Contractor upon confirmation from the Architect/Engineer and the Contractor that the Work is totally complete in accordance with Section 43(b).

Final Payment: The final payment that the Contractor receives pursuant to the applicable provisions of Section 36, except in the event no final payment is made due to termination of the Contract under either Sections 40 or 41. In the event of a termination for cause under Section 40, the Final Payment shall be when the termination became effective. In the event of a termination for convenience under Section 41, the Final Payment shall be either the payment of compensation for termination that the Contractor receives according to the provisions of Subsection 41, or the Owner's determination that no compensation for termination is due the Contractor under Subsection 41, as the case may be.

Float: The excess time included in a construction schedule to accommodate such items as inclement weather and associated delays, equipment failures, and other such unscheduled events. It is the

contingency time associated with a path or chain of activities and represents the amount of time by which the early finish date of an activity may be delayed without impacting the critical path and delaying the overall completion of the Project. Any difference in time between the Contractor's approved early completion date and the Contract Completion Date shall be considered a part of the Project float.

Float, Free: The time (in days) by which an activity may be delayed or lengthened without impacting upon the start day of any activity following in the chain.

Float, Total: The difference (in days) between the maximum time available within which to perform an activity and the duration of an activity. It represents the time by which an activity may be delayed or lengthened without impacting the Time for Completion or the Contract Completion Date.

Notice: All written notices, including demands, instructions, claims, approvals and disapprovals, required or authorized under the Contract Documents. Any written notice by either party to the Contract shall be sufficiently given by any one or combination of the following, whichever shall first occur: (1) delivered by hand to the last known business address of the person to whom the notice is due; (2) delivered by hand to the person's authorized agent, representative or officer wherever they may be found; or (3) enclosed in a postage prepaid envelope addressed to such last known business address and delivered to a United States Postal Service official or mailbox. Notice is effective upon such delivery. All notices to the Owner should be directed to the Project Manager.

Notices transmitted by Facsimile (Fax) or Email are acceptable for the Project. If faxed, Notices shall be transmitted to the Fax number listed in the Contract and shall have a designated space for the Fax Notice recipient to acknowledge his receipt by authorized signature and date. The Fax Notice with authorized signature acknowledging receipt shall be Faxed back to the sender. If emailed, Notices shall be transmitted to the email address listed in the Contract. The Email Notice recipient shall acknowledge receipt by emailing back to the sender and responding to the Emailed Notice. Notice shall be effective upon the date of acknowledgment of the Faxed or Emailed Notice or the date of delivery, whichever occurs first.

Notice to Proceed: A written notice given by the Owner to the Contractor (with a copy to A/E) fixing the date on which the Contract time will commence for the Contractor to begin the prosecution of the Work in accordance with the requirements of the Contract Documents. The Notice to Proceed will customarily identify a Contract Completion Date.

Owner: County of Albemarle, Virginia and/or The County School Board of Albemarle County, Virginia.

Permit: The term "permit" as used herein shall mean any and all permits required to comply with local, state, and federal codes or laws (including but not limited to building permit, erosion and sediment control permit, and any other permit required by state, federal, and local jurisdictions).

Person: This term includes any individual, corporation, partnership, association, company, business, trust, joint venture, or other legal entity.

Plans: The term used to describe the group or set of project-specific drawings and/or Architect/Engineer sketches which are included in the Contract Documents.

Project: The term used instead of the specific or proper assigned title of the entire undertaking which includes, but is not limited to, the “Work” described by the Contract Documents.

Project Inspector: One or more persons and/or firms employed by the Owner to inspect the Work for the Owner and/or to document and maintain records of activities at the Site to the extent required by the Owner. The scope of the Project Inspector’s authority with respect to the Contractor is limited to that indicated in Section 16(e) and (f).

Project Manager: The Project Manager as used herein shall be the Owner’s designated representative on the Project. The Project Manager shall be the person through whom the Owner generally conveys written decisions and notices. All notices due the Owner and all information required to be conveyed to the Owner shall be conveyed to the Project Manager. The Owner may change the Project Manager from time to time and may, in the event that the Project Manager is absent, disabled or otherwise temporarily unable to fulfill his duties, appoint an interim Project Manager.

Provide: Shall mean furnish and install ready for its intended use.

Schedule of Values: The schedule prepared by the Contractor and acceptable to the Owner which indicates the value of that portion of the Contract Price to be paid for each trade or major component of the Work.

Site: Shall mean the location at which the Work is performed or is to be performed.

Special Conditions: Provisions of a contract that are specific to the project under consideration and do not fall under General Conditions or Supplemental General Conditions.

Specifications: That part of the Contract Documents containing the written administrative requirements and the technical descriptions of materials, equipment, construction systems, standards, and workmanship which describe the proposed Work in sufficient detail and provide sufficient information for the Code Official to determine code compliance and for the Contractor to perform the Work. (The General Conditions, any Supplemental General Conditions, Special Conditions, various bidding information and instructions, and blank copies of various forms to be used during the execution of the Work are usually bound with the Specifications.)

Subcontractor: A person having a direct contract with Contractor or with any other Subcontractor for the performance of the Work. Subcontractor includes any person who provides on-site labor but does not include any person who only furnishes or supplies materials for the Project.

Submittals: All shop, fabrication, setting and installation drawings, diagrams, illustrations, schedules, samples, and other data required by the Contract Documents which are specifically prepared by or for the Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by the Contractor to illustrate material or equipment conformance of some portion of the Work with the requirements of the Contract Documents.

Substantial Completion: The condition when the Owner 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 Owner for the purposes for which it was intended. The Owner at its sole discretion may, after

obtaining the necessary approvals and certificates, take Beneficial Occupancy at this time or choose to wait to occupy until after Final Completion is achieved.

Supplemental General Conditions: That part of the Contract Documents which amends or supplements the General Conditions.

Supplier: A manufacturer, fabricator, distributor, materialman or vendor who provides material for the Project but does not provide on-site labor.

Time for Completion: The number of consecutive calendar days following the issuance of the Notice to Proceed which the Contractor has to substantially complete all Work required by the Contract. When the Notice to Proceed is issued, it states a Contract Completion Date, which has been set by the Owner based on the Time for Completion.

Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which are or have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unilateral Change Order: A Change Order from the Owner directing the Contractor to proceed with work within the scope of the contract which may be undefined or for which there is no agreement on the cost or time associated with the work.

Work: The services performed under this Contract including, but not limited to, furnishing labor, and furnishing and incorporating materials and equipment into the construction. The Work also includes the entire completed construction, or the various separately identifiable parts thereof, required to be provided under the Contract Documents or which may reasonably be expected to be provided as part of a complete, code compliant and functioning system for those systems depicted in the plans and specifications.

2. CONTRACT DOCUMENTS

- (a) The Contract Between Owner and Contractor (AC-9), the Standard Performance Bond (AC-10), the Standard Labor and Material Payment Bond (AC-10.1), the Schedule of Values and Certificate for Payment (AC-12), the Affidavit of Payments of Claims (AC-13), the Contractor's Certificate of Substantial Completion (AC-13.2a), and the Contractor's Certificate of Completion (AC-13.2) issued by the County of Albemarle are forms incorporated in these General Conditions by reference and are made a part hereof to the same extent as though fully set forth herein. They must be used by the Contractor for their respective purposes.
- (b) All time limits stated in the Contract Documents, including but not limited to the Time for Completion of the Work, are of the essence of the Contract.
- (c) The Contract Between Owner and Contractor shall be signed by the Owner and the Contractor in as many original counterparts as may be mutually agreed upon, each of which shall be considered an original.

- (d) Anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required or called for by all, except that a provision clearly designed to negate or alter a provision contained in one or more of the other Contract Documents shall have the intended effect. In the event of conflicts among the Contract Documents, the Contract Documents shall take precedence in the following order: the Contract Between Owner and Contractor; the Special Conditions; the Supplemental General Conditions; the General Conditions; the specifications with attachments; and the plans.
- (e) If any provision of this Contract shall be held invalid by any court of competent jurisdiction, such holding shall not invalidate any other provision.
- (f) All correspondence, invoices, memoranda, submittals and other documents related to this Project whether generated by the Owner, the A/E, the Contractor or others should be identified at the beginning of the document with the Project Title shown in the Contract. Additional identification such as a job number, purchase order number or such may also be shown at the Owner's option.

3. LAWS, REGULATIONS AND PERMITS

- (a) The Contractor shall comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work and shall give all notices required thereby. The Contractor shall assure that all Subcontractors and tradesmen who perform Work on the project are properly licensed by the Department of Professional and Occupational Regulation as required by Title 54.1, Chapter 11, Articles 1 and 3, Code of Virginia, and by applicable regulations.
- (b) This Contract and all other contracts and subcontracts are subject to the provisions of Articles 3 and 5, Chapter 4, Title 40.1, Code of Virginia, relating to labor unions and the "right to work." The Contractor and its Subcontractors, whether residents or nonresidents of the Commonwealth, who perform any Work related to the Project shall comply with all of the said provisions.
- (c) IMMIGRATION REFORM AND CONTROL ACT OF 1986: By signing this Contract, the Contractor certifies that it does not and will not during the performance of this Contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.
- (d) The provisions of all rules and regulations governing safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia and as issued by the Department of Labor and Industry under Title 40.1 of the Code of Virginia shall apply to all Work under this Contract. Inspectors from the Department of Labor and Industry shall be granted access to the Work for inspection without first obtaining a search or administrative warrant.
- (e) Building Permit: The Virginia Uniform Statewide Building Code applies to the Work and is administered by the local Building Official. The Building Permit will be obtained by the Contractor and paid for by the Owner. All other permits, local license fees, business fees, taxes, or similar assessments shall be obtained and paid for by the Contractor. See Section 25 for utility connection fees and services.

- (f) The Contractor shall include in each of its subcontracts a provision requiring each Subcontractor to include or otherwise be subject to the same payment and interest requirements in Subsections (a), (b), and (c) of Section 37 of these General Conditions with respect to each lower-tier Subcontractor and Supplier.
- (g) The Contractor, if not licensed as an asbestos abatement contractor in accordance with §54.1-514, Code of Virginia, shall have all asbestos-related Work performed by subcontractors who are duly licensed as asbestos contractors for the Work required.
- (h) Lead-Based Paint Activities: If the Contract Documents indicate that lead-based paint is present on existing materials, components, or surfaces, the Contractor shall conform to the following:
 - (1) The requirements set forth in 59 Federal Register 45,872 (September 2, 1994) Proposed Rule - Lead; Requirements for Lead-based Paint Activities (Proposed Rules) in selecting and performing the means, methods and procedures for performing the Work. This includes, but is not limited to, training of personnel, lead abatement, encapsulation of lead containing materials, removal and handling of lead containing materials, and methods of disposal. When the Final Rule, to be codified at 40 CFR 745, supersedes the Proposed Rule, the Contractor shall be responsible for conforming to the Final Rule, as of the effective date set forth therein.
 - (2) The requirements for employee protection contained in 29 CFR Part 1926, Subpart D, and the requirements for record-keeping contained in 29 CFR Part 1910.
 - (3) The Virginia Department of Labor and Industry's (DLI) Emergency Regulation published in the May 27, 1996 Virginia Register, requiring, among other things, that a permit be issued to the lead abatement contractor, or any subsequent regulation issued by DLI.
- (i) If the Contractor violates laws or regulations that govern the Project, the Contractor shall take prompt action to correct or abate such violation and shall indemnify and hold the Owner harmless against any fines and/or penalties that result from such violation. To the extent that such violation is the result of negligence or other actionable conduct of the Contractor, the Contractor shall indemnify and hold the Owner harmless against any third party claims, suits, awards, actions, causes of action or judgments, including but not limited to attorney's fees and costs incurred thereunder, that result from such violation.
- (j) Land Disturbance Activities: If the Work includes any land disturbing activities, the Contractor shall be responsible for obtaining an Albemarle County Land Disturbance Permit. The Contractor shall have an individual certified by the Department of Conservation and Recreation (DCR) as a Responsible Land Disturber (RLD) on the project site at all times during the construction project where land is being disturbed in accordance with §10.1-563, Code of Virginia.

All construction activities involving land disturbances equal to or exceeding ten thousand (10,000) square feet must be covered by a Virginia Stormwater Management Program (VSMP) permit approved and issued by the County in accordance with the County of Albemarle's Water Protection Ordinance. The Owner is responsible for securing permit coverage for all applicable land disturbing activities performed, including within any easements that directly relate to the construction site activity. The Contractor shall sign a certification statement to comply with all conditions of the

permit, shall accept assignment as the responsible party prior to issuance of the Land Disturbance Permit, and shall sign all Responsible Land Disturber (RLD) forms.

The Contractor shall be responsible for securing permit coverage for support facilities that are not located within the project limits of disturbance. The Contractor shall be responsible for all costs to obtain permit coverage for all support facilities (both on-site and off-site) not included in the construction plans or contract documents for the project. The Owner will not be responsible for any inconvenience, delay, or loss experienced by the Contractor as a result of his failure to gain access to any support facility areas at the time contemplated.

- (k) Environmental Permitting: The Contractor shall sign a certification to comply with all conditions of any environmental permits required for the project (e.g. wetland or stream mitigation permit, floodplain development permit, etc.). The Contractor shall adhere to any time-of-year restriction conditions as required by state and federal permitting agencies. No in-stream work shall be permitted during in-stream time-of-year restrictions.
- (l) Virginia Department of Transportation (VDOT) Land Use Permit: The Contractor shall be responsible to obtain a VDOT Land Use Permit for projects requiring such permit. The Contractor shall be responsible for all costs associated with obtaining such permit.
- (m) The Contractor is responsible for ensuring that all permits required to perform the work are obtained and that all conditions of those permits are met throughout the duration of the project.

4. NONDISCRIMINATION

- (a) §2.2-4311 of the Code of Virginia shall be applicable. It provides as follows:

“1. During the performance of this Contract the Contractor agrees as follows:

- (a) The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. 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) The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an equal opportunity employer.
- (c) Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

2. The Contractor will include the provisions of the foregoing paragraphs (a), (b) and c) in every subcontract or purchase order of over ten thousand dollars (\$10,000), so that the provisions will be binding upon each Subcontractor or vendor.”
- (b) Where applicable, the Virginians with Disabilities Act and the Federal Americans with Disabilities Act shall apply to the Contractor and all Subcontractors.

5. PROHIBITION OF ALCOHOL AND OTHER DRUGS

- (a) §2.2-4312 of the Code of Virginia shall be applicable. It provides as follows:

“During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor’s 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 violations of 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 over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section, “drug-free workplace” means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.”

- (b) The Contractor shall also establish, maintain and enforce policies which prohibit the following acts by all Contractor, Subcontractor and Supplier personnel at the Site:
 1. the manufacture, distribution, dispensation, possession, or use of alcohol, marijuana or other drugs, except possession and medically prescribed use of prescription drugs; and
 2. the impairment of judgment or physical abilities due to the use of alcohol, marijuana or other drugs, including impairment from prescription drugs.

6. TIME FOR COMPLETION

- (a) The Time for Completion shall be designated by the Owner on the Invitation for Bids, Request for Proposals or other prebid/proposal documents. In some instances, the Time for Completion may be stated on the Invitation for Bids, Request for Proposals or other prebid/pre-proposal document in the form of a Contract Completion Date. The Work must be substantially completed by the Time for Completion or the Contract Completion Date. Unless otherwise specified, the Contractor shall achieve Final Completion within thirty (30) days after the date of Substantial Completion.
- (b) The Time for Completion shall be stated in the Contract Between Owner and Contractor and shall become a binding part of the Contract upon which the Owner may rely in planning the use of the

facilities to be constructed and for all other purposes. If the Contractor fails to substantially complete the Work within the Time for Completion or Contract Completion Date, as set forth in the Contract, he shall be subject to payment of actual damages incurred by the Owner or liquidated damages, if provided for in the Contract.

- (c) The Contractor, in submitting his bid, acknowledges that he has taken into consideration normal weather conditions. The listing below defines the monthly anticipated days of adverse weather for each month and is based upon NOAA climatological data for Charlottesville, Virginia. Adverse weather days shall be days of actual precipitation of 0.10 inch or greater.

| <u>Jan*</u> | <u>Feb*</u> | <u>Mar*</u> | <u>Apr</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug</u> | <u>Sep</u> | <u>Oct</u> | <u>Nov</u> | <u>Dec*</u> |
|-------------|-------------|-------------|------------|------------|-------------|-------------|------------|------------|------------|------------|-------------|
| 6 | 6 | 7 | 6 | 8 | 6 | 8 | 8 | 6 | 5 | 5 | 6 |

* In addition to the anticipated days of adverse weather noted above, the Contractor must include one day of adverse weather impact (snow, ice, mud) for each day of actual adverse weather during the months of January, February, March, and December.

The anticipated days provided above will constitute the baseline for adverse weather time evaluations.

For projects not involving buildings, throughout the portion of the contract from the date of Notice to Proceed until the project is substantially complete, actual adverse weather days are to be recorded by the Contractor and verified by the A/E each month.

For projects involving buildings, throughout the portion of the contract from the date of Notice to Proceed until the building is “dried in”, actual adverse weather days are to be recorded by the Contractor and verified by the Architect each month. The building shall be considered “dried in” when the exterior block walls or stud and sheathing walls are in place, and a temporary (or permanent) roof is in place. Upon determination by the Owner and Architect that the building is in fact dried in, requests for additional time due to weather delays will not be accepted for any work within the building footprint.

The total anticipated adverse weather days for the project shall be the sum of all the monthly days for each month from the date of Notice to Proceed until the project is substantially complete, or until the date the building is to be “dried in”, according to the Contractor’s schedule.

If the total number of actual adverse weather days plus adverse weather impact days exceeds the anticipated adverse weather days determined above, the excess days may be used as a basis to determine whether a Contractor is entitled to a time extension. The adverse weather must have prevented work for fifty percent (50%) or more of the Contractor’s work day and delayed work critical to the timely completion of the project.

The Contractor’s schedule must indicate the critical (path) work and must reflect the above anticipated adverse weather days for all weather dependent activities.

- (1) The extension requested must be supported by a delay in completion of the entire Project shown on the critical path of the accepted CPM Schedule or the approved bar graph schedule

required for the Project. Extensions will be granted only for delays in completion of the Project, not for that portion of any delay which consumes only “float” time.

- (2) A request for extension of time based on abnormal weather must be made in writing within ten (10) calendar days of the completion of the calendar month during which abnormal weather is claimed at the Site.
- (3) All of the evidence and data supporting the request (including both historical data and the recordings at the Site during the time of delay) must be furnished to the Owner before any consideration will be given to the request. That supporting data shall be submitted by the end of the calendar month following the month for which the request is made. Time extensions for adverse weather related days granted by the Owner will extend the Contract Completion Date but will not include additional compensation to the Contractor. Weather-related time extension(s) shall not be compensable.
- (d) The Contractor represents and agrees that he has taken into account in his bid the requirements of the bid documents, local conditions, availability of materials, equipment, and labor, and any other factors which may affect the performance of the Work. The Contractor agrees and warrants that he will achieve Substantial Completion of the Work to allow the Owner to have Beneficial Occupancy not later than the Time for Completion or Contract Completion Date. The Contractor agrees and warrants that he will achieve Final Completion of the Work (the entire completion of all Work, including “punch list” items), not later than the number of days as specified in the Contract Documents after achieving Substantial Completion.

7. CONDITIONS AT SITE

- (a) The Contractor and its Subcontractors shall have visited the Site prior to bidding or submitting a bid or proposal and are totally responsible for having ascertained pertinent local conditions such as location, accessibility and general character of the Site, and the character and extent of existing conditions, improvements and work within or adjacent to the Site. It is understood that the Contractor accepts conditions at the site as of the date of its bid or proposal and no allowances will be made after award for any future error or negligence by Contractor or Subcontractors. Claims, which result from the Contractor’s failure to do so, will be deemed waived.
- (b) If, in the performance of the Contract, hidden physical conditions of a building being modified are exposed revealing unusual or materially different conditions from those ordinarily encountered or inherent in work of this nature, or if subsurface or latent conditions at the Site are found which are materially different from those frequently present in the locality or from those indicated in the Contract Documents, the Contractor must report such conditions to the Owner and to the Architect/Engineer before the conditions are disturbed. Upon such notice, or upon his own observation of such conditions, the Architect/Engineer shall promptly propose such changes in the Contract Documents as he finds necessary to conform to the different conditions. Any change in the cost of the Work or additional time needed for completion must be requested pursuant to Sections 38 and/or 42 of these General Conditions.

- (c) If the Contractor, during the course of the Work, observes the existence of any material which he knows, should know, or has reason to believe is hazardous to human health, the Contractor shall promptly notify the Owner. The Owner will provide the Contractor with instructions regarding the disposition of the material. The Contractor shall not perform any Work involving the material or any Work causing the material to be less accessible prior to receipt of special instructions from the Owner.

8. CONTRACT SECURITY

- (a) For Contracts with a value exceeding one hundred thousand dollars (\$100,000), the Contractor shall deliver to the Owner or its designated representative, a Standard Performance Bond (Form AC-10) and a Standard Labor and Material Payment Bond (Form AC-10.1), each fully executed by the Contractor and one or more surety companies legally licensed to do business in Virginia and each in an amount equal to one hundred percent (100%) of the accepted bid. The bonds shall identify the name and address of an attorney-in-fact who is appointed to act on behalf of the surety within the Commonwealth of Virginia. The attorney-in-fact shall affix to the bond a certified and current copy of the power of attorney. If more than one Surety executes a bond, each shall be jointly and severally liable to the Owner for the entire amount of the bond. Sureties shall be selected by the Contractor, subject to approval by the Owner. No payment on the Contract shall be due and payable to the Contractor until the bonds have been approved by the Owner. The Standard Performance Bond and Standard Labor and Material Payment Bond will be held for one year after final acceptance of the Work or as described in the bond forms.
- (b) For the purposes of all Standard Labor and Material Payment Bonds entered into, the term “subcontractors” as used in §2.2-4337(A.2) of the Code of Virginia is interpreted to mean any contractors who participated in the prosecution of the Work undertaken by the Contractor (referred to in §2.2-4337(A.2) of the Code of Virginia as the “prime contractor”), whether such contractor had a direct contract with the Contractor (prime contractor) or whether there were one or more other intervening Subcontractors contractually positioned between it and the Contractor (prime contractor).
- (c) See §2.2-4338 of the Code of Virginia, for alternative forms of security for payment and/or performance bonds.
- (d) For contracts with a value of less than one hundred thousand dollars (\$100,000), the Contractor will not be required to provide a Standard Performance Bond and a Standard Labor and Material Payment Bond as described above unless the Invitation for Bid or Request for Proposal states that such bonds will be required.

9. SUBCONTRACTS

- (a) The Contractor shall, as soon as practicable after the signing of the Contract and prior to commencement of Work, notify the Owner and Architect/Engineer in writing of the names of all Subcontractors proposed for the Work and of such others as the Architect/Engineer may direct. Subcontractors whose names do not appear on the list must be approved by the Owner. Where the specifications establish qualifications or criteria for Subcontractors, manufacturers, or individuals

performing Work on the Project, the Contractor shall be responsible for ascertaining that those proposed meet the criteria or qualifications. The Contractor shall not employ any Subcontractor that the Owner may, within a reasonable time, object to as unsuitable. Neither the Owner nor the Architect/Engineer shall direct the Contractor to contract with any particular Subcontractor unless provided in the specifications or Invitation for Bids or Request for Proposal.

- (b) The Owner may select a particular Subcontractor for a certain part of the Work and designate on the Invitation for Bids or Request for Proposal that the Subcontractor shall be used for the part of the Work indicated and that the Subcontractor has agreed to perform the Work for the subcontract amount stipulated on the bid or proposal form. The Contractor shall include in his bid the amount stipulated by the Owner in the bid form. In such case, the Contractor shall be responsible for that Subcontractor and its work and all scheduling and coordination associated with the work. The Subcontractor shall be responsible to the Contractor for its work just as if the Contractor had selected the Subcontractor.
- (c) The Owner shall, on request, furnish to any Subcontractor, if practicable, the amounts of payments made to the Contractor, the Schedule of Values and Requests for Payment submitted by the Contractor and any other documentation submitted by the Contractor which would tend to show what amounts are due and payable by the Contractor to the Subcontractor.
- (d) The Contractor shall be fully responsible to the Owner for all acts and omissions of his agents and employees and all succeeding tiers of Subcontractors and Suppliers performing or furnishing any of the Work. Nothing in the Contract Documents shall create any contractual relationship between Owner or Architect/Engineer and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of Owner or Architect/Engineer to pay for or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization, except as may otherwise be required by law.
- (e) The Contractor shall be fully responsible for his invitees at the Site and for those of his Subcontractors, Suppliers, and their employees, including any acts or omissions of such invitee.
- (f) The Contractor agrees that he alone is responsible for all dealings with his Subcontractors and Suppliers, and their subcontractors, employees and invitee, including, but not limited to, the Subcontractors' or Suppliers' claims, demands, actions, disputes and similar matters unless specifically provided otherwise by the Contract or by statute.

10. SEPARATE CONTRACTS

- (a) The Owner reserves the right to let other contracts in connection with the Project, the Work under which may proceed simultaneously with the execution of this Contract. The Contractor shall afford other separate contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work. The Contractor shall cooperate with them and shall take all reasonable action to coordinate his Work with theirs. If the Owner has listed other separate contracts in the Invitation for Bids or Request for Proposal which it expects to proceed simultaneously with the Work of the Contractor, and has included the estimated timing of such other Contracts in the Invitation for Bids or Request for Proposal, the Contractor shall integrate the schedule of those separate contracts into his scheduling. The Contractor shall make every reasonable effort to assist

the Owner in maintaining the schedule for all separate contracts. If the work performed by the separate contractor is defective or performed so as to prevent or threaten to prevent the Contractor from carrying out his Work according to the Contract, the Contractor shall immediately notify the Owner and the Architect/Engineer upon discovering such conditions.

- (b) If a dispute arises between the Contractor and any separate contractor(s) as to their responsibility for cleaning up as required by Sections 31(c) and 31(d) of these General Conditions, the Owner may clean up and charge the cost thereof to the respective contractors in proportion to their responsibility. If a Contractor disputes the Owner's apportionment of clean-up costs, it shall be that contractor's burden to demonstrate and prove the correct apportionment.

11. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE

A. General Requirements:

(a) Certificate of Insurance-General Contractor: Prior to execution of the Contract by the Owner, the Contractor shall provide written evidence (certificates of insurance) that he has obtained all the insurance required hereunder from an insurer authorized to do business in Virginia and such insurance has been approved by the Owner. Insurance providers must have an agent licensed to do business in Virginia. The Owner must be identified on the certificate(s) of insurance as an additional insured for all types of insurance coverage, except for workers' compensation and professional liability, and there shall be a statement provided on the certificate(s) confirming the Owner is named as an additional insured and so endorsed to the policy(ies). In the event of cancellation of this insurance, not less than thirty (30) days prior written notice must be sent to the Owner.

(b) Certificate of Insurance-Subcontractor: The Contractor shall not allow any Subcontractor to commence Work on his subcontract until the same types of insurance in an appropriate amount have been obtained by the Subcontractor and approved by the Contractor. The Owner shall have no responsibility to verify compliance by the Contractor, or its subcontractors or suppliers. Approval of insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder. In the event of cancellation of this insurance, not less than thirty (30) days prior written notice must be sent to the Owner.

B. Insurance Requirements: By signing and submitting a proposal under this solicitation, the offeror certifies that if awarded the contract, it will purchase and maintain, at its sole expense, and from a company or companies authorized to do business within the Commonwealth of Virginia, insurance policies containing the following types of coverages and minimum limits, protecting from claims which may arise out of or result from the Offerors' performance or non-performance of services under this Contract, or the performance or non-performance of services under this Contract by anyone directly or indirectly employed by the Offeror or for whose acts it may be liable. The Supplemental General Conditions detail the minimum amounts required for this solicitation.

- (a) Workers' Compensation to include Employer's Liability of an amount not less than \$100,000/\$500,000/\$100,000. Coverage is compulsory for employers of three or more employees, to include the employer. Businesses who hire subcontractors who will perform the same trade or are hired to fulfill contract requirements must include the subcontractor's employees when determining the total number of employees for workers compensation. A waiver of subrogation in favor of the County of Albemarle and its officers, employees, agents, and volunteers must be endorsed on the workers

compensation policy. Contractors who fail to notify the County of increases in the number of employees that change their workers' compensation requirements under the Code of Virginia during the course of the contract shall be in noncompliance with the contract. This policy shall specifically list Virginia as a covered state.

- (b) General Liability – of an amount not less than \$1,000,000 per occurrence/\$2,000,000 aggregate limit, and a per project aggregate limit of \$2,000,000.-CGL form CG 2010 11/85 edition or its equivalent is required to be endorsed to the commercial general liability policy. Commercial General Liability is to include bodily injury and property damage, personal injury, advertising injury, arising out of premises, operations, and products and completed operations. The County of Albemarle and its officers, employees, agents and volunteers must be named as additional insureds on a primary and non-contributory basis and be so endorsed on the policy. A waiver of subrogation in favor of Albemarle County Government is required on the commercial general liability policy.
- (c) Automobile Liability – of an amount not less than \$1,000,000 per accident. Coverage is to include hired, owned, non-owned, temporary, and leased vehicles. The County of Albemarle and its officers, employees, agents and volunteers must be named as additional insureds on a primary and non-contributory basis and be so endorsed on the auto policy. A waiver of subrogation naming the County of Albemarle and its officers, employees, agents and volunteers is also required on the commercial auto policy.
- (d) Umbrella or Excess Liability Coverage- of an amount not less than \$1,000,000. Must be follow form and go over the underlying general liability, commercial auto and employers liability policies. The County of Albemarle and its officers, employees, agents and volunteers must be named as additional insureds on a primary and non-contributory basis and be so endorsed on the Umbrella or Excess Liability policy. A waiver of subrogation naming the County of Albemarle and its officers, employees, agents and volunteers is also required on the commercial Umbrella or Excess Liability policy.
- (e) Environmental/pollution - of an amount not less than \$1,000,000. County of Albemarle and its officers, employees, agents and volunteers must be named as additional insureds on a primary and non-contributory basis and be so endorsed on the Environmental/pollution Liability policy. A waiver of subrogation naming the County of Albemarle and its officers, employees, agents and volunteers is also required on the commercial Environmental/pollution Liability policy.
- (f) Professional (E&O) Liability Insurance - of an amount not less than \$1,000,000
- (g) Cyber Liability - of an amount not less than \$1,000,000

All insurance coverage:

1. shall be issued by an insurance carrier authorized to do business within the Commonwealth of Virginia and rated A – VIII or better, by A. M. Best Company or equivalent rating from an alternate recognized ratings agency, and otherwise acceptable to the County;
2. shall be kept in force throughout performance of services;
3. shall be an occurrence based policy; professional liability may be claims made basis;
4. shall include completed operations coverage;
5. shall contain a cross liability or severability of interest clause or endorsement. Insurance covering the specified additional insured shall be primary and non-contributory, and all other insurance carried by the additional insureds shall be excess insurance;
6. where additional insured required, such policy shall not have a restriction on the limits of coverage provided to the County as an additional insured. The County shall be entitled to protection up to the full limits of the offerors’s policy regardless of the minimum requirements specified in the Contract.

Proof Of Insurance: Prior to performance of any services or delivery of goods, the Offeror shall (i) have all required insurance coverage in effect; (ii) the Offeror shall deliver to the County certificates of insurance for all lines of coverage. The Offeror shall be responsible that such coverage evidenced thereby shall not be substantially modified or canceled without 30 days prior written notice to the County; and (iii) the Offeror shall deliver to the County endorsements to the policies which require the County and its officials, officers, employees, agents and volunteers be named as “additional insured”. Policies which require this endorsement include: Commercial General Liability, Automobile Liability and, umbrella or excess liability coverage as detailed below. Such endorsements must be approved by the County, and (iv) upon the request of the County, provide any other documentation satisfactory to the County in its sole discretion, evidencing the required insurance coverage, including but not limited to a copy of the insurance policy and evidence of payment of policy premiums. The Offeror shall require each of its subcontractors and suppliers to have coverage per the requirements herein in effect, prior to the performance of any services by such subcontractors and suppliers. Further, the Offeror shall ensure that all Required Insurance coverages of its subcontractors and suppliers is and remains in effect during performance of their services on the Project and certifies by commencement of the Work that this insurance and that of subcontractors is in effect and meets the requirements set forth herein. The County shall have no responsibility to verify compliance by the Offeror or its subcontractors and suppliers.

Effect Of Insurance: Compliance with insurance requirements shall not relieve the Offeror of any responsibility to indemnify the County for any liability to the County, as specified in any other provision of this contract, and the County shall be entitled to pursue any remedy in law or equity if the Offeror fails to comply with the contractual provisions of this contract. Indemnity obligations specified elsewhere in this Contract shall not be negated or reduced by virtue of any insurance carrier's denial of insurance coverage for the occurrence or event which is the subject matter of the claim, or by any insurance carrier’s refusal to defend any named insured.

Waiver Of Subrogation: The Offeror agrees to release and discharge the County of Albemarle and its officers, employees, agents and volunteers of and from all liability to the Offeror, and to anyone claiming by, through or under the Offeror, by subrogation or otherwise, on account of any loss or damage to tools, machinery, equipment or other property, however caused.

Sovereign Immunity: Nothing contained herein shall affect, or shall be deemed to affect, a waiver of

the County's sovereign immunity under law.

Right to Revise or Reject: The County reserves the right, but not the obligation, to revise any insurance requirement not limited to limits, coverages and endorsements, or reject any insurance policies which fail to meet the criteria stated herein. Additionally, the County reserves the right, but not the obligation, to review and reject any insurer providing coverage due to its poor financial condition or failure to operate legally.

Umbrella or Excess Liability Coverage which includes premises/operations, product/completed operations, and has per-occurrence limits as detailed in the Supplemental General Conditions. This insurance shall name the County and its officials, officers, and employees and agents as "additional insureds" by **endorsement** to the Umbrella or Excess Liability policy. Such policy shall not have a restriction on the limits of coverage provided to the County of Albemarle as an additional insured. The County of Albemarle shall be entitled to protection up to the full limits of the Offeror's policy regardless of the minimum requirements specified in this contract.

Professional Liability Insurance: At its sole expense, and prior to commencing any activities under this Agreement, Offeror shall secure professional liability insurance, covering any damages caused by the negligent or wrongful acts or omissions of the Offeror, its employees and agents in the performance of this Agreement, with coverage in an amount as detailed in the Supplemental General Conditions ("Required Insurance"). Offeror shall maintain the Required Insurance in effect throughout the Term of this Agreement and for a period of three (3) years following final acceptance of the Project by the County. Upon execution of this Agreement, Offeror shall provide the County with a certificate of insurance, or other written documentation satisfactory to the County in its sole discretion, issued by Offeror's insurance company(ies), confirming the Required Insurance and the beginning and ending date(s) of Contractor's policy(ies). Upon receipt of any notice, verbal or written, that the Required Insurance is subject to cancellation, Offeror shall immediately (within one business day) notify the County. Offeror's failure to comply with any of the requirements of this Section shall constitute a material breach of this Agreement entitling the County to terminate this Agreement without notice to Offeror and without penalty to the County.

C. **Installation Floater:** if applicable, the Contractor is required to purchase an Installation Floater to cover their own property to be installed into a building. Coverage is provided for equipment and/or machinery being installed, renovated or repaired during the course of construction.

12. BUILDER'S RISK INSURANCE

(a) The Contractor, at his cost, shall obtain and maintain in the names of the Owner and the Contractor builder's risk insurance on a special causes of loss form, including the costs of excavations, backfills, foundations, underground utilities and site work (or fire, extended coverage, vandalism and malicious mischief insurance, if approved by the Owner) upon the entire structure or structures on which the Work of this Contract is to be done, and upon all material in or adjacent thereto which is intended for use thereon, to one hundred percent (100%) of the insurable value thereof. Such insurance may include a deductible provision if the Owner so provides in the Supplemental General Conditions, in which case the Contractor will be liable for such deductions, whenever a claim arises. The loss, if any, is to be made adjustable with and payable to the Owner, in accordance with its interests, as they may appear. The Owner, its officers, employees and its agents, shall be named as

loss payee in any policy of insurance issued. Written evidence of the insurance shall be filed with the Owner prior to execution of the Contract by the Owner. Insurance providers must be authorized to do business in Virginia and have an agent licensed to do business in Virginia. In the event of cancellation of this insurance, not less than thirty (30) days prior written notice must be sent to the Owner. A copy of the policy of insurance shall be given to the Owner upon demand.

- (b) Certain projects, such as renovations and interior modifications of existing buildings, may be covered by the Owner's insurance and may be excluded from the Builder's risk policy purchased by the contractor insurance required by this section. In those instances, the Supplemental General Conditions for the project shall expressly exclude the project from the requirements of Subsection 12(a).
- (c) Any insurance provided through the County of Albemarle, Virginia, for construction, additions or renovations will not extend to Contractor's nor Subcontractors' buildings, equipment, materials, tools or supplies unless these items are to become property of the Owner upon completion of the Project and the Owner has assumed responsibility for such items at the time of the loss.

13. TAXES, FEES AND ASSESSMENTS

The Contractor shall, without additional expense to the Owner, pay all applicable federal, state, and local taxes, fees, and assessments except the taxes, fees and assessments on the real property comprising the Site of the project. The Owner shall pay inspection fees to the local building official except for reinspection fees resulting from incomplete or defective work.

14. PATENTS

The Contractor shall obtain all licenses necessary to use any invention, article, appliance, process or technique of whatever kind and shall pay all royalties and license fees. The Contractor shall hold the Owner, its officers, agents and employees, harmless against any loss or liability for or on account of the infringement of any patent rights in connection with any invention, process, technique, article or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless such invention, process, technique, article or appliance is specifically named in the specifications or plans as acceptable for use in carrying out the Work. If, before using any invention, process, technique, article or appliance specifically named in the specifications or plans as acceptable for use in carrying out the Work, the Contractor has or acquires information that the same is covered by letters of patent making it necessary to secure the permission of the patentee, or other, for the use of the same, he shall promptly advise the Owner and the Architect/Engineer. The Owner may direct that some other invention, process, technique, article or appliance be used. Should the Contractor have reason to believe that the invention, process, technique, article or appliance so specified is an infringement of a patent, and fail to inform the Owner and the Architect/Engineer, he shall be responsible for any loss or liability due to the infringement.

15. ARCHITECT/ENGINEER'S STATUS

- (a) The Architect/Engineer shall have authority to endeavor to secure the faithful performance by Owner and Contractor of the Work under the Contract. He shall review the Contractor's Submittals for conformance to the requirements of the Contract Documents and return copies to the Contractor with appropriate notations. He shall interpret the requirements of the plans and specifications and issue Field Orders to the Contractor as may be required. He shall recommend to the Owner suspension of the Work (in whole or in part) whenever such suspension may be necessary to ensure the proper execution of the Contract. He shall have authority to reject, in writing, Work, including material, installation or workmanship, which does not conform to the requirements of the plans and specifications. He shall determine the progress and quality of the Work, subject to the right of the Owner to make an overriding decision to the contrary. Upon request by the Contractor, the Architect/Engineer shall confirm, in writing within ten (10) days, any oral order or determination made by him.
- (b) The Architect/Engineer shall have no authority to approve or order changes in the Work which alter the design concept or which call for an extension of time or a change in the Contract Price.
- (c) The Owner shall have the right, but not the duty, to countermand any decision of the Architect/Engineer and to follow or reject the advice of the Architect/Engineer, including but not limited to acceptance of the Work.
- (d) All orders from the Owner to the Contractor shall either be transmitted through the Architect/Engineer or communicated directly to the Contractor and the Architect/Engineer by the Owner.
- (e) Should the Owner choose to employ another or different Architect/Engineer, the status of the Architect/Engineer so employed shall be the same as that of the former Architect/Engineer.
- (f) The Architect/Engineer will provide to the Owner and the Contractor after each visit to the Site, a written report indicating the date, time of day, weather conditions and the names of the persons representing the Architect/Engineer who participated in the visit. The report will advise the Owner of any problems that were noted and shall compare the Architect/Engineer's observations of the actual progress of the Work with that reported by the Contractor. On the basis of his on-site observations as Architect/Engineer, he will make every reasonable effort to guard the Owner against defects and deficiencies in the Work of the Contractor. He shall have the authority to inspect the Work, to note and report Defective Work and deviations from the Contract Documents to the Owner, to reject same, and to recommend to the Owner the suspension of the Work when necessary to prevent Defective Work from proceeding or being covered.
- (g) The Architect/Engineer shall not be responsible for construction means, methods, techniques, sequences or procedures (other than those expressly specified in Contract Documents), or for safety precautions and programs in connection with the Work, and he shall not be responsible for the Contractor's failure to carry out the Contractor's own responsibilities.
- (h) The provisions of this section are included as information only to describe the relationship between the Owner, A/E, and Contractor. No failure of the A/E to act in accordance with this section shall relieve the Contractor from his obligations under the Contract or create any rights in favor of the Contractor.

16. INSPECTION

- (a) All material and workmanship shall be subject to inspection, examination and testing by the Owner, the Architect/Engineer, the Project Inspector, authorized inspectors and authorized independent testing entities at any and all times during manufacture and/or construction. The Architect/Engineer and the Owner shall have authority to reject defective material and workmanship and require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be satisfactorily replaced with proper material without charge therefor, and the Contractor shall promptly segregate and remove the rejected material from the Site. If the Contractor fails to proceed at once with replacement of rejected material and/or the correction of defective workmanship, the Owner may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost to the Contractor, or may terminate the right of the Contractor to proceed as provided in Section 40 of these General Conditions, the Contractor and surety being liable for any damage to the same extent as provided in Section 40 for termination thereunder.
- (b) Site inspections, tests conducted on Site or tests of materials gathered on Site, which the Contract requires to be performed by independent testing entities, shall be contracted and paid for by the Owner. The Contractor shall schedule all required tests, approvals and inspections of the Work or other work related to the Project. If items/areas to be inspected and/or tested are not ready for inspection when the testing agency/inspector arrives on-site at the pre-arranged time, the Contractor is responsible for all costs associated with inspection delays, including but not limited to reinspection fees. The Contractor shall give proper notice to all required parties of such tests, if feasible, so that the Owner and others may observe the tests at the normal place of testing. Unless otherwise required by the Contract Documents, required certificates of testing, approval or inspection shall be secured by the Contractor and promptly delivered to the Owner. Examples of such tests are the testing of cast-in-place concrete, foundation materials, soil compaction, pile installations, caisson bearings and steel framing connections. The Contractor shall promptly furnish, without additional charge, all reasonable facilities, labor and materials necessary and convenient for making such tests. Except as provided in (d) below, whenever such examination and testing finds defective materials, equipment or workmanship, the Contractor shall reimburse the Owner for the cost of reexamination and retesting. Although conducted by independent testing entities, the Owner will not contract and pay for tests or certifications of materials, manufactured products or assemblies which the Contract, codes, standards, etc., require to be tested and/or certified for compliance with industry standards such as Underwriters Laboratories, Factory Mutual or ASTM. If fees are charged for such tests and certifications, they shall be paid by the Contractor. The Contractor shall also pay for all inspections, tests, and certifications which the Contract specifically requires him to perform or to pay, together with any inspections and tests which he chooses to perform for his own purposes, but are not required by the Contract.
- (c) Where Work is related to or dependent on the Defective Work, the Contractor shall stop such related or dependent Work until the Defective Work or deficiency is corrected or an alternative solution is presented that is satisfactory to the Owner. Where Work is rejected because of defective material or workmanship, the Contractor shall stop like Work in other areas or locations on the Project until the matter is resolved and the Owner has approved corrective measures.
- (d) Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire Work to make an examination of any part of the Work already completed, by removing or tearing out portions of the Work, the Contractor shall on request promptly furnish all necessary

facilities, labor and material to expose the Work to be tested to the extent required. If such Work is found to be defective in any respect, due to the fault of the Contractor or his Subcontractors, the Contractor shall defray all the expenses of uncovering the Work, of examination and testing, and of satisfactory reconstruction. If, however, such Work is found to meet the requirements of the Contract, the actual cost of the Contractor's labor and material necessarily involved in uncovering the Work, the cost of examination and testing, and Contractor's cost of material and labor necessary for replacement including a markup of ten percent (10%) for overhead and profit shall be paid to the Contractor and he shall, in addition, if completion of the Work has been delayed thereby, be granted a suitable extension of time. Notwithstanding the foregoing, the Contractor shall be responsible for all costs and expenses in removing and replacing the Work if the Contractor had covered the Work prior to any inspection or test contrary to the instructions of the A/E, Owner or Project Inspector.

- (e) The Project Inspector has the right and the authority to:
- (1) Inspect all construction materials, equipment, and supplies for quality and for compliance with the Contract Documents and/or approved shop drawings and submittals;
 - (2) Inspect workmanship for compliance with the standards described in the Contract Documents;
 - (3) Observe and report on all tests and inspections performed by the Contractor;
 - (4) Recommend rejection of Work which does not conform to requirements of the Contract Documents;
 - (5) Keep a record of construction activities, tests, inspections, and reports;
 - (6) Attend all joint Site construction meetings and inspections held by the Owner and/or the A/E with the Contractor;
 - (7) Check materials and equipment, together with documentation related thereto, delivered for conformance with approved Submittals and the Contract;
 - (8) Check installations for proper workmanship and conformance with shop drawing and installation instructions;
 - (9) Assist in the review and verification of the Schedule of Values & Certificate for Payment, submitted by the Contractor each month;
 - (10) Do all things for or on behalf of the Owner as the Owner may subsequently direct in writing.
- (f) The Project Inspector has no authority to:
- (1) Authorize deviations from the Contract Documents;
 - (2) Enter into the area of responsibility of the Contractor's superintendent;
 - (3) Issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures, or in regard to safety precautions and programs in connection with the Work;

- (4) Authorize or suggest that the Owner occupy the Project, in whole or in part; or
- (5) Issue a certificate for payment.
- (g) The duties of the Project Inspector are for the benefit of the Owner only and not for the Contractor. The Contractor may not rely upon any act, statement, or failure to act on the part of the Project Inspector, nor shall the failure of the Project Inspector to properly perform his duties in any way excuse Defective Work or otherwise improper performance of the Contract by the Contractor.

17. PROJECT MANAGEMENT AND SUPERVISION BY CONTRACTOR

- (a) The Contractor shall have a competent project manager or superintendent, satisfactory to the Architect/Engineer and the Owner, on the Site at all times during the progress of the Work. The Contractor shall submit for approval by the Owner and Architect/Engineer the resumes for the proposed project manager and superintendent within ten (10) days from Notice of Intent to Award Contract. The project manager and superintendent shall be familiar with and be able to read and understand the plans and specifications, and be capable of communicating orally and in writing with the Owner's project manager and/or inspectors and the Contractor's workers. The Contractor shall be responsible for all construction means, methods, techniques, sequences and procedures, for coordinating all portions of the Work under the Contract except where otherwise specified in the Contract Documents, and for all safety and worker health programs and practices. The Contractor shall notify the Owner, in writing, and obtain approval, of any proposed change in project manager or superintendent, including the reason therefor, prior to making such change.
- (b) The Contractor shall, at all times, enforce strict discipline and good order among the workers on the Project, and shall not employ on the Work, or contract with, any unfit person, anyone not skilled in the Work assigned to him, or anyone who will not work in harmony with those employed by the Contractor, the Subcontractors, the Owner or the Owner's separate contractors and their subcontractors.
- (c) The Owner may, in writing, require the Contractor to remove from the Site any employee or Subcontractor's employee the Owner deems to be incompetent, careless, not working in harmony with others on the Site, or otherwise objectionable, but the Owner shall have no obligation to do so.

18. CONSTRUCTION SUPERVISION, METHODS AND PROCEDURES

- (a) The Contractor shall be solely responsible for supervising and directing the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract. The Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and for coordinating all portions of the Work under the Contract, except where otherwise specified in the Contract Documents. However, the Contractor shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract. The Contractor is solely responsible to the Owner that the finished Work complies with the Contract Documents.

The Contractor shall be solely responsible for health and safety precautions and programs for workers and others in connection with the Work. No inspection by, knowledge on the part of, or acquiescence by the Architect or Engineer, the Project Inspector, the Owner, the Owner's employees and agents, or any other entity whatever shall relieve the Contractor from its sole responsibility for compliance with the requirements of the Contract or its sole responsibility for health and safety programs and precautions.

- (b) If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Architect/Engineer, subject to the Owner's right to disapprove. The Contractor must submit its written request for the substitution to the Architect/Engineer with sufficient information to allow the Architect/Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract.
- (c) The divisions and sections of the Specifications and the identification of any drawings shall not control the Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

19. SCHEDULE OF THE WORK

- (a) **General:** The Contractor is responsible for the scheduling and sequencing of the Work, for coordinating the Work, for monitoring the progress of the Work, and for taking appropriate action to keep the Work on schedule. The Contractor may attempt to achieve Substantial Completion on or before the Time for Completion or the Contract Completion Date established by the Contract and receive payment in accordance with Section 36 for the Work completed each period. However, the date established by the Contract Documents as the deadline for achieving Substantial Completion must be used in all schedules as the date on which Substantial Completion will be achieved. The time (in days) between the Contractor's planned early completion and the contracted Time for Completion is part of the Project "Total Float" time and will be used as such. Extensions of time pursuant to Sections 38 and 42, damages for delay, and all other matters between the Owner and the Contractor will be determined using the contractually required Substantial Completion date, not an early Substantial Completion date planned by the Contractor.

Within two (2) weeks after the Contractor signs the Contract Between Owner and Contractor, unless otherwise extended by the Owner at the time of the signing, the Contractor shall prepare and submit to the Owner, with a copy to the Architect/Engineer, a preliminary bar graph milestone schedule for accomplishing the Work based upon the Time for Completion stated in the Contract. The preliminary bar graph schedule shall be in sufficient detail to show the sequencing of the various trades for each floor level, wing or work area. The Owner will notify the Contractor of its acceptance of or objections to the preliminary schedule within seven (7) days of receipt by the Owner. A fully complete Project schedule for accomplishing the Work must be submitted and approved by the Owner prior to making application for the first payment.

The Owner's failure to reject or its acceptance of any schedule, graph, chart, recovery schedule, updated schedule, plan of action, etc. shall not constitute a representation or warranty by the Owner, including but not limited to a representation or warranty that the schedule is feasible or practical nor

shall any such acceptance or failure to reject relieve the Contractor from sole responsibility for completing the Work within the time allowed.

No progress payments will be payable to the Contractor until after it has submitted a preliminary schedule which is acceptable to the Owner. Neither the second progress payment nor any subsequent payment shall be payable to the Contractor until it has submitted a fully complete Project schedule accepted by the Owner. Nor shall subsequent progress payments be payable to the Contractor unless and until he maintains the monthly bar graphs or status reports required by Section 19(e) herein or unless and until he provides any recovery schedule pursuant to Section 19(f) herein.

Failure to provide a satisfactory preliminary or fully complete Project schedule within the time limits stated above shall be a breach of contract for which the Owner may terminate the Contract in the manner provided in Section 40 of these General Conditions.

The fully complete Project schedule for accomplishing the Work shall be of the type set forth in subparagraph (1) or (2) below, as appropriate:

- (1) For Contracts with a price of \$500,000 or less, a bar graph schedule will satisfy the above requirement. The schedule shall indicate the estimated starting and completion dates for each major element of the work. See (b) below.
 - (2) For Contracts with a price over \$500,000, a Critical Path Method (CPM) schedule shall be utilized to control the planning and scheduling of the Work. The CPM schedule shall be the responsibility of the Contractor and shall be paid for by the Contractor. See (c) below.
- (b) **Bar Graph Schedule:** Where a bar graph schedule is required, it shall be time-scaled in weekly increments, shall indicate the estimated starting and completion dates for each major element of the Work by trade and by area, level, or zone, and shall schedule dates for all salient features, including but not limited to the placing of orders for materials, submission of shop drawings and other Submittals for approval, approval of shop drawings by Architect/Engineer, the manufacture and delivery of material, the testing and the installation of materials, supplies and equipment, and all Work activities to be performed by the Contractor.

The Contractor shall allow sufficient time in his schedule for adverse weather anticipated in Section 6 and for the A/E to conduct whatever associated reviews or inspections as may be required under the A/E's contract with the Owner. If the A/E and the Contractor are unable to agree as to what constitutes sufficient time, the Owner shall determine the appropriate duration for such Architect/Engineer activities. Each Work activity will be assigned a time estimate by the Contractor. One day shall be the smallest time unit used.

It is the Contractor's responsibility to submit a schedule that shows Substantial Completion of the Work by the Contract Time for Completion or the Contract Completion Date and any interim deadlines established by the Contract.

- (c) **CPM Schedule:** Where a CPM schedule is required, it shall be in the time-scaled precedence format using the Contractor's logic and time estimates. The CPM schedule shall be drawn or plotted with activities grouped or zoned by Work area or subcontract as opposed to a random (or scattered) format.

The CPM schedule shall be time-scaled on a weekly basis and shall be drawn or plotted at a level of detail and logic which will schedule all salient features of the Work, including not only the actual construction Work for each trade, but also the submission of shop drawings and other Submittals for approval, approval of shop drawings by Architect/Engineer, placing of orders for materials, the manufacture and delivery of materials, the testing and installation of materials and equipment, and all Work activities to be performed by the Contractor. Failure to include any element of Work required for the performance of this Contract shall not excuse the Contractor from completing all Work required within the Time for Completion, Contract Completion Date and any interim deadlines established by the Contract.

The Contractor shall allow sufficient time in his schedule for adverse weather anticipated in Section 6 and for the A/E to conduct whatever associated reviews or inspections as may be required under the A/E's contract with the Owner. If the A/E and the Contractor are unable to agree as to what constitutes sufficient time, the Owner shall determine the appropriate duration for such Architect/Engineer activities. Each Work activity will be assigned a time estimate by the Contractor. One day shall be the smallest time unit used.

It is the Contractor's responsibility to submit a schedule that shows Substantial Completion of the Work by the Contract Time for Completion or the Contract Completion Date and any interim deadlines established by the Contract.

When completed, the CPM schedule shall be submitted to the Architect/Engineer and the Owner for review. The CPM schedule will identify and describe each activity, state the duration of each activity, the calendar dates for the early and late start and the early and late finish of each activity, and clearly highlight all activities on the critical path. "Total float" and "free float" shall be indicated for all activities. Float time, whether "free float" or "total float" as defined in Section 1, shall not be considered for the exclusive use or benefit of either the Owner or the Contractor, but must be allocated in the best interest of completing the Work within the Time for Completion or the Contract Completion Date. Extensions to the Time for Completion or the Contract Completion Date, when granted by Change Order, will be granted only when equitable time adjustment exceeds the Total Float in the activity or path of activities affected by the change. The CPM schedule shall also show what part of the Contract Price (expressed in U.S. dollars) is attributable to each activity on the schedule, the sum of which for all activities shall equal the total Contract Price. The CPM schedule shall also show the planned workforce (crew size and number of crews) and the major pieces of equipment required for each activity on the schedule. When acceptable to the Owner and Architect/Engineer as to compliance with the requirements of this Section, but not as to logic, the schedule shall become the CPM schedule for the Project. Acceptance of the schedule by the Owner does not indicate agreement with nor responsibility for the proposed or actual duration of any activity shown on the accepted schedule.

- (d) **Progress of Work:** The Contractor shall commence and complete the work in accordance with the approved schedule. Contractor acknowledges that it may be required to perform Work out of the sequence originally planned to maintain progress on the project. Contractor acknowledges that it has anticipated certain reasonable delays and disruptions as part of the contract price. No additional reimbursement will be forthcoming for out of sequence work. Time is of the essence. If the Contractor fails to employ sufficient competent personnel as may be required to perform the Work or otherwise causes delays which result in the Contractor's failure to complete the Work in the given time, the Contractor will indemnify and hold the Owner harmless for any additional expenses or

damages (including, but not limited to, liquidated damages) arising out of such delay or inability to proceed with the Work. Liquidated Damages, if any, shall be referenced in the Supplemental General Conditions.

- (e) **Monthly Project Reports:** The Contractor shall review progress not less than each month, but as often as necessary to properly manage the Project and stay on schedule. The Contractor shall collect and preserve information on Change Orders, including extensions of time. The Contractor shall evaluate this information and update the latest accepted schedule as often as necessary to finish within the Contract Time for Completion or before the Contract Completion Date. The Contractor shall submit to the A/E along with his monthly request for payment a copy of the bar graph schedule annotated to show the current progress. For projects requiring a CPM schedule, the Contractor shall submit a monthly report of the status of all activities. The bar graph schedule or monthly status report submitted with each periodic request for payment shall show the Work completed to date in comparison with the Work scheduled for completion, including but not limited to the dates for the beginning and completion of the placing of orders; the manufacture, testing and installation of materials, supplies and equipment. The form shall be approved by the A/E and the Owner; however, a bar graph or a CPM schedule marked, colored or annotated to reflect the above will usually satisfy this requirement. If any elements of the Work are behind schedule, regardless of whether they may prevent the Work from being completed on time, the Contractor must indicate in writing in the report what measures he is taking and plans to take to bring each such element back on schedule and to ensure that the Time for Completion or Contract Completion Date is not exceeded.
- (f) **Progress Delay:** Should any of the following conditions exist, the Owner may require the Contractor to prepare, at no extra cost to the Owner, a plan of action and a recovery schedule for completing the Work by the Contract Time for Completion or the Contract Completion Date:
- (1) The Contractor' monthly progress report indicates delays that are, in the opinion of the A/E or the Owner, of sufficient magnitude that the Contractor's ability to complete the Work by the scheduled Time for Completion or the Contract Completion Date is brought into question;
 - (2) The CPM schedule sorted by early finish shows the Contractor to be thirty (30) or more days behind the critical path schedule at any time during construction up to thirty (30) days prior to scheduled Substantial Completion date;
 - (3) The Contractor desires to make changes in the logic (sequencing of Work) or the planned duration of future activities of the CPM schedule which, in the opinion of the Architect/Engineer or the Owner, are of a major nature.

The plan of action and recovery schedule, when required, shall explain and display how the Contractor intends to regain compliance with the current accepted, fully completed, Project CPM schedule, as updated by approved change orders.

The plan of action, when required, shall be submitted to the Owner for review within two (2) business days of the Contractor receiving the Owner's written demand. The recovery schedule, when required, shall be submitted to the Owner within five (5) calendar days of the Contractor's receiving the Owner's written demand.

If, in the opinion of the A/E or Owner, the recovery schedule is deemed insufficient, the Contractor, if directed by the Owner, will be required to remedy the schedule delay, without additional compensation, by one of the following manners:

- (1) Increased manpower by Contractor or its subcontractors;
 - (2) Increased number of shifts, including night and weekend work.
- (g) **Early Completion of Project:** The Contractor may attempt to achieve Substantial Completion on or before the Time for Completion or the Contract Completion Date. However, such planned early completion shall be for the Contractor's convenience only and shall not create any additional rights of the Contractor or obligations of the Owner under this Contract, nor shall it change the Time for Completion or the Contract Completion Date. The Contractor shall not be required to pay damages to the Owner because of its failure to achieve Substantial Completion by its planned earlier date. Likewise, the Owner shall not pay the Contractor any additional compensation for achieving Substantial Completion early nor will the Owner owe the Contractor any compensation should the Owner, its officers, employees, or agents cause the Contractor not to achieve Substantial Completion earlier than the date required by the Contract Documents.

If the Contractor seeks to change the Time for Completion or the Contract Completion Date to reflect an earlier completion date, he may request or propose such a change. The Owner may, but is not required to, accept such proposal. However, a change in the Time for Completion or the Contract Completion Date shall be accomplished only by Change Order. If the Contractor's proposal to change the Time for Completion or the Contract Completion Date is accepted, a Change Order will be issued stating that all references in the Contract, including these General Conditions, to the Time for Completion or the Contract Completion Date shall thereafter refer to the date as modified, and all rights and obligations, including the Contractor's liability for actual damages, delay damages and/or liquidated damages, shall be determined in relation to the date, as modified.

20. SCHEDULE OF VALUES AND CERTIFICATE FOR PAYMENT

- (a) Before submittal of the first partial payment request under the Contract, the Contractor shall prepare for review and approval of the Architect/Engineer and the Owner, a schedule of the estimated values listed by trades or by specification sections of the Work, totaling the Contract Price. Where the total project has multiple parts or phases, the Contractor shall prepare appropriate schedules of values to facilitate reviews and justifications for payments.

All requests for payment shall be made on the Schedule of Values and Certificate for Payment (Form AC-12) pages 1 and 2. Succeeding pages may be on the Form AC-12 continuation sheets or a computerized spreadsheet which is in the same format and which contains the same information.

- (b) If the Contractor requests, or intends to request, payment for materials stored in an approved and secure manner, the Schedule of Values must indicate the amount for labor and the amount for materials, and in a supplement thereto must include an itemized list of materials for that trade or Work section. The material breakdown shall be in sufficient detail to allow verification of the quantities required for the Project, the quantities delivered, the Work completed, and the quantities stored on or off Site. Refer to Section 36 of these General Conditions for additional requirements associated with stored materials and/or equipment.

- (c) The “Value of Work Completed” portion of the Form AC-12 shall be completed, the Contractor’s certification completed and signed, and the appropriate substantiating material attached to each Certificate for Payment (AC-12). Such substantiating material includes, but is not limited to, invoices for materials, delivery tickets, time sheets, payroll records, daily job logs/records, and similar materials which, in the opinion of the Owner and the A/E, are necessary or sufficient to justify payment of the amount requested.
- (d) The labor progress for any task or activity shall be calculated based upon the percentage of Work complete up to fifty percent (50%) of the completion of the task or activity. Thereafter, the evaluation of labor progress will be based upon the effort required to complete that task or activity. The material progress shall be calculated as the invoiced dollar cost of materials used in relationship to the amount estimated as necessary to complete a particular element of Work. When calculating material progress, credit shall be given for installed material as well as that stored on the Site and any material stored off Site which has been certified by the Architect/Engineer in accordance with Section 36 of these General Conditions.
- (e) Should Work included in previous Form AC-12 submittals, and for which payment has been made, subsequently be identified, by tests, inspection, or other means, as not acceptable or not conforming to Contract requirements, the “Value of Work Completed” portion of the first Form AC-12 submitted after such identification shall be modified to reduce the “completed” value of that Work by deleting the value of that which has been identified as not acceptable or nonconforming.
- (f) The Contractor shall not include Change Order work on the Form AC-12 until such time as the Contractor is in receipt of a fully executed Change Order from the Owner.

21. ACCESS TO WORK

The Architect/Engineer, the Owner, the Project Manager, the Owner’s inspectors and other testing personnel, inspectors from the Department of Labor and Industry, and others authorized by the Owner, shall have access to the Work at all times. The Contractor shall provide proper facilities for access and inspection.

22. SURVEYS AND LAYOUT

- (a) The Owner shall furnish the Contractor all necessary documents showing property lines and the location of existing buildings and improvements. The Contractor shall provide competent surveying and engineering services to execute the Work in accordance with the Contract and shall be responsible for the accuracy of these surveying and engineering services.
- (b) Such general reference points and benchmarks on the Site as will enable the Contractor to proceed with the Work will be established in the plans and specifications. If the Contractor finds that any previously established reference points have been lost or destroyed, he shall promptly notify the Architect/Engineer.

- (c) The Contractor shall protect and preserve the established benchmarks and monuments and shall make no changes in locations without written notice to the Architect/Engineer and the written approval from the Owner. Any of these which may be lost or destroyed or which require shifting because of necessary changes in grades or locations shall, subject to prior written approval of the Owner, be replaced and accurately located by the Contractor.

23. PLANS AND SPECIFICATIONS

- (a) The general character and scope of the Work are illustrated by the plans and the specifications. If the Contractor deems additional detail or information to be needed, he may request the same in writing from the Architect/Engineer. His request shall precisely state the detail or information needed and shall explain why it is needed. The Contractor shall also indicate a date when the requested information is required. The Architect/Engineer shall provide by Field Order such further detail and information as is necessary by the date required so long as the date indicated is reasonable. Any additional drawings and instructions supplied to the Contractor shall be consistent with the Contract Documents, shall be true developments thereof, and shall be so prepared that they can be reasonably interpreted as a part thereof. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.
- (b) If the Contractor finds a contract error, or other discrepancy in the plans or specifications, he shall notify the Architect/Engineer in writing as soon as possible, but before proceeding with the affected Work. The Architect/Engineer shall issue a clarification by Field Order to the Contractor stating the correct requirements. If the Contractor deems the Field Order requires additional Work, he shall notify the A/E of such prior to proceeding with that Work and he shall submit a request for Change Order along with a detailed substantiating cost proposal thru the A/E to the Owner within ten (10) calendar days.
- (c) In case of differences between small and large scale drawings, the large scale drawings shall govern. Where on any of the drawings a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other like portions of the Work.
- (d) Where the word “similar” appears on the drawings, it shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the Work.
- (e) The specifications may be divided into several parts, or sections, for convenience only, since the entire specifications must be considered as a whole. The divisions of the specifications are not intended to control the Contractor in dividing the Work among Subcontractors or to limit the Work performed by any trade. The Contractor shall be solely responsible for the coordination of the trades, Subcontractors and vendors engaged in the Work.
- (f) Measurements or dimensions shown on the drawings for Site features, utilities and structures shall be verified at the Site by the Contractor. The Contractor shall not scale measurements or dimensions from the drawings. If there are discrepancies, the Architect/Engineer shall be consulted. If new Work is to connect to, match with or be provided in existing Work, the Contractor shall verify the actual existing conditions and necessary dimensions prior to ordering or fabrication.

- (g) **As-Built Drawings:** The Contractor shall maintain at the Site for the Owner one copy of all drawings, specifications, addenda, approved shop or setting drawings, Change Orders and other modifications (collectively referred to herein as “As-Built Drawings”) in good order and marked to record all changes as they occur during construction. These shall be available to the Architect/Engineer, the Owner, the Project Inspector, the Owner’s other inspectors and to the Owner’s testing personnel. The drawings shall be neatly and clearly marked in color during construction to record all variations made during construction. The representation of such variations shall include such supplementary notes, symbols, legends, and details as may be necessary to clearly show the as-built construction. These As-Built Drawings are to be a separate set of drawings from the set of drawings used by the Contractor’s superintendent or supervisor for every day management of the project.
- (h) **Record Drawings:** Upon completion of the Work and prior to the final inspection, the Contractor shall deliver to the Architect/Engineer, for review and preparation of the Record Drawings, one complete set of “As-Built Drawings” referred to in the preceding subsection.
- (i) **Close-out and Operations and Maintenance Documents:** Upon completion of the Work and prior to final payment, the Contractor shall deliver to the Architect/Engineer, two complete hard copy sets of the Close-out and Operations and Maintenance Documents as specified in the Project Manual Specifications. Additionally, the Contractor will provide two CDs or other acceptably formatted electronic copy of the abovementioned documents to accompany the hard copy versions. The electronic version will be organized with folders and appropriate hierarchy as to represent the hard copy versions. The documentation found on the electronic version will be in PDF format, or other acceptable format as directed by the Owner.

24. SUBMITTALS

- (a) The Contractor shall submit a listing of all Submittals required by the Architect/Engineer or which the Contractor identifies as necessary, fixing the dates for the submission of shop or setting drawings, samples and product data. The listing shall be in a format acceptable to the Architect/Engineer. The Contractor shall identify all Submittals with the Owner’s Project Title as required by Section 2(f). There will be no payments to the Contractor until a listing of all Submittals is submitted and approved by the Architect/Engineer and Owner.
- (b) Submittals shall be forwarded to the Architect/Engineer for approval if required by the specifications or if requested by the Architect/Engineer or the Owner. No part of the Work dealt with by a Submittal shall be fabricated by the Contractor, save at his own risk, until such approval has been given.
- (c) The Contractor shall furnish to the Architect/Engineer for approval the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the Work. When Submittals are required by this Contract for materials, the Contractor shall furnish full information concerning the material or articles which he contemplates incorporating in the Work. When required, samples shall be submitted for approval at the Contractor’s expense, with all shipping charges prepaid. Machinery, equipment, material and articles installed or used without required approval shall be at the risk of subsequent rejection.

- (d) The Owner prefers and encourages the Contractor to submit all shop drawings to the Architect/Engineer electronically. However, shop drawings may be submitted in the form of six (6) blue line or black line prints. Catalog cuts, product data and other non-reproducible literature, except certificates, shall be submitted in six (6) copies minimum, of which three (3) will be retained by the Architect/Engineer and the remainder will be returned to the Contractor.
- (e) The Owner prefers and encourages the Contractor to submit all Submittals to the Architect/Engineer electronically. Submittals shall be accompanied by a letter of transmittal which shall list the Project Title, the Submittals included, the specification section number applicable to each, and the date shown on each Submittal. Submittals shall be complete in every respect and bound in sets if not submitted electronically. Each Submittal shall be clearly marked to show each item, component and/or optional feature proposed to be incorporated into the Project. Cross reference to the plans or specifications as needed to identify the use for which the item or component is intended.
- (f) The Contractor shall check the Submittals for compliance with the requirements of the Contract Documents. The Contractor shall clearly note in writing any and all items which deviate from the requirements of the Contract Documents. Reasons for deviation shall be included with the Submittal. The Contractor shall be solely responsible for checking all dimensions and coordinating all materials and trades to ensure that the components or products proposed, individually or in combination, will fit in the space available and that they will be compatible with other components or products provided.
- (g) After checking each submittal, the Contractor shall stamp each sheet of the Submittal with the Contractor’s review stamp. Data submitted in a bound volume or on one sheet printed on two sides, may be stamped on the front of the first sheet only. The Contractor’s review stamp shall be worded as follows:

The equipment and material shown and marked in this submittal is that proposed to be incorporated into this Project, is in compliance with the Contract drawings and specifications unless otherwise shown in bold face type or lettering and listed on a page or pages headed “DEPARTURES FROM DRAWINGS AND SPECIFICATIONS”, and can be installed in the allocated spaces.

Reviewed by _____ Date _____

The person signing the review stamp shall be the person designated in writing by the Contractor as having that authority. (A copy of such designation shall be forwarded to the A/E prior to or with the first Submittal.) The signature on the stamped review statement shall be handwritten in ink, or in the case of electronic submittals, electronically signed in accordance with § 59.1-479 et seq. of the Code of Virginia. Stamped signatures are not acceptable.

- (h) The Contractor shall forward all Submittals sufficiently in advance of construction requirements to allow reasonable time for checking, correcting, resubmitting and rechecking.
- (i) If a Submittal indicates a departure from the Contract requirements, the Architect/Engineer may reject the Submittal or, if he deems it to have merit, may recommend it to the Owner, who shall approve or reject it as the Owner, in its sole discretion, sees fit. The departure from the Contract

requirements shall be further authorized by a Change Order, if a reduction or increase in the Contract Price is appropriate.

- (j) The Architect/Engineer is responsible to the Owner, but not to the Contractor, to verify that the Submittals conform to the design concept and functional requirements of the plans and specifications, that the detailed design portrayed in shop drawings and proposed equipment and materials shown in Submittals are of the quality specified and will function properly, and that the Submittals comply with the Contract Documents.
- (k) The Work shall be in accordance with approved Submittals. Approval of the Contractor's Submittals by the A/E does not relieve the Contractor from responsibility of complying with the Contract and all drawings and specifications, except as changed by Change Order.
- (l) The plans and/or specifications may indicate that the Architect/Engineer designed or detailed a portion of the plans around a particular product (most commonly a piece of equipment). Should a different product be proposed by the Contractor and accepted, all modifications, rerouting, relocations and variations required for proper installation and coordination to comply with the design concept and requirements of the Contract Documents shall be the responsibility of the Contractor and shall be made at no extra cost to the Owner. If the plans were noted as designed or detailed around a particular product and/or if a product is named when a "brand name or equal" specification has been used, this is not intended to favor or preclude the use of other products pursuant to Section 26 of these General Conditions. Rather such design merely acknowledges the reality that in many instances the Architect/Engineer must have a basis to design and detail around for dimensions and characteristics of a product or system.
- (m) Additional Submittal requirements may be shown in the specifications.

25. FEES, SERVICES AND FACILITIES

- (a) The Contractor shall obtain all permits and pay for all fees and charges necessary for temporary access and public right-of-way blockage or use, for temporary connections to utilities and for the use of property (other than the Site) for storage of materials and other purposes unless otherwise specifically stated in the Contract Documents.
- (b) Certain projects such as renovations and interior modifications of existing buildings will usually have water and electric service to the building. In those instances, water and electric power, if required for the Work under the Contract, will be furnished by the Owner subject to reasonable use by the Contractor, only to the extent and capacity of present services. The Contractor shall be responsible for providing required connections, temporary wiring, piping, etc. to these services in a safe manner and in accordance with applicable codes. All temporary wire, pipe, etc. shall be removed before the Substantial Completion inspection. Acceptance by the Contractor of the use of Owner's water and electricity constitutes a release to the Owner of all claims and of all liability to the Contractor for whatever damages which may result from power and water outages or voltage variations.
- (c) The Owner shall pay any connection charges for permanent utility connections directly to the utility Supplier. The Contractor shall coordinate such connections with the utility Supplier.

- (d) It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor, either directly or through his Subcontractors, shall provide and pay for all material, labor, tools, equipment, water, light, power, telephone and other services or facilities of every nature whatsoever necessary to execute completely and deliver the Work within the Contract Time for Completion or before the Contract Completion Date.

26. EQUALS

- (a) **Brand names:** Unless otherwise stated in the specifications, the name of a certain brand, make or manufacturer denotes the characteristics, quality, workmanship, economy of operation and suitability for the intended purpose of the article desired, but does not restrict the Contractor to the specific brand, make, or manufacturer; it is set forth to convey to the Contractor the general style, type, character and quality of the article specified.
- (b) **Equal materials, equipment or assemblies:** Whenever in these Contract Documents, a particular brand, make of material, device or equipment is shown or specified, such brand, make of material, device or equipment shall be regarded merely as a standard. Any other brand, make or manufacturer of a product, assembly or equipment which in the opinion of the Architect/Engineer is the equal of that specified, considering quality, capabilities, workmanship, configuration, economy of operation, useful life, compatibility with design of the Work, and suitability for the intended purpose, will be accepted unless rejected by the Owner as not being equal.
- (c) **Substitute materials, equipment or assemblies:** The Contractor may propose to substitute a material, product, equipment, or assembly which deviates from the requirements of the Contract Documents but which the Contractor deems will perform the same function and have equal capabilities, service life, economy of operations, and suitability for the intended purpose. The proposal must include any cost differentials proposed. The Owner will have the A/E provide an initial evaluation of such proposed substitutes and provide a recommendation on acceptability and indicate the A/E's redesign fee to incorporate the substitution in the design. If the proposed substitute is acceptable to the Owner, a Change Order will be proposed to the Contractor to accept the substitute and to deduct the cost of the A/E redesign fee and the proposed cost savings from the Contract Price. The Owner shall have the right to limit or reject substitutions at its sole discretion.
- (d) The Contractor shall be responsible for making all changes in the Work necessary to adapt and accommodate any equal or substitute product which it uses. The necessary changes shall be made at the Contractor's expense.

27. AVAILABILITY OF MATERIALS

If a brand name, product, or model number included in the Contract Documents is not available on the present market, alternate equal products or model numbers may be proposed by the Contractor through the Architect/Engineer for approval by the Owner. A letter from the manufacturer or representative of the manufacturer that states the specified brand name product or model number is no longer available is required.

28. CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the Work shall be purchased by the Contractor, or by any Subcontractor or Supplier, subject to any security interest, installment or sales contract or any other agreement or lien by which an interest is retained by the seller or is given to a secured party. The Contractor warrants that he has clear and good title to all materials and supplies which he uses in the Work or for which he accepts payment in whole or in part.

29. STANDARDS FOR MATERIALS INSTALLATION & WORKMANSHIP

- (a) Unless otherwise specifically provided in the Contract, all equipment, material, and accessories incorporated in the Work are to be new and in first class condition.
- (b) Unless specifically approved by the Owner or required by the Contract, the Contractor shall not incorporate into the Work any materials known by the industry to be hazardous to the health of building construction workers, maintenance workers, or occupants (for example asbestos or lead paint). If the Contractor becomes aware that a material required by the Contract contains asbestos or other hazardous materials, he shall notify the Owner and the Architect/Engineer immediately and shall take no further steps to acquire or install any such material without first obtaining Owner approval.
- (c) All workmanship shall be of the highest quality found in the building industry in every respect. All items of Work shall be done by craftsmen or tradesmen skilled in the particular task or activity to which they are assigned. In the acceptance or rejection of Work, no allowance will be made for lack of skill on the part of workmen. Poor or inferior workmanship (as determined by the Architect/Engineer, the Owner or other inspecting authorities) shall be removed and replaced at Contractor's expense such that the Work conforms to the highest quality standards of the trades concerned, or otherwise corrected to the satisfaction of the Architect/Engineer, the Owner, or other inspecting authority, as applicable.
- (d) Under the various sections of the plans or specifications, where specified items are supplied with the manufacturer's printed instructions, recommendations, or directions for installation, or where such instructions, recommendations, or directions are available, installation of the specified items shall be in strict accordance with the manufacturer's printed instructions unless those instructions contradict the plans or specifications, in which case the Architect/Engineer will be notified for an interpretation and decision.
- (e) Under the various sections of the plans or specifications, where reference is made to specific codes or standards governing the installation of specified items, installation shall in all cases be in strict accordance with the referenced codes and standards. Where no reference is made to specific codes or standards, installation shall conform to the generally recognized applicable standards for first-class installation of the specific item to be installed. Contractors are expected to be proficient and skilled in their respective trades and knowledgeable of the Codes and Standards of the National Fire Protection Association (NFPA), National Electric Code (NEC), Occupational Safety and Health Act (OSHA) and other codes and standards applicable to installations and associated work by his trade.

- (f) Where the manufacturer's printed instructions are not available for installation of specific items, where specific codes or standards are not referenced to govern the installation or specific items, or where there is uncertainty on the part of the Contractor concerning the installation procedures to be followed or the quality of workmanship to be maintained in the installation of specific items, the Contractor shall consult the Architect/Engineer for approval of the installation procedures or the specific standards governing the quality of workmanship the Contractor proposes to follow or maintain during the installation of the items in question.

- (g) During and/or at the completion of installation of any items, the tests designated in the plans or specifications necessary to assure proper and satisfactory functioning for its intended purpose shall be performed by the Contractor or by its Subcontractor responsible for the completed installation. All costs for such testing are to be included in the Contract Price. If required by the Contract Documents, the Contractor shall furnish prior to final inspection the manufacturers' certificates evidencing that products meet or exceed applicable performance, warranty and other requirements, and certificates that products have been properly installed and tested.

30. WARRANTY OF MATERIALS AND WORKMANSHIP

- (a) The Contractor warrants that, unless otherwise specified, all materials and equipment incorporated in the Work under the Contract shall be new, in first class condition, and in accordance with the Contract Documents. The Contractor further warrants that all workmanship shall be of the highest quality and in accordance with the Contract Documents and shall be performed by persons qualified at their respective trades.
- (b) Work not conforming to these warranties shall be considered defective.
- (c) This warranty of materials and workmanship is separate and independent from and in addition to any of the Contractor's other guarantees or obligations in the Contract or under Virginia law.

31. USE OF SITE AND REMOVAL OF DEBRIS

- (a) The Contractor shall:
 - (1) Perform the Work in such a manner as not to interrupt or interfere with the operation of any existing activity on, or in proximity to, the Site or with the Work of any other separate contractor;
 - (2) Store his apparatus, materials, supplies and equipment in such orderly fashion at the Site of the Work as will not unduly interfere with the progress of his Work or the work of any other separate contractor; and
 - (3) Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
- (b) The Contractor expressly undertakes, either directly or through his Subcontractor(s), to effect all cutting, filling or patching of the Work required to make the same conform to the plans and specifications, and, except with the consent of the Architect/Engineer, not to cut or otherwise alter the Work of any other separate contractor. The Contractor shall not damage or endanger any portion of the Work or Site, including existing improvements, unless called for by the Contract.
- (c) The Contractor expressly undertakes, either directly or through his Subcontractor(s), to clean up frequently all refuse, rubbish, scrap materials and debris caused by his operations, to the end that at all times the Site shall present a neat, orderly and workmanlike appearance. No such refuse, rubbish, scrap material and debris shall be left within the completed Work nor buried on the building Site, but shall be removed from the Site and properly disposed of in a licensed landfill or otherwise as required by law.
- (d) The Contractor expressly undertakes, either directly or through his Subcontractor(s), before final payment or such prior time as the Owner may require, to remove all surplus material, false Work, temporary structures, including foundations thereof, plants of any description and debris of every nature resulting from his operations and to put the Site in a neat, orderly condition; to thoroughly clean and leave reasonably dust free all finished surfaces including all equipment, piping, etc., on the interior of all buildings included in the Contract; and to clean thoroughly all glass installed under the

Contract, including the removal of all paint and mortar splatters and other defacements. If the Contractor fails to clean up at the time required herein, the Owner may do so and charge the costs incurred thereby to the Contractor in accordance with Section 10(b) of these General Conditions.

- (e) The Contractor shall have, on-site, an employee certified by the Department of Conservation and Recreation as a Responsible Land Disturber who shall be responsible for the installation, inspection and maintenance of erosion control and stormwater management measures and devices. The Contractor shall prevent Site soil erosion, the runoff of silt and/or debris carrying water from the Site, and the blowing of debris off the Site in accordance with the applicable requirements and standards of the Contract, the County of Albemarle's Water Protection Ordinance, and any Virginia water protection ordinances/codes and/or stormwater regulations. This would include covering of dumpsters during periods of precipitation to prevent any runoff to the stormwater system.

32. TEMPORARY ROADS

Temporary roads, if required, shall be established and maintained until permanent roads are accepted, then removed and the area restored to the conditions required by the Contract Documents. Crushed rock, paving and other road materials from temporary roads shall not be left on the Site unless permission is received from the Owner to bury the same at a location and depth approved by the Owner or leave in place as installed.

33. SIGNS

The Contractor may, at his option and without cost to the Owner, erect signs acceptable to the Owner on the Site for the purpose of identifying and giving directions to the job. No signs shall be erected without prior approval of the Owner as to design and location. The Contractor shall pay all fees required by Albemarle County.

34. PROTECTION OF PERSONS AND PROPERTY

- (a) The Contractor expressly undertakes, both directly and through his Subcontractors, to take every reasonable precaution at all times for the protection of all persons and property which may come on the Site or be affected by the Contractor's Work.
- (b) The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Any violation of these requirements or duties or any potential safety hazard that is brought to the attention of the Contractor by the Architect/Engineer, the Owner, or any other persons shall be immediately abated.
- (c) The provisions of all rules and regulations governing health and safety as adopted by the Safety Codes Commission of the Commonwealth of Virginia, issued by the Department of Labor and Industry under Title 40.1 of the Code of Virginia, shall apply to all Work under this Contract.

- (d) The Contractor shall continuously maintain adequate protection of all his Work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except as may be directly and solely due to errors in the Contract Documents or caused by agents or employees of the Owner. The Contractor shall adequately protect adjacent property to prevent any damage to it or loss of use and enjoyment by its owners. The Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for protection as required by public authority, local conditions, or the Contract.
- (e) In an emergency affecting the health, safety or life of persons or of the Work, or of the adjoining property, the Contractor, without special instruction or authorization from the Architect/Engineer or the Owner, shall act, at his discretion, to prevent such threatened loss or injury. Also, should he, to prevent threatened loss or injury, be instructed or authorized to act by the Architect/Engineer or the Owner, he shall so act immediately, without appeal. Any additional compensation or extension of time claimed by the Contractor on account of any emergency work shall be determined as provided by Section 38 of these General Conditions.
- (f) When necessary for the proper protection of the Work, temporary heating, cooling, humidification, or de-humidification of a type approved by the Architect/Engineer must be provided by the Contractor, at the Contractor's expense, unless otherwise specified.

35. CLIMATIC CONDITIONS

The Contractor shall suspend activity on and protect any portion of the Work that may be subject to damage by climatic conditions, including but not limited to, protection from precipitation, wind (including securing material and equipment that could become airborne), and extreme temperatures.

36. PAYMENTS TO CONTRACTOR

- (a) Unless otherwise provided in the Contract, the Owner will make partial payments to the Contractor on the basis of a duly certified and approved Schedule of Values and Certificate for Payment, Form AC-12, showing the estimate of the Work performed during the preceding calendar month or work period, as recommended by the Architect/Engineer. When evaluating the Contractor's Form AC-12, the Architect/Engineer will consider the value of the Work in place, the value of approved and properly stored materials, the status of the Work on the critical path with regard to the Time for Completion, and the estimated value of the Work necessary to achieve Final Completion. The Architect/Engineer will schedule a monthly pay meeting. The Contractor will submit his monthly estimate of Work completed on Form AC-12 so that it is received by the Architect/Engineer and the Owner's Project Manager at least two work days prior to the date scheduled by the Architect/Engineer for the monthly pay meeting. The Owner will review the estimate with the Architect/Engineer and the Contractor at the monthly pay meeting, which shall be considered the receipt date, and may approve any or all of the estimate of Work for payment. In preparing estimates, the material delivered to the Site and preparatory Work done shall be taken into consideration, if properly documented as required by Section 20 of these General Conditions, or as may be required by the Architect/Engineer so that quantities may be verified. In addition to material delivered to the Site, material such as large pieces of equipment and items purchased specifically for the Project, but stored off the Site within the Commonwealth of Virginia, may be considered for payment, provided

all of the following are accomplished prior to the submission of the monthly payment request in which payment for such materials is requested:

- (1) The Contractor must notify the Owner in writing, at least ten (10) days prior to the submission of the payment request, through the Architect/Engineer, that specific items will be stored off Site in a designated, secured place within the Commonwealth of Virginia. The Schedule of Values must be detailed to indicate separately both the value of the material and the labor/installation for trades requesting payment for stored materials. By giving such notification and by requesting payment for material stored off Site, the Contractor warrants that the storage location is safe and suitable for the type of material stored and that the materials are identified as being the property of the Contractor, and agrees that loss of materials stored off the Site shall not relieve the Contractor of the obligation to timely furnish these types and quantities of materials for the Project and meet the Time for Completion or Contract Completion Date, subject to Section 42(b) of these General Conditions. If the storage location is more than 20 miles from the Site, the Contractor may be required to reimburse the Owner for the cost incurred for travel to the storage location to verify the Contractor's request for payment for materials stored off Site.
- (2) Such notification, as well as the payment request, shall:
 - (a) itemize the quantity of such materials and document with invoices showing the cost of said materials;
 - (b) indicate the identification markings used on the materials, which shall clearly reference the materials to the particular project;
 - (c) identify the specific location of the materials, which must be within reasonable proximity to the Site and within the Commonwealth of Virginia;
 - (d) include a letter from the Contractor's Surety which confirms that the Surety on the Performance Bond and the Labor and Material Payment Bond has been notified of the request for payment of materials stored off the Site and agrees that the materials are covered by the bond; and
 - (e) include a certificate of all-risk builder's risk insurance in an amount not less than the fair market value of the materials, which shall name the Owner and the Contractor as co-insured.
- (3) The Architect/Engineer shall indicate, in writing, to the Owner that Submittals for such materials have been reviewed and meet the requirements of the Contract Documents, that the stored materials meet the requirement of the plans and specifications, and that such materials conform to the approved Submittals. Should the A/E deem it necessary to visit the storage site to make such review, the Contractor shall bear the costs incurred therewith.
- (4) The Owner, through the Architect/Engineer, shall notify the Contractor in writing of its agreement to prepayment for materials.

- (5) The Contractor shall notify the Owner in writing, through the Architect/Engineer, when the materials are to be transferred to the Site and when the materials are received at the Site.
- (b) Payment will not be made for materials or equipment stored on or off the Site which are not scheduled for incorporation into the Work within the six months following submission of the request for payment, unless the Contractor has the prior consent of the Owner, which consent may be granted or withheld by the Owner in its discretion if, in the opinion of the Owner, it is not necessary to procure the materials more than six months in advance of use to assure their availability when needed.
- (c) In making such partial payments, five percent (5%) of each payment to the Contractor shall be retained until Final Completion and acceptance of all Work covered by the Contract, unless otherwise provided by any law, regulation or program of the federal government. Such retainage shall be held to assure faithful performance of the Contract and may also be used as a fund to deduct amounts due to or claimed by the Owner, including, but not limited to, payment to the Owner of all monies due for deductive change orders, credits, uncorrected Defective Work, interest, damages, and the like. (§2.2-4333 of the Code of Virginia)
- (d) All material and Work for which partial payments are made shall thereupon become the sole property of the Owner, but this provision shall not relieve the Contractor from the sole responsibility for all materials and Work, including those for which payment has been made, or for the restoration of any damaged materials or Work. Nor shall this provision serve as a waiver of the right of the Owner to require the fulfillment of all of the terms and conditions of the Contract.
- (e) The final payment, which shall include the retainage, less any amounts due to or claimed by the Owner, shall not become due until the Architect/Engineer and the Owner agree that Final Completion has been achieved and until the Contractor shall deliver to the Owner through the Architect/Engineer a Certificate of Completion by the Contractor (Form AC-13.2) and an Affidavit of Payment of Claims (Form AC-13), stating that all Subcontractors and Suppliers of either labor or materials have been paid all sums claimed by them for Work performed or materials furnished in connection with this Project less retainage. Amounts due the Owner which may be withheld from the final payment may include, but are not limited to, amounts due pursuant to Section 3(i), Section 16(a)-(d), Section 31(d), costs incurred to repair or replace Defective Work, costs incurred as a result of the Contractor's negligent acts or omissions or omissions of those for whom the Contractor is responsible, delay damages under Section 42(h), and any liquidated or actual damages. If all Subcontractors and Suppliers of labor and materials have not been paid the full amount claimed by them, the Contractor shall list each to which an agreed amount of money is due or which has a claim in dispute. With respect to all such Subcontractors and Suppliers, the Contractor shall provide to the Owner, along with the Affidavit of Payment of Claims (Form AC-13), an affidavit from each such Subcontractor and Supplier stating the amount of their subcontract or supply contract, the percentage of completion, the amounts paid to them by the Contractor and the dates of payment, the amount of money still due if any, any interest due the Subcontractor or Supplier pursuant to Section 37(b) below, and whether satisfactory arrangements have been made for the payment of said amounts. If no agreement can be reached between the Contractor and one or more Subcontractors or Suppliers as to the amounts owed to the Subcontractors or Suppliers, the Owner may, in its discretion, pay such portion of the monies due to the Contractor which is claimed by the Subcontractor or Supplier into a Virginia Court or Federal Court sitting in Virginia, in the manner provided by law. Said payment into court shall be deemed a payment to the Contractor. Nothing in this Section shall be construed as creating any obligation or contractor relationship between the Owner and any Subcontractor or Supplier, and the

Owner shall not be liable to any Subcontractor or Supplier on account of any failure or delay of the Owner in complying with the terms hereof.

- (f) Upon successful completion of the final inspection and all Work required by the Contract, including but not limited to the delivery of As-Built drawings, equipment manuals, written warranties, acceptance of the Work by the Owner and the delivery of the affidavits required in Section 36(e) of these General Conditions, the Architect/Engineer shall deliver the written Certificate of Completion by the Architect/Engineer (Form AC-13.1) to the Owner, with a copy to the Contractor, stating the entire amount of Work performed and compensation earned by the Contractor, including extra work and compensation therefor. The Owner may accept the Work for occupancy or use while asserting claims against the Contractor; disputing the amount of compensation due to the Contractor; disputing the quality of the Work, its completion, or its compliance with the Contract Documents; or any other reason.
- (g) Unless there is a dispute about the compensation due to the Contractor, Defective Work, quality of the Work, compliance with the Contract Documents, completion itself, claims by the Owner, other matters in contention between the parties, or unless monies are withheld pursuant to Albemarle County's Debt Setoff Program, within thirty (30) days after receipt and acceptance of the Schedule of Values and Certificate for Payment (Form AC-12) in proper form by the Architect/Engineer at the monthly pay meeting, which shall be considered the receipt date, the Owner shall pay to the Contractor the amount approved by the Architect/Engineer, less all prior payments and advances whatsoever to or for the account of the Contractor. In the case of final payment, the completed Affidavit of Payment of Claims (Form AC-13), the Certificate of Completion by the Contractor (Form AC-13.2) and the Certificate of Completion by the Architect/Engineer (Form AC-13.1) shall accompany the final Schedule of Values and Certificate for Payment (Form AC-12) which is forwarded to the Owner for payment. The date on which payment is due shall be referred to as the Payment Date. In the event of disputes, payment shall be mailed on or before the Payment Date for amounts and Work not in dispute, subject to any set offs claimed by the Owner, provided however, in instances where further appropriations are required by the County of Albemarle or where the issuance of further bonds is required, in which case, payment shall be made within thirty (30) days after the effective date of such appropriation or within thirty (30) days after the receipt of bond proceeds by the Owner. All prior estimates and payments including those relating to extra Work may be connected and adjusted in any payment and shall be corrected and adjusted in the final payment. In the event that any request for payment by the Contractor contains a defect or impropriety, the Owner shall notify the Contractor of any defect or impropriety which would prevent payment by the Payment Date, within five (5) days after receipt of the Schedule of Values and Certificate for Payment (Form AC-12) by the Owner from the Architect/Engineer.
- (h) Interest shall accrue on all amounts owed by the Owner to the Contractor which remain unpaid seven (7) days following the Payment Date. Said interest shall accrue at the discounted ninety-day U.S. Treasury bill rate as established by the Weekly Auction and as reported in the publication entitled The Wall Street Journal on the weekday following each such Weekly Auction. During the period of time when the amounts due to the Contractor remain unpaid following the seventh (7th) day after the Payment Date, the interest accruing shall fluctuate on a weekly basis and shall be that established by the immediately prior Weekly Auction. It shall be the responsibility of the Contractor to gather and substantiate the applicable weekly interest rates to the satisfaction of the Owner and to calculate to the satisfaction of the Owner the interest due. In no event shall the rate of interest charge exceed the rate of interest charged pursuant to §58.1-1812 of the Code of Virginia. No interest shall accrue on

retainage or when payment is delayed because of disagreement between the Owner and the Contractor regarding the quantity, quality or timeliness of the Work, including, but not limited to, compliance with Contract Documents or the accuracy of any Request for Payment received. This exception to the accrual of interest stated in the preceding sentence shall apply only to that portion of a delayed payment which is actually the subject of such a disagreement and shall apply only for the duration of such disagreement. Nothing contained herein shall be interpreted, however, to prevent the withholding of retainage to assure faithful performance of the Contract. These same provisions relating to payment of interest to the Contractor shall apply also to the computation and accrual of interest on any amounts due from the Contractor to the Owner for deductive change orders and to amounts due on any claims by the Owner. The date of mailing of any payment by the U.S. Mail is deemed to be the date of payment to the addressee.

- (i) The acceptance by the Contractor of the final payment shall be and operate as a release to the Owner of all claims by the Contractor, its Subcontractors and Suppliers, and of all liability to the Contractor whatever, including liability for all things done or furnished in connection with this Work, except for things done or furnished which are the subject of unresolved claims for which the Contractor has filed a timely written notice of intent, provided a claim is submitted no later than sixty (60) days after final payment. Acceptance of any interest payment by the Contractor shall be a release of the Owner from claims by the Contractor for late payment.
- (j) No certificate for payment issued by the Architect/Engineer, and no payment, final or otherwise, no certificate of completion, nor partial or entire use or occupancy of the Work by the Owner, shall be an acceptance of any Work or materials not in accordance with the Contract, nor shall the same relieve the Contractor of responsibility for faulty materials or Defective Work or operate to release the Contractor or his Surety from any obligation under the Contract, the Standard Performance Bond and the Standard Labor and Material Payment Bond.

37. PAYMENTS BY CONTRACTOR (§2.2-4354, Code of Virginia)

Under §2.2-4354, Code of Virginia, the Contractor is obligated to:

- a. This is a construction contract under the VPPA. Therefore, Contractor shall pay all subcontractors in the manner provided in Virginia Code Section 2.2-4354(1).
- b. Contractor shall pay all subcontractors in the manner provided in Virginia Code Section 2.2-4354(2-5).

38. CHANGES IN THE WORK

- (a) The Owner may at any time, by written order utilizing the County of Albemarle Change Order Form AC-11, and without notice to the sureties, make changes in the Work which are within the general scope of the contract except that no change will be made which will increase the total Contract Price to an amount more than twenty-five percent (25%) in excess of the original Contract Price without notice to sureties. The Owner, at its discretion, may require the Contractor to provide evidence of current surety coverage based on approved changes in the work that result in a change in the total contract amount. At the time of the Preconstruction Meeting described in Section 49(b), the Contractor and the Owner shall advise each other of their designees authorized to accept and/or

approve changes to the Contract Price and of any limits to each designee's authority. Should any designee or limits of authority change during the time this Contract is in effect, the Contractor or Owner shall give written notice to the other within seven (7) calendar days, utilizing the procedures set forth in these General Conditions. The Contractor agrees and understands that the authority of the Owner's designee is limited by Virginia Code §2.2-4309 and any other applicable statute.

If the Contractor claims that any instructions given to him by the Architect/Engineer or by the Owner, by drawings or otherwise, involve extra Work which increases the scope of the Contract, then, except in emergencies endangering life or property, he shall give the Architect/Engineer and the Owner written notice thereof before proceeding to execute the Work. Said notice shall be given promptly enough to avoid delaying the Work and in no instance later than fourteen (14) days after the receipt of such instructions. Should it not be immediately clear to the Contractor that the change involves extra Work outside the scope of the Contract, written notice shall be sufficient if given as soon as possible after such realization, but in no event later than fourteen (14) days after the start of such Work. If the Owner agrees, a Change Order shall be issued as provided herein, and any additional compensation shall be determined by one of the four (4) methods provided herein, as selected by the Owner. Except as otherwise specifically provided, no claims for extra Work shall be allowed unless timely notice, as required by this Section, is given by the Contractor and unless such Work is performed pursuant to written Change Order. In making any change, the charge or credit for the change shall be determined by one of the following methods as selected by the Owner:

- (1) **Fixed Price:** By a mutually agreed fixed amount change to the Contract Price and/or time allowed for completion of the Work. By using the Estimate for Change Order Forms GC-1, SC-1, and SS-1, respectively, the Change Order shall be substantiated by documentation itemizing the estimated quantities and actual costs of all labor, materials and equipment required as well as any markup used. The price change shall include the Contractor's overhead and profit. See Subsections (d) and (e) below.
- (2) **Unit Price:** By using unit prices and calculating the number of net units of Work in each part of the Work which is changed, either as the Work progresses or before Work on the change commences, and by then multiplying the calculated number of units by the applicable unit price set forth in the Contract or multiplying by a mutually agreed unit price if none was provided in the Contract. No additional percentage markup for overhead or profit shall be added to the unit prices.
- (3) **Unilateral:** If the Owner and Contractor are unable to agree that an item of Work or service constitutes a change, or that Contractor is entitled to additional compensation and/or an extension of time for such item of Work or service, the Contractor, upon receipt of a Unilateral Change Order, signed by the Owner, will promptly proceed with and expeditiously perform and/or supply the item of Work or service. If the parties are unable to agree on the amount of adjustment or schedule, the Owner will provide written notification to the Contractor of the adjustment the Owner considers appropriate. Such adjustment will be effective subject to Contractor's right to submit a claim as provided in Section 46. Any claim for an adjustment of compensation or schedule, or in opposition to an adjustment imposed by the Owner, will be submitted to the Owner in writing within seven (7) days of commencement of the event giving rise to such claim. The Contractor will submit to the Owner, in writing, the amount of the claim with supporting data within thirty (30) days of completion of the services or termination of the event for which it claims an adjustment.

- (4) **Cost Reimbursement (Time and Materials):** In order to allow performance of services to proceed in a timely manner, the Owner may issue a written order for the Contractor to proceed with a change for additional work or service in anticipation of subsequently negotiating an agreeable adjustment of the Contractor's compensation and/or schedule. Upon completion of the Work, the Contractor, by using Estimate for Change Order Forms GC-1, SC-1, and SS-1, respectively, will present to the Owner, an accurate, itemized account of the cost of the change in the Work, including, but not limited to, the costs of labor, materials, equipment, and supplies; and to annotate a copy of the Project schedule to accurately show the status of the Work at the time this initial written order is issued, to show the start and finish of the changed Work, and the status of the Work when the changed Work is completed.

Except as otherwise may be agreed to in writing by the Owner, such costs shall not exceed those prevailing for the trades or crafts, materials, and equipment in the locality of the Project, may include only those items listed as allowable in Subsection 38(e), and shall not include any of the costs listed as not allowable in Subsection 38(f). The Owner shall be permitted, on a daily basis, to verify such records and may require such additional records as are necessary to determine the cost of the change to the Work.

Within fourteen (14) days of the conclusion of such ordered Work, the Contractor and the Owner shall arrive at a cost for the Change Order Request, based on the records kept and the Contractor's allowance for overhead and profit as set forth in Subsections (d), (e) and (f) below, and such costs shall be incorporated into a Change Order. If agreement on the cost of the changed Work cannot be reached within the fourteen (14) days allotted, the Contractor may file a claim for the disputed amount as provided for in Section 46.

- (b) The Contractor shall review any Owner requested or directed change and shall respond in writing within fourteen (14) calendar days after receipt of the proposed change (or such other reasonable time as the Owner may direct), stating the effect of the proposed change upon his Work, including any increase or decrease in the Contract time and Price. The Contractor shall furnish to the Owner an itemized breakdown of the quantities and prices used in computing the proposed change in Contract Price.

The Owner shall review the Contractor's proposal and respond to the Contractor within thirty (30) days of receipt. If a change to the Contract Price and time for performance are agreed upon, both parties shall sign the Change Order. If the price and time are not agreed upon, the Owner may direct the Contractor to proceed under Subsection 38(a)(3) or 38(a)(4). Changes to the Contract time and/or Price shall be effective when signed by both parties, with the exception of a Unilateral Change Order that is only signed by the Owner.

- (c) In figuring changes, any instructions for measurement of quantities set forth in the Contract shall be followed.
- (d) The percentage for overhead and profit to be used in calculating both additive and deductive changes in the Work (other than changes covered by unit prices) shall not exceed the percentages for each category listed below. Said percentages for overhead and profit shall be applied only on the cost of the changed Work (i.e. difference in cost between original and revised Work):

- (1) If a Subcontractor does all or part of the changed Work, the Subcontractor's markup for overhead and profit on the Work it performs shall be a maximum of ten percent (10%). The Contractor's markup on the subcontractor's price shall be a maximum of ten percent (10%).
 - (2) If the Contractor does all or part of the changed Work, its markup for overhead and profit on the changed Work it performs shall be a maximum of ten percent (10%).
 - (3) If a Sub-subcontractor at any tier does all or part of the changed Work, the Sub-subcontractor's markup on that Work shall be a maximum of ten percent (10%). The markup of a sub-subcontractor's Work by the Contractor and all intervening tiers of Subcontractors shall not exceed a total of ten percent (10%).
 - (4) Where Work is deleted from the Contract prior to commencement of that Work without substitution of other similar Work, one hundred percent (100%) of the Contract Price attributable to that Work shall be deducted from the Contract Price including applicable overhead costs and profit. However, in the event that material Submittals have been approved and orders placed for said materials, a lesser amount, but in no case less than eighty percent (80%) of the Contract Price attributable to that Work, shall be deducted from the Contract Price. The credit to the Owner for reduced premiums on labor and material bonds and performance bonds shall in all cases be one hundred percent (100%).
- (e) Allowable costs for changes in the Work may include the following:
- (1) Labor costs for employees directly employed in the change in the Work, including actual salaries and wages plus the cost of payroll charges and fringe benefits and overtime premiums, if such premiums are explicitly authorized by the Owner. "Billable" or "loaded" labor or wage rates will not be accepted.
 - (2) Materials incorporated into the change to the Work, including costs of transportation and storage, if applicable. If applicable, all cash discounts shall accrue to the Contractor, unless the Owner deposits funds with the Contractor to make such payments, and all trade discounts, rebates, refunds, and returns from the sale of surplus materials shall accrue to the Owner.
 - (3) Equipment incorporated in the changed Work or equipment used directly in accomplishing the Work. If rented expressly for accomplishing the change in the Work, the cost shall be the rental rate according to the terms of the rental agreement, which the Owner shall have the right to approve. If owned by the Contractor, the costs shall be a reasonable price based upon the life expectancy of the equipment and the purchase price of the equipment. If applicable, transportation costs may be included.
 - (4) Costs of increases in premiums for the Standard Labor and Material Payment Bond and the Standard Performance Bond, provided coverage for the cost of the change in the Work results in such increased costs. At the Owner's request, the Contractor shall provide proof of his notification to the Surety of the change in the Work and of the Surety's agreement to include such change in its coverage. The cost of the increase in premium shall be an allowable cost but shall not be marked up.
 - (5) Contractor and Subcontractor overhead costs as set forth in Subsection (d) markups above.

- (6) If the change in the Work also changes the Time for Completion or Contract Completion Date 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 those shown above: The Site superintendent's prorata salary, temporary Site office trailer expense, and 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 the Subsection (d) markups above.
 - (7) Any other costs directly attributable to the change in the Work with the exception of those set forth below.
- (f) Allowable costs for changes in the Work shall not include the following:
- (1) Costs due to the negligence of the Contractor, any Subcontractor, Supplier, their employees or other persons for whom the Contractor is responsible, including, but not limited to, costs for the correction of Defective Work, for improper disposal of material, for equipment wrongly supplied, for delay in performing the Work, or for delay in obtaining materials or equipment.
 - (2) Home office expenses including payroll costs for the Contractor's officers, executives, administrators, project managers, accountants, counsel, engineers, timekeepers, estimators, clerks, and other similar 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 allowable in Subsection (d) above.
 - (3) Home and field office expenses not itemized in Subsection 38(e)(6) above. Such items include, but are not limited to, expenses of Contractor's home and branch offices, Contractor's capital expenses, interest on Contractor's capital used for the Work, charges for delinquent payments, small tools, incidental job costs, meals, rent, utilities, telephone and office equipment, and other general overhead expenses.
- (g) All Change Orders must state that the Contract Time for Completion or Contract Completion Date is not changed or is either increased or decreased by a specific number of days. The old Time for Completion and, if changed, the new Time for Completion must be stated.

If the Contractor requests an extension to the Time for Completion or a later Contract Completion Date, he must provide written justification for the extension to the Architect/Engineer and to the Owner. The written justification must demonstrate an anticipated actual increase in the time required to complete the Work beyond that allowed by the Contract as adjusted by prior change orders or amendments to the Contract, not just an increase or decrease in the time needed to complete some portion of the total Work. When a CPM schedule is required by the Contract, no extension to the Time for Completion or Contract Completion Date shall be allowed unless, and then only to the extent that, the additional or changed Work increases the length of the critical path beyond the Time for Completion or Contract Completion Date. If approved, the increase in time required to complete the Work shall be added to the Time for Completion or Contract Completion Date.

The Owner may decrease, by Change Order, the Time for Completion or Contract Completion Date when an Owner-requested deletion from the Work results in a decrease in the actual time required to complete the Work as demonstrable on the Bar Graph Schedule or on the CPM Schedule, whichever is appropriate. The Contractor may submit a request to decrease, by Change Order, the Time for Completion or Contract Completion Date under the procedures and subject to the considerations set forth in Section 19(g). No request for such decrease shall be considered for approval unless the proposed shorter schedule is otherwise acceptable under Sections 19(b) or (c), whichever is applicable. The Change Order decreasing the Time for Completion or changing the Contract Completion Date must be signed by both the Owner and the Contractor.

With the exception of Change Orders under Subsection 38(a)(4), which shall arrive at a change to the Contract Price and any change to time using the procedures set forth therein, each Change Order shall include all time and monetary impacts of the change, whether the Change Order is considered alone or with all other changes during the course of the Project. Failure to include a change to time and Contract Price in Section 38(a)(1) or (2) Change Orders shall waive any change to the time and Contract Price unless the parties mutually agree in writing to postpone a determination of the change to time and price resulting from the Change Order. Such a determination may be postponed not more than forty-five (45) days to give the Contractor an opportunity to demonstrate a change in the time and price needed to complete the Work. During any such postponement, the Work shall proceed, unless the Owner agrees otherwise.

If at any time there is a delay in the critical path of the Work due to postponement, due to the Contractor's efforts to justify an extension of the time or an increase in the Contract Price, or due to the Contractor's refusal to proceed with any of the Work, pending agreement on a change in time or price, such delay and any Contractor costs resulting from it shall not serve as the basis for the extension of the Time for Completion or Contract Completion Date or for an increase in the Contract Price.

- (h) The acceptance by the Contractor of any payment made by the Owner under a Change Order shall be and operate as a release to the Owner of all claims by the Contractor and of all liability owing to the Contractor for all things done or furnished in connection with the Work described in the Change Order. The execution of any Change Order by the Owner shall not be an acceptance of any Work or materials not in accordance with the Contract Documents, nor shall it relieve the Contractor of responsibility for faulty materials or workmanship or operate to release the Contractor or his surety from any obligation arising under the Contract or the Standard Performance Bond or Standard Labor and Material Payment Bond.
- (i) Payments will not be made for any Work, labor or materials on a fixed price, unit price or Subsection 38(a)(4) basis until the Contractor has furnished the Owner documents, certified as true and correct by an authorized officer or agent of the Contractor, evidencing the cost of such Work, labor and materials. The Owner may require any or all of the following documentation to be provided by the Contractor:
 - (1) certified payroll records showing the name, classification, date, daily hours, total hours, rate, and extension for each laborer, foreman, supervisor or other worker;
 - (2) equipment type & model, dates, daily hours, total hours, rental rate or other specified rate, and extension for each unit of equipment;

- (3) invoices for materials showing quantities, prices, and extensions;
- (4) daily records of waste materials removed from the Site and/or fill materials imported to the Site;
- (5) certified measurements of over excavations, piling installed and similar work; and/or
- (6) transportation records for materials, including prices, loads, and extensions.

Requests for payment shall be accompanied and supported by invoices for all materials used and for all transportation charges claimed. If materials come from the Contractor's own stock, then an affidavit may be furnished, in lieu of invoices, certifying quantities, prices, etc. to support the actual cost.

39. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

If the Work should be stopped under an order of any court or other public authority for a period of ninety (90) days through no fault of the Contractor or anyone employed by him, or if the Owner should fail to pay to the Contractor within sixty (60) days any sum certified by the Architect/Engineer when no dispute exists as to the sum due or any provision of the Contract, then the Contractor may, upon ten (10) calendar days written notice to the Owner and the Architect/Engineer, stop Work or terminate the contract and recover from the Owner payment for the cost of the Work actually performed, together with overhead and profit thereon, but profit on the Work performed shall be recovered only to the extent that the Contractor can demonstrate that he would have had profit on the entire Contract if he had completed the Work. The Contractor may not receive profit or any other type of compensation for parts of the Work not performed. The Contractor may recover the reasonable cost of physically closing down the Site, but no other costs of termination. The Owner may offset any claims it may have against the Contractor against the amounts due to the Contractor. In no event shall termination of the Contract by the Contractor terminate the obligations of the Contractor's surety on its payment and performance bonds.

40. OWNER'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT FOR CAUSE

- (a) If the Contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, the Owner may stop work or terminate the Contract. If the Contractor should refuse or should repeatedly fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials and equipment, or if he should fail to make prompt payment to Subcontractors or Suppliers of material or labor, or if he should disregard laws, ordinances or the written instructions of the Architect/Engineer or the Owner, or otherwise be in substantial violation of any provision of the Contract, then the Owner may stop work or terminate the Contract.
- (b) Prior to termination of the Contract, the Owner shall give the Contractor and his surety ten (10) calendar days written notice pursuant to Section 1 ("Notice") of these General Conditions, during which the Contractor and/or his surety may rectify the basis for the notice. If rectified to the satisfaction of the Owner within said ten (10) days, the Owner may rescind its notice of termination. If not, the termination for cause shall become effective at the end of the ten (10) day notice period.

In the alternative, the Owner may, in writing, postpone the effective date of the termination for cause, at its sole discretion, if it should receive reassurances from the Contractor and/or its surety that the basis for the termination will be remedied in a time and manner which the Owner finds acceptable. If at any time after such postponement, the Owner determines that Contractor and/or its surety has not or is not likely to rectify the causes of termination in an acceptable manner or within the time allowed, then the Owner may immediately terminate the Contract for cause, without the necessity of further ten (10) day notice, by notifying the Contractor and his surety in writing of the termination. In no event shall termination for cause terminate the obligations of the Contractor's surety on its payment and performance bonds.

- (c) Upon termination of the Contract, the Owner shall take possession of the Site and of all materials, tools and equipment thereon and finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment. If the expense of finishing the Work, including compensation for additional managerial and administrative services, shall exceed the unpaid balance of the Contract Price, the Contractor shall pay the difference to the Owner, together with any other expenses of terminating the Contract and having it completed by others.
- (d) If it should be judicially determined that the Owner improperly terminated this Contract for cause, then the termination shall be deemed to be a termination for the convenience of the Owner.
- (e) Termination of the Contract under this Section is in addition to and without prejudice to any other right or remedy of the Owner. Any actions by the Owner permitted herein shall not be deemed a waiver of any other right or remedy of the Owner under the Contract or under the law. The Owner may offset any claims it may have against the Contractor against the amounts due to the Contractor. The provisions of this Section shall survive termination of the Contract.

41. TERMINATION BY OWNER FOR CONVENIENCE

- (a) Owner may terminate this Contract, in whole or in part, at any time without cause upon giving the Contractor written notice of such termination pursuant to Section 1 ("Notice") of these General Conditions. Upon such termination, the Contractor shall immediately cease Work and remove from the Site all of its labor forces and such of its materials as Owner elects not to purchase or to assume in the manner hereinafter provided. Upon such termination, the Contractor shall take such steps as Owner may require to assign to the Owner the Contractor's interest in all Subcontracts and purchase orders designated by Owner. After all such steps have been taken to Owner's satisfaction, the Contractor shall receive as full compensation for termination and assignment the following:
 - (1) All amounts then otherwise due under the terms of this Contract;
 - (2) Amounts due for Work performed in accordance with the Contract subsequent to the latest approved Schedule of Values and Certificate for Payment (Form AC-12) through the date of termination;
 - (3) Reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of such termination. The Contractor shall not be entitled to any compensation or damages for lost profits or for any other type of contractual compensation or damages other

than those provided by the preceding sentence. Upon payment of the foregoing, Owner shall have no further obligations to Contractor of any nature.

- (b) In no event shall termination for the convenience of the Owner terminate the obligations of the Contractor's surety on its payment and performance bonds.

42. DAMAGES FOR DELAYS; EXTENSION OF TIME

- (a) If the Contractor is delayed at any time in the progress of the Work by any act or omission of the Owner, its agents or employees or any separate independent contractor of the Owner, and the act or omission is the result of or is necessitated by causes outside the Owner's control; or if the Contractor is delayed by strikes, fires, unusual delays in transportation or unavoidable casualties, or other causes outside the Owner's or Contractor's control, the Contractor shall give the Owner and Architect/Engineer written notice within five (5) days of the inception of the delay. The Owner shall extend the time for Substantial Completion or Final Completion, as the case may be, for the length of time that the Substantial Completion or Final Completion of the Work was actually delayed thereby, and the Contractor shall not be charged with liquidated or actual damages for delay during the period of such extension nor shall the Contractor be due compensation or damages of any kind, under any theory of law, as a result of such delay, the impact of such delay, or acceleration of Work as a result of such delay. In the event a CPM schedule is required by the Contract, no extension of the time allowed for Substantial Completion shall be granted unless the Contractor demonstrates a delay in the critical path of the approved CPM schedule or approved bar graph schedule.
- (b) If the Contractor is delayed at any time in the progress of the Work by any act or omission of the Owner, its agents or employees, due to causes within their control, or delayed by the Owner's separate, independent contractors, when such delay results from causes within the Owner's control, and the Contractor intends to seek additional compensation for damages, if any, caused by the delay, the Contractor shall inform the Owner and the Architect/Engineer immediately at the time of the occurrence giving rise to the delay by the fastest means available and shall give written notice no later than five (5) days after inception of the delay. The Contractor's notice to the Owner shall specify the nature of the delay claimed by the Contractor, the cause of the delay and the impact of the delay on the Contractor's Work schedule. The Owner shall then have five (5) days to respond to the Contractor's notice with a resolution, remedy or direction to alleviate the delay or with a notice rejecting the claim for delay alleged to be caused by the Owner or parties for whom the Owner is responsible. If the issue is not then resolved, the Contractor may submit a request for Change Order in accordance with Section 38 or submit a claim as provided for in Section 46. The Contractor shall only be entitled to additional compensation if the delay was unreasonable and was caused solely by acts or omissions of the Owner, its agents or employees, due to causes within their control, or was caused by the Owner's separate, independent contractor, when such delay resulted solely from causes within the Owner's control.
- (c) The Contractor shall not be entitled to an extension of the Time for Completion or Contract Completion Date or to any additional compensation for delays caused by acts or omissions of the Contractor due to causes within his 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, or from incomplete, incorrect or unacceptable submittals or samples.

- (d) No extension of time or additional compensation, if applicable, will be granted for any delay unless the claimed delay directly affects the critical path of the approved CPM schedule or the schedule shown on the approved bar graph schedule, whichever is applicable, and any float has been consumed. 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 in Subsections (a) or (b) above, whichever applies. Furthermore, no extension of time or additional compensation shall be given for any delay unless a claim therefor is made in writing to the Owner, with a copy to the Architect/Engineer, within twenty (20) days of the end of the delay. The claim shall state the cause of the delay, the number of days of extension requested and any compensation requested by the Contractor. The Contractor shall report the termination of the delay to the Owner and Architect/Engineer not less than ten (10) days after such termination. Failure to give notice of either the inception or the termination of the cause of delay or failure to present a claim for extension of time and/or monetary compensation within the times prescribed shall constitute a waiver of any claim for extension or additional compensation based upon that cause.
- (e) Requests for compensation for delays pursuant to Subsection (b) above must be substantiated by itemized data and records clearly showing that the Work delayed was on the critical path of the **approved** CPM schedule or on the sequence of Work on the **approved** bar graph schedule, as modified, and that the additional costs incurred by the Contractor are directly attributable to the delay in the Work claimed. Furthermore, compensation for delay shall be calculated from the contractual Time for Completion or Contract Completion Date, as adjusted by Change Order, and shall not be calculated based on any early completion planned or scheduled by the Contractor, unless a Change Order has been executed pursuant to Section 19(g) changing the Time for Completion or the Contract Completion Date to reflect such early completion. See Section 19 for procedures for the Contractor to follow if he plans early completion of the Work and wishes to request a Change Order reflecting the early completion date.

If there is an extension in the Time for Completion or the Contract Completion Date and if the Contractor is entitled to compensation under Subsection 42(b), and where there is no change in the Work, 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:

Site superintendent prorata salary, temporary Site office expense, temporary Site facilities, and temporary Site utilities including basic telephone service, electricity, heat, water, and sanitary/toilets. A ten percent (10%) markup of these expenses will be allowed to compensate the Contractor for home office and other direct or indirect overhead expenses.

- (f) If the Contractor submits a claim for delay damages pursuant to Subsection 42(b) above, the Contractor shall be liable to the Owner for a percentage of all costs incurred by the Owner 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 in fact. (§2.2-4335(C), Code of Virginia.)

- (g) Any change in the Contract Time for Completion or Contract Completion Date shall be accomplished only by issuance of a Change Order.
- (h) If the Contractor fails to complete the Work within the Time for Completion or the Contract Completion Date, the Contractor shall be liable to the Owner in the amounts set forth in the Supplemental General Conditions, if any, not as a penalty, but as fixed, agreed and liquidated damages for delay until the Work is substantially or finally completed as the case may be. If liquidated damages are not so fixed in the Supplemental General Conditions, the Contractor shall be liable for any and all actual damages sustained as a result of delay. In addition to damages for delay, whether liquidated or actual, the Contractor shall also be liable for any and all actual damages sustained by the Owner as a result of any other breach of the Contract, including, but not limited to, Defective Work and abandonment of the Contract.
- (i) If liquidated damages are provided by the Supplemental General Conditions, the following provisions apply:
 - (1) If the Work is not substantially complete by the Time for Completion or Contract Completion Date, the Contractor shall owe to the Owner, not as a penalty but as Step One liquidated damages, the sum stated in the Supplemental General Conditions for Step One liquidated damages for each and every partial or total calendar day of delay in Substantial Completion.
 - (2) Once the Work is substantially complete, the accrual of Step One liquidated damages shall cease and the Contractor shall have thirty (30) calendar days, unless otherwise specified in the Contract Documents, in which to achieve Final Completion of the Work.
 - (3) If Final Completion of the Work is not achieved on or before the thirtieth (30th) calendar day, or the date specified in the Contract Documents, after Substantial Completion, and if the Owner has not granted any extension of time, the Contractor shall owe to the Owner, not as a penalty but as Step Two liquidated damages, the sum stated in the Supplemental General Conditions as Step Two liquidated damages for each and every partial or total calendar day of delay in Final Completion.

43. INSPECTION FOR SUBSTANTIAL COMPLETION & FINAL COMPLETION

- (a) The Contractor shall notify the Owner, in writing on the Certificate of Partial or Substantial Completion by the Contractor (Form AC-13.2a), of the date when the Work or designated portion thereof, will be, in his opinion, substantially complete and ready for inspection and testing to determine if it has reached Substantial Completion. The notice shall be given at least ten (10) days in advance of said date and shall be forwarded through the Architect/Engineer, who will attach his written endorsement as to whether or not he concurs with the Contractor's statement that the Work will be ready for inspection and testing on the date given. The Architect/Engineer's endorsement is a convenience to the Owner only and shall not relieve the Contractor of his responsibility in the matter nor shall the Architect/Engineer's endorsement be deemed to be evidence that the Work was substantially complete and ready for inspection and testing. Inspection and testing shall take place at a time(s) mutually agreeable to the Contractor, Owner and Architect/Engineer.

The inspection shall include a demonstration by the Contractor that all equipment, systems and operable components of the project function properly and in accordance with the Contract Documents. The Contractor shall furnish access for the inspection and testing as provided in Section 21 of these General Conditions. The inspection and testing shall determine whether Substantial Completion has been accomplished and shall result in a written list of unfinished Work and Defective Work, commonly referred to as a “punch list”, which must be finished and corrected to obtain Final Completion.

After successful completion of the testing and the Architect/Engineer determines that, in its opinion, the Work, either in whole or in part, is substantially complete, the Architect/Engineer shall notify the Owner, in writing on the Certificate of Partial or Substantial Completion by the Architect/Engineer (Form AC-13.1a), that the Work, or a specified portion thereof, is recommended to be declared substantially complete. The Owner shall notify the Contractor, in writing, of the date the Owner accepts the Work, or the specified portion thereof, as substantially complete or the Owner shall notify the Contractor of the deficiencies to be corrected or completed before such Work will be accepted as substantially complete.

- (b) The Contractor shall notify the Owner, in writing on the Certificate of Completion by the Contractor (Form AC-13.2), of the date when the Work has reached or will reach Final Completion and will be ready for final inspection and testing. The notice shall be given at least five (5) days in advance of said date and shall be forwarded through the Architect/Engineer, who will attach his endorsement as to whether or not he concurs in the Contractor’s statement that the Work will be ready for inspection and testing on the date given. That inspection and any necessary testing shall be conducted in the same manner as the inspection for Substantial Completion. When the Work is finally and totally complete, including the elimination of all defects, and the Owner has received all project close-out deliverables, the Work shall be finally accepted by the Owner and final payment shall be made in accordance with Section 36 of these General Conditions.
- (c) The Architect/Engineer shall conduct the inspections. The Owner may elect to have other persons of its choosing also participate in the inspections. If one or more Substantial or Final Completion reinspections are required, the Contractor shall reimburse the Owner for all costs of reinspection or, at the Owner’s option, the costs may be deducted from payments due to the Contractor.
- (d) A representative of the local Building Official will either be present at the Substantial and Final Completion inspections or otherwise inspect the completed Work and advise the Owner whether the Work meets the requirements of the applicable building code(s).
- (e) Approval of Work at or as a result of any inspection required herein shall not release the Contractor or his surety from responsibility for complying with the Contract.

44. GUARANTEE OF WORK

- (a) Except as otherwise specified, all Work shall be, and is hereby, guaranteed by the Contractor against defects resulting from the use of materials, equipment or workmanship, which are defective, inferior, or not in accordance with the terms of the Contract, for one (1) year from the date of Final Completion of the entire Project by the Owner. Equipment and facilities which have seasonal limitations on their operation (e.g. heating or air conditioning units) shall be guaranteed for one (1) full year from the

date of seasonally appropriate tests and acceptance, in writing, by the Owner. Where the Owner agrees to take Beneficial Occupancy of a portion or phase of the Work which has been determined to be substantially complete before the entire Work is finally completed, the guarantees for the materials, equipment and workmanship in that portion or phase shall begin on the date that the Owner takes Beneficial Occupancy, unless otherwise specified in the Supplemental General Conditions, Special Conditions, or by separate agreement.

- (b) Unless the Owner approves otherwise, the warranty period for new equipment shall begin with the contract substantial completion date, regardless of whether the Contractor has used said equipment in the performance, installation, or application of the Work.
- (c) If, within any guarantee period, Work which is not in accordance with the Contract, Defective Work, or inferior material, equipment or workmanship is noted by the Owner or Architect/Engineer which requires or renders necessary repairs or changes in connection with the guaranteed Work, the Contractor shall, promptly upon receipt of notice from the Owner, such notice being given not later than two weeks after the guarantee period expires, and without expense to the Owner:
 - (1) Place in satisfactory condition in every particular all of such guaranteed Work and correct all defects, inferior materials, equipment or workmanship therein;
 - (2) Make good all damage to the structure or Site or equipment or contents thereof, which, in the opinion of the Owner or the Architect/Engineer, is the result of the use of materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of the Contract; and
 - (3) Make good any Work or materials or the equipment and contents of structures and/or Site disturbance that results from fulfilling the provisions of this Section.
- (d) In any case, when in fulfilling the requirements of the Contract and this guarantee or any other guaranty or warranty, the Contractor disturbs any work performed by a separate contractor, he shall restore such work to a condition satisfactory to the Architect/Engineer and Owner and guarantee such restored work to the same extent as if it was guaranteed under this Contract.
- (e) If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee as set forth in this Section, the Owner may have the defects or inferior materials, equipment or workmanship corrected and the Contractor and his surety shall be liable for all expense incurred.
- (f) All special warranties and guarantees applicable to definite parts of the Work that may be stipulated in or required by the Contract Documents shall be subject to the terms of this Section during the first year of the life of such special warranty or guarantee.
- (g) The guarantee of this Section shall be in addition to and not in lieu of all other warranties, express or implied, applicable to or arising from this Contract or by law.
- (h) Nothing contained in this Section shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including liability for Detective Work under Section 30. This Section relates only to the specific obligation of the Contractor as set forth in this Section to correct the Work and does not limit the time within which

his obligation to comply with the Contract Documents may be sought to be enforced, nor the time within which proceedings may be commenced to establish the Contractor's liability with respect to his other obligations under the Contract Documents.

- (i) In the event the Work of the Contractor is to be modified by another contractor, either before or after the Final Inspection provided by Section 43 of the General Conditions, the first Contractor shall remain responsible in all respects under this Section's Guarantee of Work and under any other warranties or guarantees, express or implied, applicable to or arising from this Contract or by law. However, the Contractor shall not be responsible for any defects in material or workmanship introduced by the contractor modifying his Work. The first Contractor and the contractor making the modifications shall each be solely responsible for his respective work. The contractor modifying the earlier Work shall be responsible for any damage to or defect introduced into the Work by his modification. If the first contractor claims that a subsequent contractor has introduced defects of materials and/or workmanship into his Work, it shall be the burden of the contractor making the claim to demonstrate clearly the nature and extent of such introduced defects and the other contractor's responsibility for those defects. Any contractor modifying the work of another shall have the same burden if he asserts that defects in his work were caused by the contractor whose work he is modifying.

45. ASSIGNMENTS OF CONTRACTUAL OBLIGATIONS

Neither party to the Contract shall assign the Contract in whole or any part without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without the prior written consent of the Owner. No assignment shall relieve any party from its obligations under the Contract.

46. CONTRACTUAL CLAIMS AND DISPUTE RESOLUTION (§2.2-4363, Code of Virginia)

- (a) **Compliance.** Strict compliance with this procedure is a prerequisite to proceeding with a claim under this Agreement, and no action or statement by County representatives waives such compliance. All notices and communications required by this section must be in writing.
- (b) **Intent to submit claim.** Contractor must notify the Purchasing Agent of its intent to submit a claim, whether for money or other relief, at the time of the occurrence or at the beginning of the work upon which the claim is based, whichever comes first. “At the time of the occurrence or at the beginning of the work upon which the claim is based” means within 48 hours or, if good cause is shown, within 5 business days. “Occurrence” includes:
 - (1) The County transmits final payment; and
 - (2) A representative of the County states that the County will not pay a requested amount.
- (c) **Submission of claim.** Contractor must submit its claim no later than 60 days after it has notified the Purchasing Agent of its intent to file a claim. The claim must identify the time of the occurrence or the beginning of the work upon which the claim is based, state the basis for the claim, and identify with specificity the relief sought.
- (d) **Investigation of claim.** The Purchasing Agent shall investigate the claim. As part of the investigation, the purchasing agent may request that Contractor submit additional information, or appear before the Purchasing Agent, to support its claim. The period between such request and Contractor’s response tolls the time within which the Purchasing Agent must respond to the claim. Failure to provide the requested information constitutes noncompliance with this procedure.
- (e) **Purchasing Agent’s decision.** The Purchasing Agent shall render a decision within 30 days of receipt of Contractor’s claim, setting forth the reasons for such decision. If the Purchasing Agent does not render a decision within 30 days, the claim is considered denied. For good cause, the Purchasing Agent may notify Contractor that more time is required to render a decision.
- (f) **The Purchasing Agent may settle the claim.** If resolution of the claim requires that the County pay additional money or forgo goods or services that it is arguably owed, then the Purchasing Agent’s authority to settle the claim is limited to 25% of the value of the contract or \$50,000, whichever is greater.
- (g) **Institution of legal action.** If Contractor is not satisfied with the Purchasing Agent’s decision, or the Purchasing Agent does not render a decision, it may appeal to the Circuit Court of Albemarle County. Contractor’s appeal must comply with the Virginia Public Procurement Act and Title 15.2 of the Virginia Code.
- (h) **Amounts not in dispute.** Contractor’s notice of an intent to file a claim does not permit the County to withhold or delay payment of amounts that it does not dispute. Purchasing Agent’s non-response to a claim within the required time constitutes a dispute of amounts claimed.

47. ASBESTOS

- (a) This subsection applies to projects involving existing buildings where asbestos abatement is not a part of the Work, when the scope of the project has been reviewed and a comprehensive survey conducted by an individual licensed by the Virginia Department of Professional and Occupational Regulation to conduct building inspections for asbestos containing materials in buildings, and where the Owner has attempted to remove or encapsulate all asbestos containing material that may become friable or damaged during this Project.

Prior to commencement of Work, the results of the comprehensive survey or any other asbestos survey shall be made available to the Contractor, who shall be responsible for performing his Work so as not to disturb any remaining asbestos, encapsulated or otherwise, identified in such survey or surveys.

If the Contractor discovers or inadvertently disturbs any material that he knows, should have known or has reason to believe, may contain asbestos that has not been previously identified, was overlooked during the removal, was deemed not to be friable or was encapsulated, the Contractor shall stop Work in the area containing or suspected to contain the asbestos, secure the area, and notify the Owner and the Architect/Engineer immediately by telephone or in person with written notice as soon as possible. The Owner will have the suspect material sampled.

If the sample is positive and must be disturbed in the course of the Work, the Owner shall have the material repaired or removed and shall pay for the bulk sample analysis.

Except as provided in §11-4.1 of the Code of Virginia, if the material disturbed is not within the Contractor's authorized Work and/or Work area or under this Contract, the Contractor shall pay for all associated sampling and abatement Costs.

- (b) If asbestos abatement is included as a part of the Work, the Contractor shall assure that the asbestos abatement work is accomplished by those duly licensed as described in Section 3 of these General Conditions and in accordance with the specific requirements of the Contract and all applicable laws and regulations.
- (c) If asbestos abatement is included as part of the Work, the licensed asbestos Subcontractor shall obtain the insurance required under Section 11(e) of these General Conditions.

48. TRAINING, OPERATION AND MAINTENANCE OF EQUIPMENT

- (a) As a part of the Work, the Contractor in conjunction with his Subcontractors and Suppliers shall provide the Owner's operations and maintenance personnel with adequate instruction and training in the proper operation and maintenance of any equipment, systems, and related controls provided or altered in the Work. The training requirements may be further defined in the specifications.
- (b) The Contractor shall provide the Owner with a minimum of two (2) copies of operating, maintenance and parts manuals for all equipment and systems provided in the Work. Further specific requirements may be indicated in the specifications.

49. PROJECT MEETINGS

(a) The intention of this Section is that the Contractor, the Owner and the A/E have timely exchange of information and cooperate to accomplish the Work as required by the Contract Documents. The Contractor is responsible for managing the Work, obtaining approvals and requesting clarifications on a timely, reasonable basis. The Owner and its A/E are responsible for making a reasonable effort to provide timely responses to the Contractor.

(b) **Preconstruction Meeting:**

Prior to the start of construction and no later than 15 calendar days after the Notice to Proceed, a "Preconstruction" meeting shall be held with attendees to include the Owner's Project Manager and Project Inspector, the Architect/Engineer's project manager and representatives of each design discipline involved in the Project, the Contractor's project manager and superintendent (and scheduler, if Contractor desires), and representatives of the Contractor's major Subcontractors. The purpose of the meeting is to clarify and discuss the specifics related to, but not limited to, the following:

- (1) Persons involved from each entity and their chain of authority including the names of persons authorized to sign Change Orders and any limits to their authority.
- (2) Names, addresses, telephone numbers, FAX numbers, and email addresses to be used for Requests for Information (RFI), Requests for Clarification (RFC), Requests for Proposals (RFP), shop drawings, submittals, and notices.
- (3) Contractor's proposed construction schedule and Owner's sequencing requirements, if any.
- (4) Schedule of Values and Certificate for Payment (Form AC-12) requirements and procedures.
- (5) Procedures for shop drawings, product data and Submittals.
- (6) Procedures for handling Field Orders and Change Order Form AC-11.
- (7) Procedures for Contractor's request for time extension, if any.
- (8) Construction Site requirements, procedures and clarifications to include:
 - Manner of conducting the Work presentation to be done by members of the project team, preferably Contractor's superintendent and project manager.
 - Site specialties such as dust and erosion control, stormwater management, project signs, clean up and housekeeping, temporary facilities, utilities, security, and traffic.
 - Safety.
 - Layout of the Work.
 - Quality control, testing, inspections and notices required.
 - Site visits by the A/E and others.
 - Owner's Project Inspector duties.
 - Running Punch List.
 - As-Built Drawings.

(9) Procedures and documentation of differing or unforeseen Site conditions.

(10) Monthly Pay Meeting.

(11) Project Close-Out requirements and procedures.

(12) Project records.

(c) **Monthly Pay Meeting:**

Section 36 establishes the requirement for a monthly pay meeting which will usually be held at or near the Site. In addition to Owner, A/E and Contractor representatives, the following representatives, at a minimum, should be available to attend portions of the meeting, as applicable or necessary:

- Owner's Project Inspector.
- Contractor's project superintendent.
- A/E representative of each discipline where Work was performed for the current pay request or where Work is projected to be performed in the coming month.
- A representative of each subcontractor who performed work included in the current pay request.
- A representative of each subcontractor who is projected to perform work in the coming month.

The following topics should be included, as a minimum, in the monthly pay meeting:

- (1) Observations of status, quality and workmanship of Work in progress.
- (2) Validation of the Schedule of Values and Certificate for payment.
- (3) Conformance with proposed construction schedule.
- (4) Outstanding Requests for Information, Requests for Clarification and Requests for Proposal.
- (5) Submittals with action pending.
- (6) Status of pending Change Orders.
- (7) Status of Running Punch List items.
- (8) Work proposed for coming pay period.
- (9) Discussions of any problems or potential problems which need attention.

(d) **Other Meetings:**

Requirements for other meetings, such as progress meetings, coordination meetings, preinstallation meetings and/or partnering meetings, may be included in the Contract Documents.

***** END OF GENERAL CONDITIONS *****

SUPPLEMENTAL GENERAL CONDITIONS

The COUNTY OF ALBEMARLE CONSTRUCTION CONTRACT GENERAL CONDITIONS (Revised May 2018) are modified and supplemented as hereinafter described.

1. Section 1 – DEFINITIONS

Beneficial Occupancy shall be redefined as: “The condition after Substantial Completion but prior to Final Completion of the Project at which time the Project, or portion thereof, is sufficiently complete such that the Owner could, after obtaining necessary approvals and certificates, utilize the space for its intended use. Guarantees and warranties applicable to that portion of the Work begin on the date the Owner accepts the Project, or a portion thereof, for such Beneficial Occupancy, unless otherwise specified in the Supplemental General Conditions or by separate agreement.”

2. Section 3 – LAWS AND REGULATIONS

Delete Paragraph (e).

3. Section 3 – LAWS AND REGULATIONS

Delete the second sentence of Paragraph (l) The VDOT Land Use Permit may be obtained at no cost to the County or Contractor. Replace the second sentence of Paragraph (l) with the following: “VDOT shall be listed as a Dual Obligee Rider on the Performance Bond to meet the VDOT Land Use permitting requirements.”

4. Section 11 – CONTRACTOR’S AND SUBCONTRACTOR’S INSURANCE, revise limits as follow:

- (a) Worker’s Compensation: requires a minimum of \$1,000,000
- (b) General Liability: requires a minimum of \$1,000,000
- (c) Automobile Liability: requires a minimum of \$1,000,000
- (d) Umbrella Liability: requires a minimum of \$5,000,000
- (e) Environmental Pollution: requires a minimum of \$1,000,000.
- (f) Professional Liability: is not required by this solicitation.
- (g) Cyber Liability: is not required by this solicitation.

5. Section 12 – BUILDER’S RISK INSURANCE

Contractor to include **Albemarle County Service Authority (ACSA)** in the names included in the builder’s risk insurance on the special causes of loss form.

Delete Paragraphs (a) and (b).

6. Section 19 – SCHEDULE OF THE WORK

Delete Paragraphs (2) and (6) of subsection (a), (b), (c), (d), (e), (f). For scheduling requirements see Special Conditions for this project’s scheduling requirements.

7. Section 36 – PAYMENTS TO CONTRACTOR, shall be supplemented by removing paragraph (c) in its entirety.

8. Section 36 – PAYMENTS TO CONTRACTOR, shall be supplemented by removing paragraph (e) in its entirety and replaced with the following:

- (e) The final payment, less any amounts due to or claimed by the Owner, shall not become due until the Architect/Engineer and the Owner agree that Final Completion has been achieved and until the Contractor shall deliver to the Owner through the Architect/Engineer a Certificate of Completion by the Contractor (Form AC-13.2) and an Affidavit of Payment of Claims (Form AC-13), stating that all Subcontractors and Suppliers of either labor or materials have been paid all sums claimed by them for Work performed or materials furnished in connection with this Project. Amounts due the Owner which may be withheld from the final payment may include, but are not limited to, amounts due pursuant to Section 3(i), Section 16(a)-(d), Section 31(d), costs incurred to repair or replace Defective Work, costs incurred as a result of the Contractor's negligent acts or omissions or omissions of those for whom the Contractor is responsible, delay damages under Section 42(h), and any liquidated or actual damages. If all Subcontractors and Suppliers of labor and materials have not been paid the full amount claimed by them, the Contractor shall list each to which an agreed amount of money is due, or which has a claim in dispute. With respect to all such Subcontractors and Suppliers, the Contractor shall provide to the Owner, along with the Affidavit of Payment of Claims (Form AC-13), an affidavit from each such Subcontractor and Supplier stating the amount of their subcontract or supply contract, the percentage of completion, the amounts paid to them by the Contractor and the dates of payment, the amount of money still due if any, any interest due the Subcontractor or Supplier pursuant to Section 37(b) below, and whether satisfactory arrangements have been made for the payment of said amounts. If no agreement can be reached between the Contractor and one or more Subcontractors or Suppliers as to the amounts owed to the Subcontractors or Suppliers, the Owner may, in its discretion, pay such portion of the monies due to the Contractor which is claimed by the Subcontractor or Supplier into a Virginia Court or Federal Court sitting in Virginia, in the manner provided by law. Said payment into court shall be deemed a payment to the Contractor. Nothing in this Section shall be construed as creating any obligation or contractor relationship between the Owner and any Subcontractor or Supplier, and the Owner shall not be liable to any Subcontractor or Supplier on account of any failure or delay of the Owner in complying with the terms hereof.

9. Section 42 - DAMAGES FOR DELAY, EXTENSION OF TIME

Add the following paragraphs:

- (j) It is imperative that the Work in this contract be substantially completed by the date specified in the contractor's to-be-established baseline schedule agreed upon by the Owner and Engineer, which shall be no later than 9/15/2026 to give time for the Owner to furnish and equip the facility and meet other contractual obligations. The Contractor represents and agrees that he has taken into account in his bid the requirements of the bid documents, the location, the time allowed for the Work, local conditions, availability of materials, equipment, and labor, and any other factors which may affect performance of the Work. The Contractor agrees and warrants that he will achieve substantial completion of the Work not later than 9/15/2026.

(1) Assuming timely execution of the Contract with applicable Bonds, Contract Notice to Proceed will be given to the Contractor on or before 11/24/2025, with onsite Construction to begin on or before 11/24/2025.

- (k) Subject to the provisions of the General Conditions allowing for extension of time allowed for completion of the Work, if the work is not substantially completed by the date specified as the Substantial Completion Date in the contractor's to-be-established baseline schedule, agreed

upon by the Owner and Engineer, the Contractor shall owe to the Owner, as actual and/or liquidated damages, the sum of One Thousand & 00/100 Dollars (\$1,000.00) per day for each and every calendar day for delay in substantial completion of the Work beyond the Substantial Completion Date specified in the Notice to Proceed. Likewise, if the Work is not finally completed within 60 consecutive calendar days from the date of Substantial Completion, the Contractor shall owe to the Owner, not as a penalty but as liquidated damages, the sum of Five Hundred & 00/100 Dollars (\$500.00) per day for each and every calendar day of delay in final completion of the Work.

- (l) The Owner may withhold from the monthly Progress Payment, the current value of the liquidated damages. Failure of the Owner to withhold liquidated damages during ongoing operations that have exceeded the Contract Completion Date is not a waiver of the Owner's entitlement to damages as set forth in the Contract Documents.
- (m) Final accounting of actual and/or liquidated damages will be administered through a deduction in the final amount owed to the Contractor.

SPECIAL CONDITIONS

ALBEMARLE COUNTY LOCAL GOVERNMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Requirements of the General Conditions of the Construction Contract and Supplemental General Conditions take precedence over the Special Conditions.

1.2 WORKER STANDARDS OF CONDUCT AND DRESS

- A. Worker must wear hard hats, safety footwear, appropriate shirts, pants, and OSHA required safety vests are to be worn at all times.
- B. Smoking is prohibited inside County facilities. Smoking is only allowed in Owner designated areas.
- C. There is to be no contact or harassment of any kind between workers and facility occupants. Only the Project Superintendent may contact the County staff if necessary.
- D. Drugs, alcohol, firearms, and weapons of any kind are prohibited on County property.
- E. Violence, swearing, lewd or disruptive behavior will not be tolerated. Any workers violating these standards of conduct shall be ordered off the site by the Contractor or Owner and not allowed to return to any County project.
- F. Listening to headphones or radios is discouraged as it may produce a safety hazard by masking environmental sounds that need to be heard, especially on active construction sites where attention to moving equipment, heavy machinery, vehicle traffic, and safety warning signals may be compromised. It is the Contractors responsibility to ensure that employees are not exposed to hazards. Any music or other disruptive noise shall not be heard from any adjacent property at any time.
- G. Comply with all Commonwealth of Virginia and Federal safety and conduct regulations.

1.3 STORAGE, STAGING, TEMPORARY FACILITIES, AND/OR FIELD OFFICE

- A. Contractor's staging area, protective barriers, employee parking, and loading access shall be as approved by Owner.
- B. The Contractor may only park equipment, vehicles, and employee vehicles at the lay down and staging area to be acquired by the Contractor and approved of by the A/E and County. Contractors shall strictly enforce this requirement.
- C. The Contractor shall be responsible for locating and acquiring appropriate staging areas. Staging area locations must be approved by the County and the A/E. There will be no separate payment for rights to or permits for the staging area. Contractor's field office, temporary construction yard, and related facilities shall comply with the requirements of the current County Code 18-5.1.18 "Temporary Construction Headquarters and Temporary Construction Yards."
- D. Safe access to the designated areas adjacent to the construction area must be maintained at all times for pedestrians and maintenance vehicles. The job site shall be subject to safety inspections by the County safety compliance officer. OSHA standards apply to all aspects of job.
- E. Contractor's staging area and general construction site shall be kept neat and clean so that trash is removed daily, and grass cut weekly.
- F. The Contractor shall provide a Type 1 field office for the County's Inspectors in accordance with the requirements of VDOT Specification Section 514 except as modified herein. All costs associated with the provision of a field office shall be included in the Contractor's lump sum price

with no additional payment thereto including all costs such as rental, installation, County permits and utility services including telecommunications. There will be no additional payment eligible to the Contractor for the field office should the project not be accepted by the contractual completion date.

- G. The Field Office shall be equipped with separate restroom facilities for both male and female employees of the Contractor, County, Inspector or Engineer.
- H. The Field Office (requirements as defined in the Specifications) provided for the County's Inspectors must have physical separation through a locked door from the Contractor's staff if a shared space is utilized for the Field Office.
- I. Power and Water is not provided at the site, Contractor is to provide Temporary Toilet facility.

1.4 WORK HOURS AND SPECIAL REQUIREMENTS

- A. The Work Week shall begin Sunday at 7:00pm and end Saturday at 6:00am. When the contractor desires to perform work outside the Work Week, it shall request the Owner's permission at least 48 hours in advance of the time the Contractor proposes to perform work. The Owner may refuse the Contractor permission to work outside of the Work Week for any reason, including but not limited to the owner's difficulty in making arrangements for proper inspection of the Work. Under normal circumstances the Contractor will not be permitted to work on holidays, as defined in the Specifications, without written approval from the Owner.

The Owner reserves the right to require the Contractor to work outside of the Work Week in the interest of public safety or convenience. No claim for additional compensation shall be made by the Contractor when such occasions occur.

Allowable lane closure hours shall be from 9:00 AM to 2:30 PM Monday through Friday except Holidays and when approved by the Project Engineer and County Project Manager. Allowable lane closure set ups may begin at or after the starting times specified in the Plans at the discretion of the Engineer. Exceptions to these lane closure requirements shall require prior written authorization from the Engineer. Failure to restore all lanes of traffic by the time limits defined herein will be handled as follows:

1. The Contractor will not be allowed further lane closures until the reasons for the previous failure are evaluated.
 2. A meeting with the Owner and VDOT shall be required prior to the next scheduled lane closure at which the Contractor must be able to provide assurances to the Engineer that adjustments have been made to eliminate the operational cause of failure to restore all lanes of traffic within the time limits herein.
 3. Delays to the Contractor's schedule caused solely by the actions, lack thereof and/or by the Contractor's failure to restore all lanes of traffic shall not be considered for an extension of time.
- B. Occupied area: Areas of this park directly adjacent to the work will be maintained and built out by the County or other County Contractors throughout this project. Safe ingress and egress for County staff and others shall be provided at all times.
 - C. All excessive noise generating work including some demolition and new work to be done after hours.
 1. The County of Albemarle noise ordinance shall always be adhered to. See Code of Ordinances for the County of Albemarle at the following link: https://library.municode.com/va/albemarle_county/codes/code_of_ordinances

1.5 STANDARDS AND REFERENCE DOCUMENTS

- A. Construction of this project shall be in conformance with the latest revisions to the VDOT Road and Bridge Specifications dated 2020, VDOT Road and Bridge Standards dated 2016, and revision 2 to the VDOT Work Area Protection Manual dated 2011, and the latest editions of the Virginia Erosion and Sediment Control Handbook, Virginia Erosion and Sediment Control Regulations, FHWA Manual on Uniform Traffic Control Devices (MUTCD), the Virginia Supplement to the MUTCD and the current edition of the Albemarle County Service Authority Water & Sewer Specifications and the Albemarle County Service Authority Water Approved Products List, including all subsequent revisions. In the event of conflict between any of these standards, specifications, or project drawings, the most stringent shall govern.
- B. Notwithstanding any provision contained in the VDOT Special Provisions, when used in the VDOT Supplemental Specifications, Special Provisions, and Special Provision Copied Notes, or in any other provision contained or incorporated into this contract, the following terms shall have the following meanings: “DEPARTMENT” shall mean the Facilities Planning & Construction Division of Albemarle County Facilities & Environmental Services Department; “Engineer” shall mean the RESPONSIBLE CHARGE ENGINEER hired by Albemarle County to perform construction administration services for this project, “INSPECTOR” shall mean the person hired by Albemarle County to inspect the Work performed and materials supplied by the Contractor, and “CONTRACT ENGINEER” shall mean the Albemarle County Purchasing Department. This provision explicitly supersedes the second paragraph of VDOT Special Provision (cn100-000051-03), VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes Revision.

1.6 UTILITY COORDINATION

- A. The location of existing sewers, water and gas pipes, conduits, and other structures across, along or under the area of the Work are not necessarily shown on the CONTRACT DOCUMENTS, and if shown, the description, composition, location, depth, and dimensions of those structures may not be correct. The COUNTY shall not be responsible to the CONTRACTOR for any delays or extra costs incurred by the CONTRACTOR as a result of any discrepancy between the actual location of existing structures and the Contract Documents or as built drawings. The CONTRACTOR shall dig such test holes as needed to locate existing underground structures. The contractor shall dig such test holes only after giving 48 hours prior notice to the COUNTY and to the owner of the underground structure. Test holes shall be completed a minimum of ten working days in advance of the work crossing over, near or adjacent to the existing utility. CONTRACTOR shall report to the ENGINEER any conflicts found from such test holes within 24 hours of conducting the test hole work, so that the conflict can be resolved.
- B. Delays to the Contractor’s schedule caused solely by the actions or lack thereof by the utility companies involved shall not be considered for an extension of time in accordance with Section 3.38 of the General Conditions unless the Contractor can demonstrate that he cannot work in other areas of the project.

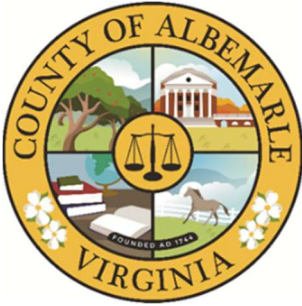
1.7 COORDINATION WITH IMPACTED PRIVATE PROPERTY OWNER

- A. The Contractor shall notify the County and the Private Property Owners of any impacts to their property upon which work is to be performed at a minimum of two weeks in advance of commencing work.

1.8 REPORTS OF EXPLORATION AND TESTS OF SUBSURFACE CONDITIONS

- A. No geotechnical investigation has been performed for this project.
- B. If so desired, the Contractor (at his own expense) may make, prior to bidding, independent exploration, tests, and analyses. All applicable VDOT permits for work inside existing right of way must be secured by the Contractor for performance of exploratory investigations. In addition, the Owner must be notified in writing at least 2 business days prior to the Contractor making exploratory investigations involving digging or land disturbance.

END OF SPECIAL CONDITIONS



CONTRACT #«number»
«Company»
«Address 1»
«Address 2»
«City», «State» «Postal Code»
«corporate status, as confirmed by SCC»
(Contractor)

| | |
|---------------------|-------|
| Project name: | _____ |
| A/E, if applicable: | _____ |
| A/E contract #: | _____ |
| Project Mgr: | _____ |

COUNTY OF ALBEMARLE, VIRGINIA
 401 McIntire Rd.
 Charlottesville, Virginia 22902
a political subdivision of the Commonwealth of Virginia
(County or Owner)

This Agreement (“Agreement” or “Contract”) made and entered into on this ____ day of _____, 2021, between the Contractor as identified above and the County (collectively, the Parties), hereby agree, in consideration of the mutual covenants and stipulations set forth below:

- Scope of Work:** The Contractor shall furnish all labor, equipment, and materials and perform all work for the project as described in the Invitation to Bid (IFB) # _____, p. _____ and the Owner’s plans and specifications, including all work described in the Bid Form as Base Bid plus additives, (collectively, the Work) in strict accordance with the Contract Documents. In brief, the Contractor shall _____.
- Incorporation of documents and Order of Precedence:** To the extent that they do not conflict with the terms of this Agreement, the following documents are incorporated by reference in their entirety:
 - the Invitation to Bid, # _____;
 - the Bid Form submitted by the Contractor; (with Post Bid Modification if applicable)
 - the County of Albemarle Construction Contract General Conditions, as included in the IFB;
 - the Supplemental General Conditions, if any;
 - the Special Conditions attached to the Owner’s Invitation for Bids;
 - the Owner’s Project Plans and Specifications dated _____; and modifications shown as Addenda _____; and
 - the Project Manual dated _____ (which may include some or all of the above documents).

In the event that a conflict or ambiguity exists or is created between this Agreement, the IFB, and/or the Contractor’s submitted Bid Form, the terms of this Agreement first and the IFB second, if necessary, shall govern and supersede any such conflicting or ambiguous terms. The Supplemental General Conditions shall thereafter take precedence over the General Conditions.

- Payment/Consideration Schedule:** In consideration of the Work to be performed by Contractor, as set forth in the section entitled, “Scope of Work,” the County agrees to pay Contractor for completed and accepted work the total sum of _____ dollars (\$ _____) as calculated below:

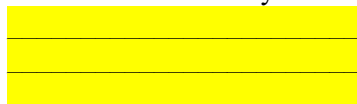
| | | |
|---------------|-----------------|-----------|
| Base bid: | \$ _____ | |
| Additive 1: | \$ _____ | for _____ |
| Additive 2: | \$ _____ | for _____ |
| Total: | \$ _____ | |

4. Term: The Work shall be commenced on a date to be specified in a written order of the Owner and shall be Substantially Completed within [REDACTED] calendar days. The Work shall be finally completed within [REDACTED] days after the date of Substantial Completion of the Work or no later than the date of Final Completion of [REDACTED], whichever is sooner. Time is of the essence.
5. Non-Appropriation: The continuation of the terms, conditions, and provisions of this Agreement beyond June 30 (the end of the County's fiscal year) of any year, is subject to its approval and ratification by the County and appropriation by them of the necessary money to fund said contract for each succeeding year. If sufficient funds are not appropriated and budgeted in any fiscal year for payments due under this Agreement, the County shall immediately notify Contractor, and this Agreement shall terminate on the last day of the fiscal year for which appropriations were received without penalty or expense to the County of any kind whatsoever.
6. Preconditions to Obligation: The County shall not be obligated to purchase or pay for goods, services, or materials under this Agreement unless the County has ordered such goods, services, and/or materials and until the Contractor has delivered any ordered goods, services, and/or materials. The County may increase or decrease quantities of ordered goods, services, and materials as required and in its discretion.
7. Faith-based Organizations: The County does not discriminate against faith-based organizations in accordance with Code of Virginia §2.2-4343.1.
8. Nondiscrimination: Pursuant to Virginia Code §§ 2.2-4201 and 2.2-4311, during the performance of this Contract, Contractor agrees as follows:
 - A. Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of Contractor. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this Nondiscrimination clause, including the names of all contracting agencies with which the Contractor has contracts over \$10,000;
 - B. Contractor will, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that Contractor is an equal opportunity employer;
 - C. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section; and
 - D. Contractor shall include the provisions of the foregoing paragraphs A, B, and C in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
9. Drug-Free Workplace: Pursuant to Virginia Code Section § 2.2-4312, during the performance of this Contract, Contractor agrees to:
 - A. Provide a drug-free workplace for Contractor's employees.
 - B. 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 Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
 - C. State in all solicitations or advertisements for employees placed by or on behalf of Contractor that Contractor maintains a drug-free workplace.
 - D. Include the provisions of the foregoing clauses in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

10. Compliance with Immigration Laws: Contractor does not and shall not during the performance of this Agreement knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986, pursuant to Virginia Code §2.2-4311.1.
11. Compliance with All Laws: Contractor shall comply with all federal, state, and local statutes, ordinances, and regulations now in effect or hereafter adopted, in the performance of scope of work set forth herein. Contractor represents that it possesses all necessary licenses and permits required to conduct its business and will acquire any additional licenses and permits necessary for performance of this Agreement prior to the initiation of work.
12. Business Entity Registration. Pursuant to Virginia Code § 2.2-4311.2, Contractor shall be registered and authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law. Contractor shall submit proof of a required registration to the County. Additionally, if required, Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50 of the Code of Virginia, to be revoked or canceled at any time during the term of the Agreement.
13. Business License Requirement: If Contractor is a business located in Albemarle County, Virginia or at any time during the performance of this Agreement obtains situs for purposes of business license taxes, it shall be unlawful for such business to conduct or engage in such business, trade, or occupation without having first obtained the proper license from the Albemarle County Department of Finance. Contractor covenants that it has a business license where one is required to perform this Agreement.
14. Non-Assignment: All of the conditions and provisions in this Agreement shall extend to and bind the legal representatives, successors and assigns of the respective parties. Neither party to the Agreement shall assign or transfer their interest in the contract without the prior written consent of the other, which shall not be unreasonably withheld.
15. Audit: The Contractor shall maintain full and accurate records with respect to all matters covered under the Agreement including, without limitation, accounting records, written policies and procedures, time records, telephone records, reproduction cost records, travel and living expense records and any other supporting evidence necessary to substantiate charges related to the Agreement. Contractor's records shall be open to inspection and subject to audit and/or reproduction, during normal working hours by the County and its employees, agents or authorized representatives to the extent necessary to adequately permit evaluation and verification of any invoices, payments, or claims submitted by Contractor pursuant to this Agreement. Such records subject to examination shall also include, without limitation, those allocations as they may apply to costs associated with the contract. The County's employees, agents, or authorized representatives shall have access to the Contractor's facilities, shall have access to all necessary records, and shall be provided adequate and appropriate workspace, in order to conduct audits in compliance with this paragraph.
16. Termination with Cause: In the event that Contractor shall for any reason or through any cause be in default of the terms of this Agreement, the County may give Contractor written notice of such default by certified mail/return receipt requested at the address set forth in Section 20 herein. Unless otherwise provided, Contractor shall have ten (10) days from the date such notice is mailed in which to cure the default. Upon failure of Contractor to cure the default, the County may immediately cancel and terminate this Agreement as of the mailing date of the default notice. Upon termination, Contractor shall withdraw its personnel and equipment, cease performance of any further work under the Agreement, and turn over to the County any work in process for which payment has been made. In the event of violations of law, safety or health standards and regulations, this Agreement may be immediately cancelled and terminated by the County, and provisions herein with respect to opportunity to cure default shall not be applicable.

17. Termination without Cause: The County may at any time, and for any reason, terminate this Agreement by written notice to Contractor specifying the termination date, which shall be not less than thirty (30) days from the date such notice is mailed. In the event of such termination, Contractor shall be paid such amount as shall compensate Contractor for the work satisfactorily completed, and accepted by the County, at the time of termination. If the County terminates this Agreement without cause, Contractor shall withdraw its personnel and equipment, cease performance of any further work under this Agreement, and turn over to the County any work completed or in process for which payment has been made.
18. Choice of Laws and Venue: This Agreement shall be governed by the provisions hereof and by the laws of the Commonwealth of Virginia, excepting the law governing conflicts of laws. Disputes arising out of this Agreement shall be resolved in the courts of the Commonwealth of Virginia in and for Albemarle County.
19. Indemnification and Hold Harmless: Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor, its subcontractors, agents, or employees under or in connection with this Agreement or the performance or failure to perform any work required by this Agreement. Contractor shall indemnify and hold harmless the County and its agents, volunteers, servants, employees, and officials from and against any and all claims, losses, or expenses, including reasonable attorney's fees and litigation expenses suffered by any indemnified party or entity as the result of claims or suits due to, arising out of or in connection with (a) any and all such damages, real or alleged, (b) the violation of any law applicable to this Agreement, and (c) the performance of the work by Contractor or those for whom Contractor is legally liable. Upon written demand by the County, Contractor shall assume and defend at Contractor's sole expense any and all such suits or defense of claims made against the County, its agents, volunteers, servants, employees, or officials.
20. Notices: All notices and requests required or permitted hereunder shall be sent by United States certified mail, return receipt requested, and to be effective, shall be postmarked not later than the final date for giving of such notice, or such notices may be sent by commercial messenger service, in which event, to be effective, such notices shall be delivered to a commercial messenger service not later than the final date for giving such notice. Alternatively, notice can be sent electronically to the parties and email addresses listed below.

Notices for the County shall be addressed as follows:

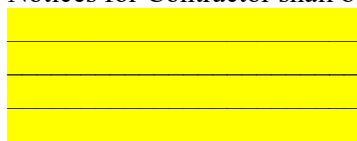


Charlottesville, VA 22902

With a copy to:

Allison McNally
Chief Procurement Officer
401 McIntire Rd., Room 248
Charlottesville, VA 22902
amcnally@albemarle.org

Notices for Contractor shall be addressed as follows:



Such addresses may be changed at any time and from time to time by like written notice given by either party to the other.

21. Entire Agreement: This Agreement and the documents incorporated by reference and included expressly as Exhibits to this Agreement constitute the entire agreement between the Parties. This Agreement supersedes all prior written or oral agreements or proposals between the parties, regarding the subject matter of this Agreement. This Agreement may not be modified except in a writing signed by both parties that is expressly stated to be an amendment hereto.
22. Independent Contractor: Contractor shall be at all times an independent contractor and, as such, shall have and maintain complete control over all of its employees and operations. Neither Contractor nor anyone employed by it shall be, represent, act, purport to act, or be deemed to be an agent, representative, employee or servant of the County. Nothing in this section shall be deemed to absolve or otherwise limit the Contractor's liability and responsibility to safely and correctly perform its duties under this Agreement.
23. Waiver: No failure of the County to exercise any right or power given to it by law or by this Agreement or to insist upon strict compliance by Contractor with any of the provisions of this Agreement, and no custom or practice of the parties at variance with the terms hereof, shall constitute a waiver of the County's right to demand strict compliance with the terms of this Agreement.
24. Interpretation: Whenever the context hereof shall require, the singular shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.
25. Severability: The provisions of this Agreement shall be deemed to be severable, and should any one or more of such provisions be declared or adjudged to be invalid or unenforceable, the remaining provisions shall be unaffected thereby and shall remain in full force and effect.
26. Contractual Claims and Dispute Resolution:
 - a. Compliance. Strict compliance with this procedure is a prerequisite to proceeding with a claim under this Agreement, and no action or statement by County representatives waives such compliance. All notices and communications required by this section must be in writing.
 - b. Intent to submit claim. Contractor must notify the Purchasing Agent of its intent to submit a claim, whether for money or other relief, at the time of the occurrence or at the beginning of the work upon which the claim is based, whichever comes first. "At the time of the occurrence or at the beginning of the work upon which the claim is based" means within 48 hours or, if good cause is shown, within 5 business days. "Occurrence" includes:
 - i. The County transmits final payment; and
 - ii. A representative of the County states that the County will not pay a requested amount.
 - c. Submission of claim. Contractor must submit its claim no later than 60 days after it has notified the Purchasing Agent of its intent to file a claim. The claim must identify the time of the occurrence or the beginning of the work upon which the claim is based, state the basis for the claim, and identify with specificity the relief sought.
 - d. Investigation of claim. The Purchasing Agent shall investigate the claim. As part of the investigation, the purchasing agent may request that Contractor submit additional information, or appear before the Purchasing Agent, to support its claim. The period between such request and Contractor's response tolls the time within which the Purchasing Agent must respond to the claim. Failure to provide the requested information constitutes noncompliance with this procedure.
 - e. Purchasing Agent's decision. The Purchasing Agent shall render a decision within 30 days of receipt of Contractor's claim, setting forth the reasons for such decision. If the Purchasing Agent does not render a decision within 30 days, the claim is considered denied. For good cause, the Purchasing Agent may notify Contractor that more time is required to render a decision.
 - f. The Purchasing Agent may settle the claim. If resolution of the claim requires that the County pay additional money or forgo goods or services that it is arguably owed, then the Purchasing Agent's authority to settle the claim is limited to 25% of the value of the contract or \$50,000, whichever is greater.
 - g. Institution of legal action. If Contractor is not satisfied with the Purchasing Agent's decision, or

the Purchasing Agent does not render a decision, it may appeal to the Circuit Court of Albemarle County. Contractor's appeal must comply with the Virginia Public Procurement Act and Title 15.2 of the Virginia Code.

- h. Amounts not in dispute. Contractor's notice of an intent to file a claim does not permit the County to withhold or delay payment of amounts that it does not dispute. Purchasing Agent's non-response to a claim within the required time constitutes a dispute of amounts claimed.

27. Payments to Subcontractors:

- a. This is a construction contract under the VPPA. Therefore, Contractor shall pay all subcontractors in the manner provided in Virginia Code Section 2.2-4354(1).
- b. Contractor shall pay all subcontractors in the manner provided in Virginia Code Section 2.2-4354(2-5).

28. Insurance: Contractor shall purchase and maintain, at its sole expense, and from a company or companies authorized to do business within the Commonwealth of Virginia, insurance policies protecting from claims which may arise out of or result from Contractor's performance or non-performance of services under this Contract or the performance or non-performance of services under this Contract by anyone directly or indirectly employed by Contractor or for whose acts it may be liable. Such policies shall remain in full force and effect at all times during the term of this Agreement and shall contain the types of coverages and minimum limits which are required by the Supplemental General Conditions, Special General Conditions, or General Conditions, which shall, for this provision "Insurance" only, take precedence (in order of precedence as listed here) over this Agreement and other documents incorporated by reference. A certificate of insurance conforming to the requirements of the Supplemental, Special, and General Conditions shall be submitted prior to the execution of this Agreement.

29. Payment/Performance Bonds: Contractor shall furnish to the County a payment bond and a performance bond on forms provided by the County in conformity with Virginia Code §§ 2.2-4337 and 2.2-4339 each payable to the County and each in the sum of the Agreement amount. The performance bond shall be conditioned upon the faithful performance of the Agreement in strict conformity with the terms and conditions of the Agreement, and the payment bond shall be conditioned upon the prompt payment for all such material furnished or labor supplied or performed in the prosecution of the Work. Each of the bonds shall be executed by one or more surety companies selected by Contractor which are licensed and legally authorized to conduct the business of insurance, including surety, within the Commonwealth of Virginia. The performance and payment bonds shall be amended if necessary, as determined by the County, to reflect changes to the scope of the Work created by Change Orders and any amendments to this Agreement.

Contractor hereby acknowledges that any person making a materially false statement regarding any such offense shall be guilty of a class 1 misdemeanor and, upon conviction, the fact of such conviction shall be grounds for the revocation of this Agreement and, when relevant, the revocation of any license required to provide such services.

[Signature Page Follows]

COUNTY'S ACCEPTANCE
County of Albemarle, Virginia

CONTRACTOR'S ACCEPTANCE
[Contractor]

SIGNATURE _____

SIGNATURE _____

NAME (type/print) Allison McNally

NAME (type/print) _____

TITLE Chief Procurement Officer

TITLE _____

DATE _____

DATE _____

POST BID MODIFICATION

DATE:

PROJECT TITLE:

IFB NO.:

OWNER:

CONTRACTOR:

As allowed by Section 12(c) of the Instructions to Bidders and by §2.2-4318, Code of Virginia, negotiations were conducted with the lowest responsive and responsible bidder, _____, hereinafter called the Contractor. The following clarifications, amendments, deletions, revisions, substitutions, and/or modifications to the Contract Documents were made along with corresponding adjustments in the Contractor’s bid amount for furnishing all labor and materials and performing all work necessary for construction of this project in accordance with the modified contract documents:

| Item | AMOUNT |
|--------------|---------------|
| | |
| | |
| | |
| | |
| | |
| | |
| TOTAL | |

END OF POST BID MODIFICATION

STANDARD PERFORMANCE BOND FOR CONSTRUCTION CONTRACTS

KNOW ALL BY THESE PRESENT: That _____, the Contractor (“Principal”) whose principal place of business is located at _____ and _____ (“Surety”) are held and firmly bound unto the County of Albemarle, Virginia, and/or The School Board of Albemarle County, Virginia, the Owner (“Obligee”) in the amount of _____ for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____, entered into a contract with Obligee for _____ which contract (the “Contract”) is by reference expressly made a part hereof;

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly and faithfully perform said Contract in strict conformity with the plans, specifications and conditions of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Provided, that any alterations which may be made in the terms of the Contract, or in the Work to be done under it, or the giving by the Obligee of any extension of the time for the performance of the Contract, or any other alterations, extensions or forbearance on the part of either or both of the Obligee or the Principal to the other shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alterations, extension, or forbearance being hereby waived.

No action shall be brought on this bond unless brought within one year after: (a) completion of the Contract and all Work thereunder, including expiration of all warranties and guarantees, or (b) discovery of the defect or breach of warranty or guarantee if the action be for such.

The Surety represents to the Principal and to the Obligee that it is legally authorized to do business in the Commonwealth of Virginia.

Signed and sealed this _____ day of _____.

PRINCIPAL

BY:

(Please sign above and print name below)

TITLE:

ADDRESS:

PHONE:

SURETY

BY:

(Please sign above and print name below)

ADDRESS:

PHONE:

BOND NO.:

ADDRESS OF SURETY'S HOME OFFICE:

STANDARD LABOR AND MATERIAL PAYMENT BOND

KNOW ALL BY THESE PRESENT: That _____, the Contractor (“Principal”) whose principal place of business is located at _____ and _____ (“Surety”) are held and firmly bound unto the County of Albemarle, Virginia, and/or The School Board of Albemarle County, Virginia, the Owner (“Obligee”) in the amount of _____ for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____, entered into a contract with Obligee for _____ which contract (the “Contract”) is by reference expressly made a part hereof;

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly make payment to all claimants as hereinafter defined, for labor performed and material furnished in the prosecution of the Work provided for in the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions.

The Principal and Surety, jointly and severally, hereby agree with Obligee as follows:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, material, or both for use in the performance of the Contract. A “subcontractor” of the Principal, for the purposes of this bond only, includes not only those subcontractors having a direct contractual relationship with the Principal, but also any other contractor who undertakes to participate in the Work which the Principal is to perform under the aforesaid Contract, whether there are one or more intervening subcontractors contractually positioned between it and the Principal (for example, a subcontractor). “Labor” and “material” shall include, but not be limited to, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the work site.
2. Subject to the provisions of paragraph 3, any claimant who has performed labor or furnished material in accordance with the Contract documents in the prosecution of the Work provided in the Contract, who has not been paid in full therefor before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which he claims payment, may bring an action on this bond to recover any amount due him for such labor or material, and may prosecute such action to final judgment

and have execution on the judgment. The Obligee need not be a party to such action and shall not be liable for the payment of any costs, fees or expenses of any such suit.

3. Any claimant who has a direct contractual relationship with any subcontractor of the Principal from whom the Principal has not required a subcontractor payment bond, but who has no contractual relationship, express or implied, with the Principal, may bring an action on this bond only if he has given written notice to the Principal within one hundred eighty (180) days from the day on which the claimant performed the last of the labor or furnished the last of the materials for which he claims payment, stating with substantial accuracy the amount claimed and the name of the person for whom the Work was performed or to whom the material was furnished. Notice to the Principal shall be served by registered or certified mail, postage prepaid, in an envelope addressed to the Principal at any place where his office is regularly maintained for the transaction of business. Claims for sums withheld as retainages with respect to labor performed or materials furnished shall not be subject to the time limitations stated in this paragraph 3.
4. No suit or action shall be commenced hereunder by any claimant;
 - a. Unless brought within one year after the day on which the person bringing such action last performed labor or last furnished or supplied materials, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, the limitation embodied within this bond shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 - b. Other than in a Virginia court of competent jurisdiction, with venue as provided by statute, or in the United States District Court for the district in which the project, or any part thereof is situated.
5. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed and sealed this _____ day of _____, _____.

PRINCIPAL

BY:

(Please sign above and print name below)

TITLE:

ADDRESS:

PHONE:

SURETY

BY:

(Please sign above and print name below)

ADDRESS:

PHONE:

BOND NO.:

ADDRESS OF SURETY'S HOME OFFICE:

| CHANGE ORDER- (Construction or A/E Contract Modification) | |
|--|----------------------------|
| COUNTY OF ALBEMARLE, VIRGINIA | |
| CONTRACT NO.: | CONTRACTOR: |
| 0 | |
| CHANGE ORDER NO.: | |
| | |
| PROJECT TITLE: | PURCHASE ORDER NO.: |
| 0 | |
| FULL ACCOUNT CODE: | PROJECT MANAGER: |
| | |
| DESCRIPTION/JUSTIFICATION OF CHANGE ORDER: | AMOUNT: |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Total Amount of PCOs | \$0.00 |
| <i>Contractor Proposal including Itemized Costs must be fully documented and attached to this form.</i> | |
| Original Contract Value | \$0.00 |
| Net change by previously authorized Change Orders | \$0.00 |
| Contract Sum prior to this Change Order | \$0.00 |
| Contract Sum will be decreased/increased by this Change Order in the amount of | \$0.00 |
| New Contract Sum including this Change Order will be | \$0.00 |
| Percent of all Change Orders to Original Contract Value: | #DIV/0! |
| Does the sum of Change Orders exceed 25 % of the Original Contract Value and/or exceeds \$50,000.00? If yes, attach Executive approval | No |
| Is a portion of this change caused by AE error and/or omission? | Yes |
| Description of AE error and/or omission (if applicable): | |
| <p>Failure to include a change for time shall waive any change to the time allowed by the Contract for completion of the Work unless the parties mutually agree in writing to postpone a determination of the change to time resulting from the Change Order. Such determination may not be postponed more than 45 days from the approval of this Change Order by the Owner.</p> | |
| Contract Time will be increased by (Calendar Days): | |
| Date of Contract Completion as of the date of this Change Order therefore is: | 1/0/1900 |
| By signing this Change Order, the Contractor agrees to release and waive any and all claims related to this Change Order. | |
| (1) Architect/Engineer | Date: |
| | |
| (2) Contractor (If applicable) | Date: |
| | |
| (3) Department Approval | Date: |
| | |
| (4) Chief of Procurement | Date: |
| | |

GENERAL CONTRACTOR ESTIMATE FOR CHANGE ORDER

GC-1

IFB Number:
 Project:
 Owner:

General Contractor:
 Change Description:
 COR/PCO #:

| GENERAL CONTRACTOR DIRECT COSTS | | | | | | | | | | | | |
|---------------------------------|---|--|-----------|-----------------------------|--------------------------|--------------------------------------|--------------------|------------------------|---------------------|-------------------------|----------------------|---------------|
| Scope Description | | | | Direct Labor | | | | Direct Material | | Direct Equipment | | |
| Item No. | Description | Quantity | Qty Units | Direct Labor Hours Per Unit | Total Direct Labor Hours | Hourly Wage Rate, Excl. Taxes & Ins. | Total Labor Cost | Material Cost Per Unit | Total Material Cost | Equipment Cost Per Unit | Total Equipment Cost | |
| A | B | C | D | E | F = C x E | G | H = F x G | I | J = C x I | K | L = C x K | |
| 1.01 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.02 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.03 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.04 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.05 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.06 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.07 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.08 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.09 | Subtotal from Estimate Continuation Sheets | | | | | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.97 | Subtotal (S/T) Direct Costs: | | | | | | \$0.00 | Subtotal Mat'l | \$0.00 | Subtotal Equip. | \$0.00 | |
| 1.98 | Taxes/Insurance: | FICA, FUI, SUI, & Workmens' Comp. at | | | | | Subtotal Labor | | Sales Tax @ 5.3% | | Sales Tax @ 5.3% | |
| | | | | | | % of Item 1.97H = | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.99 | Total Direct Costs | | | | | | Total Labor | \$0.00 | Total Mat'l | \$0.00 | Total Equip. | \$0.00 |

| SUBCONTRACT COSTS | | |
|-------------------|--|------------|
| Item No. | Subcontractor Name (List totals from attached SC-1 forms) | Total Cost |
| A | B | C |
| 2.01 | | |
| 2.02 | | |
| 2.03 | | |
| 2.04 | | |
| 2.05 | | |
| 2.06 | | |
| 2.07 | | |
| 2.08 | | |
| 2.09 | | |
| 2.99 | Total Subcontract Costs | \$0.00 |

| SUMMARY | | | |
|----------|--------------------------------|--------------------|---------------|
| Item No. | Description | | Total Cost |
| 3.01 | Total Direct Labor Cost | Item 1.99H | \$0.00 |
| 3.02 | Total Direct Material Cost | Item 1.99J | \$0.00 |
| 3.03 | Total Equipment Cost | Item 1.99L | \$0.00 |
| 3.04 | Subtotal | 3.01+3.02+3.03 | \$0.00 |
| 3.05 | Overhead and Profit | * 10% x Item 3.04 | \$0.00 |
| 3.06 | Subtotal | 3.04+3.05 | \$0.00 |
| 3.07 | Subcontractor Cost | Item 2.99 | \$0.00 |
| 3.08 | GC Markup on Subcontractors | ** 10% x Item 3.07 | \$0.00 |
| 3.09 | Subtotal | 3.06+3.07+3.08 | \$0.00 |
| 3.10 | Additional Bond Cost | | |
| 3.99 | Total Change Order Cost | (3.09+3.10) | \$0.00 |

Submitted By

Name: _____

Signature: _____

Title: _____

Date: _____

I have reviewed the costs proposed and find them to be reasonable (as proposed) (as marked).

A/E Signature: _____

Note: Mark-up is capped in conformance with the provisions of Section 38(d) of the Construction Contract General Conditions.

*Limited to 10% on self-performed work.

**Limited to a total of 10%, shared (cumulative total) if multiple tier subs, on subcontracted work.

SUBCONTRACTOR ESTIMATE FOR CHANGE ORDER

SC-1

IFB Number:
 Project:
 Owner:

General Contractor:
 Subcontractor:
 Subcontractor Trade:
 COR/PCO #:

Change Description:

| SUBCONTRACTOR DIRECT COSTS | | | | | | | | | | | | |
|----------------------------|---|----------|-----------|-----------------------------|--------------------------------|--------------------------------------|------------------|------------------------|---------------------|-------------------------|----------------------|--|
| Scope Description | | | | Direct Labor | | | | Direct Material | | Direct Equipment | | |
| Item No. | Description | Quantity | Qty Units | Direct Labor Hours Per Unit | Total Direct Labor Labor Hours | Hourly Wage Rate, Excl. Taxes & Ins. | Total Labor Cost | Material Cost Per Unit | Total Material Cost | Equipment Cost Per Unit | Total Equipment Cost | |
| A | B | C | D | E | F = C x E | G | H = F x G | I | J = C x I | K | L = C x K | |
| 1.01 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.02 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.03 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.04 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.05 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.06 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.07 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.08 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.09 | Subtotal from Estimate Continuation Sheets | | | | | | \$0.00 | | \$0.00 | | \$0.00 | |
| 1.97 | Subtotal (S/T) Direct Costs: | | | | | Subtotal Labor | \$0.00 | Subtotal Mat'l | \$0.00 | Subtotal Equip. | \$0.00 | |
| 1.98 | Taxes/Insurance: FICA, FUI, SUI, & Workmens' Comp. at | | | | | % of Item 1.97H | \$0.00 | Sales Tax @ 5.3% | \$0.00 | Sales Tax @ 5.3% | \$0.00 | |
| 1.99 | Total Direct Costs | | | | | Total Labor | \$0.00 | Total Mat'l | \$0.00 | Total Equip. | \$0.00 | |

| SUB-SUBCONTRACT COSTS | | |
|-----------------------|--|---------------|
| Item No. | Sub-Subcontractor Name (List totals from attached SS-1 forms) | Total Cost |
| A | B | C |
| 2.01 | | |
| 2.02 | | |
| 2.03 | | |
| 2.04 | | |
| 2.05 | | |
| 2.06 | | |
| 2.99 | Total Sub-Subcontract Costs | \$0.00 |

| SUMMARY | | | |
|----------|------------------------------------|-------------------|---------------|
| Item No. | Description | | Total Cost |
| 3.01 | Total Direct Labor Cost | Item 1.99H | \$0.00 |
| 3.02 | Total Direct Material Cost | Item 1.99J | \$0.00 |
| 3.03 | Total Equipment Cost | Item 1.99L | \$0.00 |
| 3.04 | Subtotal | 3.01+3.02+3.03 | \$0.00 |
| 3.05 | Overhead and Profit | * 10% x Item 3.04 | \$0.00 |
| 3.06 | Total Subcontractor Cost | 3.04+3.05 | \$0.00 |
| 3.07 | Sub-Subcontractor Cost ** | Item 2.99 | \$0.00 |
| 3.99 | S/C Cost Report'd to GC *** | 3.06+3.07 | \$0.00 |

Submitted By

Name: _____

Signature: _____

Title: _____

Date: _____

Note: Mark-up is capped in conformance with the provisions of Section 38(d) of the Construction Contract General Conditions.

* Limited to 10% on self-performed work.

** Limited to a total of 10%, shared (cumulative total) if multiple tier subs, on subcontracted work. Total mark-up on subcontracted work is calculated on the GC-1 form.

*** The subcontractor cost carried forward to GC-1 form does not include mark-up on sub-subcontractor costs. This mark-up is calculated on the GC-1 form. The GC and its subcontractors shall establish how the mark-up is to be distributed among the various subcontractors involved in the work.

SUB-SUBCONTRACTOR ESTIMATE FOR CHANGE ORDER

SS-1

IFB Number:
 Project:
 Owner:

General Contractor:
 Subcontractor:
 Sub-Subcontractor:
 Sub-Subcontractor Trade:
 COR/PCO #:

Change Description:

| SUB-SUBCONTRACTOR DIRECT COSTS | | | | | | | | | | | |
|--------------------------------|---|---|-----------|-----------------------------|--------------------------------|--------------------------------------|------------------|------------------------|---------------------|-------------------------|----------------------|
| Scope Description | | | | Direct Labor | | | | Direct Material | | Direct Equipment | |
| Item No. | Description | Quantity | Qty Units | Direct Labor Hours Per Unit | Total Direct Labor Labor Hours | Hourly Wage Rate, Excl. Taxes & Ins. | Total Labor Cost | Material Cost Per Unit | Total Material Cost | Equipment Cost Per Unit | Total Equipment Cost |
| A | B | C | D | E | F = C x E | G | H = F x G | I | J = C x I | K | L = C x K |
| 1.01 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.02 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.03 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.04 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.05 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.06 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.07 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.08 | | | | | 0.00 | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.09 | Subtotal from Estimate Continuation Sheets | | | | | | \$0.00 | | \$0.00 | | \$0.00 |
| 1.97 | Subtotal (S/T) Direct Costs: | | | | | Subtotal Labor | \$0.00 | Subtotal Mat'l | \$0.00 | Subtotal Equip. | \$0.00 |
| 1.98 | Taxes/Insurance: | FICA, FUI, SUI, & Workmens' Comp. at | | | | % of Item 1.97H | \$0.00 | Sales Tax @ 5.3% | \$0.00 | Sales Tax @ 5.3% | \$0.00 |
| 1.99 | Total Direct Costs | | | | | Total Labor | \$0.00 | Total Mat'l | \$0.00 | Total Equip. | \$0.00 |

| SUMMARY | | | |
|----------|--------------------------------|-------------------|---------------|
| Item No. | Description | | Total Cost |
| 3.01 | Total Direct Labor Cost | Item 1.99H | \$0.00 |
| 3.02 | Total Direct Material Cost | Item 1.99J | \$0.00 |
| 3.03 | Total Equipment Cost | Item 1.99L | \$0.00 |
| 3.04 | Subtotal | 3.01+3.02+3.03 | \$0.00 |
| 3.05 | Overhead and Profit | * 10% x Item 3.04 | \$0.00 |
| 3.99 | Total Sub-Subcontractor | | \$0.00 |

Submitted By

Name: _____

Signature: _____

Title: _____

Date: _____

Note: Mark-up is capped in conformance with the provisions of Section 38(d) of the Construction Contract General Conditions.
 *Limited to 10% on self-performed work.

FORM AC-12

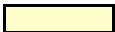
SCHEDULE OF VALUES and CERTIFICATE FOR PAYMENT

Before using this Excel form, please read the following:

Macro Security must be set to "Medium" !

Check the Excel macro security settings, by picking **Tools**, **Macro**, and **Security** from the main Excel menu. If macro security is set at "High" or "Very High", change it to "Medium" and then immediately close Excel. When Excel is reopened, the new macro security setting will take effect. If you get a message to "Enable" or "Disable" macros, pick "Enable". (Excel/Office 2007 users may need to save this as a "Macro-Enabled Worksheet".)

Users may ...

Users may add, edit, and delete data in the those cells which are highlighted in yellow. (e.g., )
Users may insert rows by using the **Insert New Row** button only!
Users may format cells (e.g., bold, underline, italic, font size, etc.)
Users may format rows (e.g., adjust the row height, etc.)

Users should not ...

Users should not modify these worksheets in any manner, other than as noted above !
Users should not "unprotect" these worksheets !
Users should not delete rows in these worksheets !
Users should not enter data directly into any cells which are not highlighted in yellow.

Doing any of the above "should not" actions can compromise the integrity of the AC-12 worksheet by overwriting or deleting data and/or formulas. It is not the responsibility of the County of Albemarle staff to help correct worksheets which have been corrupted by users not heeding the above warnings.

FORM AC-12 SCHEDULE OF VALUES and CERTIFICATE FOR PAYMENT

MAIN MENU and GENERAL INSTRUCTIONS

Step [Click here to read an important message before proceeding.](#)

1. **Make a backup copy of this Excel file before proceeding to the next step.**

[Retainage questions, click here.](#)

2. **Enter project and contract information.**

3. **Prep the AC-12 form for new pay period.**

New users, please review the instructions below before completing Parts B & C.

4. **Complete AC-12, PART B.**

View Instructions

5. **Complete AC-12, PART C.**

View Instructions

6. **Review AC-12, PART A.**

7. **Print the AC-12.**

8. **Save each monthly submittal with a unique file name.**
(for example: Project 999-99999 Pay Request 1, Project 999-99999 Pay Request 2,)

9. **Sign and submit the AC-12.**

NEXT MONTH - Repeat Steps 1 through 9.

STEP 2 - Enter Project and Contract Information

A) Enter the following:

| | |
|----------------------|--|
| IFB/Contract Number: | |
| Project Title: | |
| Owner | County of Albemarle, Virginia and/or The County School Board of Albemarle County, Virginia |
| Location of Work: | |
| A/E Firm Name: | |
| Contractor Name: | |
| Contractor FEIN: | |

(FEIN = Fed. Employer Identification Number)

Date Contract Executed

| | |
|--------|--|
| Month: | |
| Day: | |
| Year: | |

NOTE: Once the above project and contract information have been entered, unless there are any changes, STEP 2 can be bypassed on future monthly updates.

B)

STEP 3 - Prepare the AC-12 for New Pay Period

WARNING: Run the Initialize Macro only once before beginning each new monthly pay request. See the explanation below.

Today is: 9/8/2025

A) NOTE: This form was last initialized on: 8/24/2007

B) Update the following data:

Pay Request Number:

For Pay Period Beginning:

For Pay Period Ending:

Pay Request Submittal Date:

Contractor Representative:

Retainage Percentage:

Retainage is initially set at the default value of 5%. With the Owner's PRE-APPROVAL, the retainage percentage may be adjusted. **DO NOT ADJUST** the retainage value UNTIL AFTER the INITIALIZE macro is run. For the final pay request, adjust this to 0%.

C)

Initializing Explained ---- what it does and how it works:

Initializing is designed to save the user considerable time and effort.

Initializing the AC-12 Form runs a macro (an automated procedure) which prepares the AC-12 for data entry for each new pay application. The macro copies all of the data from the "Current Value to Date" column to the "Previous Value to Date" column as shown in the example below.

This step must be done to compute the correct values for the current pay request.

Example:

| | VALUE OF WORK COMPLETED | | | PERCENT COMPLETE |
|----------------------|-------------------------|-------------------|-----------------------|------------------|
| | PREVIOUS VALUE TO DATE | VALUE THIS REPORT | CURRENT VALUE TO DATE | |
| Before initializing: | \$ 100.00 | \$ 20.00 | \$ 30.00 | 30% |
| After initializing: | \$ 100.00 | \$ 30.00 | \$ 30.00 | 30% |
| After updating %: | \$ 100.00 | \$ 20.00 | \$ 50.00 | 50% |

Cells with a yellow background allow data input by the user.

Cells with a white background are calculated cells. These cells are "locked" to prevent the user from accidentally overwriting the embedded formulas.

- a** The **"Initialize"** macro copies all "Current Value to Date" entries to the "Previous Value to Date" column.
- b** After the initializing macro is run, you can now update the "Percent Complete" column to reflect new progress.
- c** After updating the "Percent Complete" column, the new "Current Value to Date" amount is calculated by a formula which multiplies the "Percent Complete" by the "Total Value".
- d** Another formula calculates the "Value This Report" amount by subtracting the "Previous Value to Date" amount from the "Current Value to Date" amount.

| | | | |
|---|--|-------------------------------|------------|
| FORM AC-12 | SCHEDULE OF VALUES and CERTIFICATE FOR PAYMENT | PAYMENT REQUEST NO. | 1 |
| PART A SUMMARY AND CERTIFICATION | | PERIOD BEGINNING DATE: | 01/00/1900 |
| | | PERIOD ENDING DATE: | 01/00/1900 |



IFB NUMBER: 0
OWNER NAME: County of Albemarle, Virginia and/or The County School Board of Albemarle County, Virginia
PROJECT TITLE: 0

| | TOTAL VALUE | VALUE OF WORK COMPLETED | | | PERCENT COMPLETE |
|---|-------------|-------------------------|-------------------|-----------------------|------------------|
| | | PREVIOUS VALUE TO DATE | VALUE THIS REPORT | CURRENT VALUE TO DATE | |
| | A | B | C | D = B + C | E = D / A |
| Original Contract Line Items (from AC-12, PART B) | \$ - | \$ - | \$ - | \$ - | 0% |
| Approved Change Orders (from AC-12, PART C) | \$ - | \$ - | \$ - | \$ - | 0% |
| ADJUSTED CONTRACT TOTAL | \$ - | \$ - | \$ - | \$ - | 0% |
| Retainage <i>Retainage Percentage: 5.0%</i> | | \$ - | \$ - | \$ - | |
| NET REQUISITION AMOUNT | | \$ - | \$ - | \$ - | |

Amount Requested

CONTRACTOR CERTIFICATION

The undersigned Contractor requests payment of that portion of the contract price shown on the last line of the foregoing Schedule of Values, and represents and warrants to the Owner that: (1) the data shown on the Schedule of Values is accurate and correct; (2) the Work covered by this Certificate has been completed in accordance with the Contract Documents; (3) all previous progress payments received from Owner on account of Work done under this Contract have been applied to discharge in full (except for allowable retainage) all obligations of Contractor incurred in connection with Work covered by prior Certificates for Payment (N/A for Payment No. 1) ; (4) title to all materials and equipment for which payment is requested in this Certificate, whether or not incorporated in said Work, will pass to Owner at time of payment free and clear of all liens, claims, security interests and encumbrances (except such materials and equipment which are covered by a Bond previously accepted by Owner).

FEIN #: 0

Contractor: 0

Date: January 0, 1900

By: _____
signature

Typed Name: 0

ARCHITECT/ENGINEER CERTIFICATION

This is to certify that, in accordance with the terms of a contract for IFB/Contract Number executed the day of , , by and between, the Contractor, and the County of Albemarle, Virginia and/or The County School Board of Albemarle County, Virginia, the Owner, for work at , there is due to the Contractor the amount of No Dollars and No Cents \$.00

Architect/Engineer:

By: _____
signature *printed name* *date*

OWNER ACTION

Recommended for Payment: _____
Project Manager Date

| ITEM NO. | ITEM DESCRIPTION | TOTAL VALUE | VALUE OF WORK COMPLETED | | | PERCENT COMPLETE | NOTES / COMMENTS |
|--------------------------------|---------------------------------------|-------------|-------------------------|-------------------|-----------------------|------------------|------------------|
| | | | PREVIOUS VALUE TO DATE | VALUE THIS REPORT | CURRENT VALUE TO DATE | | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | Do not insert rows below this point ! | \$ - | \$ - | \$ - | \$ - | 0% | |
| TOTAL ORIGINAL CONTRACT | | \$ - | \$ - | \$ - | \$ - | 0% | |

| CHNG ORD. NO. | ITEM DESCRIPTION | TOTAL VALUE | VALUE OF WORK COMPLETED | | | PERCENT COMPLETE | NOTES / COMMENTS |
|-------------------------------------|---------------------------------------|----------------|------------------------------|-------------------------|-----------------------------|---------------------|------------------|
| | | | PREVIOUS VALUE TO DATE | VALUE THIS REPORT | CURRENT VALUE TO DATE | | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | | \$ - | \$ - | \$ - | \$ - | 0% | |
| | Do not insert rows below this point ! | \$ - | \$ - | \$ - | \$ - | 0% | |
| TOTAL APPROVED CHANGE ORDERS | | \$ - | \$ - | \$ - | \$ - | 0% | |

STEP 7 - Print the AC-12

PART B Instructions

The **ORIGINAL CONTRACT** line items (and progress for same) are entered in PART B of the AC-12 form.
 Below is an example PART B with detailed instructions shown in red.
 (Scroll down this page to view the step-by-step instructions.)

| ITEM NO. | ITEM DESCRIPTION | TOTAL VALUE | VALUE OF WORK COMPLETED | | | PERCENT COMPLETE | NOTES / COMMENTS |
|----------|------------------|-------------|-------------------------|-------------------|-----------------------|------------------|------------------|
| | | | PREVIOUS VALUE TO DATE | VALUE THIS REPORT | CURRENT VALUE TO DATE | | |
| 1 | | \$ - | \$ - | \$ - | \$ - | 0% | |

Enter a unique line item number for each line item. (Examples: 1, 2, 3..... 1A, 1B, 1C..... 100, 200, 300..... 100.1, 100.2, 100.3.)

| | | | | | | | |
|---|--------------|------|------|------|------|----|--|
| 1 | EPDM Roofing | \$ - | \$ - | \$ - | \$ - | 0% | |
|---|--------------|------|------|------|------|----|--|

Enter a line item description. (Line items must be broken out in a sufficient level of detail to allow Owner and A/E to assess progress.)

If payment will be sought for material stored off-site, labor and material must be entered on separate lines.

| | | | | | | | |
|-------|---------------------------------|------|------|------|------|----|--|
| 100 L | Structural Steel - Installation | \$ - | \$ - | \$ - | \$ - | 0% | |
| 100 M | Structural Steel - Materials | \$ - | \$ - | \$ - | \$ - | 0% | |

Enter the original contract value for each line item.

| | | | | | | | |
|-------|---------------------------------|-------------|------|------|------|----|--|
| 100 L | Structural Steel - Installation | \$ 5,675.00 | \$ - | \$ - | \$ - | 0% | |
|-------|---------------------------------|-------------|------|------|------|----|--|

Do not enter data in these three columns. (These values are computed by worksheet formulas.)

| | | | | | | | |
|-----|--------------------|--------------|-------------|--------------|--------------|-----|--|
| 500 | Pave Parking Lot A | \$ 30,000.00 | \$ 5,000.00 | \$ 10,000.00 | \$ 15,000.00 | 50% | |
|-----|--------------------|--------------|-------------|--------------|--------------|-----|--|

Enter the total progress (percent complete) for each line item.

| | | | | | | | |
|-----|--------------------|--------------|--------------|--------------|--------------|-----|--|
| 500 | Pave Parking Lot B | \$ 50,000.00 | \$ 10,000.00 | \$ 27,500.00 | \$ 37,500.00 | 75% | |
|-----|--------------------|--------------|--------------|--------------|--------------|-----|--|

Add notes or comments for a particular item if additional information/explanation is necessary or desired

| | | | | | | | |
|-----|--------------------|--------------|--------------|-------------|--------------|-----|---------------------------------------|
| 500 | Pave Parking Lot C | \$ 30,000.00 | \$ 10,000.00 | \$ 8,000.00 | \$ 18,000.00 | 60% | PCO for time extension due to weather |
|-----|--------------------|--------------|--------------|-------------|--------------|-----|---------------------------------------|

| CHNG ORD. NO. | ITEM DESCRIPTION | TOTAL VALUE | VALUE OF WORK COMPLETED | | | PERCENT COMPLETE | NOTES / COMMENTS |
|---------------------|---------------------|----------------|------------------------------|-------------------------|-----------------------------|---------------------|------------------|
| | | | PREVIOUS VALUE TO DATE | VALUE THIS REPORT | CURRENT VALUE TO DATE | | |

Enter the Change Order Number. (Examples: 1, 2, 3.....). Additional identifying numbers and/or letters may be added as shown in examples below as needed.

| | | | | | | | |
|----|---|-------------|------|------|------|----|--|
| 1a | ADDITIONAL LANDSCAPING - Additional trees and shrubs | \$ 6,000.00 | \$ - | \$ - | \$ - | 0% | |
| 1b | ADDITIONAL LANDSCAPING - Extend irrigation system | \$ 4,000.00 | \$ - | \$ - | \$ - | 0% | |

If necessary to provide more detail for a specific Change Order, use multiple lines for each component as needed.

| | | | | | | | |
|---|--------------|------|------|------|------|----|--|
| 3 | EPDM Roofing | \$ - | \$ - | \$ - | \$ - | 0% | |
|---|--------------|------|------|------|------|----|--|

Enter a Change Order description. (Line items must be broken out in a sufficient level of detail to allow Owner and A/E to assess progress.)

AFFIDAVIT OF PAYMENT OF CLAIMS

By:

This day _____ personally appeared before me, _____, a Notary Public in and for the City/County of _____, _____ and, being by me first duly sworn, states that all subcontractors and suppliers of labor and materials have been paid all sums due them for work performed or materials furnished in the performance of the Contract between the County of Albemarle, Virginia, and/or The School Board of Albemarle County, Virginia, Owner, and _____, Contractor, dated _____, 20____, for the construction of _____, _____, or arrangements have been made by the Contractor satisfactory to such subcontractors and suppliers with respect to payments of such sums as may be due them by the Contractor.

(Contractor Name)

By: _____
Print Name: _____
Title: _____

ARCHITECT/ENGINEER'S CERTIFICATE OF SUBSTANTIAL COMPLETION

Date: _____

County of Albemarle, Virginia, and/or
The School Board of Albemarle County, Virginia
c/o Facilities & Environmental Services – Facilities Planning & Construction Division
401 McIntire Road
Charlottesville, Virginia 22902-4596

Project Title: _____

RFQ/Contract No.: _____

In accordance with the requirements of the Contract Between Owner and Architect/Engineer and based upon the knowledge gained in the performance of the architectural/engineering services provided in said Contract and the reports of the Owner's Inspection and Testing entities, the undersigned Architect/Engineer states that the following portions of the project named above are substantially complete in accordance with the requirements of the Contract Documents and are recommended for use of their intended purpose (*indicate portions which are ready for use and, if applicable, occupancy*):

All applicable tests, certificates and regulatory inspections required by the Contract Documents and any local, state or federal regulations have been performed with respect to the substantially completed portions of the project and the Owner has been provided with a copy of each report, except for the following:

A tentative list of unfinished Work and defective Work, referred to as the "punch list," is attached hereto. The list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by the Contractor within _____ days of the above date of Substantial Completion.

(A/E Firm Name)

By: _____

Print Name: _____

Title: _____

Attachment: Punch List

CERTIFICATE OF FINAL COMPLETION BY ARCHITECT/ENGINEER

Date: _____

County of Albemarle, Virginia, and/or
The School Board of Albemarle County, Virginia
c/o Facilities & Environmental Services – Facilities Planning & Construction Division
401 McIntire Road
Charlottesville, Virginia 22902-4596

Project Title: _____

RFQ/Contract No.: _____

In accordance with the requirements of the Contract Between the Owner and the Architect/Engineer for Professional Services and based upon the knowledge gained in the performance of the services required in said Agreement, the undersigned hereby states that the above named project was fully completed in accordance with the requirements of the Contract Documents on _____ (Month) _____ (Day), _____ (Year).

All applicable tests, certificates and regulatory inspections required by the Contract Documents and any local, state or federal regulations have been performed and the Owner has been provided with a copy of each report.

Final as-built drawings have been prepared by the Architect/Engineer and submitted to the Owner in accordance with the requirements of the Contract Documents. The Owner has been provided with a copy of all warranties and guarantees, including the starting date(s) of all warranties and guarantees, written and unwritten, required by the Contract Documents.

(A/E Firm Name)

By: _____

Print Name: _____

Title: _____

CERTIFICATE OF PARTIAL OR SUBSTANTIAL COMPLETION BY CONTRACTOR

Date: _____

County of Albemarle, Virginia, and/or
The School Board of Albemarle County, Virginia
c/o Facilities & Environmental Services – Facilities Planning & Construction Division
401 McIntire Road
Charlottesville, Virginia 22902-4596

Project Title: _____

RFQ/Contract No.: _____

In accordance with the requirements of the Agreement between the Owner and the Contractor, the undersigned Contractor hereby states that portions of the above named project are substantially completed in accordance with the requirements of the Contract Documents as modified by approved change orders. Those portions of the project now substantially complete are:

All applicable tests, certificates and regulatory inspections required by the Contract Documents and any local, state or federal regulations have been performed with respect to the substantially completed portions of the project and the Owner has been provided with a copy of each report.

As-built marked up prints of the substantially completed portions of the project have been provided to the Architect/Engineer as required by the Contract Documents.

The Owner has been provided with a copy of all warranties and guarantees, including the starting date(s) of all warranties and guarantees, written and unwritten, required by the Contract Documents with respect to the completed portions of the project, except as follows:

All training, operating instructions and maintenance manuals required by the Contract Documents have been provided to the Owner, except as follows:

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR’S obligation to complete the Work in accordance with the Contract Documents.

(Contractor Name)

By: _____

Print Name: _____

Title: _____

CERTIFICATE OF FINAL COMPLETION BY CONTRACTOR

Date: _____

County of Albemarle, Virginia, and/or
The School Board of Albemarle County, Virginia
c/o Facilities & Environmental Services – Facilities Planning & Construction Division
401 McIntire Road
Charlottesville, Virginia 22902-4596

Project Title: _____

RFQ/Contract No.: _____

In accordance with the requirements of the Contract Between Owner and Contractor (Form AC-9) the undersigned Contractor hereby states that the above named project has been fully completed in accordance with the requirements of the Contract Documents as modified by approved change orders.

All applicable tests, certificates and regulatory inspections required by the Contract Documents and any local, state or federal regulations have been performed with respect to the completed project and the Owner has been provided with a copy of each report.

As-built marked up prints of the completed project have been provided to the Architect/Engineer as required by the Contract Documents.

The Owner has been provided with a copy of all warranties and guarantees, including the starting date(s) of all warranties and guarantees, written and unwritten, required by the Contract Documents.

All training, operating instructions and maintenance manuals required by the Contract Documents have been provided to the Owner.

(Contractor Name)

By: _____

Print Name: _____

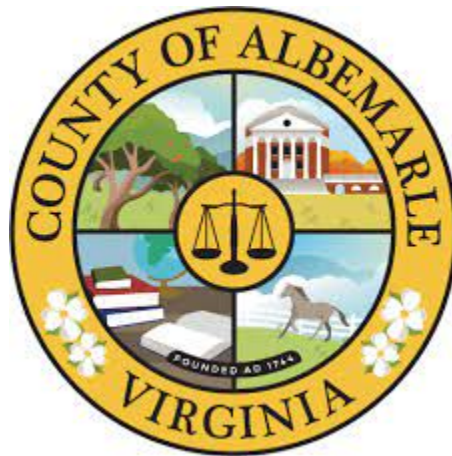
Title: _____

Copy: Architect/Engineer

PROJECT SPECIFICATIONS

Biscuit Run Park Grass Athletic Fields, Entry Road And Parking Lot

Albemarle County, Virginia



AMT PROJECT NO: 22-0137.004

A. MORTON THOMAS AND ASSOCIATES, INC.
100 GATEWAY CENTRE PARKWAY, SUITE 140
NORTH CHESTERFIELD, VIRGINIA 23235
(804) 276-6231

September 16, 2025



Project Specifications

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SECTION 01000 - PROJECT REQUIREMENTS

PART 1 -GENERAL

1.1 WORK REQUIRED BY THIS SECTION

- A. General: This Section pertains to the provision of all general Project requirements necessary to coordinate, administer, and properly produce the complete Project.

1.2 SPECIAL REQUIREMENTS

- A. General: The Drawings, General Conditions, Supplementary Conditions, applicable portions of Division 1, and the executed Agreement are all a part of this Section as if herein written out in full.
- B. Applicable Codes and Regulations: The Work shall be constructed in accordance with all applicable codes and regulations, latest editions, in force within the State of Virginia and the County of Albemarle.
- C. Fire Protection: Provide and maintain an adequate number of hand fire extinguishers at convenient locations during construction. Avoid all accumulations of flammable debris by removing rubbish promptly. Take all other precautions necessary to prevent fires. Supervise closely the storage of paint materials and other combustible products.
- D. Accident Prevention and Safety: Comply with all applicable laws, ordinances, rules, regulations, and orders of governing authorities having jurisdiction for the safety of persons and property to protect them from damage, injury or loss. Erect and maintain, as required by conditions and progress of the Work, all necessary safeguards for safety and protection, including fences, railings, barricades, lighting, posting of danger signs and other warnings against hazards. Where prevention of construction accidents is not regulated by code or ordinances, comply with AGCA's "Manual of Accident Prevention in Construction." Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Project.
- E. Local Conditions: During the bidding period, the Contractor shall be responsible for having ascertained pertinent local conditions readily determined by inspection and inquiry, such as the location, accessibility and general character of the site, labor conditions, the character and extent of existing and proposed work within or adjacent thereto, and any other work being performed thereon at the time of the submission of the bid. The Contractor shall correlate personal observations resulting from his inspection and inquiry with the requirements of the Contract Documents.
- F. Review of the Contract Documents: Contractor shall carefully study and compare the Contract Documents with existing conditions at the Job Site and shall at once report in writing to the County any error, inconsistency, or omission that may be discovered or any materials, systems, procedures, or methods of construction, either shown or specified, which is felt to be incorrect, inadequate, obsolete, unsuitable for the purpose intended, or which would not be satisfied to

guarantee as specified. The Contractor shall not proceed with any work in such areas until written instructions are received from the County.

1. Before ordering any material or doing any work, the Contractor shall verify all dimensions and check all conditions to be assured that they properly reflect those of the Contract Documents. Any inconsistency shall be brought to the immediate attention of the County. In the event that discrepancies occur between ordered material and actual conditions, of which the County was not notified beforehand, costs to correct such discrepancies shall be borne by the Contractor.
- G. Concealed Work: Before backfilling, placing concrete or performing other work which will conceal utility lines and items, concrete reinforcing, anchors and other items to be concealed in finished Project, secure an inspection and approval by Owner's Representative, Owner's inspectors, and inspectors of local authorities having jurisdiction. Record exact locations of site utility work on the "Record Drawings".
- H. Conduct of Operations: During the life of the Contract, at all times conduct operations at the Job Site and at the access to the Site in such a manner so as not to endanger, inconvenience or interfere with occupants of adjoining buildings or properties and park visitors: this includes all trucking operations and parking of workmen's vehicles.
- I. Coordination: the Contractor shall notify the Owner of such property upon which work is to be performed in advance of commencing work thereon, and in the event of the necessity of disrupting utility or other services to such property, the Contractor shall also notify the County and the utility Owner, and arrange for the disruption and restoration of such service in a manner which will result in a minimum of inconvenience to parties involved.

1.3 DEFINITION OF TERMS

- A. General: In addition to definitions of various terms specified in the GENERAL CONDITIONS and as set forth elsewhere in the Contract Documents, the below-listed terms shall, as used throughout the Project Manual, be defined as specified below:
- B. "Plans": The Drawings or Plans comprise the graphic documents consisting of sheets, or exact reproductions thereof, which show the locations, relationships, character, dimensions, and details of the Work including any amendments thereof permissible under the Contract and authorized by duly approved written orders. The word "Plans" may be used interchangeably with the word "Drawings".
- C. "Furnish": The term "Furnish" means to purchase, obtain, or otherwise secure at the Contractor's expense, complete with applicable taxes, insurance, delivery charges to the Job Site, and storage, unless specified otherwise in the Project Specifications.
- D. "Install": The term "install" means to properly place, anchor, or fasten, align, and completely finish specified items, equipment or material into the Project at the expense of the Contractor in a superior workmanship manner in strict accordance with manufacturer's instructions and specifications, unless specified otherwise in the Project Specifications.
- E. "Job Site": Also referred to as "Site" or "Premises," consists of real property bounded by the limits or property lines indicated on the Drawings, or those buildings and other construction

evidenced by the Contract Documents including such staging or access areas adjacent to said real property.

- F. "Provide": The term "provide" means to "furnish and install" (as defined hereinabove) all such items, equipment, and materials complete in all respects and be ready to place in service at the sole expense of the Contractor, unless specified otherwise in the Project Specifications.
- G. "Substantial Completion": The term "Substantial Completion" shall be defined as the general completion of all Work required by the Contract in its finished or operational condition, exclusive of all final touch-ups, adjustments, or minor corrections. Completion of miscellaneous "punchlist" items may be carried on after the Date of Substantial Completion in certain locations and under conditions which will not interfere with the Owner's personnel and the daily, routine business operations conducted on the Premises, as determined by the Owner's Representative.
- H. The Words: "As directed," "as permitted," "as required," or words of like effect shall mean that the direction, permission, or requirement of the County is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import shall mean approved by or acceptable or satisfactory to the County, unless otherwise provided herein. The words "necessary," "suitable," "equal," or words of like import shall mean necessary or equal in the opinion of the County."
- I. "Contractor": Wherever in the Specifications there appears a reference to the Contractor or to a subcontractor, or a reference to a contractor or supplier of a particular trade or for a particular type of work, such reference shall, as between the Owner and the Contractor, regardless of the language thereof, be deemed a reference to the Contractor and shall not be construed as relieving the Contractor from the duty to perform all of the Work and other obligations provided for under the Contract. Moreover such references shall not be construed as an assumption by the Owner of any responsibility for the relations between the Contractor and his subcontractors or between various subcontractors, or as an attempt on the part of the Owner to deal directly with subcontractors, or to assign any particular portions of the Work to any one subcontractor except as specifically set forth in the Contract Documents, or a limit on the obligation of the Contractor.

1.4 COORDINATION WITH GOVERNMENTAL AGENCIES & PUBLIC UTILITIES

- A. General: Contractor shall be responsible for making all necessary arrangements with all governmental departments, public utilities, public carriers, service companies and corporations owning or controlling roadways, railways, water, sewer, gas, electrical, telephone, and telegraph facilities such as pavements, tracks, piping, wires, cables, conduits, poles, guys, etc., including incidental structures connected therewith, that are encountered in the Work in order that such items may be properly shored, supported, protected or relocated.
- B. Give all Proper Notices, comply with requirements of such parties in the performance of Work, permit entrance of such parties on the Project in order that they may perform their necessary work, and pay all charges and fees made by such parties for this work, unless otherwise specified.
- C. Permits: The Contractor shall obtain all permits required for the completion of the project, at no additional cost to the OWNER. This shall include but not be limited to obtaining a county Land Disturbance Permit.

- D. Scheduling: It is distinctly understood that the Contractor will have no claim whatsoever against the Owner for any delay caused him during the construction of this Project due to coordination with such parties.

1.5 GRADES, LINES, LEVEL & SURVEYS

- A. General: Contractor shall retain the services of a licensed (in the State of Virginia) Professional Land Surveyor, acceptable to the Owner's Representative, to establish and maintain grades, lines, levels, and benchmarks necessary for the proper completion of the Project. Contractor shall review the figures shown on all available surveys before undertaking any construction work and shall be responsible for the accuracy of the finished Work. The land surveyor shall provide, but not be limited to, the following:
 - 1. Provide and maintain all stakeout work including survey control and reference points and at least two (2) benchmarks.
 - 2. Rough grade stakes set in sufficient number to permit the Job Site to be cleared and graded as shown.
 - 3. Stakes for the construction of all sidewalks, curb ramps, curbing, storm sewer, and similar appurtenances with appropriate cut sheets.
- B. Surveys for Measurement and Payment: Perform surveys to determine quantities of unit cost work including control surveys to establish measurement reference lines. Submit surveys to County with pay requests.
- C. Audio-Visual Survey: Perform an audio-visual survey of the project site. Video display will show location, description of existing structures and landscaping including time, date, address and compass direction of travel and view. Footage shall correlate to plan relationship and stationing. Vulnerable, damaged, or deteriorated areas within the project limits will be shown. Travel speeds shall be as necessary to clearly see the project area. Contractor shall provide a copy to the County at the Pre-construction conference, and shall keep a copy.
- D. Project Closeout: Upon completion of the project, a registered surveyor or engineer shall prepare a record drawing showing location and elevation for all improvements and shall submit a certificate signed by registered surveyor or engineer certifying that the locations of the facilities are in conformance or non-conformance with the Contract Documents including any post-construction BMP certifications.

1.6 PROJECT MEETINGS

- A. General: Project meetings will be held at the Job Site at a minimum of every month if not more often as directed by the Owner under the direction of the Owner's Representative. The day and time of the meeting shall be determined by the Owner's Representative. Contractor and each of the subcontractor's shall have a competent representative in attendance to report in detail on the progress of the Work and who will be authorized to receive instructions from authorized persons having jurisdiction over the Project. When deemed necessary, Contractor shall include the attendance of manufacturer's representatives and sub consultants.

- B. Meeting Minutes: The Contractor will take meeting notes and will transmit them to the Owner within seven (7) days after the close of the meeting with single additional copies to each participant and others having an interest in the Project as directed by the County. Contractor shall be responsible for transmitting copies to his trade contractors, subcontractors, suppliers, and other affected parties as necessary.

- C. Preconstruction Conference: Upon approval of the Contract by the County, the Owner's Representative will schedule a preconstruction conference to be attended by the Contractor and the County.

END OF SECTION 01000

1.3 CONTRACTOR QUALIFICATIONS

- A. Contractor must demonstrate experience with at least three public park construction projects with similar features, including paved parking lots, natural turf athletic fields with in-ground irrigation systems, and water mains by the Contractor or qualified subcontractors. When relying upon subcontractor qualifications, the Contractor should provide at least three project examples for each subcontractor and a written agreement between the Contractor and subcontractor describing their role in the project.
- B. Provide a contact person for each project that can verify the successful completion of the projects or documentation from the project owner in each case attesting to the successful completion of the projects.

1.4 PROJECT SITE CONDITIONS

- A. The project site boundaries are shown on the plans as the Limits of Disturbance (LOD). Absolutely no construction activities or work shall be performed on adjacent non-County leased property, or properties outside of the established Limits of Disturbance (LOD) without the County providing written authorization for the Work.
- B. The Contractor is responsible for maintaining unobstructed vehicular and pedestrian access throughout all construction activities to the existing park entrance roadway and parking lot which will connect to a temporary trail built by the County outside of the Limits of Disturbance (LOD).
- C. The Contractor shall be responsible for repairing any construction or Contractor related damage to any property and for always keeping the entrance road clean and usable by the traveling public accessing the park.
- D. Phase One Construction included a large stockpile within the Limits of Disturbance (LOD) that is required to be utilized for this project and moved entirely from the current location to be used as onsite fill material for the Construction with any excess to be stockpiled in the designated staging areas for the project.
- E. The Contractor shall also temporarily store native topsoil and dispose of raked mulch and wood chips in the on-site staging areas or other locations approved by the Owner.
- F. All materials shall be kept separated in the staging areas.
- G. The Contractor shall also move any rock boulders encountered on the project site that are more than one cubic yard in size to a location approved by the Owner and that does not otherwise interfere with the Work.
- H. The Contractor shall immediately notify the Owner of any discrepancies between the existing site conditions and the plans to determine what changes, if any, are necessary to the Work.
- I. The existing site survey with boundary lines, easements, elevations, and other features as shown on the plans were surveyed by Marsh and Legge, Land Surveyors on 2/18/2020. Additional field run survey, topographic and spot elevation data was obtained by the County during the Phase One Project or by A. Morton Thomas & Associates, Inc. on the Avon Park Water Tank site and the stockpile area. It is the Contractors responsibility to confirm existing site features and grades and

adjust quantities, earthwork, and work as necessary at no additional cost to the County. Existing elevations and grades may have changed since the surveys were completed due to erosion, sediment accretion, fill, or other activities. If the existing site survey shown on the Plans is found to differ significantly from the current conditions in the field, the Contractor must notify the Owner for adjustments to the planned construction work.

- J. The Contractor shall be allowed to visit the construction site during the pre-bid meeting, perform independent subsurface investigations, and other evaluations if the site visits are coordinated at least 48-hours in advance with the County. At these times, the Contractor shall thoroughly familiarize themselves with all existing conditions above and below ground. The Contractor shall satisfy themselves as to the accuracy and completeness of these Specifications and Plans regarding the nature and extent of the work described.
- K. The Contractor shall make all field measurements necessary to lay out the lines and grades on the Plans. The Contractor shall use the horizontal and vertical survey control points shown on the Contract Documents to lay out the lines of work, limits of grading, design elevations, and locations of specific items of work. The Architect/Engineer shall furnish digital copies of the Plans to the Contractor upon request in AutoCAD format. All structures and all grades on the athletic fields shall be installed within 0.02' of design elevation. All grades outside top of bank must meet a minimum tolerance of 0.10'.
- L. Should there be any discrepancies between the Plans, Specifications and/or field conditions after bidding and prior to beginning work, the Contractor shall bring such discrepancies to the attention of the Owner immediately.
- M. There shall be no clearing or removal of any trees, other than those indicated on the plans except as otherwise directed by the County. Under no circumstances shall the contractor enter onto the historic stagecoach road or surrounding old growth trees and their existing drip lines. Any conflicts shall be brought to the County immediately to adjust the planned construction work to avoid any possible impacts. Directional drilling is shown on the plans to avoid impacts to the stagecoach road and trees during the installation of the water main for this project.
- N. The Contractor shall exercise care during grading activities in the vicinity of trees at the construction site. All grading in the vicinity of trees not identified for removal shall be made in a manner that does not damage the root system within the drip line of the tree.
- O. The Contractor shall be responsible for determining the location of all existing utilities and services within the project limits prior to commencing construction operations and must call "Miss Utility" (1-800-552-7001) at least 72 hours prior to any construction work and before excavation begins. Any utilities and easements shown on the Plans are considered approximate and the Contractor shall notify the Owner with any plan discrepancies. The Contractor shall determine the exact location of all utilities before commencing work and agrees to be fully responsible for any and all damages which might be occasioned by the Contractor's failure to exactly locate and preserve any and all underground utilities. Relocations of existing utilities for the convenience of the Contractor shall be at no additional cost to the Owner. The Contractor shall be responsible for filing all requests with public utility corporations, jurisdictional agencies, or other Owners to make all adjustments to public utility fixtures. Damage caused to utilities by the Contractor shall be repaired and the facilities restored to their original condition at no additional cost to the Owner. For additional utilities information, contact the utility companies directly.

- P. The Contractor shall repair all damage caused by his/her operations to all public and private property and leave the property in good condition and/or at least equivalent to the conditions found.
- Q. The Contractor shall provide and maintain a sanitary condition and accommodations for the use of his/her employees as may be necessary to comply with requirements and regulations of the County or other authorities having jurisdiction and shall commit no public nuisance.
- R. The Contractor shall make all required efforts to minimize sediment loss, protect public safety, and minimize disturbance of the site while performing the work. All areas shall be kept neat, clean, and free of all trash and debris, and all reasonable precautions shall be taken to avoid damage to existing vegetation, turf, structures, and private property.
- S. The work under this Contract includes all necessary temporary items required for good, safe, and sanitary construction practice and administration of the project. These requirements are subject to the approval of the County.
- T. All incidental work required by the Contract Documents for which no payment is specifically provided, and any work or materials not specified therein which are required to complete the work, and which may fairly be implied as included in the Contract, and which the County shall judge to be so included, shall be performed and furnished by the Contractor without additional compensation from the County.
- U. Prior to start of work, the Contractor shall submit the source of all materials, to the County for review. No work shall be performed until the source of material for that part of the Work is approved by the County.
- V. When any article is specified by proprietary name, trade name, or name of manufacturer, with or without the addition of such expressions as "or equal", it is to be understood that the article named or the equal thereof is intended, subject to the approval of the County as to the quality thereof, and it is distinctly understood: (1) that the County is to use their own judgment in determining, from time to time, whether or not any article proposed to be substituted is the equal of any article so specified; (2) that the decision on all such questions of equality shall be final; (3) that, in the event of any adverse decisions, no claim of any sort shall be made or allowed against The County or because of such decision; and, (4) that no article submitted for approval will be approved which requires re-design of project facilities unless the submittal of said article was requested in writing by The County.
- W. The Contractor shall be held solely responsible for any necessary coordination between the various County, State or Federal agencies, utility companies, his sub-contractors, the County, and the county representatives for the duration of this Contract.

1.5 SUMMARY OF WORK

- A. The Project work consists of site demolition, clearing and grubbing, earthwork including on-site excess material disposal, grading and drainage, athletic fields with in-ground irrigation systems, an irrigation water main system with yard hydrants, stormwater management facilities, paved access road and parking lot, concrete structures including walkways, signage and pavement markings, a pre-manufactured vault toilet building, landscaping, lawn seeding, and all incidentals described and illustrated in the Contract Documents. The work shall be performed under this

contract and the supervision of the County and their representatives. The term "County" used throughout these shall be intended to include the County's representatives.

- B. The work shall be completed in all its parts and ready for use in the time specified and in strict accordance with the terms and conditions of the Contract Documents. Any deviation shall be subject to the prior approval of the County.
- C. The Contractor shall assume all responsibility for the project and construction site until final acceptance by the County.
- D. The Contractor shall be responsible for executing a finished project without any extra charges, unless specifically provided for in writing within the Contract.

PART 2 - PRODUCTS - NOT USED

PART 3 - PART EXECUTION - NOT USED

END OF SECTION 011000

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specifications, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed conditions, such as unavailability of products, regulatory changes, incompatibility, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required to meet other Project requirements but may offer advantages to the Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use form acceptable to the Owner.
 - 2. Documentation: Show compliance with project requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable for cause. Owner shall otherwise assume the substitution is for the Contractor's convenience.
 - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and changes to the construction that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitutions with those areas of the Work specified. Include annotated copy of applicable Specification Sections. Significant qualities may include attributes such as performance, weight,

size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of Engineers and owners.
 - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of changes, if any, in the Contract value.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. If necessary, the Owner will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Owner will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or within seven (7) days of the need for additional information or documentation.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Owner does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers or required by the Owner.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions

1.7 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of the need for a change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Owner will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Owner will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 012500

SECTION 01300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 WORK REQUIRED BY THIS SECTION

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.3 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Shop Drawings.
 - 2. Product Data.

1.4 SUBMITTAL PROCEDURES

- A. Coordinate preparation of and processing of submittals with performance of activities and schedule. Transmit each submittal sufficiently in advance of performing related activities to avoid delay.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate name of entity that prepared the submittal. Include the following information on the label:
 - 1. Project name.
 - 2. Date.
 - 3. Name and address of the Contractor.
 - 4. Name and address of subcontractor.
 - 5. Name and address of supplier.
 - 6. Name and address of manufacturer.
 - 7. Number and title of appropriate Specification Section.
 - 8. Drawing number and detail references, as appropriate.

- C. Submittal Transmittal Form: Transmit each submittal from the Contractor to the Architect/Engineer using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
- D. Submittal Processing: Allow sufficient review time so installation will not be delayed because of time required to process submittals and re-submittals.
- E. Allow 7 days for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The County or Engineer will promptly advise the Contractor when the submittal being processed must be delayed for coordination.
- F. No extension of the Contract Time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of performing the Work to permit their processing.
- G. Re-submittals: Identify all changes made since previous submittal and follow instructions for submittal processing with all submittals.

1.5 SCHEDULE OF SUBMITTALS

- A. Contractor shall prepare and keep current a schedule of Submittals for the Architect/Engineer approval. After development and acceptance of the Contractor's progress schedule, the Contractor shall prepare a complete schedule of submittals. Submit the schedule within 10 days of the date required for submitting the Contractor's progress schedule.
- C. Coordinate the schedule of submittals with the list of subcontracts, the schedule of values, and the list of products as well as the Contractor's progress schedule.
- D. Prepare the schedule of submittals in chronological order. Provide the following:
 - 1. Scheduled date for the first submittal.
 - 2. Related Section number.
 - 3. Submittal category (Shop Drawings, Product Data, or Samples).
 - 4. Scheduled date for the County's final release or approval.
- E. Schedule Updating: Revise the schedule of submittals after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each project meeting.

1.6 SHOP DRAWINGS

- A. Shop Drawings shall be drawn to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce the Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a shop drawing. Include the following:
 - 1. Dimensions established by field measurements.

2. Identification of products and materials to be used.
 3. Compliance with standards and specifications.
 4. Notation of coordination requirements.
- B. Sheet Size: submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 36 by 48 inches (915 by 1220 mm).
- C. Submittals: Unless otherwise authorized by the County for electronic submissions, the Contractor shall submit five (5) copies of each required submittal and four (4) copies where required for maintenance manuals. One (1) will be returned marked up and shall be maintained by the Contractor as a record document.

1.7 PRODUCT DATA

- A. Submit printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, manufacturer instructions and certificates, standard wiring diagrams, and performance curves within 10 days of receipt by the Contractor. Where Product Data must be specially prepared because standard printed data are not suitable for use, submit as Shop Drawings.
- B. Mark each copy to show applicable choices and options. Where printed Product Data include information on several products, some of which are not required, mark copies to indicate applicable information. Include the following:
1. Manufacturer's printed recommendations.
 2. Compliance with recognized trade association standards.
 3. Compliance with recognized testing agency standards.
 4. Application of testing agency labels and seals.
 5. Notation of coordination requirements.
 6. Notation of dimensions verified by field measurements.
- C. Submittals: Unless otherwise authorized by the County for electronic submissions, the Contractor shall submit five (5) copies of each required submittal and four (4) copies where required for maintenance manuals. One (1) will be returned marked up and shall be maintained by the Contractor as a record document.

END OF SECTION 01300

SECTION 01400- QUALITY CONTROL

PART 1 - GENERAL

1.1 WORK REQUIRED BY THIS SECTION

- A. General: This Section pertains to the provision of obtaining independent testing, inspection, and related quality control services for the evaluation of materials, methods, and workmanship for the following materials and/or systems:
 - 1. Cast-in-place concrete
 - 2. Asphalt paving
 - 3. Soil compaction testing and inspection
 - 4. Other testing required by the specifications
- B. The County shall retain of the services of a Geotechnical Engineer, independent testing agency or laboratory for independent inspection services for the respective work and will pay all costs thereto. In addition, the Contractor shall perform his responsibilities and duties as described below.
- C. Extent of Work: This Section is binding to the Contractor to the extent specified herein as Contractor work. The Owner reserves the right to expand all or any testing or inspecting services as is deemed in the Owner's best interest.

1.2 SPECIAL REQUIREMENTS

- A. General: The Drawings, General Conditions, Supplementary Conditions, applicable portions of Division 1, and executed Agreement are all a part of this Section as if herein written out in full.
- B. Right of Access is reserved at any time by the Owner to places where fabrication work or concrete mixing is being produced or fabricated.
- C. Contract Documents: The Owner will furnish the testing agency and/or inspector with sufficient copies of the Contract Documents as required for the performance of quality control work.

1.3 RESPONSIBILITIES & DUTIES OF CONTRACTOR

- A. General: Contractor shall advise the testing agency and County in advance of production and fabrication operations to allow for proper scheduling and completion of required inspections and tests, and for assignment of personnel. Contractor shall allow full facilities for the inspection. Contractor shall correct work which inspections and laboratory test reports have indicated are not in compliance with Specification and Contract requirements, to include replacing materials and workmanship at no additional cost to the Owner.

- B. Submittals: Contractor shall submit specified items as required in timely manner as to not delay the Project.
- C. Contractor's Quality Control Procedures: Contractor shall maintain his own quality control procedures at all times. Inspections and testing performed by others shall not relieve the Contractor of the responsibility for meeting any Specification and Contract requirements for quality.

1.4 AUTHORITY & DUTIES OF TESTING AGENCY

- A. General: The Testing Agency shall be responsible for the taking and testing of field cylinders, earthwork subgrades, plant inspection, laboratory curing and testing, as well as field curing and testing of castings of concrete.
- B. Test Reports: Test reports shall be submitted directly to the Contractor by the Testing Agency with two (2) copies submitted directly to the County immediately after completion of each test or group of tests. Reports shall indicate all pertinent information including name of the Project, Contractor and Date of Testing.
- C. Promptly Notify the Contractor, and County of observed, irregularities or deficiencies in products or work installed.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: The Testing/Inspection Agency shall furnish all services, materials, equipment, and accessories to provide for all tests and reports including delivery of all test specimens to or from the Job Site.

PART 3 - EXECUTION

3.1 CAST-IN-PLACE CONCRETE

- A. Contractors Duties: Contractor shall submit product data in sufficient time in advance of concrete operations to allow for quality tests, trial mixes, trial mix cylinders, slump tests, and other tests related to the verification of design standards. Provide and maintain adequate facilities for safe storage and proper curing of concrete test cylinders on the Job Site for the first 24-hours.
- B. Cast-in-Place Concrete Tests: Tests may consist of compression and strength tests, slump tests, air-entrainment tests, aggregate sieve analysis, and grout mix tests per ASTM standards. Frequency of fresh concrete testing and test methods will be as specified by the County.
- C. Temperature: Test temperature of concrete during cold or hot weather and ensure applicable provisions of ACI 305 and ACI 306 are followed.

3.2 SOIL COMPACTION TESTING

- A. General: Contractor shall remove and stockpile all topsoil, other organic soils, excessively soft soils or other unsuitable materials from beneath the pavements or fill areas. All compaction of backfill and existing soils shall be subject to testing, inspection, and acceptance by the Testing Agency. Contractor shall cooperate with the Inspection Agency in obtaining field samples of in-place materials after compaction, as directed by the Testing Agency based on field conditions. Remove rejected materials and replace with new approved materials. Testing shall include:
 - 1. Nuclear Gage Field Testing: ASTM D2922
- B. Borrow Material: All materials proposed for use as fill shall be sampled and tested to verify compliance with the Contract Documents prior to placement. Remove rejected materials and replace with new approved materials. Testing shall include:
 - 1. Grain Size Distribution: ASTM D422
 - 2. Atterberg (Plasticity) Limits: ASTM D4318
 - 3. Moisture-Density (Proctor) Relationship: ASTM D698
- C. Unit Cost Work Items: Testing Agency shall document any undercutting operations, rock excavation, and directives for the use of underdrains and geotextile products in preparing the subgrade. Reports of unit cost work shall be made by the testing agency as authorized by the County in advance of the Work. The Reports shall be signed by the Inspector and by the Contractor's supervisor for the work, and shall include the date, location and quantity of planned work.

3.3 REMEDIAL WORK

- A. General: If the testing results indicate that materials do not meet the requirements of the Project, the County may require additional testing done. The expense for the additional tests will be borne by the Contractor.
- B. Additional Testing, required by the County because of changes in materials occasioned by their failure to meet Project requirements, shall be at Contractor's expense.
- C. Unacceptable Deficient Work: Remove and replace or shall be repaired, as directed by the County, at the Contractor's expense.

END OF SECTION 01400

SECTION 01500- TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 WORK REQUIRED BY THIS SECTION

- A. General: This Section pertains to the provision, maintaining, and removal of all temporary facilities and work related thereto consisting of temporary field office, electric service, water service, sanitary facilities, heat for cold weather protection, temporary barriers and traffic control devices.

1.2 SPECIAL REQUIREMENTS

- A. General: The Drawings, General Conditions, Supplementary Conditions, applicable portions of Division 1, and executed Agreement are all a part of this Section as if herein written out in full.
- B. Temporary Utility Connections and Distribution Lines shall be installed and maintained in accordance with codes and ordinances of governing authorities having jurisdiction of the trades involved, Obtain and pay for all fees and permits pertaining thereto. When the temporary service lines are longer required, they shall be removed prior to Final Inspection. Any part of the permanent service lines or grounds disturbed or damaged by the installation, use or removal of the temporary utility lines shall be restored to acceptable condition at no additional cost to the Owner.
- C. Temporary Field Office if used shall be installed and maintained in accordance with codes and ordinances of governing authorities having jurisdiction. Obtain and pay for all fees and permits pertaining thereto. When the temporary office is no longer required, it shall be removed prior to Final Inspection. Any part of the grounds disturbed or damaged by the installation shall be restored to acceptable condition at no additional cost to the Owner.

1.3 TEMPORARY ELECTRIC AND LIGHTING

- A. General: Provide and maintain during the performance of the Work, adequate temporary lighting and electric power as is required for Contractor's use and for the use of all his subcontractors in connection with the Work. Temporary wiring shall include lighting the Field Office, proper illumination for all parts of the Work in progress, sufficient number of outlets to reach all work requiring power and light, operation of electric tools and machinery, testing of all electrical equipment, pumps, lamps, and all other devices necessary to provide adequate service and connections required. Comply with applicable OSHA requirements.
- B. Cost: Electric bills or other utility costs for temporary facilities will be the responsibility of the Contractor.

1.4 TEMPORARY WATER

- A. General: Provide adequate temporary water for construction use and fire protection. All

temporary water supply lines shall be properly valved, maintained, protected, and kept tight and free from leaks and freezing conditions. Backflow prevention shall be provided as required.

- B. Temporary Drinking Water: Provide adequate cool drinking water and paper cups on the Job Site with receptacles for cup disposal. Keep Premises free from waste cups and paper at all times.
- C. Cost: Water bills or other utility costs for temporary facilities will be the responsibility of the Contractor.

1.5 TEMPORARY SANITARY FACILITIES

- A. General: Provide and maintain an adequate number of temporary dry chemical toilet facilities for use of workers, and to comply with all local health requirements and sanitary regulations. Toilets shall be located as directed by the County, kept in a sanitary condition, and removed when work is completed. Sanitary facilities shall be weather tight with shielded entry and approved by local Health Authorities having jurisdiction.
- B. Cost: Sewer bills or other utility costs for temporary facilities will be the responsibility of the Contractor.

1.6 TEMPORARY BARRIERS

- A. General: Provide and maintain temporary fencing, signage, barriers, and controls as required preventing public entry to construction areas and protecting existing facilities from damage during construction. This includes controlling traffic in the immediate area of newly installed work to minimize damage and to prevent damage to existing facilities.
- B. Cost: Bills or other costs for temporary facilities will be the responsibility of the Contractor.

1.7 MAINTENANCE OF TRAFFIC

- A. General: Provide and maintain all materials, equipment, labor and services required to maintain and control traffic in work zones, to maintain public and private entrances, to protect the traveling public, and to protect workers. All work zones shall be planned in accordance with the Manual of Uniform Traffic Control Devices and the Virginia Work Area Protection Manual. The County shall be given sufficient advanced notice of any scheduled work that will affect traffic patterns or safety, to permit review of the proposed plan of work. The Contractor shall use and maintain traffic control devices that are not damaged, defaced or dirty and that meet all VDOT standards and specifications.
- B. Cost: Bills or other costs for temporary facilities will be the responsibility of the Contractor.

END OF SECTION 01500

SECTION 01650 - SAFETY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT and applicable parts of DIVISION 1, as listed in Table of Contents, shall be included in and made part of this Section.

1.2 SUMMARY

- A. This Section specifies the safety requirements for this project.

1.3 REQUIREMENTS

- A. All Contractors will be required to comply with the provisions of the "Construction Safety Act" and the "Occupational Safety and Health Act of 1970". The Contractor shall submit to the Owner a written safety program for approval. This program shall adhere to all applicable Federal, State and local requirements.
- B. The Contractor safety program shall include as a minimum:
 - 1. A formal safety training and orientation program for all new employees with written confirmation provided upon request.
 - 2. Periodic refresher training for each worker with written confirmation provided upon request.
 - 3. A formal supervisory safety training program for all supervisors with written confirmation provided upon request.
 - 4. A program of regular site visits by a designated safety officer to review, evaluate, and control job hazards with written confirmation of each site visit provided upon request.
 - 5. Provision of adequate personal protective equipment (hard hats, clothing, boots, safety glasses, etc.), first-aid equipment, and trained emergency or safety personnel.
 - 6. An established procedure for the emergency evacuation of injured workers with written confirmation provided upon request.
 - 7. Provisions for maintaining safety records and reporting accidents in compliance with OSHA requirements with written confirmation provided to COUNTY.
 - 8. The safety plan shall be site specific.

C. The Contractor safety program/procedures shall cover at a minimum the following:

1. Demolition
2. General housekeeping and cleaning.
3. Equipment operations and maintenance.
4. Excavations
5. Construction of structures.
6. Noise control.
7. Dust control.
8. Heat.
9. Radiation.
10. Toxic materials.
11. Ladder usage.
12. Water intrusion.
13. Fall Protection
14. Scaffolding
15. Personal Protection
16. Administrative Procedures
17. Material Safety Data Sheets (MSDS)
18. Competent Person (on site)
19. Electrical Hazards (cords, tools CFCI)
20. Emergency action plan

END OF SECTION 01650

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 WORK REQUIRED BY THIS SECTION

- A. This Section specifies administrative and procedural requirements during project closeout, including, but not limited to:
1. Substantial Completion
 2. Final Acceptance.
 3. Record Documents.
 4. Operating and Maintenance Data.
 5. Warranties and Bonds.
 6. Final Cleaning.
- B. Cleaning:
1. This Section pertains to the provision of all efforts necessary to keep the premises free from accumulation of waste materials, rubbish and other debris and for final cleaning (both during progress of Work and at completion of the Project). Cleaning up work includes, but is not limited to sweeping, brushing, and dust control; debris removal; removal of excess material, tools, and equipment; final cleaning operations; and cleaning of all streets and pavement mudded by construction vehicles.
 2. Classification: Additional cleaning and cleaning up requirements for particular trades or work may be specified under respective Sections pertaining to that trade or work and should also be executed in accordance with that Section.

1.2 SPECIAL REQUIREMENTS

- A. Examine Contract Documents for requirements that affect Work of this Section. Other Specification Sections that relate directly to Work of this Section include:
1. GENERAL CONDITIONS and SUPPLEMENTARY CONDITIONS; fiscal provisions, legal submittals, and any other administrative requirements.
 2. Pollution Control: Clean-up and disposal operations shall comply with all ordinances and anti-pollution laws and regulations. Burning or burying volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer systems or into streams or waterways is not permitted.
 3. Fire Protection: Volatile waste materials shall be stored in covered metal containers and removed from premises daily.

4. Accident Prevention: Clean up operations shall be performed in such a manner as to prevent accidents to personnel, protect all work in place and to effect completion of the Project in any orderly manner.

1.3 SUBSTANTIAL COMPLETION

- A. Prior to requesting inspection for certification of Substantial Completion, complete the following:
 1. Submit a certificate of substantial completion listing any incomplete items, value of incomplete Work, and reasons Work is not complete.
 2. Submit an Application for Payment, showing 100% completion for all portions of Work claimed as substantially complete minus retainage.
 3. Submit all warranties and bonds.
 4. Submit all testing and inspection records.
 5. Provide training and instruction to Owner staff including any maintenance recommendations and manuals.
 6. Remove temporary facilities and services. Remove surplus materials, rubbish, and similar elements. Perform cleaning.
- B. Within a reasonable time, County will inspect to determine status of completion.
- C. Should the County determine the Work is not substantially complete they will promptly notify Contractor in writing, giving reasons therefore. In this case, the Contractor shall remedy any deficiencies, and send a second written notice of Substantial Completion.
- D. When Owner and Engineer determine Work is substantially complete, they will prepare a Certificate of Substantial Completion to document their findings.

1.4 FINAL ACCEPTANCE

- A. Prior to requesting final inspection for certification of final acceptance and final payment, complete the following:
 1. Submission of updated final statement, including accounting for final additional changes to the Contract Sum. Show additional Contract Sum, additions and deductions, previous Change Orders, Total Adjusted Contract Sum, previous payments, and Contract Sum due for final payment.
 2. Proof of the Completion of Incomplete Work.
 3. Assurances that unsettled claims will be settled.
 4. Submission of consent of surety.
 5. Submission of evidence of final, continuing insurance coverage complying with insurance

requirements.

6. Transmit final Project Record Documents to the Owner.
 7. Prove that taxes, fees, and similar obligations have been paid.
 8. Certify Work has been inspected for compliance with Contract Documents.
 9. Certify work has been completed in accordance with Contract Documents, and deficiencies listed with Certificate of Substantial Completion have been corrected.
 10. Certify equipment and systems have been tested in presence of Owner's representative and are operational.
 11. Certify Work is complete and ready for final inspection.
- B. The COUNTY will inspect to verify status of completion.
- C. Should the COUNTY determine the Work is not final and complete, they will promptly notify Contractor in writing, giving reasons therefore. In this case, the Contractor shall remedy any deficiencies, and send a second written notice of Final Completion.
- D. When Owner and Engineer determine Work is final and complete, they will prepare a Certificate of Final Completion to document their findings.
- E. Re-inspection Fees: Should Engineer perform re-inspections due to failure of Work to comply with claims made by the Contractor, Owner will compensate Engineer for such additional services, and deduct the amount of such compensation from the final payment to the Contractor.
- F. Application for Final Payment: Submit Application for Final Payment in accordance with procedures and requirements in the Conditions of the Contract.

1.5 RECORD DOCUMENTS

- A. General: Contractor shall maintain a complete set of Record Documents at the site. Do not use Record Documents for construction purposes. Provide access to Record Documents for Engineer and Owner's reference. Generally, without limitation, Record Documents shall include the following:
1. Record Drawings: Maintain a clean set of blue or black line prints of Contract Drawings and shop drawings, marked to show actual installation. Give particular attention to concealed items.
 2. Record Project Manual: Maintain a clean Project Manual, including Addenda, Change Orders, Construction Change Directives, Supplemental Conditions, and any other modifications, marked to show changes in the actual Work performed. Give particular attention to substitutions, change orders, selection of options, and similar types of information.
 3. Record Submittals: Maintain one copy of each approved submittal including any Product Data or Samples submitted, and a final submittal log.

4. Record Field Test Reports: Maintain one copy of each Field Test Report or Inspections performed in chronological order.
- B. Maintenance of Documents and Samples: Store documents and samples in Contractor's field office or other designation location, apart from documents used for construction. Maintain documents in clean, dry, legible condition and in good order. Do not use Record Documents for construction purposes. Make record documents and samples available at all times for inspection by County.
 - C. Recording: label each document "PROJECT RECORD" in neat large printed letters. Record as-built information concurrently with construction progress. Do not conceal any Work until required information is recorded.
 - D. Record Drawings: Legibly mark Drawings to record actual construction, including the following:
 1. Depths of various elements of foundation in relation to the design datum.
 2. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements with tie distances.
 3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 4. Changes made by Field Order or by Change Order.
 5. Other Details or changes not in original Contract Documents.
 - E. Specifications and Addenda: Legibly mark each Section to record to following information: Manufacturer name, trade name, catalog number, optional choices, and supplier name for each product and item of equipment actually installed.
 - F. Submittal: At Final Completion, deliver Record Documents to the County. Accompany this submittal with transmittal letter indicating the date, Project title and number, Contractor's name and address, title and number of Record Document, and signature of Contractor or his authorized representative.

1.6 WARRANTIES AND BONDS

- A. The Work performed and the equipment and materials supplied by CONTRACTOR under this CONTRACT shall be in accordance with sound construction practice, all applicable codes and regulations and provisions of this CONTRACT and CONTRACTOR shall observe and exercise therein the standards of skill, care and diligence adhered to by recognized first class contractors performing work of a similar nature. All equipment and material furnished by CONTRACTOR shall conform to the specifications, drawings samples and other descriptions as set forth in this CONTRACT. All design and workmanship shall be in strict accordance with the CONTRACT and with sound construction practice. CONTRACTOR warrants the WORKS against defects in material and/or workmanship furnished or performed by CONTRACTOR for a minimum period of twelve (12) months, unless otherwise specified, from and after the completion date shown in the Final Acceptance Certificates, regardless of whether the same were furnished or performed by CONTRACTOR or by any of his Subcontractors or Vendors.

- B. Upon receipt of written notice from OWNER of any defect arising during any applicable warranty period due to defective material or workmanship the affected item or part of the WORK shall be reworked including all necessary repair or replacement by CONTRACTOR at a time and within a time acceptable to OWNER. CONTRACTOR shall perform such tests as OWNER may require in order to verify that such rework complies with the requirements of the CONTRACT. CONTRACTOR warrants such reworked item or part of the WORK against defects in material or workmanship for a period of twelve (12) months from and after the date of completion and acceptance thereof by OWNER but for no more than twelve (12) months from and after the effective completion date of the related part of the WORK. All costs incidental to such rework and reinspection and/or retesting shall be borne by CONTRACTOR and shall include without limitation the costs of the removal, replacement, reinstallation, and transport of any necessary equipment and/or material and/or tools and the like necessary to remedy such defective WORK and all and any other costs incurred by CONTRACTOR as a result of such rework and reinspection and/or retesting.
- C. General: Assemble warranties, bonds, and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- D. Number of Original Signed Copies Required: Two each.
- E. If the general contractor or any subcontractor cannot be contacted within a 24 hour period, or fails to respond within 48 hours after notification, the Town of Purcellville will be free to undertake any corrective action it deems to be in its best interest without, jeopardizing any warranty provision, and to back-charge the cost to the responsible party.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS

- A. General: Only cleaning materials recommended by the manufacturer of a surface to be cleaned shall be used and cleaning materials shall be limited to those specific surfaces. Where manufacturer does not provide a recommendation or the recommendations are unclear, consult with the County for approval prior to cleaning surfaces in question.

PART 3 - EXECUTION

3.1 CLEANING DURING CONSTRUCTION

- A. General: Perform or oversee cleaning operations and ensure that the entire premises is maintained clean and free from accumulations of waste materials, rubbish and other debris at reasonable intervals. At no time shall accumulations be allowed to become an unsightly or hazardous condition. General cleaning operations shall be "broom clean" on an as-needed basis. If Contractor fails to clean up, the Owner may do so and the cost thereof shall be charged to the Contractor as provided in the GENERAL CONDITIONS, except with only 48-hours written notice.
- B. All material accumulated as waste materials, rubbish, and debris shall be placed in sufficiently

sized containers provided by the Contractor. All such material shall become the property of the Contractor and shall be removed from the Job Site and legally disposed of by the Contractor.

- C. Handling of Waste Materials: Handle waste materials in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights without protective barricades, warning signs or devices, and sentries posted at strategic locations such as to protect workmen and other persons.
- D. Schedule: Schedule cleaning operations so that dust and other contaminants resulting from the cleaning process will not damage work.

END OF SECTION 01700

SECTION 02050 - DEMOLITION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **WORK INCLUDED:** Demolition and removal in the areas designated in the Contract Documents as shown on the plans and specified herein, which shall include but not be limited to, the following:
 - 1. Saw cutting and removal of asphalt pavement, concrete, curb, curb and gutter, and appurtenances.
 - 2. Removal of other miscellaneous items in conflict with the proposed improvements.
 - 3. Removal or relocation of fences.
 - 4. Safety.
 - 5. Protection of items to remain.
- B. **RELATED SECTIONS:** Additional Sections of the Documents which are referenced in this Section include:
 - 1. None

1.2 REFERENCES

- A. **GENERAL:** The work shall comply with the most recent standards or tentative standards as published at the date of the contract and as listed in this specification.

1.3 SAFETY REQUIREMENTS

- A. **GENERAL:** Shall be in with local ordinance and governing codes, shall be as called for in the Safety Requirements for Demolition by the American National Standards Institute, Document A10.6, latest edition, hereinafter called ANSI.

1.4 SUBMITTALS

- A. **GENERAL:** Shall be made to furnish the County with information to indicate that the Contractor has planned the work of this Section in sufficient detail for the Contractor to ensure that he can accomplish to work in a safe and prudent manner. The responsibility for planning and effective implementation, or the converse, of the work and safety to persons and property are the total responsibility of the Contractor, and this responsibility shall not transfer to the Owner, Engineer, and governing authorities. The Engineer's review shall not operate to imply the agreement of the Owner, Engineer, and governing authorities to the Contractor's planning as being appropriate or

reasonable. Submittal shall include demolition procedures and operational sequence and should consider permits and notices authorizing demolition, certificates of severance of utility services, method of traffic maintenance, permit for transport and disposal of debris, location of disposal area, and related work.

1.5 PROJECT CONDITIONS

- A. PROTECTION: Shall be in accordance with ANSI and governing codes.

1.6 CLASSIFICATION OF EXCAVATION: All excavation is unclassified except as noted.

- 1.7 REPORT OF UTILITY DAMAGE: The Contractor shall report the damage of all utilities within the street right-of-way to the governing authority immediately after their occurrence to enable the governing authority the location of all damaged utilities on private property, time of their occurrence, and the name of the Contractor to make the repair. The Contractor shall be financially responsible for damage to utilities by fault of the Contractor.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

- 3.1 SHALL BE IN ACCORDANCE with the requirements of ANSI.

3.2 INSPECTION

- A. Verify that all equipment and other items required for reinstallation have been removed and are properly stored.

3.3 PREPARATION

- A. UTILITIES: Arrange for, be responsible for, and verify the termination of all utility services and the removal of meters and capping of lines. Disconnections and interruptions of all utilities shall be coordinated with the trades and governing authorities involved by the General Contractor as a part of his coordinating responsibility.
1. Where underground utilities are located under paved areas to remain, remove and patch the pavement to match that existing and install a backfill compacted in accordance to standards and specifications.
 2. Any interruptions and shutdowns to the Owner's existing utilities shall be scheduled and coordinated with the Owner, trades, and governing authorities involved with approval by

the Owner in writing to all parties involved well in advance of the scheduled date for such interruptions and shutdowns. The Owner and all parties involved shall be notified no later than 48 hours prior to any planned interruptions and shutdowns.

- B. SALVAGE: All salvage, unless specified otherwise, shall become the property of the Contractor who shall remove it from the property.

3.4 DEMOLITION

- A. Before any work is begun, coordinate with the drawing and the trades which would normally install the work involved.
- B. SEQUENCE OF WORK: Sequence and/or phases of the work shall be as called for in:
 - 1. Contractor's submittal
- C. ENCOUNTERED BUT UNFORESEEN UTILITIES: All utilities which are encountered in conflict but which are not indicated shall not be disturbed. All work in that area shall cease and the Owner shall be notified for his rendering of a decision. Work in that area shall not resume until a decision has been reached by the County concerning the utility.
- D. NOISE: Shall be held to the minimum to avoid disturbance to the occupants.
- E. SPRINKLERING: All debris shall be sprinkled regularly to keep down dust. Do not use water to the extent to cause flooding, contaminated runoff, or icing.
- F. DEBRIS: Shall be removed from the property as it accumulates. All demolished material shall be removed from the property before new construction begins.
- G. REMOVING AND CAPPING OF UTILITIES: The utilities to be removed shall be removed complete down to the point of capping off as indicated and as specified in that Section which would normally install the utility. It is required that all work concerning utilities be performed by persons skilled in the trade of that particular utility involved, but under this Section. Contractor shall coordinate with public and private utility owners.
- H. REMOVAL OF EQUIPMENT AND FIXTURES: Shall be as indicated and herein before called for under SALVAGE.
- I. REMOVAL OF PAVING: See drawings for the type or types of work involved and the extent of each. This work shall be completely removed down to bare earth. Where only portions are involved, the cut lines shall be clean and sharp. Shall include but shall not be limited to:
 - 1. Paved roadwork, curb & gutter, sidewalks, track and tennis courts and appurtenances.
- J. REMOVAL OF MISCELLANEOUS ITEMS: This work shall be complete in all respects and made ready for backfilling.

3.5 DISPOSAL

- A. REMOVE ALL DEMOLITION DEBRIS from the property and transport it to disposal area approved by the governing authorities to receive this type of debris. During and after disposal, perform all disposal site maintenance, grading, dressing, etc., as required by the governing authorities having jurisdiction over the disposal are and disposal operations.
- B. DO NOT STORE DEMOLITION ITEMS on the property.

3.6 ALL HOLES CREATED by the removal of underground storage tanks; piping, foundations, drainage structures, etc. shall be backfilled with select fill and compacted to the lines and levels of the adjacent ground elevation. All backfill shall be compacted to 95% maximum density as determined by ASTM D 1557.

3.7 CLEANUP: Upon completion, the property shall be left clean of all demolition debris.

END OF SECTION 02050

SECTION 02200 - SITE PREPARATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **WORK INCLUDED:** Preparation of site in the areas designated in the Contract Documents as shown on the plans and specified herein, which shall include but not be limited to, the following:
1. Clearing and grubbing including removal of trees and other vegetation not to remain.
 2. Topsoil stripping and disposal of spoil material.
 3. Protection of trees and other vegetation to remain.
 4. Relocation of signs and other appurtenances.
 5. **RELATED SECTIONS:** Additional Sections of the Documents which are referenced in this Section include: None

- 1.2 **QUALITY:** Shall mean the meticulous attention to the detail of workmanship necessary for site preparation as specified herein.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 CLEARING AND GRUBBING:

- A. **THIS WORK INCLUDES** clearing, grubbing, removing and disposing of all vegetation, debris, and obstructions within the construction limits or right-of way except such objects as are designated to remain, or are to be otherwise removed in accordance with the Drawings or other Sections of these Specifications.
- B. **REMOVE COMPLETELY** all grass, stumps, roots, buried organic matter, loose stones and rubbish from the construction area and areas where a change in grade is indicated.
1. Also remove trees and shrubs within the limits of disturbance (L.O.D.) as shown in the plans.
 2. Perform all clearing before other construction work in the same general area is started. This consists of clearing and removal from the site all trees, downed timber, logs, snags,

brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris and rubbish of any nature, natural obstructions or such material which in the opinion of the Owner is unsuitable for fill material.

3. Grubbing: Grub and remove from the site all stumps, roots, matter roots, buried logs, brush, grass, and other unsatisfactory materials.
 - a. Completely remove stumps, roots, and other debris protruding through ground surface to a depth of not less than 18 inches.
 - b. Use only hand methods for grubbing inside drip line of trees indicated to remain.
 - c. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.

4. Selective Clearing and Grubbing:
 - a. Prior to beginning of work, the Contractor shall roughly stake the limits of all selective clearing and grubbing areas for review by the Owner, and Government Agencies having jurisdiction.
 - b. Remove fallen limbs, logs, dead brush, and debris.
 - c. Fell trees in a manner to prevent injury to adjacent facilities to remain.
 - d. Fell trees to center of an open area to prevent damage to trees and shrubs to remain. If felling a tree would endanger any tree or shrubs to remain, the tree shall be "topped" with sections to be lowered by a rope or other approved methods.
 - e. Remove and dispose of stumps, root system, and debris to a depth of not less than 18 inches.
 - f. Grubbing within drip line of trees and within tree barricade shall be done by hand removal to a depth of 1" below finished grades.

C. SALVAGE: All salvage, unless specified otherwise, shall become the property of the Contractor who shall remove it from the property.

D. DISPOSAL OF WASTE MATERIALS:

1. Burning on Owner's property will not be allowed.
2. Remove waste materials and debris from site in a manner to prevent spillage.
3. Remove waste materials generated by clearing operations from Owner's property and dispose of in a legal manner off-site.
4. Pavements and areas adjacent to the project site shall remain free of mud, dirt and debris at all times.

3.2 TOPSOIL STRIPPING:

- A. Strip topsoil to a minimum of four (4) inches.
- B. Strip topsoil in a manner to prevent intermingling with the underlying subsoil.
- C. Where existing trees are indicated to remain, leave existing topsoil in place within drip lines.

- D. Temporary stockpile topsoil in storage piles as indicated in plans or as directed by the Owner. Cover storage piles as directed by the Owner.
- E. Do not stockpile topsoil within tree protection area or drip lines.
- F. Dispose of unsuitable or excess topsoil in a legal manner off-site.

3.3 PROTECTION FOR TREES AND SHRUBS:

- A. CONTRACTORS are hereby reminded and cautioned that care shall be exercised to protect trees and shrubs which are to remain during the progress of the Project. Suitable barriers as shown in the plans shall be provided at the drip line of all trees and shrubs that are to remain and which are in the construction area and material handling area. Locations are to be approved by the Owner prior to beginning construction. Construction equipment and materials shall not be allowed in tree protection areas. All damage to such trees and shrubs shall be repaired; broken limbs properly and neatly pruned and all trunk damage neatly dressed. Any trees and shrubs which are excessively damaged shall be replaced in like kind, size, and species by the Contractor at no additional cost to the OWNER. All repair work shall be performed by a recognized and approved nursery.
- B. ALL GRADING AROUND REMAINING TREES AND SHRUBS shall be such that the root system shall not be disturbed. Earth shall not be temporarily or permanently piled within the drip line of trees or around shrubs, nor shall earth be graded to the trees and shrubs above the natural root depth for that particular species.
- C. ESTABLISHED TREES AND SHRUBS which are in the way of new and/or renovation construction and which are in the material handling areas shall be removed and stored for future replanting. The services of a recognized and approved nursery shall be employed to remove the trees and shrubs and prepare them for storage. Removed trees and shrubs shall be properly balled and burlapped in accordance with their size. During that time of storage, they shall be properly watered and cared for in accordance with the instructions from the nursery. After the construction work is completed, the stored trees and shrubs shall be replanted and those trees and shrubs not replanted shall be disposed of as directed by the Owner.
- D. UTILITIES: All utilities which are encountered shall not be disturbed, except as required by the Contract Documents.
- E. FINAL CLEAN UP: All trenches, ditches, and holes resulting from the work of this Section shall be filled with clean earth and compacted to the level of the surrounding elevations. Upon completion, the site shall be left clean with all unusable material removed.

3.4 RELOCATION OF SIGNS AND OTHER APPURTENANCES

- A. Items include the removal, safe storage and replacement of structures as noted on the plans for this project. Types of structures include, but are not limited to: guardrail, traffic signs, other signs, mail boxes, and utility appurtenances.
- B. All materials to be relocated shall be stored in a safe place and reused and relocated to locations specified by the County or as indicated on the plans.

END OF SECTION 02200

SECTION 02300 - EARTHWORK

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **WORK INCLUDED:** Excavate and grade in the areas designated in the Contract Documents as shown on the plans and specified herein, which shall include but not be limited to, the following:
1. Excavation, filling, backfilling, and grading to establish subgrades for walks, pavements, and grassed areas.
 2. Excavation, filling and backfilling and compaction for installation of drainage structures, pipes, utilities and subgrades.
 3. Dewatering or addition of water as required.
 4. Placing of topsoil and finish grading.
- B. **RELATED SECTIONS:** Additional Sections of the Documents which are referenced in this Section include:
1. Section 01300- Submittal Procedures
 2. Section 02921 – Landscaping (Lawns and Seeding)

1.2 REFERENCES

- A. All references to VDOT Specifications are to establish the quality of products and workmanship required, and references therein to “Method of Measurement” and “Basis of Payment” shall be deleted. These references are in regard to Section 303 of the “Virginia Department of Transportation Road and Bridge Specifications”, January 2007 edition.
- B. **GENERAL:** The work shall comply with the most recent standards or tentative standards as published at the date of the contract and as listed in this specification.
- C. **AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):**
1. D448: Standard classification for sizes of aggregate for road and bridge construction.
 2. D 698: Test method for laboratory compaction characteristics of soil using standard effort (12,400 ft-lbf/ft).
 3. D 1556: Standard test method for density and unit weight of soil in place by the sand-cone method.
 4. D 1557: Standard test methods for laboratory compaction characteristics of soil using modified effort (56,000 ft-lbf/ft³) (2,700 kN-m/m³).

5. D 2216: Standard test method for laboratory determination of water (moisture) content of soil and rock by mass.
6. D 2487: Standard classification of soils for engineering purposes (unified soil classification system).
7. D 2922: Standard test method for density of soil and soil-aggregate in place by nuclear methods (shallow depth).
8. D 2937: Standard test methods for density of soil in place by drive-cylinder method.
9. D 3017: Standard test method for water content of soil and rock in place by nuclear methods (shallow depth).
10. D 4318: Standard test method for liquid limit, plastic limit, and plasticity index of soils.

1.3 DEFINITIONS

- A. CONTROLLED FILL: Controlled fill is fill required in all areas on which final grade is not placed on original excavated soil.
- B. UNCLASSIFIED EXCAVATION: For the purpose of payment, material shall not be classified regardless of the type of material encountered.
- C. SATISFACTORY MATERIALS: Materials classified by ASTM D 2487 as GW, GP, GM, GC, SW, SP, SM, SC, ML, and CL are satisfactory as fill for overlot grading and are satisfactory in-situ. Materials shall have a minimum compacted density of 95 pounds per cubic foot and a plasticity index in excess of 15.
- D. UNSATISFACTORY MATERIALS: Materials classified by ASTM D 2487 as OL, OH, MH, CH, and PT are unsatisfactory in-situ and as fill. Unsatisfactory materials also include those materials containing roots and other organic matter, trash, debris, frozen materials, and stones larger than 2 inches. Fill materials containing stones larger than 2 inches shall not be used in the uppermost two (2) feet.
- E. COHESIONLESS AND COHESIVE MATERIALS: Cohesive materials include materials classified in ASTM D2487 as GC, SC, ML, CL, MH, and CH. Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Materials classified as GM and SM will be identified as cohesionless only when the minus #40 fraction has a plasticity index of zero as classified by ASTM D 4318.
- F. GEOTECHNICAL ENGINEER: A representative of a geotechnical engineering firm or commercial geotechnical testing laboratory which will provide the required quality assurance testing.

1.4 SYSTEM DESCRIPTION

- A. SOIL BEARING CAPACITY: Soil underneath all footings and structures shall have a minimum bearing capacity of 2000 pounds per square foot.

1.5 SUBMITTALS

- A. GENERAL: Submittals shall be in accordance with Section 1300 – Submittal Procedures. Copies of all test results and field and office worksheets shall be furnished to the County within 72 hours after the tests are complete.
- B. TEST REPORTS: The testing agency shall submit following reports, in duplicate, directly to Engineer from the testing services, with copy to the Owner and Contractor.
 - 1. Test report on borrow material for soil classification.
 - 2. Field density reports and map of test locations.
 - 3. One optimum moisture-maximum density curve for each type of soil used for controlled fill.
 - 4. Other reports of any testing hereinafter specified deemed necessary by Geotechnical Engineer or requested by the Owner.
 - 5. A test location plan shall be included with each submittal.

1.6 QUALITY ASSURANCE

- A. INCLEMENT WEATHER: When fill operations are ceased due to weather (rain, freezing, snow, etc.), construction shall not be resumed until the Geotechnical Engineer has verified soil strength has not been adversely affected. If soil strength has been decreased, the affected portion of fill shall be undercut, rescarified, moistened, or dried as required and recompacted to the specified density.
- B. INSPECTION: The Contractor shall coordinate the work with the Owner's Project Representative by notifying the Inspector of scheduled work in advance. The Contractor shall coordinate work with other trades whose work will be affected on the site.

1.7 PROJECT CONDITIONS

- A. TOPOGRAPHIC SURVEY: Topographic survey information is shown on the plans.
- B. EXISTING UTILITIES: Contractor shall be responsible for locating existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.
 - 1. Should uncharted, incorrectly charted, unmarked in field, or incorrectly marked in the field, piping or other utilities be encountered during excavation, Contractor shall consult utility Owner immediately for directions. Contractor shall cooperate with Owner and utility companies in keeping respective services and facilities in operation, and shall repair or arrange for repair, damaged utilities to satisfaction of utility owner.

2. Contractor shall demolish and completely remove existing underground utilities as indicated on the plans and shall coordinate with utility companies for shut-off of services if lines are active.
- C. **BLASTING:** Blasting and explosions will not be allowed for trench or manhole excavation when encountering rock.
- D. **PROTECTION OF PERSONS AND PROPERTY:** Barricade open excavations occurring as part of this work and post with warning lights or measures.
1. The Contractor shall operate warning lights or measures as recommended by authorities having jurisdiction.
 2. The Contractor shall protect structures, utilities, sidewalks, pavements, trees and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.
 3. The Contractor shall protect, maintain and restore benchmarks, monuments, and other reference points affected by this work. If benchmarks, monuments or other permanent reference points are displaced or destroyed, points shall be reestablished and markers reset under supervision of a licensed surveyor.

PART 2 - PRODUCTS:

2.1 MATERIALS

- A. **MATERIALS:** All fill materials shall be free from mud, refuse, construction debris, organic material, rock or gravel greater than 8 inches in any dimension, frozen or otherwise unsuitable material. Materials for fills shall be secured from excavation and after rejection of any unsuitable materials. Materials from other sources may be used upon approval by the Geotechnical Engineer.
- B. **BORROW:** Material for use in replacing undercut areas or in construction of embankments shall be approved by the Geotechnical Engineer and obtained from approved sources.
- C. **ROCK:** Rock shall be removed to a minimum depth of 8 inches below the subgrade elevation. The excavated area shall be brought up to subgrade with approved material placed and compacted as described herein. Other applicable specifications are listed in VDOT Section 303 concerning undercutting rock.
- D. **UNSUITABLE MATERIALS:** Areas that exhibit excessive pumping or that do not meet density requirements due to unsuitable material as determined by Geotechnical Engineer shall be undercut and replaced with approved material in accordance with Part 3, Execution.

PART 3 - EXECUTION:

3.1 TOPSOIL

- A. CONSERVATION OF TOPSOIL: Topsoil shall be removed as required without contamination with subsoil and stockpiled convenient to areas for later application or at locations specified.
- B. PLACING TOPSOIL: On areas to receive topsoil, the compacted subgrade shall be scarified to a 2-inch depth for bonding of topsoil with subsoil. Topsoil then shall be spread evenly and graded to the elevations and slopes shown. Topsoil shall not be spread when frozen or excessively wet or dry. All areas disturbed by work in this project shall receive a minimum of 2 inches of loose depth topsoil and should be seeded in accordance with Section 02920 – Landscaping (Lawns and Seeding).

3.2 EXCAVATION

- A. EXCAVATION: Excavation shall be unclassified. After topsoil removal has been completed, excavation of every description, regardless of material encountered, within the grading limits of the project shall be performed to the lines and grades indicated. Satisfactory excavation material shall be transported to and placed in fill areas within the limits of the work. All unsuitable material including any soil that is disturbed by the Contractor's operations and surplus material shall be disposed of at locations off site secured by Contractor. Contractor shall be responsible for providing approved erosion and sediment control plans for all off-site borrow or waste areas. Excavations carried below the depths indicated, shall, except as otherwise specified, be refilled to the proper grade with satisfactory material as directed. All additional work of this nature shall be at the Contractor's expense. Excavation and filling shall be performed in a manner and sequence that will provide drainage at all times. Excavations shall be kept free from water while construction therein is in progress. If the Contractor fails to provide adequate drainage and any material becomes soft or otherwise unsuitable as a result, such material shall be removed and replaced with satisfactory on-site material or borrow material from approved sources, or shall be dried and recompacted as directed by the Geotechnical Engineer at no additional cost to the Owner. Fill areas and slopes may be adjusted to balance earthwork quantities as approved by the Owner's Project Representative or Engineer. Material required for fills in excess of that produced by excavation within the grading limit shall be obtained from borrows areas at the Contractor's expense.
- B. DITCHES, GUTTERS, AND CHANNEL CHANGES: Ditches, gutters, and channel changes shall be cut accurately to the cross sections and grades indicated. All roots, stumps, rock and foreign matter in the sides and bottom of ditches, gutters, and channel changes shall be trimmed and dressed or removed to conform to the slope, grade, and shape of the section indicated. Excessive ditch and gutter excavation shall be backfilled to grade either with compacted to specified densities material or with suitable stone or cobble to form an adequate gutter paving as directed. All ditches and gutters excavated under this section shall be maintained until final acceptance of the work. Satisfactory material excavated from ditches and channel changes shall be placed in fill areas. Unsuitable and excess material shall be disposed of in offsite waste areas secured by the Contractor.

C. UNAUTHORIZED EXCAVATION:

1. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimension without specific instruction from the Owner's Project Representative or the Geotechnical Engineer.
2. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations, unless otherwise directed by the Geotechnical Engineer.

D. STABILITY OF EXCAVATIONS: Maintain sides and slopes of excavations in a manner such that the excavation provides safety of personnel, protection of work, and compliance with requirements of governmental agencies having jurisdiction.

3.3 FILL

A. PREPARATION OF GROUND SURFACE FOR FILL: All vegetation such as roots, brush, heavy sods, heavy growth of grass, and all decayed vegetative matter, rubbish, and other unsatisfactory material within the area upon which fill is to be placed, shall be stripped, cleared, grubbed, or otherwise removed before the fill is started. In no case will unsatisfactory material remain in or under the fill area. The areas shall then be scarified to depth of at least 6 inches, moistened or aerated as required and compacted with vibratory rollers, pneumatic rollers, sheepsfoot rollers other mechanical means acceptable to the Geotechnical Engineer. Sloped ground surfaces steeper than one vertical to four horizontals on which fill is to be placed shall be plowed, stepped, benched, or broken up, as directed, in such manner that the fill material will bond with the existing surface. Prepared surfaces on which compacted fill is to be placed shall be wetted or dried as may be required to obtain the specified moisture content and density.

B. FILLS AND EMBANKMENTS: Fills and embankments shall be constructed at the locations and to lines and grades indicated. The completed fill shall conform to the grading plan indicated. Approved material obtained during excavation may be used in forming required fill. Fill shall be satisfactory material and shall be free from roots, other organic material. No frozen material will be permitted in the fill. Stones having a dimension greater than 2 inches shall not be permitted in the upper 2 feet of fill or horizontal embankment. The material shall be placed in successive horizontal layers of 8 inches in loose depth for the full width of the cross section and shall be compacted as specified. Each layer shall be compacted before the overlaying lift is placed. Moisture content of the fill or backfill material shall be adjusted by wetting or aerating as necessary to provide the moisture content specified.

3.4 CUT COMPACTION: The cut subgrade material shall be compacted to 95 percent of its maximum dry density as determined by ASTM D 698. The moisture content should be within +/-5 percentage points of the material's optimum moisture content as determined by ASTM D 2216.

3.5 FILL COMPACTION: Each layer of the fill shall be compacted to at least 95 percent of the maximum theoretical density as determined by ASTM D 698. Moisture content shall be within +/-5 percent of optimum as determined by ASTM D 2216.

A. GENERAL: All areas covered by the project, including excavated and filled sections and adjacent transition areas, shall be uniformly smooth-graded. The finished surface shall be

reasonably smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from blade grade operations, except as otherwise specified. Ditches and gutters shall be finished to permit adequate drainage.

- B. UNSATISFACTORY MATERIAL: Soft or otherwise unsatisfactory material shall be replaced with satisfactory excavated material or other approved materials.
- C. FINISHED ELEVATIONS: Low areas resulting from removal of unsuitable material or from excavation of rock shall be brought up to required grade with satisfactory materials, and the entire area shall be shaped to line, grade, and cross section and shall be compacted as specified. The surface of embankments or excavated areas for road construction or other areas on which a base course or pavement is to be placed shall vary not more than 0.10 feet from the established grade and approved cross section. Surfaces other than those to be paved shall be finished not more than 0.20 feet above or below the established grade or approved cross section.

3.6 PROTECTION

- A. SITE PRESERVATION: The Contractor shall protect newly graded areas from traffic and from erosion, and any settlement or washing away that may occur from any cause, prior to acceptance, shall be repaired and grades reestablished to the required elevations and slopes. All work shall be conducted in accordance with Section 02370- Erosion and Sediment Control.
- B. SEEDING: All areas disturbed by work in this project shall be seeded in accordance with Section 02920 – Landscaping (Lawns and Seeding).

3.7 FIELD QUALITY CONTROL

- A. TESTING: Testing shall be performed by an approved commercial testing laboratory qualified to perform such tests as directed by the County. Tests conforming to ASTM D 698, shall be made by the Geotechnical Engineer or his representative on each soil type found in the areas prepared to receive fill and in the soil to be used for fill. Field Density tests shall be made by the Geotechnical Engineer or his representative in accordance with ASTM D 1556 or ASTM D 2922 and ASTM D 3017 on the areas prepared to receive fill and on each layer of compacted fill. Testing shall be the responsibility of the Owner. When ASTM D 2922 is used, the calibration curves shall be checked and adjusted if necessary by the procedure described as ASTM D 2922, paragraph “Adjusting Calibration Curve”. ASTM D 2922 results in a wet unit weight of soil and when using this method, ASTM D 3017 shall be used to determine the moisture gauges along with density calibration checks as described in ASTM D 3017. ASTM D 2937 shall be used only for soft, fine-grained, cohesive soils. At least one test shall be performed on the compacted backfill. More tests shall be performed if in the judgment of the Owner or Engineer the compactive effort of the Contractor will not result in the specified density.
- B. TESTING FREQUENCY: The following submittals are required.
 - 1. A minimum of one moisture-density test shall be performed for each classification of fill material, and existing subgrade material.
 - 2. One Atterberg limits test and one gradation analysis is required for every six filed density tests.

3. Field density tests shall be performed as follows: a minimum of one test per lift per 500 square yards or fraction thereof is required for fill material and a minimum of one test per lift per 1000 square yards or fraction thereof is required for subgrades prior to filling.
- C. VISUAL INSPECTION: Upon completion of all excavation of unsuitable material, the Geotechnical Engineer shall visually inspect the subgrade and excavations. The visual inspection shall be conducted to assure that the data obtained from the test borings and used as a basis of design was representative of the site conditions. Upon completion of the inspection, the Geotechnical engineer shall provide written notification to the Owner and Engineer.
 - D. PROOF ROLLING: Following visual inspection, Contractor shall demonstrate to the Geotechnical Engineer that the exposed subgrade does not contain previously unidentified soft areas by proof rolling. Proof rolling shall consist of rolling the entire surface with approved mechanical equipment while observing the subgrade for displacement or deformation.

END OF SECTION 02300

SECTION 02370 - EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **WORK INCLUDED:** Installation of erosion control measures in the areas designated in the Contract Documents as shown on the plans and specified herein.
- B. **RELATED SECTIONS:** Additional Sections of the Documents which are referenced in this Section include:
 - 1. Section 01300- Submittal Procedures
 - 2. Section 02920- Lawns and Grasses

1.2 REFERENCES

- A. The work shall comply with the most recent standards within the Virginia DEQ Stormwater Handbook Version 1.1 and the Construction General Permit (VAR10).
- B. The work shall comply with the project Storm Water Pollution Prevention Plan (SWPPP) and VESMP/WPO permit approval as administered by Albemarle County.
- C. **ALL REFERENCED MANUFACTURERS** requirements and specifications and nationally recognized and accepted standards and specifications shall be the latest edition unless specified otherwise and shall be used as they are applicable for products and craftsmanship incorporated in the Contract Drawings and this Section only. The references to these standards and specifications do not imply acceptance of any and all products described in the standards and specifications.
- D. **THE MANUFACTURER SHALL REVIEW** the use, detail and method of installation of products as indicated in the Contract Documents and shall disclose to the Owner any and all deviations therein from the Manufacturer's recommended use and method of installation and shall also disclose to the Owner and Contractor's acceptance or rejection of the deviation, or his recommendation for an alternative use and method of installation of the product, still guaranteeing to achieve the intended purpose and result. Such disclosures shall be made within the time stipulated for submission of shop drawings.
- E. **PRODUCT DATA:** Furnish samples for Owner's review of all products, literature and data on products proposed for use, including that specified, in sufficient detail to prove the products are in accordance with the requirements of this Section.
- F. **QUALITY:** Shall mean the meticulous attention to the detail of installation and workmanship necessary to the assemblage of products in the highest grade of excellence by skilled craftsmen of the trade.

1.3 EROSION AND SEDIMENT CONTROL PERMIT:

- A. Prior to commencement of work, obtain a copy of the approved VESMP/WPO from Albemarle County.
- B. Apply for the Land Disturbance Permit from Albemarle County.
- C. Post an Erosion and Sediment Control bond with Albemarle County (if required).
- D. Schedule a pre-construction meeting on-site with the Owner, Owner's representative and Albemarle County. This meeting must be held prior to any construction activities.

1.4 DURING CONSTRUCTION:

- A. Contractor shall keep a copy of the Stormwater Pollution Prevention Plan (SWPPP) on the job site at all times along with the approved plans.
- B. Contractor shall amend the SWPPP during construction to account for changes in construction and other project documentation.
- C. The Responsible Land Disturber (RLD) shall perform routine inspections of the erosion and sediment control measurers. Inspection reports shall be including in the SWPPP for inspection by the County.
- D. Following final acceptance of the project by the Owner and approval by the County, Contractor shall file a Notice of Termination (NOT – VAR10).

PART 2 - PRODUCTS

2.1 PRODUCTS SPECIFIED are for establishing the type, design, and quality required. Products of equal type, design, and quality produced by other manufacturers will be considered provided the request for substitution is submitted in accordance with these specifications.

2.2 FILTER CLOTH shall be a synthetic, permeable barrier sheet that is resistant to soil chemicals and mildew, stable under freeze-thaw cycles, will not shrink or expand under wet conditions, and will not unravel or become clogged during use. The filter cloth shall have a minimum tensile strength of 120 pounds. Allowable open area shall not exceed 36% and shall not be less than 4%. Percent open area is defined as the summation of the open areas divided by the total area of the filter cloth. Equivalent opening size (EOS) shall not be finer than the U.S. Standard Sieve No. 70. EOS is defined as the number of the U.S. Standard sieve having openings closest in size to the filter cloth openings.

- A. Filter cloth shall contain stabilizers and/or inhibitors added to the base material to make it resistant to deterioration due to ultraviolet light and heat exposure.

2.3 SOIL STABILIZATION FABRIC:

- A. SHALL BE A YARN OR JUTE FABRIC in a knitted or woven construction with a mesh opening of 1/4" minimum and 1 – 1/2" maximum. The fabric shall be biodegradable and shall not be harmful to the environment. The fabric shall not begin its deterioration for a period of at least 60 days after its installation to ensure that the seeding and/or planting has established a firm root system.

2.4 BLANKETS AND MATTING

- A. Matting shall comply with VDOT EC-2 standards and shall be pegged in place over the top of the seeded and/or planted areas after seeding is complete and before planting is complete. Stakes or pegs shall be placed in accordance with manufacturer's recommendations on a grid not greater than 5' square. Edges of adjacent fabric shall overlap each other at least 6" side-to-side and at least 12" end-to-end. Top edge of fabric shall be buried in a 6" deep trench to prevent fabric displacement.

PART 3 - EXECUTION

3.1 SHIPPING

- A. All products shall be properly prepared for and shipped in such a manner so as to prevent damage and contamination. Small items such as pegs and stakes shall be bagged, boxed, or tied in bundles.

3.2 STORAGE

- A. Products shall be stored in a weatherproof building or enclosure. Sacks of grass seed, fertilizer, and lime shall not be allowed to become wet or caked and shall not be allowed to come into contact with wet surfaces. Store on pallets or the like above floors. Sacked products showing water damage shall not be accepted or used.

3.3 TEMPORARY DITCHES

- A. SHALL BE GRADED to the profiles and sections indicated and in the location indicated. Slope all swales and ditches to drain to the basins and/or filters as indicated. Stabilize all swales and ditches prior to their use.

3.4 TEMPORARY GRASSING

- A. For disturbed areas that will remain dormant during construction, temporary grassing is required.
- B. Prepare the seed bed by plowing, discing, and raking the area to loosen the soil for proper root penetration.

- C. Sow grass seed at the rate indicated and of the type indicated in the VDEQ Stormwater Handbook.
- D. SPREAD 10-20-10 COMMERCIAL GRADE FERTILIZER over the seed bed area at the rate of 500 pounds per acre. Lime is required for permanent grassing only.
- E. APPLY STRAW MULCH into the soil with a cultipacking device to prevent displacement of the mulch either by wind or by rain.

3.5 MAINTENANCE OF TEMPORARY EROSION CONTROL MEASURES

- A. Perform inspections and maintenance periodically and after all runoff producing events for temporary erosion and sediment control measures, including the removal of soil sediment and debris as it accumulates in and around the sediment collection structures.
- B. Make all necessary repairs to erosion control measures to insure their proper operation and function throughout the duration of the Project.
- C. Stabilize disturbed areas as the work progresses.

3.6 REMOVAL OF TEMPORARY EROSION CONTROL MEASURES

- A. Prior to the final acceptance of the project, the Contractor shall review the growth of new lawns and grasses on the graded areas of the site and should appropriate growth be in evidence, the temporary erosion control measures shall then be removed and disposed of off the site and/or property on approval of the permanent stabilization by the County. All grassed areas disturbed as a result of this removal shall then be redressed prior to final completion.

END OF SECTION 02370

SECTION 02510 – HOT MIX ASPHALT PAVING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. WORK INCLUDED: Installation of hot-mix asphalt pavement and aggregate.
- B. RELATED SECTIONS: Additional Sections of the Documents which are referenced in this Section include:
 - 1. Section 01300- Submittal Procedures

1.2 REFERENCES

- A. Virginia Department of Transportation Road and Bridge Specifications, latest edition.

1.3 SYSTEM DESCRIPTION.

- A. Provide hot-mix asphalt pavement according to the materials, workmanship, and other applicable requirements of the standard specifications of the Virginia Department of Transportation. VDOT measurement and payment provisions do not apply to this Project.

1.4 SUBMITTALS

- A. Product Data: For each product specified. Include technical data and tested physical and performance properties from the suppliers.
- B. Job-Mix Designs: For each job mix and product proposed for the paving work.
- C. Material Certificates: Certificates signed by manufacturers certifying that each material complies with requirements.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has completed hot-mix asphalt paving similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
- B. Testing Agency Qualifications: Demonstrate to Owner's satisfaction, based on Government's evaluation of criteria conforming to ASTM D 3666, that the independent testing agency has the experience and capability to satisfactorily conduct the testing required without delaying the Work.
- C. Regulatory Requirements: Conform to applicable standards of authorities having jurisdiction for asphalt paving work on public property.

- D. Asphalt-Paving Publication: Comply with AI's "The Asphalt Handbook," except where more stringent requirements are indicated by the Virginia Department of Transportation Road and Bridge Specifications, latest edition."
- E. Pre-installation Conference: Conduct a conference at the project site to review methods and procedures related to asphalt paving including, but not limited to, the following:
 - 1. Review proposed sources of paving materials, including capabilities and location of plant that will manufacture and deliver hot-mix asphalt.
 - 2. Review conditions of substrate and preparatory work performed prior to paving.
 - 3. Review requirements for protecting paving work, including restriction of traffic during installation period and for the remainder of the construction period.
 - 4. Review and finalize the construction schedule for paving and related work. Verify availability of materials, paving Installer's personnel, qualifications, and equipment required to execute the Work without delays.
 - 5. Review inspection and testing requirements, governing regulations, and proposed installation procedures.
 - 6. Review forecasted weather conditions and procedures for coping with unfavorable conditions during the paving work.
 - 7. Contractor to provide meeting notes.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if substrate is wet or excessively damp or if the following conditions are not met:
 - 1. Prime and Tack Coats: Minimum surface temperature of 50 deg F (10 deg C).
 - 2. Asphalt Base Course: Minimum surface temperature of 40 deg F (4 deg C) and rising at time of placement.
 - 3. Asphalt Surface Course: Minimum surface temperature of 40 deg F (10 deg C) and rising at time of placement.
 - 4. Aggregate Base: Minimum surface temperature of 40 deg F (10 deg C) and rising at time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.

1. Coarse Aggregate: As per VDOT specifications.
2. Fine Aggregate: As per VDOT specifications

2.2 ASPHALT MATERIALS

- A. Asphalt Cement: As per VDOT specifications
- B. Prime Coat: As per VDOT specifications
- C. Tack Coat: As per VDOT specifications
- D. Fog Seal: As per VDOT specifications
- E. Water: Potable.

2.3 AUXILIARY MATERIALS.

- A. Herbicide: Commercial chemical for weed control, registered by Environmental Protection Agency (EPA). Provide granular, liquid, or wettable powder form.
- B. Sand: ASTM D 1073, Grade Nos. 2 or 3.
- C. Paving Geotextile: Nonwoven polypropylene, specifically designed for paving applications, resistant to chemical attack, rot, and mildew.

2.4 MIXES

- A. Hot-Mix Asphalt: As per VDOT specifications
- B. Base Course: As indicated.
- C. Surface Course: As indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subgrade is dry and in suitable condition to support paving and imposed loads.
- B. Proof-roll subbase using heavy, pneumatic-tired rollers to locate areas that are unstable or that require further compaction.
- C. Notify the County in writing of any unsatisfactory conditions. Do not begin paving installation until these conditions have been satisfactorily corrected.

3.2 COLD MILLING

- A. Clean existing paving surface of loose and deleterious material immediately before cold milling. Remove existing asphalt pavement, including hot-mix asphalt and, as necessary, unbound-aggregate base course, by cold milling to grades and cross sections indicated.
- B. Repair or replace curbs, manholes, and other construction damaged during cold milling.

3.3 PATCHING AND REPAIRS

- A. Patching: Saw cut perimeter of patch and excavate existing pavement section to sound base. Re-compact new subgrade. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically.
- B. Tack coat faces of excavation and allow to cure before paving.
- C. Fill excavation with dense-graded, hot-mix asphalt base mix and, while still hot, compact flush with adjacent surface.
- D. Partially fill excavation with dense-graded, hot-mix asphalt base mix and compact while still hot. Cover asphalt base course with compacted, hot-mix surface layer finished flush with adjacent surfaces.
- E. Leveling Course: Install and compact leveling course consisting of dense-graded, hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch (25 mm) in existing pavements. Install leveling wedges in compacted lifts not exceeding 3 inches (75 mm) thick.
- F. Tack Coat: Apply uniformly to existing surfaces of previously constructed asphalt or portland cement concrete paving and to surfaces abutting or projecting into new, hot-mix asphalt pavement.
- G. Apply at a uniform rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m) of surface.
- H. Allow tack coat to cure undisturbed before paving.
- I. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillage and clean affected surfaces.

3.4 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Sweep loose granular particles from surface of unbound-aggregate base course. Do not dislodge or disturb aggregate embedded in compacted surface of base course.
- C. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.
- D. Prime Coat: Apply uniformly over surface of compacted-aggregate base at a rate of 0.15 to 0.50

gal./sq. yd. (0.7 to 2.3 L/sq. m). Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure for 72 hours minimum.

- E. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use just enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
- F. Protect primed substrate from damage until ready to receive paving.

3.5 HOT-MIX ASPHALT PLACING

- A. Machine place hot-mix asphalt mix on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness, when compacted.
- B. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
- C. Spread mix at minimum temperature of 250 deg F (121 deg C).
- D. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes, unless otherwise indicated.
- E. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- F. Place paving in consecutive strips not less than 10 feet (3 m) wide, except where infill edge strips of a lesser width are required.
- G. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete asphalt base course for a section before placing asphalt surface course.
- H. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.6 JOINTS

- A. Construct joints to ensure continuous bond between adjoining paving sections. Construct joints free of depressions with same texture and smoothness as other sections of hot-mix asphalt course.
- B. Clean contact surfaces and apply tack coat.
- C. Offset longitudinal joints in successive courses a minimum of 6 inches (150 mm).
- D. Offset transverse joints in successive courses a minimum of 24 inches (600 mm).
- E. Construct transverse joints by bulkhead method or sawed vertical face method as described in AI's "The Asphalt Handbook."
- F. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.

- G. Compact asphalt at joints to a density within 2 percent of specified course density.

3.7 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Accomplish breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Repair surfaces by loosening displaced material, filling with hot-mix asphalt, and rerolling to required elevations.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling, while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
- D. Average Density: 96 percent of reference laboratory density according to ASTM D 1559, but not less than 94 percent nor greater than 100 percent.
- E. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- F. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while still hot, with back of rake or smooth iron. Compact thoroughly using tamper or other satisfactory method.
- G. Repairs: Remove paved areas that are defective or contaminated with foreign materials. Remove paving course over area affected and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- H. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- I. Erect temporary barricades as necessary to protect paving from traffic until mixture has cooled enough not to become marked.

3.8 INSTALLATION TOLERANCES

- A. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Base Course: Plus or minus 1/2 inch (13 mm).
 - 2. Surface Course: Plus 1/4 inch (6 mm), no minus.
- B. Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or

longitudinally to paved areas:

1. Base Course: 1/4 inch (6 mm).
 2. Surface Course: 1/8 inch (3 mm).
- C. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch (6 mm).

3.9 FIELD QUALITY CONTROL

- A. Testing Agency: The County shall engage a qualified independent testing agency to perform field inspections and tests and to prepare test reports. Testing agency will conduct and interpret tests and state in each report whether tested Work complies with or deviates from specified requirements.
- B. Additional testing, at Contractor's expense, will be performed to determine compliance of any corrected Work with specified requirements.
- C. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.
- D. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- E. In-Place Density: Samples of uncompacted paving mixtures and compacted pavement will be secured by testing agency according to ASTM D 979.
- F. Reference laboratory density will be determined by averaging results from 4 samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 1559, and compacted according to job-mix specifications.
- G. In-place density of compacted pavement will be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.
- H. One core sample will be taken for every 1000 sq. yd. (836 sq. m) or less of installed pavement, but in no case will fewer than 3 cores be taken.
- I. Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.
- J. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

END OF SECTION 02510

SECTION 02521 – CONCRETE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **WORK INCLUDED:** Provide cast-in-place concrete, including formwork and reinforcement and finishes, where shown on the Plans, as specified herein, and as needed for a complete and proper installation for curbs, curb and gutters, landings, ramps, steps and sidewalks.
- B. **RELATED SECTIONS:** Additional Sections of the Documents which are referenced in this Section include:
 - 1. Section 01300- Submittal Procedures

1.2 REFERENCES

- A. **GENERAL:** The work shall comply with the most recent standards or tentative standards as published at the date of the contract and as listed in this specification.
- B. Virginia Department of Transportation Road and Bridge Specifications, latest edition.
- C. Concrete steps shall conform to Section 504.03.2b per the Virginia Department of Transportation Road and Bridge Specifications, latest edition.
- D. Handrails shall conform to Section 504.03.2c per the Virginia Department of Transportation Road and Bridge Specifications, latest edition.
- E. **AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):**
 - 1. A 185: Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete
 - 2. A 615: Standard Specification for Deformed and Plain Billet-Steel Bars for concrete Reinforcement
 - 3. C 29: Standard Test Method for Bulk Density (“Unit Weight”) and Voids in Aggregate
 - 4. C 31/31M: Standard Practice for Making and Curing concrete Test Specimens in the Field.
 - 5. C 33: Specifications for Concrete Aggregates.
 - 6. C 30/39M: Standard Test Method for compressive Strength of Cylindrical Concrete Specimens
 - 7. C 94: Standard Specifications for Ready-Mixed Concrete
 - 8. C 143/143M: Standard Test Method for Slump of Hydraulic Cement Concrete
 - 9. C 150: Standard Specification for Portland Cement

10. C 172: Standard Practice for Sampling Freshly Mixed Concrete
11. C 173/173M: Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
12. C 231: Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
13. C 260: Standard Specification for Air-Entraining Admixtures for concrete
14. C 494: Standard Specification for Chemical Admixtures for Concrete
15. C 1064/1064M: Standard Test Method for Temperature of Freshly Mixed Portland Cement Concrete
16. D 448: Standard Classification for Sizes of Aggregate for Road and Bridge Construction
17. D 1751: Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)

F. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)/AMERICAN WATER WORKS ASSOCIATION (AWWA):

1. C 301: Specifications for Structural Concrete
2. C 303R: Guide to Cast-in-Place Architectural Concrete Practice
3. C 304.2R: Placing Concrete by Pumping Methods
4. C 306R: Cold Weather Concreting
5. C 315: Details and Detailing of Concrete Reinforcement
6. C 318: Building Code Requirements for Structural Concrete and Commentary
7. C 347R: Guide to Formwork for Concrete
8. C 350R: Environmental Engineering Concrete Structures

G. VIRGINIA DEPARTMENT OF TRANSPORTATION – ROAD AND BRIDGE SPECIFICATIONS (VDOT):

1. 217: Hydraulic Cement Concrete

H. CONCRETE REINFORCING STEEL INSTITUTE (CRSI):

1. Manual of Standard Practices

1.3 SUBMITTALS

- A. GENERAL: Shall be in accordance with Section 01300 – Submittal Procedures

B. MIX DESIGNS:

1. Within 30 calendar days after award of the Contract, and prior to proceeding with any concrete work, CONTRACTOR shall secure concrete mix designs from the concrete supplier and submit to the COUNTY for review and approval.
2. Distribute approved mix designs to testing laboratory, batch plant, job site, and governmental agencies having jurisdiction.

C. STEEL REINFORCEMENT SHOP DRAWINGS: Details of fabrication, bending, and placement shall be prepared in accordance with ACI 315. Include material, grade, bar schedule, bent bar diagrams, and supports for reinforcement. Include special reinforcement required for openings through concrete structures.

1.4 QUALITY ASSURANCE

A. CONTRACTOR RESPONSIBILITIES:

1. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. BATCH TICKETS: Batch tickets shall be provided for each truck of concrete delivered to the job site. Tickets shall include the following information:

1. Quantity of batch
2. Time the cement was injected into the mix
3. Batch number
4. Water withheld at the plant (if any)
5. Admixtures and quantities of admixtures injected at plant
6. Drivers name
7. Time of truck's departure from the plant

C. BATCH TICKET LOG: A log of all batch tickets shall be kept by the testing agency and provided to the COUNTY following each concrete pour. Results of field testing shall also be recorded on the Log including:

1. Time of truck's arrival at the job site
2. Time of discharge of contents at job site
3. Concrete temperature
4. Air content

5. Slump
 6. Type and quantity of all additives added at job site
- D. DELIVERY, STORAGE, AND HANDLING
- E. GENERAL: Material shall be delivered and stored so as to minimize the potential for damage to the material. The CONTRACTOR shall take special care to protect pipe from the elements as directed by the manufacturer.

PART 2 - PRODUCTS

2.1 FORMS

A. DESIGN AND CONSTRUCTION:

1. Design, erect, support, brace, and maintain formwork so it will safely support vertical and lateral loads which might be applied until such loads can be supported safely by the concrete structure.
2. Construct forms to the exact sizes, shapes, lines, and dimensions shown, and as required to obtain accurate alignment, location, grades, and level and plumb work in the finished structure.
3. All formwork shall complete with ACI 347R.

2.2 REINFORCEMENT

- A. GENERAL: Reinforcement materials and installation shall conform to the applicable sections of the latest version or revision of ACI 301, except as modified by the Supplemental Requirements listed below.
- B. STRENGTH: Reinforcement shall be of the size shown on the plans with all bars being billet steel conforming to ASTM A 615, Grade 60, deformed. Welded wire fabric gauge and mesh size shall be as shown on the plans conforming to ASTM A 185.
- C. SPACING: The clear distance between parallel bars shall not be less than the nominal diameter of the bars, 1-1/3 times the maximum size of the coarse aggregate, not 1 inch. All main reinforcement shall be spaced not less than 2 inches from any concrete surface unless authorized or indicated on the plans. Clearance between ground and rebar shall be a minimum of 3 inches. For stirrups, spacer rods and similar secondary reinforcement, this clearance may be reduced by the diameter of such rods.
- D. SPLICING: Where splicing of bars is necessary, the minimum length of the splice shall be 30 diameters of the largest bar, unless shown to be otherwise on plans.
- E. HOOKS AND BENDS: When a hook is indicated on the plans, it shall mean either a 180 degree turn plus an extension of at least 4 bar diameters, or a 90 degree turn plus an extension of at least 6 bar diameters.

F. QUALITY ASSURANCE: Complete with the following as minimums:

1. Bars: ASTM A 615, grade 60 unless otherwise shown on the plans using deformed bars for number 3 and larger.
2. Welded wire fabric: ASTM A 185.
3. Bending of rebar shall be in accordance with ACI 318.
4. Supports for reinforcement: Supports for reinforcing bars and welded wire fabric shall complete with CRSI recommendations, including bolsters, chairs and spacers. Wire bar supports shall be rust protected in accordance with CRSI Class 2. Under no circumstances will rebar or other metal pins driven into the ground to support reinforcing steel be allowed.
5. Fabricate reinforcement to the required shapes and dimensions, within fabrication tolerances stated in the CRSI "Manual of Standard Practices" and ACI 315.
6. Reinforcement: Do not use reinforcement having any of the following defects:
 - a. Bar lengths, depths, or bends exceeding the specified fabricating tolerances.
 - b. Bends or kinks not indicated on the plans or required for this work.
 - c. Bars with cross-section reduced due to excessive rust or other causes.

2.3 CONCRETE

- A. GENERAL: Concrete work shall conform to all requirements of ACI 301 and ACI 350R, except as modified by supplemental requirements below. The CONTRACTOR shall provide at the construction site all ACI specifications referenced herein.
- B. STRENGTH: Concrete shall have a minimum allowable compressive strength specified at 28 days (ACI 301, 3.2). Concrete shall reach a minimum of 80 percent of this design strength before weight supporting forms may be removed (ACI 301, 4.5.5). Earlier removal of non load bearing forms shall be permitted only if approved by the ENGINEER.
- C. ADMIXTURES: Admixtures may be used to enhance concrete handling, workability and strength characteristics if approved by the ENGINEER prior to use, and meet the requirements of ACI 301, 2.2. The ENGINEER shall be notified of any admixtures proposed for use at least two weeks prior to placement of concrete.
 1. Provide admixtures that contain not more than 0.1 percent chloride ions.
 - a. Use air-entraining admixtures per ASTM C 260 in exterior exposed concrete, providing not less than 4.5 percent not more than 7 percent entrained air for concrete exposed to freezing and thawing and from 2 percent to 4 percent for other concrete.
 - b. Use water-reducing, accelerating, and retarding admixtures per ASTM C494 that have been tested and accepted in mix designs in strict compliance with manufacturer's directions.
- D. WATERTIGHT CONCRETE: All concrete used in the construction of this project shall be considered watertight concrete with water-cement ratios and other parameters not exceeding those specified for watertight concrete (ACI 301, 3.4.2) unless indicated to be otherwise on the plans.

- E. FORMS: Shop plans for formwork shall be required (ACI 301).
- F. MATERIALS AND TESTING: CONTRACTOR shall comply with the following as minimums:
 - 1. Portland Cement: 4,000 psi ASTM C 150, Type I or II Low alkali cement shall be used where aggregates are alkali reactive.
 - 2. Aggregate, shall meet requirements of ASTM C 33 and be uniformly graded and clean. Aggregate shall be tested in accordance with ASTM C 29. Do not use aggregate known to cause excessive shrinkage.
 - 3. Aggregate, coarse: Crushed rock or washed gravel with minimum size between $\frac{3}{4}$ inch and 1-1/2 inch, and with a minimum size Number 4.
 - 4. Aggregate, fine: Natural washed sand of hard and durable particles varying from fine to particles passing a $\frac{3}{8}$ inch screen, or which at least 12 percent shall pass a 50 mesh screen.
 - 5. Provide concrete with compressive strengths shown on the plans. When such strengths are not shown on the plans, provide 3,000 psi.
 - 6. Slump Limits: Design mixes shall result in concrete slump at point of placement of not less than 2 inches and not more than 4 inches. If the approved mixed design includes the use of admixtures which affect slump, slump at point of placement shall comply with mix design.

2.4 OTHER MATERIALS

- A. INCIDENTALS: Provide other materials, not specifically described, but required for a complete and proper installation, as selected by the CONTRACTOR subject to the approval of the ENGINEER.
- B. WATERSTOPS: Waterstops shall be neoprene and of sufficient size to insure proper anchorage into adjacent pours.
- C. JOINT FILLER: Joint filler shall be pre-molded expansion joint filler complying with ASTM D 1751.
- D. PIPE SLEEVES: Pipe sleeves shall be cast iron or PVC in accordance with Section 02080 – Utility Pipe and Materials. Sleeves shall be two piece for assembly around existing pipes or sleeves may be cut and reassembled around existing pipes. Sleeve size shall be adequate to install sleeve seal.
- E. SLEEVE SEALS: Sleeve to pipe seals shall be synthetic rubber compression type seals similar to Link-Seal manufactured by Thunderline Corporation and shall also be in accordance with Section 02080- Utility Pipe and Materials.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONING

- A. **CONTRACTOR'S RESPONSIBILITY:** Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 SUBBASE

- A. **GENERAL:** A subbase of ASTM D 448 #57 stone shall be placed under all slabs as indicated on the plans.

3.3 REINFORCING:

- A. **INSTALLATION:** Comply with the following, as well as the specified standards, for details and methods of reinforcing placement and supports.
 1. Clean reinforcement and remove loose dust and mill scale, earth, and other materials which reduce bond or destroy bond with concrete.
 2. Position, support, and secure reinforcement against displacement by forms, construction, and the concrete placement operations.
 3. Place reinforcement to obtain the required coverages for concrete protection as specified by ACI 301.
 4. Install welded wire fabric in as long lengths as practicable, lapping adjoining pieces one full mesh minimum.
 5. Dowels shall match reinforcement with which they lap unless noted.
 6. Unless otherwise shown on the plans, or required by governmental agencies having jurisdiction, or mechanical lap type splices are used, overlap bars per paragraph 2.2.4 (splicing) of this specification. Mechanical lap devices shall be approved by the ENGINEER prior to use.
 7. Do not field bend reinforcement without written permission of the ENGINEER. In no case may bars be heated to facilitate bending.
 8. Welding, oxy-acetylene torch cutting, or the application of heat to reinforcing steel, anchor bolts, or any metal object embedded in concrete is strictly forbidden unless approved in writing by the ENGINEER.

3.4 EMBEDDED ITEMS

A. LOCATION:

1. Do not embed conduit or piping in structural concrete.
2. Set bolts, post bases, inserts, and other required items in the concrete, accurately secured so they will not be displaced, and in the precise locations needed.

B. PIPE SLEEVES:

1. Provide pipe sleeves for all existing and new pipes penetrating the wall. Sleeves shall be installed flush with the outside surfaces of the wall. Pipes shall be sealed within the sleeves by a compression type pipe penetration seal similar to "Link-Seal" manufactured by Thunderline Corporation of Belleville, MI.

3.5 MIXING CONCRETE

A. REQUIREMENTS:

1. Transit mix the concrete in accordance with provisions of ASTM C 94.
2. Mixing Water:
 - a. A maximum of 2-1/2 gallons of water per cubic yard of concrete, may be withheld at the batch plant.
 - b. Upon arrival at the job site, add all or part of the withheld water (as required for proper slump) before the concrete is discharged from the mixer.
 - c. Mix not less than five minutes after the withheld water has been added, and not less than one minute of that time immediately prior to discharge of the batch.
 - d. Unless otherwise directed, provide at least 15 minutes total mixing time per batch after first addition of water.
3. Do not use concrete that has stood for over 30 minutes after leaving the mixer, or concrete that is not placed within 60 minutes after water is first introduced into the mix. Plasticizers or other admixtures shall not be used unless prior approval from the ENGINEER has been obtained.

3.6 PLACING CONCRETE

A. PREPARATION:

1. Remove foreign matter accumulated in the forms.
2. Rigidly close openings left in the formwork.
3. Wet wood forms sufficiently to tighten up cracks. Wet other material sufficiently to maintain workability of the concrete.
4. Use only clean tools.

5. Masonry walls shall be sufficiently wet to maintain workability of the concrete.

B. CONVEYING:

1. Perform concrete placing at such a rate that concrete which is being integrated with fresh concrete is still plastic.
2. Deposit concrete as nearly as practicable in its final location so as to avoid separation due to rehandling and flowing.
3. Do not use concrete which becomes non-plastic and unworkable, does not meet required quality control limits, or has been contaminated by foreign materials.
4. Remove rejected concrete from the job site.

C. PLACING CONCRETE SLABS:

1. Deposit and consolidate concrete slabs in a continuous operation.
2. Bring slab surfaces to the correct level with a straightedge, and then strike off.
3. Use bullfloats or darbies to smooth the surface, leaving the surface free from bumps and hollows.
4. Do not sprinkle water on the plastic surface. Do not disturb the slab surface prior to start of finishing operations.

D. COLD WEATHER PLACEMENT:

1. All concrete work shall be protected from damage or reduced strength which could be caused by freezing actions or low temperatures. All work with concrete mixture when air temperature is below 40 degrees F shall comply with ACI 306R and as specified herein.
2. Do not use antifreeze agents or chemical accelerators, unless written approval for such use has been given by the ENGINEER.
3. Do not use aggregates that contain ice or snow. Do not place concrete over frozen soils or subgrade.
4. If air temperatures have fallen below 40 degrees F, or are expected to fall below 40 degrees F within twenty-four hours, heat water and all aggregates before mixing. Concrete mixture temperature at point of placement shall not be less than 60 degrees F nor more than 80 degrees F.

3.7 CONSOLIDATION:

A. GENERAL:

1. Consolidate each layer of concrete immediately after placing, by use of internal concrete vibrators supplemented by hand spading, rodding, or tamping.

2. Do not vibrate forms or reinforcement.
3. Do not use vibrators to transport concrete inside the forms.

3.8 CONCRETE CURING:

- A. GENERAL: Concrete curing shall be done in accordance with ACI 303R. Cold weather curing shall be in accordance with ACI 306R.

3.9 JOINTS

- A. EXPANSION JOINTS: Expansion joints are to be provided at locations shown on the plans or at other locations during construction as approved by the ENGINEER. Joints shall be filled with a premolded expansion joint filler complying with ASTM D 1751.
- B. CONSTRUCTION JOINTS: Construction joints shall be provided as shown on the plans or as preapproved by the ENGINEER. Joints shall be kept free of form oil or other materials which may hamper bonding. Soiled surfaces shall be washed, mechanically cleaned or brushed blasted to the satisfaction of the ENGINEER. A surface bonding agent similar to Larsen Products "Weld Crete" shall be applied at all joints in accordance with the manufacturer's recommendation.
 1. Do not use construction joints except as shown on the plans.
 2. If additional construction joints are found to be required, secure the ENGINEER'S approval of joint design and location prior to start of concrete placement.
- C. WATERSTOPS: Waterstops shall be installed at all joints shown and all construction joints used by the CONTRACTOR in placing the concrete. Waterstops shall be anchored securely in place by using split forms, tie wires, or other methods that will insure correct positioning and proper embedment of the waterstop while the concrete is being placed. Concrete shall be thoroughly vibrated around the waterstop to avoid honey combing and insure proper bonding to the waterstop.

3.10 CONCRETE FINISHING

- A. GENERAL: All exposed concrete surfaces shall receive as a minimum, a smooth rubbed or grout cleaned finish conforming to ACI 301. Alternative methods of finishing concrete, such as an application of a concrete finish/sealer such a Thorseal or similar product, shall be acceptable if approved by the ENGINEER. Sealing of finished concrete surfaces shall be as required in Division 9 of these specifications. Except as may be shown otherwise on the plans provide the following finishes at the indicated locations:
 1. Float Finish: apply to footings
 2. Trowel Finish: apply to bond beams and other surfaces that are to be exposed to view, unless otherwise shown.
 3. Non-slip Broom Finish: apply to walks

- B. SLABS: Concrete slabs shall be finished in accordance with ACI 301.11 with floors receiving a troweled finish and exterior slabs to receive a broom finish.

3.11 REMEDIAL WORK

- A. GENERAL: Repair or replace deficient work as directed by the ENGINEER and at no additional cost to the OWNER.

3.12 TESTING

- A. GENERAL: An independent testing agency shall be designated by the CONTRACTOR and approved by the ENGINEER prior to the preconstruction conference. Services so designated to be performed by the testing agency in ACI 301 shall be paid for by the CONTRACTOR. The CONTRACTOR shall provide the qualifications of proposed materials and mix designs as well as other testing services specifically required of the CONTRACTOR. Testing services to be provided by the CONTRACTOR shall include the following:

1. Additional testing and inspection required because of changes in materials or proportions required by the CONTRACTOR.
2. Additional testing of materials or concrete occasioned by their failure by test or inspection to meet specification requirements.
3. The CONTRACTOR shall provide the materials, tools and labor necessary to prepare the test specimens and deliver them to the testing agency. The CONTRACTOR's Laboratory Technician shall conduct the slump test and the compressive strength testing of cylinders.
4. The CONTRACTOR shall provide test results verifying that the concrete meets the strength requirements of these Specifications.

- B. TESTING SERVICES: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain at least one composite sample for each 100 cubic yard or fraction thereof of each concrete mix placed each day. When frequency of testing will provide a fewer than five compressive-strength tests for each concrete mix, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five batches are used.
2. Slump: ASTM C 143; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231; pressure method for normal-weight concrete; ASTM C 173, volumetric method, for structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.

5. Compression Test Specimens: ASTM C 31/C31M; cast and laboratory cure one set of four standard cylinder specimens for each composite sample.
 6. Compressive-Strength Tests: ASTM C39; test two laboratory-cured specimens at 7 days and two at 28 days. Test two field-cured specimens at 7 days and two at 28 days. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at age indicated.
- C. CONCRETE STRENGTH: Strength of each concrete mix will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

END OF SECTION 02521

SECTION 02600 – WATER DISTRIBUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. The Albemarle County Service Authority “General Water and Sewer Construction Specifications”, August 10, 2022.
- C. Commonwealth of Virginia, Department of Health, Waterworks Regulations.

1.2 SUMMARY

- A. This Section includes water-distribution piping and related components.

1.3 SUBMITTALS

- A. Product Data: For each type and size of product indicated.
- B. Shop Drawings: For precast concrete vault assemblies to indicate details, dimensions, method of field assembly, and related components.
- C. Testing: Field quality-control test reports.
- D. Operation and Maintenance Data: For water valves and specialties to include emergency operation, and maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements:

1. Comply with all requirements of the ACSA General Water and Sewer Construction Specifications as directed by Albemarle County (Owner).

B. Piping materials shall bear label, stamp, or other markings of specified testing agency.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Preparation for Transport: Prepare valves according to the following:

1. Ensure that valves are dry and internally protected against rust and corrosion.
2. Protect valves against damage to threaded ends and flange faces.
3. Set valves in best position for handling. Set valves closed to prevent rattling.

B. During Storage: Use precautions for valves, according to the following:

1. Do not remove end protectors unless necessary for inspection; then reinstall for storage.
2. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. Support off the ground or pavement in watertight enclosures when outdoor storage is necessary.

C. Handling: Use sling to handle valves if size requires handling by crane or lift. Rig valves to avoid damage to exposed parts. Do not use handwheels or stems as lifting or rigging points.

D. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.

E. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.

F. Protect flanges, fittings, and specialties from moisture and dirt.

1.6 PROJECT CONDITIONS

- A. Interruption of Existing Water-Distribution Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water-distribution service according to the requirements indicated:
 - 1. Notify Owner or other customers no fewer than 48 hours in advance of each proposed interruption of service.
 - 2. Do not proceed with interruption of water-distribution service without Owner's permission.
 - 3. Restore service within as short a time as possible.

1.7 COORDINATION

- A. Provide at least 2 weeks' notice prior to the beginning any work in this section. Provide 48 hours' notice for any unanticipated interruptions in service. Wet tap is planned.
- B. Coordinate the wet tap and all work within the ACSA fenced enclosure daily and as work progresses in that area. Keep the fenced enclosure secured at all times during construction under direct supervisor when personnel, equipment and materials move into and away from the fenced enclosure.

PART 2 - PRODUCTS

1.8 DUCTILE IRON PIPE, PVC PIPE, PIPE FITTINGS, GATE VALVES AND APPURTENANCES

- A. Conform to all ACSA Standards and Specifications.
- B. Conform to all AWWA Standards and Specifications.
- C. Conform to all manufacturers recommendations.

1.9 3" METER VAULT

- A. Conform to all ACSA Standards and Specifications.

- B. Confirm to all AWWA Standards and Specifications.
- C. Conform to all manufacturers recommendations.

1.10 RPZ BACKFLOW PREVENTER

- A. Conform to all ACSA Standards and Specifications.
- B. Confirm to all AWWA Standards and Specifications.
- C. Conform to all manufacturers recommendations.

PART 3 - EXECUTION

1.11 EARTHWORK

- A. Refer to Section 03300“Earthwork” for excavating, trenching, and backfilling specifications.
- B. Refer to Contract Drawings for the trench backfill detail including pavement restoration requirements.
- C. Refer to Contract Drawings for locations of directional drilling or boring under the old stagecoach road stone walls and legacy tree drip lines in the locations shown on the plans.
- D. Blasting is not permitted.

1.12 PIPE, FITTINGS, AND APPURTENANCES INSTALLATION

- A. Install pipe, fittings, and appurtenances according to the Contract Drawings and ACSA Standards and Specifications. No more than 100 feet of trench can be open at any given time. No less than 24 inches of cover below existing ground as shown on the pipe profiles.
- B. Install Mega-lugs and concrete reaction blocking at all fittings, bends and fire hydrants. Use high early strength concrete (Class A) for concrete reaction blocking.

- C. Install Gate Valves according to the ACSA Standards and Specifications.
- D. Install the Water Meter Vault and Specialties according to ACSA Standards and Specifications. Do not work within the ACSA fenced enclosure except during the dates and times allowed by the ACSA representative for this project.
- E. Install Yard Hydrants according to ACSA Standards and Specifications and Manufacturer's recommendations. Confirm locations with the County prior to installation per each.

1.13 CLEANING

- A. Clean, purge, and disinfect installed water-distribution piping and appurtenances according to ACSA Standards and Specifications.
- B. Prepare written reports of cleaning and related activities for ACSA approval.

1.14 TESTING AND ACCEPTANCE

- A. Hydrostatic Tests: Coordinate, schedule, and conduct hydrostatic tests according to standard AWWA C600-17 in coordination with the ACSA. 150psi, 2-hour test under the County's supervision.
- B. Prepare written reports of testing activities for ACSA approval.
- C. Do not connect new water distribution facilities until the ACSA has accepted all work including installation, cleaning, and testing for each accepted section as complete and ready for service.

END OF SECTION 02600

SECTION 02630- STORM DRAINAGE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. WORK INCLUDED: Installation of storm drainage pipe, outlet structures and inlets.
- B. RELATED SECTIONS Additional Sections of the Documents which are referenced in this Section include:
 - 1. Section 02300 Earthwork

1.2 REFERENCES

- A. GENERAL: The work shall comply with the most recent standards or tentative standards as published at the date of the contract and as listed in this specification.
- A. Virginia Department of Transportation Road and Bridge Specifications, latest edition.

1.3 CLASSIFICATION OF EXCAVATION: All excavation is unclassified except as noted.

1.4 SUBMITTALS

- A. Shop Drawings: Include plans, elevations, details, and attachments for the following:
 - 1. Pre-cast concrete manholes and other structures, including frames, covers, and grates.
 - 2. Cast-in-Place concrete manholes and other structures including frames, covers, and grates.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic manholes, pipe, and fittings in direct sunlight.
- B. Protect all pipe, pipe fittings, and seals from dirt and damage.
- C. Handle manholes and other structures according to manufacturer's written rigging instructions and in strict accordance with OSHA Regulations.

1.6 PROJECT CONDITIONS

- A. Site Information: Verify existing utility locations and inverts for connection to existing. Report all discrepancies immediately.
- B. Locate existing structures and piping to be demolished.

- C. Existing Utilities: Do not interrupt utilities unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 - 1. Notify Owner's Representative not less than two days in advance of proposed interruption of service.
 - 2. Do not proceed with utility interruptions written permission by Owner.

PART 2 - PRODUCTS

- 2.1 CONCRETE PIPES: Gasketed concrete pipe shall be utilized with a concrete cradle for the stormwater management basin outfall. Other concrete pipe shall be Class 3 standard pipe unless otherwise specified. All concrete pipes shall comply with VDOT Road and Bridge Specifications, latest edition.
- 2.2 PLASTIC PIPES: High density polyethylene (HDPE) pipe shall be dual walled ADS N12 pipe with soil tight joints (STIB) per AASHTO M252 and M294 or equal. All plastic pipes shall comply with VDOT Road and Bridge Specifications, latest edition.
- 2.3 CONCRETE DRAINAGE INLETS: Shall comply with VDOT Road and Bridge Specifications with pedestrian friendly grates, latest edition.
- 2.4 CONCRETE END SECTIONS: Shall comply with VDOT Road and Bridge Specifications, latest edition.
- 2.5 PLASTIC DRAINAGE INLETS: Shall be Nyoplast drainage structures or equal, and shall comply with VDOT Road and Bridge Specifications, latest edition.
- 2.6 RIPRAP: VDOT Standard EC-1 riprap installation procedures shall be followed including the placement of filter fabric below. Rock size for pipe diameters smaller than 36 inch shall be Class I unless otherwise noted.

PART 3 - EXECUTION

- 3.1 EARTHWORK
 - A. Excavation, trenching, and backfilling are specified in Section 02300: Earthwork.
 - B. Where rock is encountered, the Contractor is to immediately contact the Owner to determine if any adjustments to the line and grade of the trenches is required to reduce trench rock excavation.
- 3.2 PIPING APPLICATIONS
 - A. General: Provide soil tight joints, or better.
 - B. Gravity Flow Piping: Provide positive drainage and verify pipe inverts prior to backfill.

3.3 SPECIAL PIPE COUPLING AND FITTING APPLICATIONS

- A. Special Pipe Couplings: Use where required to join piping and no other appropriate method is specified. Do not use instead of specified joining method.
 - 1. Use the following pipe coupling for non-pressure applications:
 - a. Sleeve type to join piping, of same size, or with small differences in OD.
 - b. Increaser/reducer-pattern, sleeve type to join piping of different sizes.
 - c. Bushing type to join piping of different sizes where annular space between smaller piping's OD and larger piping's ID permits installation.
 - d. Use concrete collar to soil tight joints as necessary.

3.4 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to the extent practical.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line and pull past each joint as it is completed.
- C. Install manholes or drainage inlets for changes in direction unless fittings are indicated. Use fittings for branch connections.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Terminate piping as indicated.

3.5 PIPE JOINT CONSTRUCTION AND INSTALLATION

- A. PVC Pipe and Fittings: As follows:
 - 1. Join pipe, tubing and fittings with soil tight joints according to ASTM D2321.
 - 2. Install according to ASTM D2321.
- B. Concrete Pipe and Fittings: Install according to ACPA's "Concrete Pipe Installation Manual" and VDOT Standard PB-1.
- C. HDPE Pipe:
 - 1. Join pipe, tubing, and fittings with coupling for soil tight joints according to manufacturer's written instructions.
 - 2. Install according to ASTM D2321 and the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings."

3.6 DRAINAGE STRUCTURE INSTALLATION: Shall comply with VDOT Road and Bridge Specifications, latest edition.

3.7 FIELD QUALITY CONTROL

- A. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed.
1. In large, accessible piping, brushes and brooms may be used for cleaning.
 2. Place plug in end of incomplete piping at end of day and when work stops.
 3. Flush piping between manholes and other structures to remove collected debris, as necessary. Water shall be treated per Section 02370: Erosion Control.
- B. Visually inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
1. Submit separate reports for each system inspection.
 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 3. Replace defective piping using new materials and repeat inspections until defects are within allowances specified.
 4. Re-inspect and repeat procedure until results are satisfactory.
 5. Replacement and re-inspections are at the Contractor's expense.

END OF SECTION 02630

SECTION 02750- PAVEMENT MARKINGS, SIGNS AND SPECIALITIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. **WORK INCLUDED:** Installation of pavement markings and traffic signs for the parking lot and access road including accessible parking spaces.
- B. **RELATED SECTIONS** Additional Sections of the Documents which are referenced in this Section include:
 - 1. Section 01300- Submittal Procedures

1.2 REFERENCES

- A. **GENERAL:** The work shall comply with the most recent standards or tentative standards as published at the date of the contract and as listed in this specification.
- B. Virginia Department of Transportation Road and Bridge Specifications, latest edition.

1.3 SUBMITTALS

- A. Produce data and written confirmation that the following materials are included on VDOT's list of approved materials:
 - 1. Pavement marking paint and glass beads.
 - 2. Thermoplastic pavement markings.
 - 3. Traffic signs.

PART 2 - PRODUCTS

2.1 PAVEMENT MARKINGS

- A. Type A, water emulsion base traffic paint conforming to Section 704 of the VDOT Road and Bridge Specifications, and Federal Specification TT-P-1952. Color of paint shall be white unless otherwise noted on the plans such as ADA parking spaces. Lines shall be 4" wide unless otherwise noted on the plans.
- B. Glass beads shall be used in the pavement markings per VDOT standards.
- C. Type B thermoplastic markings are required for the pedestrian crosswalk on the plans.

2.2 PAINT APPLICATOR

- A. Shall be a hand operated push type applicator machine commonly used for painting on pavement. Painting by brush/hand will not be allowed.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION FOR PAVEMENT MARKINGS

- A. Apply pavement markings when ambient temperature is above 50° F and less than 95° F, unless otherwise approved by the Owner.
- B. Allow pavement to cure for a period of not less than seven (7) days before applying the first coat of paint.
- C. Clean surfaces thoroughly before applying paint. Remove dirt, dust and other granular deposits by washing with water, sweeping, blowing with air (leaf blowers) and other means.
- D. Pavement surfaces shall be dry prior to painting. Paint shall not be applied within 24 hours following a rain event or other inclement weather or when rain is imminent.

3.2 APPLICATION OF PAVEMENT MARKINGS:

- A. Apply paint in accordance with Section 704 the VDOT Road and Bridge Specifications.
- B. Install pavement markings as shown in the plans. Parking space lines shall be four (4) inches wide unless otherwise noted on the plans.
- C. Pavement markings for designated parking spaces shall comply with the latest Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- D. Apply paint per manufacturer's recommendations to provide a minimum 15 millimeters wet thickness.
- E. Apply thermoplastic per VDOT standards.

3.3 INSTALLATION OF TRAFFIC SIGNS:

- A. Traffic signs for designated parking spaces shall comply with the latest Americans with Disabilities Act Accessibility Guidelines (ADAAG). At least one parking space shall be designated as "van accessible".
- B. Traffic signs for fire lanes shall be installed in coordination with the County's Fire Marshall on both sides of the paved access road.
- C. Other other traffic signs shall be as designated on the plans or in the bid documents.

- D. All signs shall be installed on standard metal u-channel signposts at the required heights facing traffic and with clear lines of sight.

END OF SECTION 02750

SECTION 02920 - LAWNS AND GRASSES

PART 1 – GENERAL

1.1 SUMMARY

A. Provide seeded and sodded areas as shown and specified. This work includes:

1. Soil Preparation
2. Sodding (Athletic Fields)
3. Lawn Seeding
5. Conservation Seeding

1.2 QUALITY ASSURANCE

A. Installer Qualifications: Provide the company names, qualified installer names, and phone numbers of landscape installers for this project whose work has resulted in successful sodding for athletic fields, lawn seeding and conservation seeding that similar to this project. Owner shall review and accept all qualified installers prior to the work.

B. Comply with all applicable specification Sections.

1.3 RELATED WORK

1.4 SUBMITTALS

A. Submit sod vendor's certification for required grass seed mixture.

B. Contractor shall pay for soil tests to determine if the topsoil sources are suitable for sustaining grass. All soils, sands and organic amendment materials shall be tested by the following horticultural or agricultural soil laboratory, or another as approved by the Owner:

1. Tellus Agronomics/ General Delivery/ Radiant, VA 22732 (703)782-0920 The laboratory selected shall be used exclusively for the project. The laboratory shall use the appropriate procedures for soils, sands and organic amendments as published in ASTM Methods, Chemical Soil Testing Procedures for the Northeastern Unites States (Bulletin #493) and/or The Composting Council Recommended Testing Procedures for Compost.
2. Fertilizer and lime recommendations shall be developed from soil tests performed by the selected horticultural or agricultural laboratory. Tests to be conducted shall include, but are not limited to pH, SMP Buffer pH or other Lime Test Index (when pH <6.3), available phosphorus, exchangeable potassium, calcium and magnesium, with calculated values for Cation Exchange Capacity (CEC) and Base Saturations. The Owner may require additional chemical testing based on the results of these tests.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver seed and fertilizer materials in original unopened containers, showing weight, analysis and names of manufacturer. Store in manner to prevent wetting and deterioration.

B. Digging Sod:

1. Sod shall not be dug at the nursery or approved source until ready to transport sod to the site of the work.
2. Before stripping, sod shall be mowed at a uniform height of 2-1/2 inches.
3. Cut sod to specified thickness and to standard width and length desired.

C. Transportation of Sod:

1. Sod transported to the project in open vehicles shall be covered with tarpaulins or other suitable covers securely fastened to the body of the vehicle to prevent injury. Closed vehicles shall be adequately ventilated to prevent overheating of the sod.
2. Evidence of inadequate protection following the digging, carelessness while in transit, or improper handling or storage, shall be cause for rejection.
3. Sod shall be kept moist, fresh, and protected at all times. Such protection shall encompass the entire period during which the sod is in transit, being handled or is in temporary storage.
4. Upon arrival at the site of the work, sod shall be inspected for proper shipping procedures. Should the sod be dried out, the Owner may reject the sod. When sod has been rejected, the Contractor shall at once remove it from the area of the work and replace it with acceptable material.
5. Unless otherwise authorized by the Owner, the Contractor shall notify them at least two working days in advance of the anticipated delivery date of sod. Certificate of Inspection when required shall accompany each shipment.

D. Handling of Sod:

1. Sod shall be handled with extreme care to avoid breaking or tearing strips.
2. Sod shall not be stored for longer than 30 hours prior to installation. Sod shall be stored in a compact group and shall be kept moist. Sod shall be prevented from freezing.
3. Sod that has been damaged by poor handling or improper storage may be rejected by the Owner.

1.6 PROJECT CONDITIONS

- A. Restrict traffic from seeded areas until grass is established. Erect signs and barriers as required.
- B. Work notification: Notify Owner at least 7 working days prior to start of work.
- C. Provide project in-ground irrigation system and irrigation water main fully tested and operational prior to the sodding operations.
- D. Provide yard hydrants that are fully operational for watering of lawns and grasses prior to the seeding operations.

1.7 SOD WARRANTY

- A. Provide a uniform stand of grass with full coverage by watering, mowing, and maintaining sodded areas until final acceptance. Re-sod areas, with specified materials, which fail to provide

a uniform stand of grass until all affected areas are accepted by the Owner.

- B. Backfilling of excavations shall be guaranteed. If, at any time during the first year of the guarantee period, trenches or irrigation heads should settle, the irrigation contractor shall repair any settling at no cost to the owner. Irrigation heads shall be set at the finished grade elevation for the sod.
- C. Contractor shall guarantee all sod and irrigation system workmanship to be free of defects for a period of one year from the date of acceptance of the project. They shall replace any parts found to be defective within the period of guarantee at no cost to the owner. Materials, fixtures, and irrigation equipment is to be warranted for 5 years from installation date including any computer hardware and software for a fully operational irrigation system. This guarantee is to be certified in writing by a factory representative. All upgrades (hardware and software) to field satellites or central computers that are released within 5 years after the final acceptance are to be installed by the factory at no cost to owner.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Sod: As specified on the plans.
 - 1. Sod shall be nursery grown on cultivated mineral agricultural soils. Sod shall have been mowed regularly and carefully, and otherwise maintained from planting to harvest.
 - 2. Thickness of Cut: Sod shall be machine cut at a uniform soil thickness of 5/8 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.
 - 3. Strip Size: Individual pieces of sod shall be cut to the supplier's standard width and length. Maximum allowable deviation from standard widths and lengths shall be plus or minus 1/2 inch on width, and plus or minus 5% on length. Broken strips and torn and uneven ends will not be acceptable.
 - 4. Strength of Sod Strips: Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape if suspended vertically when grasped in the upper 10% of the section.
 - 5. Moisture Content: Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
 - 6. Time Limitations: Sod shall be harvested, delivered, and transplanted within a 36-hour period unless a suitable preservation method is approved prior to delivery. Sod not transplanted within this period shall be inspected and approved by the Owner prior to its installation.
 - 7. Thatch: Sod shall be relatively free of thatch. A maximum of 1/2 inch (uncompressed) thatch will be permitted.
 - 8. Diseases, Nematodes, and Insects: Sod shall be free of diseases, nematodes, and soil-borne insects. State Nursery and Plant Materials Laws require that all sod be inspected and approved for sale. The inspection and approval must be made by the State

Agricultural Department, Office of the State Entomologist.

9. Weeds: Sod shall be free of objectionable grassy and broad leaf weeds

B. Lawn Seed: Fresh, clean, and new crop seed mixtures shall be used.

1. Submit seed vendor's certification for required grass seed mixtures, indicating the percentage by weight, and percentages of purity, germination, and weed seed for each grass species.
2. Seed shall be mixed by an approved method.
3. The seeding varieties must conform to the Virginia Crop Improvement Association (VCIA) turf grass mixtures in the Virginia Sod Certification Program. All seed must be certified and meet minimum quality standards prescribed by the VCIA
4. Composed of the following varieties, mixed to the specified proportions by weight and tested to minimum percentages of purity and germination. To be free of *Poa annua*, bent grass, and noxious weed seed free.

Blend: 80% Tall Fescue - Category 1
20% Kentucky Blue grass - Category 1

Rate: Tall Fescue - 220 lbs per acre
Kentucky Bluegrass - 40 lbs per acre

| <u>Variety</u> | <u>Germination</u> | <u>Minimum Parts</u> | <u>Minimum Purity</u> |
|------------------------------|--------------------|--------------------------|---------------------------|
| Shenandoah Tall Fescue Blend | 30% | 98% | 85% |
| Rebel Jr. Tall Fescue | 20% | 98% | 85% |
| Falcon II Tall Fescue | 20% | 98% | 85% |
| Debutante Tall Fescue | 10% | 98% | 85% |
| Baron Kentucky Bluegrass | 20% | 98% | 85% |

C. Conservation Seed: Fresh, clean, and new crop seed mixtures shall be used.

1. Include the name and telephone number for the seed vendor or supplier for each seed mixture.
2. Include the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.

D. Irrigation Water: Hoses, sprinklers, or other methods of watering will be furnished by the

Contractor during the initial establishment. Yard hydrants shall also be installed by the Contractor for watering purposes in the locations shown on the plans.

E. Composted organic amendments: Shall be a mature/stable humus-like material derived from aerobic decomposition of biosolids, leaves, yard waste (tree trimmings, grass, leaves, etc.) animal manures and other readily compostable organic materials. The compost shall be dark brown to black in color and capable of supporting plant growth. It shall be free from objectionable odors. Compost moisture content shall be such that no visible free water or excessive dust is produced during handling.

1. The material shall have a particle size of 100% passing a 3/4" screen.
2. The material shall have no more than 1% by weight inert material retained on a U.S. Standard No. 5 sieve.
3. The material shall have an organic matter content (ASTM D 2974) of 25-85%.
4. The saturated extract pH shall be 5.5 to 8.2.
5. The saturated extract electrical conductivity shall be 1.0 to 8.0 mmohs/cm.
6. The material shall have a carbon to nitrogen ratio of 10:1 to 35:1.

F. Fertilizer: Materials as required based on soil testing recommendations shall be applied at the rates recommended by the soil testing agency and conform to the following standards:

1. Fertilizer: Granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer. Commercial 10-10-10 fertilizer shall be applied to all plant areas at a uniform rate based on soil test recommendations.
2. Ground limestone: Containing at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone will be ground to such fineness that 50% will pass through a 100-mesh sieve and 98% will pass through a 20-mesh sieve.

PART 3 - EXECUTION

3.1 PLANTING SEASON

- A. Spring: March 1 through June 1.
- B. Fall: September 1 through October 15.

3.2 INSPECTION AND COORDINATION

- A. Remove all construction debris to a depth of three feet for the entire area of lawns and grasses. Remove any toxic soil or soil that appears contaminated or deficient & replace with good quality topsoil.
- B. Examine finish surfaces, grades, topsoil quality and depth. Do not start lawn work until unsatisfactory conditions are corrected.

3.3 SITE PREPARATION

- A. Grade all areas to final grade elevations shown on plans. Grade areas to be seeded to a smooth, free draining even surface with a loose, moderately coarse texture. Roll and firm soil with harley

rake, remove ridges, and fill depressions as required to drain. Do not begin sodding or seeding until unsatisfactory conditions are corrected.

- A. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed, after fine grading and prior to sodding and seeding.
- B. Fertilizer and lime shall be uniformly spread at the rate based on soil test recommendations. Fertilizer and lime (if required) shall be incorporated into the top 4" of soil.
- C. In all areas to be sodded, spread 4 inches of approved topsoil. Then till 1 inch of approved compost into the topsoil. Then add 5/8" of USGA sand or equal over the top.
- D. In all areas to be planted as lawns, till or scarify the subgrade to a depth of 4". Do not disturb any existing or proposed utilities, pavements, or other site improvements during the ripping and preparation process. After tilling or scarifying, apply 2" of approved topsoil over entire area to be seeded.

3.2 INSTALLATION

A. Sodding:

- 1. Edges of the sodded areas shall be smooth, and all sodded areas shall conform to the design cross sections and grade. At edges adjacent to curbs, paved areas, etc., top surface of earth in sod shall be 1/2 in. below adjacent hard surface.
- 2. Sod shall be placed and all sodding operations completed within 72 hours following stripping from sod source bed.
- 3. Surface of completed sodded area shall be smooth. Sod shall be laid edge-to-edge, with tight-butted, staggered joints. Sod shall be carefully placed to ensure that it is neither stretched nor overlapped. After laying, sod shall be pressed firmly into contact with sod bed by tamping, to eliminate air pockets. Sod shall be laid off boards in order to prevent damage to finish grade or sod.
- 4. Completed sod areas shall immediately be watered sufficiently to uniformly wet the soil to at least the bottom of sod bed.

B. Lawn Seeding:

- 1. Seed immediately after preparation of bed and once the area is cleared of all vegetation, trash, debris and stones larger than 1/2" in diameter or length.
- 2. Seed indicated areas within limit of construction and areas adjoining contract limits disturbed because of construction operations.
- 3. Perform seeding operations when the soil is dry and when winds do not exceed 5 miles per hour velocity.
- 4. Apply seed with a rotary or drop type distributor. Install seed evenly by sowing equal quantities in 2 directions, at right angles to each other.
- 5. Sow grass seed at the specified rate for the type of seed being used.
- 6. After seeding, rake or drag surface of soil lightly to incorporate seed into top 1/8" of soil. Roll with a light lawn roller.

7. After seeding, install clean straw with tackifier and/or soil protection blankets/matting as required and shown on the plans.

C. Conservation Seeding:

1. Drill seed designated areas immediately following completion of grading work. Tilling is only required when soil is very compacted and soil amendments are not typically required for conservation seeding.
2. Only seed as much as can be mulched or, where required, covered with erosion control blanket or hydro-seeding.
3. Upland Meadow Seed Mix seeding to be done with a drill seeder. Nurse crop shall then be hydro-seeded. All drills should be equipped with a closing or packing wheel that follows the seed placement. A special seed box is required for handling small or fluffy seed like that of many wildflowers and native grasses. drills that can meter fluffy seed, such as that of little bluestem, big bluestem and Indian grass, need special agitation and metering equipment to handle these seeds. Drill seeding equipment to follow guidelines of seed supplier. Seed shall be drilled into the soil to a depth of at least 1/8". Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
4. Bioretention Mix seeding to be done with a drill seeder or broadcast if the soil is too wet. Nurse crop shall be hydro-seeded or broadcast. After seeding, jute matting shall be installed to cover all basin areas that are within the 10-year storm inundation elevation.
5. Drill seeder to be adjusted to place seed 1/4"-1/2" deep into a firm seedbed. Calibrating a drill or broadcast seeder depends on seed bulk density and required application rates. Many native and naturalized seed mixes contain a mix of large fluffy seed and small dense seed. Some drills have special seed boxes that can meter large fluffy seed. Seeder may need further calibration by adding a bulking agent to seed (such as kitty litter) to create an even flow of seed. Add 40-50 lb of a bulking agent to 10 lb of seed and calibrate for 50-60 lb per acre (1 lb bulking agent to 1/4 lb of seed per 1,000 sq ft). Divide the seed into proportional areas of the project. Start seeding at a lower rate than the calculated rate. Contact seed supplier for more information on recommended seeding practices as required.
6. Plan on seeding half of the seed in one direction and make a second pass with the remaining half of the seed in a direction perpendicular to the first direction.
7. Do not use wet seed or seed that is moldy or otherwise damaged.
8. Roll lightly, and water with fine spray.

3.3 MAINTENANCE

- A. Water daily to maintain adequate surface soil moisture for proper seed germination and root establishment. Continue daily watering for not less than 30 days. Thereafter apply 1/2" of water twice weekly until acceptable.
- B. Mow lawn areas as soon as lawn top growth reaches three inches height. Cut back to two and one-half inches in height. Repeat mowing as required to maintain specified height. At no time shall more than 1/3" of the grass blade length be removed during mowing.

3.4 ACCEPTANCE

A. Sodding:

1. Roots are thoroughly knit to the soil & absence of visible joints on sodded areas.

B. Seeding:

1. The Owner will inspect all work once there is a uniform, vigorous stand of weed free grass 2 1/2" tall, with 90% evenly distributed coverage and without bare areas.
2. Once seeding is in conformance with the contract documents, the project will be accepted on the date of inspection. Upon acceptance of the project, maintenance becomes the responsibility of the Owner.
3. If the seeding is not in conformance, the contractor shall complete non-conforming items prior to a follow-up inspection by the Owner. Acceptance will be confirmed in writing after non-conforming items are corrected by the Contractor.
4. Acceptance of the seeding shall be for general conformance to quality and shall not relieve the Contractor of responsibility for full conformance to the Contract Documents, including correct species and warranty period.

3.5 CLEANING

- A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris, and equipment. Remove any/all seeded grass from adjacent planting beds or other landscape areas where seeding is not specified.

END OF SECTION 02920

SECTION 02921 - LANDSCAPING

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnishing and installing trees, shrubs, perennials, groundcovers, and tublings.
- B. Providing mulch, compost, and soil amendments.
- C. Staking and guying including necessary hardware and deadmen.
- D. Pest and disease control.
- E. Preparing transition zone and sub-grade.
- F. Preparing shall include amending and mixing planting soil with controlled fill material soil to the depths indicated for transition zones of each planting area

1.2 RELATED SECTIONS

- A. Section 02300, EARTHWORK
- B. Section 02920, LAWNS AND GRASSES
- C. Section 02600, WATER DISTRIBUTION

1.3 SUBMITTALS

- A. Topsoil:
 - 1. Topsoil (Native Soil) analysis: Provide a minimum of 3 soil tests from samples obtained on site that represent the range of the soil available at the source. Provide submittal minimum six weeks before the installation of the topsoil. Samples should be labeled to include the location of the source of the material.
 - 2. Submit soil test analysis report for each sample of native topsoil, imported topsoil and planting mix from an approved soil-testing laboratory.
 - a. Provide a particle size analysis including the following gradient of mineral content:

| <u>USDA Designation</u> | <u>Size in mm.</u> |
|-------------------------|--------------------|
| Gravel | +2mm |
| Very Coarse Sand | 1-2 mm |
| Coarse Sand | 0.5 -1 mm |
| Medium Sand | 0.25-0.5 mm |
| Fine Sand | 0.1-0.25 mm |
| Very Fine Sand | 0.05-0.1 mm |
| Silt | 0.002-0.05 mm |
| Clay | minus 0.002 mm |

- b. Provide a chemical analysis including the following:
 - 1) pH and Buffer pH
 - 2) Percent organic contents by oven dried weight
 - 3) Nutrient levels by parts per million including Nitrogen, Phosphorous, Potassium, Magnesium, Manganese, Iron, Zinc, and Calcium. Nutrient tests shall include the testing laboratory recommendations for supplemental additions to the planting mix.
 - 4) Soluble salt by electrical conductivity of a 1:2 soil water sample measured in Milliohm per cm.
 - 5) Cation Exchange Capacity (CEC)
 - 3. Testing of all soils shall be performed by an approved laboratory recognized by the State Department of Agriculture with the experience and capability to conduct the testing indicated and specializes in types of tests required by this specification.
 - 4. All testing will be at the expense of the Contractor. The Owner may request additional Planting mix tests on different mix component ratios in order to attain results that more closely meet the mix requirements.
 - 5. Irrigation installer's qualifications, layout plan and equipment list with all cut sheets for the irrigation system components.
- B. Mulch: one (1) cubic foot sample and manufacturer's product certificate.
 - C. Plant Certificates showing origin of grower for all trees and shrubs or consent and review by Project Landscape Representative
 - D. Compost: one (1) cubic foot sample and manufacturer's lab analysis, pH and certificate of length of composting period for all organic matter for approval six weeks prior to installation of compost.

1.4 WARRANTY

- A. The warranty period for trees and shrubs shall begin at the date of acceptance.
- B. All plant material shall be guaranteed by the Contractor for a period of one year from the date of acceptance to be in good, healthy, and flourishing condition.
- C. When work is accepted in parts, the warranty periods extend from each of the partial acceptance to the terminal date of the last warranty period. Thus, all warranty periods terminate at one time.
- D. The Contractor shall replace, without additional cost to the Owner, and as soon as weather conditions permit, and within a specified planting period all plants determined dead and/or dying and rejected by the Owner during and at the end of the warranty period.
 - 1. Plants shall be free of dead or dying branches and shall bear foliage of normal density, size and color.
 - 2. Trees having lost their central leader or exhibit crown dieback at the end of the one-year warranty period shall be replaced. Plants that have had more than 25% of their branches die or removed shall be replaced.
 - 3. Replacements shall match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification.

Labor and all materials needed for installation of replacements are included in the warranty.

- E. The warranty of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement.
- F. The Contractor shall make periodic inspections, at no extra cost, during the warranty period to determine what changes, if any, should be made in the maintenance program. Any recommended changes shall be submitted in writing to the Owner.
- G. Final inspection and final acceptance: At the end of the guarantee period, submit a written request for Inspection for Completion at least two (2) weeks prior to the day on which the inspection is requested. The Owner will inspect all guaranteed work. Upon completion and re-inspection of all repairs or renewals necessary, the Owner will consider the final acceptance of the planting.
- H. Contractor shall guarantee all irrigation workmanship to be free of defects for a period of one year from the date of acceptance of the project. They shall replace any part of parts found to be defective within the period of guarantee at no cost to the owner, except repairs or replacements necessitated by damage by others. Material, fixtures, and equipment is to be warranted for 5 years from installation date including any computer hardware and software. This guarantee is to be certified in writing by factory representative. All upgrades (hardware and software) to field satellites or central computers that are released within 5 years after the final acceptance are to be installed by the factory at no cost to owner.

1.5 MAINTENANCE

A. Prior to Acceptance:

- 1. Maintenance shall begin immediately after each plant is planted. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected in manner consistent with high level of care stipulated for planting until Acceptance of entire Project.
 - a. Tree guys shall be tightened to allow 1” slack and repaired as required. Tree guys to be removed at earliest date possible, not to exceed 1 year unless recommended by a certified arborist.
 - b. Defective work shall be corrected as soon as possible after it becomes apparent and weather season permits.
 - c. Settled plants shall be reset to proper grade and position, planting saucer restored, and dead material removed.
 - d. Weed and cultivate ground cover beds.
 - e. Do not prune without approval by a certified arborist.
 - f. Contractor must notify Owner when control of any insect or disease is required prior to any application of chemicals or other treatment.

B. During warranty period:

- 1. The Contractor shall replace, without additional cost to the Owner as soon as weather conditions permit, and within a specified planting period, all plants determined dead and/or dying by the Owner during and at the end of the warranty Period.

- a. Plants shall be free of dead or dying branches and shall bear foliage of normal density, size, and color.
- b. Trees and shrubs having lost their central leader or exhibit crown dieback at the end of the warranty period shall be replaced.
- c. Replacements shall match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in these specifications. Labor and all materials needed for installation of replacements shall be included in the warranty.
- d. Ground cover beds shall be free of weeds and demonstrate a thriving stand of foliage.
- e. The warranty of all replacement plants shall extend for an additional period of one year from the date of acceptance after replacement.
- f. The Contractor shall make periodic inspections, at no extra cost, during the warranty period to determine what changes, if any, should be made in the maintenance program.

PART 2 - MATERIALS

2.1 PLANTS:

- A. Furnish and plant all plants as specified and in quantities listed
- B. All plants shall be purchased from growing nurseries. Wholesale and resale plant suppliers shall not be used as sources unless the contractor can certify that the required plants are not available from a growing nursery. When utilized, the contractor shall submit the name and location of the growing nursery from where the trees were obtained for Owner review and approval.
- C. Growing nurseries shall be located in USDA plant hardiness zones 6a to 7b in the states of New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia.
- D. Plants shall be true to species and cultivar specified. Certification of cultivars by supplying nursery must be supplied in writing to the Owner
- E. Plants shall be in accordance with the American Nurserymen Association Standards.
- F. Container grown trees shall not be permitted.
- G. All plants shall be of specimen quality, symmetrical, so trained or favored in development and appearance as to be unquestionably and outstandingly superior in forms and compactness. They shall indicate vigorous growth, be well branched and densely foliated when in leaf, free of disease, insects, eggs, larvae and shall have well developed root systems.
- H. Street trees with multiple leaders will not be accepted. Trees with a damaged or crooked leader, bark or abrasions, sun-scald, disfiguring knots, insect damage will not be accepted.
- I. Depth of planting must be checked on all trees being tagged at the nursery. If the flair is

not visible, the buttress roots must be located. Any tree with adventitious root growth above the flair or buttress roots shall not be tagged. Any soil piled up around the crown (flair) of the tree must be removed before they are dug.

- J. Size: Caliper measurement shall be taken on the trunk 6” above the natural ground line for trees. Height and spread dimensions refer to the main body of the plant and not from branch tip to tip. If a range of size is given, no plant shall be less than the minimum size and not less than 50% of the plants shall be as large as the maximum size specified. Plants that meet measurements but do not possess a normal balance between height and spread shall be rejected. Plants larger than specified may be used only if approved by the Landscape Architect. Use of such plants shall not increase the contract price. If larger plants are approved, the root ball shall be increased in proportion to the size of the plant.

2.2 MULCH:

- A. Mulch shall be fine double shredded, hardwood, free from roots, leaves, debris, stones, fungus, crabgrass rhizomes, or any material detrimental to plant growth. Material shall be mulching grade, uniform in size.
- B. Mulch shall be composted to the point where all wood has turned evenly dark brown within the interior of the fragment. Mulch that has become saturated with water or presents an anaerobic odor shall be rejected.
- C. Submit manufacturer's material certificate that product meets the requirements and a one cubic foot sample for approval.

2.3 TOPSOIL:

- A. Topsoil or “Native Soil” as on Drawings is fertile, friable, loamy soil, containing 1.5 to 5 percent by dry weight organic matter; free from subsoil, refuse, roots, heavy or stiff clay, stones larger than 1-inch, noxious seeds, sticks, brush, litter, and other deleterious substances; suitable for the germination of seeds and the support of vegetative growth. The pH value shall be between 5.5 and 7.0. Soil texture to be Loam, Sandy loam, with average clay content at 15% to 20% or less and silt content between 15 and 30%. Gravel and stone content shall be less than 15% by weight.
- B. Topsoil shall be harvested on site at a single source from the O and or A horizons of the soil profile. On site topsoil should be tested in three representative samples from on site and the results, along with a sample, are to be sent to Owner at the same time for approval. If native topsoil is deficient in the above stated requirements, it must be amended to achieve the requirements and new analysis done to confirm results. Analysis to be sent to the Owner for acceptance after amendments.
- C. Planting areas that are converted from pavement are to have a three foot depth minimum of uncompacted, approved (as described above) topsoil in the entire plant bed and planting trench that is harvested from elsewhere on site (not from the paved areas).

2.4 COMPOST:

- A. Organic blended material composted sufficiently to break down all woody fibers, seeds, and leaf structures, free of toxic and non-organic matter. Source material shall be straw, hardwood bark fines and organic material designed to produce compost high in fungal material. Organic Matter shall be commercially prepared compost and meet US Compost

Council STA/TMECC criteria or equal for Class I or II stable, mature product. Submit one-pound sample and supplier’s literature certifying STA compliance for approval. Compost made from primarily green yard waste shall not be acceptable. The moisture level shall be such that no visible water or dust is produced when handling the material when applied. PH between 5.5 and 7.1

- B. Compost shall be dark chocolate brown in color. Black compost and compost the color of milk chocolate shall be rejected.
- C. Compost shall have a strong aerobic (sweet) odor. Compost lacking a strong aerobic odor or which has an anaerobic (sour) odor shall be rejected.
- D. TESTING: The results of Compost analysis shall be provided by the Compost supplier. Before delivery of the Compost, the supplier must provide the following documentation:
 - 1. Feedstock percentage in the final Compost product.
 - 2. A statement that the Compost meets federal and state health and safety regulations.
 - 3. A copy of the lab analysis, less than four months old, performed by a Seal of Testing Assurance Certified Laboratory verifying that the Compost meets the following requirements:

Physical Requirements for Composted Organic Matter

| Parameter | Range | Testing Method |
|--|--|----------------|
| pH | 5.5-7.1 | TMECC 4.11A |
| Soluble Salt Concentration | < 4dS/m | TMECC 4.10-A |
| Moisture | 35-55% wet weight basis | |
| Organic Matter | >35% dry weight basis | TMECC 5.07-A |
| Carbon to nitrogen ratio | 15:1 -30:1 | |
| Particle Size | 99% pass through 2 inch screen or smaller; 25% pass through 3/8 inch screen or smaller | TMECC 2.02-B |
| Maturity Index | 6 to 8 | Solvita |
| Physical contaminants (man-made inserts) | <1% dry weight basis | TMECC 3.08-A |
| Chemical contaminants | Meet or exceed US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3 levels: | |
| Arsenic | < 41ppm | TMECC 4.06-AS |
| Cadmium | < 39 ppm | TMECC 4.06-CD |
| Copper | < 1,500 ppm | TMECC 4.05-CU |
| Lead | < 300 ppm | TMECC 4.06-PB |
| Mercury | < 17 ppm | TMECC 4.06-HG |
| Molybdenum | < 75 ppm | TMECC 4.05-MO |
| Nickel | < 420 ppm | TMECC 4.06-NI |
| Selenium | < 100 ppm | TMECC 4.06-SE |
| Zinc | < 2,800 ppm | TMECC 4.06-ZN |
| Biological contaminants (pathogens) | Meet or exceed US EPA Class A standard, 40 CFR § 503.32(a) levels: | |

| | | |
|----------------|---|------------|
| Fecal coliform | < 1,000 MPN per gram, dry weight basis | TMECC 7.01 |
| Salmonella | < 3 MPN per 4 grams, dry weight basis | TMECC 7.0 |

4. Compost testing methodologies and sampling procedures shall be as provided in Test methods for the Examination of Composting and Compost (TMECC), as published by the US Composting Council.

2.5 STAKES AND GUYS:

- A. Stakes: Oak or other approved wood for bracing or support shall be required on all trees except as specified otherwise. Stakes shall be straight and free from bark, unsound and loose knots, rot, cross grain or other defects that may impair strength.
- B. Tree guying to be flat woven polypropylene material, 3/4" wide, 900 lb break strength. Color to be Green. Product to be Arbor Tie, manufactured by Deep Root Partners, L.P. (800) 458-7668, or approved equal. Submit manufacturer's product data for approval.

2.6 WATERING BAGS:

- A. Watering bags shall be Treegator Irrigation Bags or equal, sized to the appropriate model for the requirements of the plant, manufactured by Spectrum Products, Inc, Youngsville, NC 27596. Submit manufacturer's product data for approval.
 1. Watering bags used for this project shall become the property of the owner at the end of the warranty period.

2.7 IRRIGATION SYSTEMS:

- A. System components shall be reviewed, designed and specified by a qualified installer including the irrigation water and electrical sources for County approval, prior to the purchase of equipment by the Contractor.

PART 3 - INSTALLATION

3.1 TREES, SHRUBS, PERENNIALS, GRASSES, GROUNDCOVER, AND TUBLINGS

- A. Prepare and amend soil in planting beds to meet requirements per testing to minimum depths as follows or as specified on the Planting Plans.
 1. Trees: See tree planting details; min. 36" depth
 2. Shrubs (greater than 4' Ht.) min. 24" depth
 3. Shrubs (less than 4' Ht.): min. 18" depth
 4. Perennials and Groundcovers: min. 18" depth
- B. Planting season for trees, shrubs, perennials, wild grasses and groundcover:

1. Planting Schedule: Plant only within the following dates, weather permitting. Do not plant when the ground is frozen, excessively wet, or the soil is otherwise in an unsatisfactory condition for planting:
 - a. The Spring season for all planting materials shall be that period from March 1 through May 15.
 - b. The Fall season is divided into two parts necessitated by the handling characteristics of two plant types.
 - 1) Evergreen plants: September 1 through October 30.
 - 2) Deciduous plants: September 1 through December 1.

C. Plant Material, Conditions of Moving and Delivery:

1. The use of an anti-desiccant shall not be allowed except by written approval and consent by of Landscape Architect.
 - a. If approved, spray deciduous plants with an anti-desiccant, immediately before moving plant material from its source, applying an adequate film over trunks, branches, twigs, and foliage.
 - b. Approval shall be required for any subsequent instance of use.
2. Dig and handle plants with care to prevent injury to trunks, branches and roots.
3. Do not prune prior to delivery. Do not bend or bind-tie trees in such manner as to damage bark, break branches or destroy natural shape. Pack and ship to insure arrival at site in good condition. Provide protective covering during delivery. No plants will be accepted if ball is cracked or broken, or trunks scarred, or branches broken.
4. Trees and Shrubs:
 - a. Deliver after preparations of planting areas have been completed and approved and place plants immediately.
 - b. If planting is delayed more than 24 hours after delivery, set plants on the ground in a "shade house", erected by Contractor, with root balls well protected with soil, wet compost, or other acceptable material. Protect balls and roots from freezing, sun, drying winds, and/or mechanical damage. Water as necessary until planted.

D. Rejection of plant materials:

1. The Landscape Architect and Project Architect has the right to reject any plant material that does not conform to the requirements of this specification at any time regardless of any previous approval.
2. Any plant that has the following characteristics shall be cause for rejection:
 - a. Any plant that has a canopy with 25% or more dead or removed limbs.
 - b. Evidence of damage to plant material during the construction or installation period, which diminishes the aesthetic character and form or structural integrity of the plant or group of plants.
 - c. Evidence of improper digging; inadequate protection following digging carelessness while in transit; evidence of desiccation or wind-related damage; cold damage; improper handling or storage; root zones that have

- d. dried to the point of leaf wilt; cracked, loose, damaged or distorted root balls. Plants with undersized root balls or containers, kinked or girdling roots, matted roots on the top, and edges of the container, excessive surface adventitious roots, root balls and containers with no structural roots in the top 3 inches of the soil.
- e. Plants balled with synthetic, treated or non-biodegradable fabrics.
- f. Any tree that is of a species that characteristically has a dominant central leader, and if the leader is dead or removed, the tree will not have a form consistent with the species.
- g. Any tree having co-dominant leaders or branch crotch unions without evidence of a bark ridge.
- h. Any tree that has open wounds (not completely healed over) that penetrates the cambium into the wood on trunks or major limbs the removal of which would result in the loss of 25% or more of the structure and form of the tree.

E. Planting of Balled and Burlapped (B&B) Trees and Shrubs:

1. Excavate planting tree and shrub pits and perennial plant beds as shown.
2. Any soils polluted by gasoline, oil, plaster, construction debris, unacceptable soils, or other substances which would render subgrade unsuitable for healthy plant growth shall be removed from the premises whether or not such pollution occurs or exists prior to or during the Contract period. In the event that such material is placed, this material shall be removed and replaced with approved material. All remedial operations associated with soil mixes and controlled fill shall be reviewed and approved by the Owner.
3. Scarify hard subsoil around perimeter of all planting beds to provide a transition between planting soil and existing subgrade.
4. Plants shall be placed on a firmed transition grade. The trunk flair must be located and placed at the correct level before continuing planting procedures. All ropes and strings must be cut, non-biodegradable material must be removed and the burlap folded back from the top one-third of the ball.
5. Thoroughly mix native or imported topsoil and percentage of compost or amendment as recommended by testing for plant type and place in all excavated areas insert around plant root ball as shown. Soil must be firmed at 8 inch intervals and thoroughly settled with water. Trees and shrubs shall stand plumb.
6. Tamp soil lightly to steady plant in hole. Plants to be plumb. Street trees and specimen trees to be plumb with main leader and vertical.
7. Staking, Guying and Wrapping trees as shown.
8. Water each plant on the day of installation to saturate the soil around the roots and wash the soil into the root zone. After the soil has drained, reset any settled plants or grades around the plant, adding soil if required.

F. Planting of Container Grown Shrubs

1. Remove plastic, paper, or fiber pots from containerized plant material. Inspect the root system. Plants that have girdling roots that cannot be removed without severely stressing the plant shall be rejected. Notify the Landscape Architect of any plants with girdling roots. The Landscape Architect may request that random

containerized plants be dug up after planting to inspect the roots for compliance with these specifications.

2. Pull roots out of the root mat, cut circling roots with a sharp knife. Loosen the potting medium and shake away from the root mat. Pack planting mix with fingers around the exposed roots while planting.
3. Dig holes large enough to allow for spreading of roots and backfill with planting soil. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water. Water thoroughly after planting, taking care not to cover crowns of plants with wet soil.
4. Install the plant such that the top of the root ball is at the finish grade of the surrounding soil.
5. Water each plant on the day of installation to saturate the soil around the roots and wash the soil into the root zone. After the soil has drained, reset any settled plants or grades around the plant, adding soil if required.

G. Placement:

1. Where indicated on Drawings trees and or shrubs should be placed in straight rows. If row is shown parallel to pathway it should be installed so that trunks are in a parallel row to path.
2. Trees or shrubs adjacent to paths should be planted so that branches extending over walkways are above head height. If this cannot be achieved prune as last resort if rotation of plan will not get branches out of walkway. See Pruning section below.

H. Pruning:

1. Prune plants as directed by the Landscape Architect or Project Landscape Representative or certified arborist at the time of planting and according preserve the natural character of the plant. Pruning shall follow recommendations in "An Illustrated Guide to Pruning, Second Edition".
2. An arborist certified by the International Society of Arboriculture shall perform all pruning.
3. Pruning shall be done with clean, sharp, rust-free tools. Cuts shall be made flush, leaving no stubs as per ANSI A 300 - 1995. No tree paint or sealants shall be used.
4. Wherever possible and appropriate to the species preserve or create a central leader.
5. Dead wood, suckers, and broken and badly bruised branches shall be removed. Do not prune plant material that has been severely damaged due to transit or handling until viewed by the Landscape Architect.
6. Excessive pruning at the time of transplanting shall be avoided. No shaped or topiary plants unless specifically described in Drawings
7. Remove and replace excessively pruned or malformed stock resulting from improper pruning.
8. Pruning shall be done with clean, sharp tools. No leaders shall be cut.

I. Mulching:

1. Mulch top of root balls and planting beds, covering the entire planting bed area. Provide the following thickness of mulch:

2. Tree and shrub planting areas: 2-inch thickness continuous from plant to plant
3. Top of mulch shall be smooth and even in all directions.
4. In no case shall mulch cover any part of trunk or root flare.
5. Apply mulch after all plants have been installed and approved by the landscape architect.
6. Excess mulch shall be removed and disposed of off-site. Contractor shall not over-mulch planting beds with excess mulch.
7. Lift all leaves, low hanging stems and other green portions of plants out of the mulch if covered.

J. Watering:

1. The Contractor shall be fully responsible to ensure that adequate water is provided to all plants from the point of installation until the date of acceptance. The contractor shall adjust the automatic irrigation system, if available and apply additional water, using hoses as required.
2. Upon completion of planting operation, water plant material thoroughly on the interior of the saucer until it is filled or over the entire planting bed
3. Hand water root balls of all plants to assure that the root balls have adequate moisture. Test the moisture content in each root ball to determine the water content. The Contractor shall install one set of watering bags for each tree to be maintained and used for tree watering during the warranty period. Watering bags shall be removed between December 1 and March 1.

K. Cleaning:

1. Maintain the site in an orderly condition during the progress of Work. Continuously and promptly remove excess and waste materials and keep lawn areas, walks and roads clear. Store materials and equipment where directed.
2. Immediately remove rejected materials from the property. Promptly remove equipment, surplus material, and debris and trash resulting from operations under this Contract upon completion and prior to initial acceptance of Work. Leave the site in a neat, orderly condition, "broom clean".

L. Irrigation Acceptance:

1. Install irrigation system for the athletic fields as shown on the plans.
2. Once completed and tested, the County will inspect and utilize the irrigation system in operation to ensure it is functioning properly and free of leaks.
3. County to instruct the Contractor about the operation of the system, including adjustments to spray heads, controllers, and valves both before and after sod installation and grow-in periods.
4. Contractor shall guarantee all irrigation workmanship to be free of defects for a period of one year from the date of acceptance of the project. He shall replace any part of parts found to be defective within the period of guarantee at no cost to the owner, except repairs or replacements necessitated by damage by others. Material, fixtures, and equipment is to be warranted for 5 years from installation date including any computer hardware and software. This guarantee is to be certified in writing by factory representative. All upgrades (hardware and software) to field satellites or central computers that are released within 5 years after the final acceptance are to be installed by the factory at no cost to owner.

5. Backfilling of excavations shall also be guaranteed. If, at any time during the first year of the guarantee period, trenches or heads should settle, the irrigation contractor shall repair any settling at no cost to the owner.

END OF SECTION 02921

SECTION 06100 –ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Wooden Guardrail Systems.

1.2 REFERENCES

The most recent edition of the publications listed below from a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

A. American Wood-Preservers' Association (AWPA):

1. Standard C1, All Timber Products – Preservative Treatment by Pressure Process.
2. Standard C2, Lumber, Timbers, Bridge Ties and Mine Ties.
3. Standard P5, Waterborne Preservatives.
4. Standard E13, Standard Method of Testing to Determine Water Repellents in Pressure Treated Lumber.
5. Standard M4, Care of Preservative - Treated Wood Products.
6. Standard U1, Use Category System

B. AMERICAN FOREST AND PAPER ASSOCIATION. NDS National Design Specification for Wood Construction and Supplement Design Values for Wood Construction.

C. AMERICAN FOREST AND PAPER ASSOC WCD Manual for Wood Frame Construction.

D. ICBO UBC Uniform Building Code.

1.3 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.

B. Material Certificates: For dimensional lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the American Lumber Standards Committee Board of Review.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Treatment Facility: Provide treated materials that have been produced under quality assurance program conducted by an ALSC - recognized agency.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping:

1. Provide waterproof covers for wood during shipment.

B. Storage and Protection:

1. Store wood off the ground and protected from the weather.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.
3. Provide dressed lumber, S4S, unless otherwise indicated.

- B. Engineered Wood Products: Provide engineered wood products acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.

1. Allowable Design Stresses: Provide engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Pressure Treated Wood shall conform to all standards of the American Wood Preservers Association (AWPA).

- B. Preservative Treatment by Pressure Process: AWPA C1 and C2

1. Preservative Chemicals: Acceptable to authorities having jurisdiction including CA-B and ACQ. CAA treated wood shall not be permitted.

- C. Kiln-dry pressure treated lumber after treatment to a maximum moisture content of 19 percent.

- D. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

- E. Application: All wood shall be pressure treated, unless otherwise indicated.

- F. Minimum Preservative Retention: In accordance with the specified standard, determined in the

specified zone, for the following AWP A Use Category applications. Contractor to supply manufacturers Use Category certification for all wood products.

1. Sawn Wood Products for Above Ground use. Includes pier beams, joists, railing posts, railings, blocking, fascia, and wood in all other above ground areas. AWP A Use Category UC4A for ground contact. Preservative Retention PCF shall be as recommended by the supplier for the Use Category.
2. Sawn Wood Products for Ground or Fresh Water Contact. Includes guardrail posts, fence posts, footing posts, cross braces, and concrete wall ledger boards. AWP A Use Category: UC4C for ground contact extreme duty. Preservative Re- tention PCF shall be as recommended by the supplier for the Use Category.

2.3 DIMENSIONAL LUMBER FRAMING

- A. Air Dry or kiln dry lumber. Maximum Moisture Content for non-pressure treated Framing lumber and boards: 10 percent.
- B. Structural Framing, Beams, Joists, Cross-braces, Railing Posts, Railings, and all exposed boards.
 1. Species and Grade: Southern pine, No. 1 grade.
 2. Locally sourced Eastern Red Cedar: No. 1 grade.
 3. Locally sourced Black Locust: No. 1 grade.

2.4 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 1. Blocking.
 2. Nailers.

2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified.
 1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of hot dipped galvanized steel.
- B. Power-Driven Fasteners: NES NER-272.
- C. All screws and nails shall be hot-dipped, galvanized steel. All nails shall be ring-shank or spiral.
- D. Bolts: Hot-dipped, Galvanized Steel complying with hex nuts, flat washers, and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and

fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

- B. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- C. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- D. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
- E. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.
- F. Do not splice structural members between supports, unless otherwise indicated.
- G. Comply with AWPAs M4 for applying field treatment to cut surfaces of preservative-treated lumber.
- H. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following as applicable:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
 - 3. Table 2305.2, "Fastening Schedule," in BOCA's BOCA National Building Code.
 - 4. Table 602.3(1), "Fastener Schedule for Structural Members," and Table 602.3(2), "Alternate Attachments," in ICC's International One- and Two-Family Dwelling Code.

END OF SECTION 06100

SECTION 06200 - PRECAST CONCRETE VAULT TOILET BUILDING

PART 1 - GENERAL

1.1 SUMMARY

- A. Contractor shall furnish a precast concrete transportable restroom building. Building to be delivered and placed on a crushed stone foundation in accordance with manufacturer's recommendations. Precast building to be EASI-SET® brand Restroom Model Carlson Vault Toilet as manufactured by a licensed producer of Easi-Set Buildings or approved equal. Manufacturer to provide building with all necessary openings as specified by contractor in conformance with manufacturer's structural requirements.
- B. Pre-fabricated and pre-engineered Precast Concrete Vault Toilets that are potentially "Equal" include:
 - 1. Denali Standard Vault Toilet
CXT Precast Products
415 Holiday Drive
Pittsburgh, PA 15220
(412) 398-4286
 - 2. RM 300 Dual Room Dry Privy with Chase
Crest Precast, Inc.
La Crescent, MN 55947
507-895-2377
- C. The Contractor is responsible for providing all necessary documents to show that potential "Equal" vault toilets listed above (or others) meet or exceed the plans and specifications. The Owner retains final authority to decide if any proposed "Equal" toilet meets the project requirements.

1.2 REFERENCES

- A. ACI-318-11: Building Code Requirements for Structural Concrete and Commentary
- B. ASCE/SEI 7-10: Minimum Design Loads for Buildings and Other Structures
- C. IBC 2012: International Building Code
- D. PCI Design Handbook, 7th Edition
- E. Concrete Reinforcing Institute, Manual of Standard Practice
- F. UL-752 (Test Method level 5) for bullet resistance certified by a military approved laboratory.
- G. 2010 ADA Standards for Accessible Design

- H. International Plumbing Code (IPC) and National Electrical Code (NEC)
- I. USDA Forest Service Publication: In-depth Design and Maintenance Manual for Vault Toilets (Incorporating FAN™ Natural Ventilation System)

1.3 SYSTEM DESCRIPTION

DESIGN REQUIREMENTS

A. Building Dimensions:

Exterior: 11'-11" x 17'-6" x 9'-11" (tallest point)

Interior: 6'-10" x 17'-0" x height (varies)

CASE 2: Heavy

B. Design Loads:

1. Seismic Design Category 'D', Risk Design Category III
2. Roof Live Load (Snow) – 150 PSF
3. Floor Live Load – 150 PSF
4. Standard Wind Loading* – 165 MPH

*Design loads relate to precast components only, not accessories (i.e. doors, windows, vents, etc.)

- C. Roof: Proprietary two-piece Outback style roof. Roof panels shall overhang on all sides to prevent water intrusion. The pitch of the roof shall be 3/12. The roof standard finish is a simulated cedar shake. Other finishes are available.
- D. Roof panels, floor, and wall panels must each be produced as single component monolithic panels. No floor or vertical wall joints will be allowed, except at perimeter interfaces, corners and partitions. Wall panels shall be set on top of floor panel.
- E. Wall-to-Floor interior surface joints along the perimeter of each restroom and partitions (if precast) must contain the locked-in, easy clean-out radius coving. The 3/8" (recessed) x 2" cove must be continuous around the interior of the restroom and along the sides of any precast partitions. Apply 5,000 PSI (minimum) non-shrink, non-metallic grout to the cove, finishing the grout to form a flush 1" minimum radius.
- F. Solar powered fans to be added onto the vent stacks (2 buildings, 4 total).

1.4 SUBMITTALS

- A. Engineering calculations designed and sealed by a professional engineer, licensed to practice in the state where the project is located, shall be submitted for approval.
- B. Manufacturers' product literature shall be provided for all plumbing, electrical and miscellaneous

installed fixtures demonstrating compliance with these specifications.

1.5 QUALITY ASSURANCE

- A. The precast concrete building producer shall be a plant-certified member of either the National Precast Concrete Association (NPCA), The Precast/Prestressed Concrete Institute (PCI), or equal.
- B. The precast concrete building producer shall demonstrate product knowledge and must have a minimum of 5 years' experience manufacturing and setting precast concrete.
- C. The manufacturer must be a licensed producer of Easi-Set Buildings or equal.
- D. No alternate building designs to the pre-engineered EASI-SET® building will be allowed unless pre-approved by the owner.

PART 2 - SECTION 2 – PRODUCTS

2.1 MATERIALS

- A. Concrete: Steel-reinforced, 5000 PSI minimum 28-day compressive strength, air-entrained (ASTM C260).
- B. Reinforcing Steel: ASTM A615, grade 60 unless otherwise specified. Welded wire fabric: ASTM 185, Grade 65
- C. Post-tensioning Strand: 41K Polystrand CP50, ½” 270 KSI Seven-Wire strand, enclosed within a greased plastic sheath (ASTM A416). Each Roof and floor shall be post-tensioned by a proprietary, second-generation design using a single, continuous tendon. Said tendon is placed in the concrete slab to form a perimeter loop starting from one corner of the slab to a point where the cable entered the slab. The tendon then turns 90 degrees and follows the cable member(s) in the periphery to a point midway along the “X” axis of the concrete building panel and then turns 90 degrees along the “Y” axis of the concrete building panel. This bisects the concrete building panel and crosses the opposite parallel portion of the cable member and exits from an adjacent side of the concrete building panel. This creates a cable pattern with no less than 2.5 parallel cables in any direction. To ensure a watertight design, no alternate methods shall be substituted for the post-tensioning.
- D. Sealant: All joints between panels shall be caulked along the exterior and interior surface of the joints. Exterior sealant shall be DOW CORNING 790 silicone sealant or equal. Interior sealant shall be SIKAFLEX-1A elastic sealant (paintable) or equal. Exterior caulk reveals to be 3/8”x 3/4” deep so that sides of the joint are parallel for proper caulk adhesion. Back of the joint to be taped with bond breaking tape to ensure adhesion of caulk to parallel sides of joint and not the back.
- E. Panel Connections: All panels shall be securely fastened together utilizing cast-in stainless steel embeds and welding. All welding shall be done in conformance with AWS, Structural Welding Code latest revision. Steel is to be of structural quality, hot-rolled carbon complying with ASTM A304. No floating-in of connection plates shall be allowed.

F. Stain and Paint:

- a. Interior concrete surfaces (toilet rooms)
 - i. Interior floors will be a two component, water-based polyamide epoxy floor coating (gray, unless otherwise specified). Approved manufacturers: Sherwin Williams (Floor-Plex 7100), Armorpoxy or equal.
 - ii. Interior walls and ceilings will be a pre-catalyzed water-based epoxy. Approved manufacturers: Sherwin Williams or equal.
- b. Exterior concrete surfaces
 - i. Exterior slab top surface (if selected) will be a two component, polyamide epoxy floor coating (gray, unless otherwise specified). Approved manufacturers: Sherwin Williams, Armorpoxy or equal.
 - ii. Exterior walls and roof will be a water-based acrylic, water-repellent penetrating stain. Approved manufacturers: United Coatings (Canyon Tone Stain), Sherwin Williams (H&C Concrete stain) or equal
 - iii. Clear Acrylic anti-graffiti sealer (if selected)

2.2 ACCESSORIES AND FIXTURES

- A. Doors and Frames: Shall comply with Steel Door Institute “Recommended Specifications for Standard Steel Doors and Frames” (SDI-100) and as herein specified. All door and frame galvanizing shall be in accordance with ASTM A924 and A653, minimum coating thickness shall be A60.

- 1. The buildings shall be equipped with 3’-0” x 6’-8” x 1-3/4” (restroom entry doors) & 2’-8” x 6’-8” x 1-3/4” (chase door) thick insulated, 18 gauge, metal doors with 16- gauge frames (to meet wall thickness). Doors shall have a flush top cap. Doors and frames shall be factory bonderized and painted with one coat of rust-inhibitive primer and one finish-coat of enamel paint; color to be BOLT BROWN unless otherwise specified.
- 2. Doors shall have louvers for ventilation as shown on the plans.
- 3. Doors and frames shall meet SDI standard Level 2, 1¾” heavy duty.

Approved manufacturers: Republic, Steelcraft, Ceco, Black Mountain, Pioneer, Curries, Mesker, MPI, Door components or equal

Approved distributor: Integrated Entry Systems

B. Door Hardware:

- 1. Cylindrical Lock: Commercial grade, shall meet requirements of ANSI A156.2, series 4000, UL listed and ADA approved. Zinc dichromate chassis with cast solid zinc levers to resist corrosion. Furnish locks with 6-pin solid brass keyway. Exterior locks and unlocks by key, interior push button lock, released when lever is turned. Manufacturer shall provide a limited lifetime warranty on this product.

Approved manufacturers: Design Hardware, or equal

- 2. Hinges: Self-Closing (spring) Hinges. Shall comply with ANSI A156.17 Grade 1 self-closing hinges (3 per door). Hinges shall be Stainless Steel Grade 304 (ANSI K81071F) US32D brushed satin finish. Manufacturer shall provide a lifetime limited warranty. Approved manufacturers: Design Hardware, or equal

- 3. Door Sweep: Nylon brush door sweep, ANSI/BHMA certified. Sweeps shall have an integral drip edge to repel water from base of door. Sweeps shall be approved for UL 10C positive pressure and suitable for use with fire doors up to three hours.

Approved manufacturers: National Guard Products or equal

4. Drip Cap: Aluminum drip cap with minimum projection of 2 ½” shall be furnished.

Approved Manufacturers: Design Hardware, National Guard Products, or equal

5. Door Stop: ANSI 156.16 approved wall mounted door stop with keeper constructed of a corrosion resistant cast brass material. Finish US26D (626) brushed chrome finish. Approved manufacturers: Don-Jo, Rockwood, or equal

- C. Wall Vent: Wall vents will be extruded aluminum, minimum thickness of .125”, 6063-T5 alloy. Vents to be supplied with aluminum mesh insect screen and 204-R1 clear anodized finish. Approved manufactures: Sunvent Industries or equal.
- D. Signs: Signs to have braille, characters, and pictograms to meet ADA requirements.
- E. Windows: Frames shall be constructed from stainless steel. Window glazing will be ¼” translucent Lexan.
- F. Grab Bars: Stainless steel tubing, 18-gauge, type 304 stainless steel, mounted 1-1/2 inches from wall. Approved manufacturers: Bobrick or equal.
- G. Toilet Paper Dispenser: Dispenser will be constructed of 3/16” to 1/4” thick 304 stainless steel. Dispenser will be capable of holding three (3) standard rolls of toilet paper. Approved manufacturers: Aslin Industries, Bobrick or equal.
- H. Plumbing:
 - I. Waterless Toilet: ADA compliant, 18 gauge type 304 stainless steel riser with seat cover
- I. Vault Cleanout Cover: Aluminum hatch, rated for a 300 psf pedestrian load. Cover to be hinged with a staple for padlock and a hold open arm to prevent closing. OR if required, cleanout cover frames will be constructed from steel. Plate for vault cleanout cover will be ¼” thick diamond plate steel. Lid will be hinged and configured so that it can be locked with a padlock. A gasket will be provided around the perimeter of the lid to provide an airtight seal.
- J. Vent Stack: Vent stack(s) to be 12” (nominal) diameter High-Density Polyethylene Pipe.
- K. Vent Fan: Vent stack(s) shall each include a ventilation fan and a spare or replacement fan.
- L. Vault Liner: Inside of vault tank(s) to be lined with a water-based acrylic coating (Conseal CS-55) or equal, applied per manufacturers specifications. Optional drop-in or cast-in high performance reinforced geomembrane liner is available.

2.3 Finishes

- A. Interior of Building: Smooth form finish on all interior panel surfaces unless exterior finish is produced using a form liner, then smooth hand-troweled finish.
- B. Exterior of Building (standard): Barn board finish on all exterior wall surfaces with a simulated cedar shake roof finish.

- C. Exterior of Building (Option #1): Architectural precast concrete brick finish: Finish must be imprinted in top face of panel while in form using an open grid impression tool similar to EASI- BRICK®. Finished brick size shall be 2 3/8" x 7 5/8" with vertical steel float or light broom finish. Joints between each brick must be 3/8" wide x 3/8" deep. Back of joint shall be concave to simulate a hand-tooled joint.
- D. Exterior of Building (Option #2): Additional finishes for walls and roof are available and will vary by local producer. See plans for additional details related to finishes.

PART 3 - EXECUTION

3.1 SITE PREPARATION (MANUFACTURER'S RECOMMENDATION)

Work under this section relates to placement of the restroom building by the Easi-Set licensed producer on the vaults placed in a Contractor-prepared site.

- A. All material, methods of construction, and testing & inspection shall conform to the applicable requirements of the codes and standards listed in the project specifications.
- B. Stone shall be a minimum of 4" thick and down to firm subgrade. The vertical soil capacity under stone shall be compacted to have minimum bearing of 1,500 pounds per square foot. Stone shall be 3/8" or smaller followed by a course or topping of fines for final grading and compaction purposes as needed. Elevations and levelness of the prepared stone base shall be within 1/4" in all directions.
- C. Provide positive drainage around the building.
- D. Provide Butyl Sealant between the vault and building floor.

3.2 SITE ACCESS

Contractor must provide a level, unobstructed area large enough for a crane and a tractor- trailer to park adjacent to the pad. Crane must be able to place outriggers within 5'-0" of the edge of pad; truck and crane must be able to get side-by-side under their own power. No overhead lines may be within 75' radius of center of pad. Firm roadbed with turns that allow 65' lowbed tractor-trailer must be provided directly to building site. No building shall be placed closer than 2'-0" to an existing structure unless specifically permitted.

3.3 EXCAVATION AND ELEVATION

- A. Comply with all applicable OSHA standards for excavation.
- B. No excavation will be left open without proper shielding or fencing.
- C. Excavate for the placement and installation of the toilet vault tank(s) to a depth that will allow the structure site to be free draining. After installation is complete, the depth of the tank excavation should allow for the stone base and leveling course beneath the toilet vault.

- D. Final building floor elevation to be within ± 0.02 feet of specified floor elevation on the plans.

3.4 BACKFILL AND COMPACTION

- A. Compact natural subgrade at the bottom of the vault excavation to a minimum vertical soil capacity of 1,500 PSF.
- B. Install and compact stone base and leveling course to specified elevation ensuring levelness of the stone.
- C. Set the vault(s) in place and check for proper alignment and levelness. Backfill around the structure(s). Use excavated material suitable for backfilling or stone fill. Rocks or stone larger than 4 inches in maximum dimension shall be discarded from excavated material if used for backfilling.
- D. Lift thickness for backfill material – loose lifts of 8 inches and 6 inches for vibratory and static compaction respectively.
- E. Use compaction equipment suited to achieve specified compaction for subgrade, stone base, and backfill (drum rollers – static and vibratory, rammer, plate tamper – static and vibratory, etc.). Vibrating equipment is used for compaction of course materials.
- F. Intended final grade is flush with the top of the front floor slab. Grade backfill away from structure for positive drainage in all directions.
- G. Surrounding concrete sidewalks shall be ADA compliant and tie into the door thresholds per code.

END OF SECTION 06200