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SECTION 00020

INVITATION TO BID

PART 1 - GENERAL

1.01 **Notice of IFB:** Notice is hereby given that the Fairfax County School Board (“Owner”) will receive bids for the _____ Project, before, 3:00 p.m. on Wednesday, DATE.

1.02 **New Requirement for Electronic Submission of Bidding Documents:** In order to be eligible for consideration under this IFB, Approved Prequalified Bidders must submit bidding document (Bid Form) electronically using a procurement portal powered by Bonfire Interactive, for submission and acceptance of bidding documents. Physical delivery of original bid bond is required. To register for use of the Bonfire platform, approved prequalified bidders are instructed to visit and create a free account at <https://fcps.bonfirehub.com>. Assistance with registration and use of the Bonfire platform is available by emailing Support@goBonfire.com or calling 1(800) 354-8010 and selecting option 2.

1.03 **Mandatory Procedure for Submission of Bidding Documents:** Approved Prequalified Bidders are advised of the following mandatory procedure for submission of bidding documents for this IFB:

1.03.1 **Electronic submission of completed bid form** at <https://fcps.bonfirehub.com> before 3:00 p.m. on Wednesday, DATE; and

1.03.2 **Physical delivery of original bid bond** no later than Tuesday, DATE, at 3:00 p.m. in a sealed, opaque envelope that is (a) labeled with Bidder’s name, “Bid Bond for IFB”, and (b) addressed as follows:

Gatehouse Administrative Center
8115 Gatehouse Road, Suite 3400
Falls Church, Virginia 22042-1203

In order to be eligible for award, Approve Prequalified Bidders must complete both items A and B, above, no later than the Due Date and Time.

1.04 **Virtual Bid Opening:** The _____ Project, IFB _____ bid opening will be held on Wednesday, DATE, at 3:00 p.m. via Google Meet. You may join the meeting as early as 2:45 p.m. The Google Meet link and dial-in number are set forth below.

A. **Meeting Link and Dial-In Number for Bid Opening:**
Audio and Video: <https://meet.google.com> Meeting Code:

Audio Only: Toll Free Number 1-877-848-7030 Access Code 3075047

1.05 **In Person Viewing of Bid Opening:** In addition to the to the live stream bid opening, in-person viewing of the bid opening will be held in conference room _____. Enter the building at the above referenced address at the front entrance as early as 2:45 p.m.

- 1.06 Each bidder shall bear and be responsible for all costs, fees and expenses associated with its preparation and submission of a bid in response to this IFB. In no event shall any bidder be reimbursed by the Owner for any such costs, fees or expenses. Bid prices shall be inclusive of all labor, supplies, materials, equipment, permits, and sales or use taxes required to complete the Work in its entirety in strict accordance with the Contract Documents.
- 1.07 The procedure for withdrawal of bids and bid award public notification is set forth in the Instructions to Bidders.
- 1.08 Bids will be considered on a lump sum basis for the entire work described in the Contract Documents **[plus any alternates accepted by the Owner]**.
- 1.09 The Owner will not discriminate against a bidder solicitation or awarding of contracts because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment. Minority contractors and small business enterprises are invited and encouraged to submit bids in response to this solicitation. Each bidder shall indicate on its Bid Form whether or not it is a Small Business Firm or a Minority Business Firm, as such terms are defined in the instructions to Bidders. All responsive and responsible bidders will receive equal consideration for award.
- 1.10 Drawings and Specifications may be examined at the Owner's Office of Design and Construction Services Gatehouse Administrative Office location on appointment basis. Electronic contract document set may be obtained from the **[Architect of Record: Name, Address, and Phone Number]**. One **[one (1)]** set of electronic bidding documents will be furnished to each bidder.
- 1.11 The Contractor shall perform Substantial and Final Completion of Work on or before the respective Substantial and Final Completion dates established in Section 01010, Summary of Work. It is the intent of the Owner to assess liquidated damages in the amounts shown in Section 01010 in the event that these dates are not met.
- 1.12 Contract documents including Drawings and Specifications will be placed on the file at the following locations: (list revised 11/23)

NAME	ADDRESS	PHONE	FAX
DODGE Data	<i>Dodge Data and Analytics</i> 2860 S State Hwy 161, Suite #501 Grand Prairie, TX 75052-7361 support@construction.com www.construction.com	800-393-6343	800-625-3488

NAME	ADDRESS	PHONE	FAX
Construct Connect	30 Technology Parkway South Suite 100 Norcross, GA 30092 content@constructconnect.com	800-364-2059 Ext. 8232	866-570-8187
Valley Construction News	426 West Campbell Avenue, SW Roanoke, VA 24016 emilyvcn@yahoo.com	540-344-8127	540-344-0292
The Blue Book	800 E. Main Street Jefferson Valley, NY 10535 ATTN: Alex Gugliada agugliada@mail.thebluebook.com	800-431-2584, Ext. 3327	914-243-4396
Builders and Construction Exchange, Inc.	1118 Azalea Garden Road Norfolk, VA 23502 plans@bceva.com	757-858-0680	757-858-0681
Construction Bid Source, LLC	528 Weather Ridge Lane Cary, NC 27513 Attn: Liz Stryker or Pearl Regis projects@constructionbidsource.com	1-888-786-9450	209-772-3573

1.13 Unless cancelled or rejected, a responsive bid from the lowest responsible bidder shall be accepted as submitted, except that if the bid from the lowest responsible bidder exceeds available funds, the School Board may negotiate with the apparent low bidder to obtain a contract price within available funds.

The conditions and procedures for such negotiation are set forth in the current version of School Board Policy 8240, the text of which is available for review at www.fcps.edu, search for "Policies, Regulations and Notices", click this link, then select "Find a Policy".

In summary, negotiation may be undertaken on behalf of the School Board where, and to the extent such, is deemed to be in the best interests of the School Board. Office of Design & Construction staff, along with the project's design professionals and the apparent low bidder, will

develop appropriate scope modifications that do not impair the proposed function of the project. These modifications will be priced by the apparent low bidder and reviewed by the Office of Design and Construction and the project's design professionals, which may recommend an award on that basis if such is deemed to be in the best interests of the School Board and the price is within available funds.

THE COUNTY SCHOOL BOARD OF FAIRFAX COUNTY, VIRGINIA

Karl Frisch
Chair

Dr. Michelle Reid
Superintendent of Schools

Janice M. Szymanski
Chief of Facilities Services
& Capital Programs

Jessica Gillis
Executive Director, Capital Improvements and Planning
Facilities Services & Capital Programs

END OF SECTION

SECTION 00100

INSTRUCTIONS TO BIDDERS

1. QUALIFICATION OF BIDDER

- A. **(If for pre-qualified projects)** Only Bidders who have been prequalified in accordance with the Fairfax County Public Schools Capital Bond Improvement Projects **for (School Name) School Renovation** Prequalification Application shall be permitted to submit bids for this project. Bids received from firms, which have not been prequalified, shall not be accepted and considered. The decision to prequalify a bidder will not, however, constitute a determination that the bidder is responsible / responsive for purposes of award. Notwithstanding prequalification, any bidder may be rejected as nonresponsible/ nonresponsive based in whole or in part upon subsequently discovered or disclosed information.
- B. Each bidder shall be required to be licensed pursuant to Title 54.1, Chapter 11 of the Virginia Code, as amended, before such bidder's bid may be submitted to the Owner and be eligible for consideration hereunder. Each bidder shall place its Virginia Contractor License Number on the outside of the envelope containing its proposal and in the space provided therefore on the signature page of the Bid Form.
- C. The bidder shall be qualified by experience, financing, organization, scheduling and coordination ability, and shall have the necessary labor and equipment to perform the work called for in the Contract Documents. The bidder shall have experience with work of similar type and size to that called for in the Contract Documents and such experience shall be based upon projects that have been completed within the last five years.

2. LICENSE AND REGISTRATION REQUIREMENTS

- A. All firms doing business in Fairfax County shall obtain a license as required by Chapter 4, Article 7, of the Code of the County of Fairfax, Virginia, as amended, entitled "Business, Professional and Occupational Licensing (BPOL) Tax." Questions concerning the BPOL tax should be directed to the Fairfax County Department of Tax Administration, telephone number: (703) 222-8234.
- B. Any foreign corporation transacting business in Virginia shall obtain a Certificate of Authority, as required by Section 13.1-757 of the Code of Virginia, from the Virginia State Corporation Commission, Post Office Box 1197, Richmond, Virginia 23218. The Commission may be reached at (804) 371-9733. The consequences of failing to secure a Certificate of Authority are set forth in § 13.1-758 of the Virginia Code, as amended.
- C. A current State Corporation Commission Corporate Identification number. *Effective July 1, 2010, a company is required to provide FCPS a state authorization number to transact business in the state of Virginia. To obtain a State Corporation Commission Corporate Identification number, contact the state*

commission at 804-371-9733 or 1-800-552-7945, or <https://www.scc.virginia.gov/index.aspx>, email: sccinfo@scc.virginia.gov or The State Corporation Commission, Post Office Box 1197, Richmond, Virginia 23209.

3. QUESTIONS AND COMMUNICATIONS; ISSUANCE OF ADDENDA

- A. All contact between prospective Bidders and the Owner with respect to this solicitation will be formally held at scheduled meetings or will be conducted in writing through the Owner's Office of Design and Construction Services. Except as expressly authorized herein, communications between prospective bidders, their agents and/or representatives and any representative of the Owner concerning interpretation of all or any portion of this solicitation are prohibited and may not be relied upon for any purpose. No interpretation of the meaning of these documents will be made to any bidder orally.
- B. Any question or request for an interpretation must be in writing and submitted: (i) by mail or hand delivery addressed to Architect and Owner as indicated on the cover page to this solicitation; or (ii) by email to **[the Architect of Record: Firm Name, Email]** and fax or email to the Senior Buyer at following: fax: 571-423-2317; email rwimmer@fcps.edu (Roger Wimmer). In order to be eligible for consideration, a question or request for interpretation must be received on or before the deadline. Deadline will be established in the Pre-Bid Conference referenced in section 00020 ("Invitation to Bid"). Any and all such responses, interpretations and any supplemental instructions will be returned in writing to the prospective bidder requesting such interpretation or will be in the form of written addenda. It shall be the responsibility of each bidder to ensure that all addenda are acquired. The addenda are acquired at www.fcps.edu, search for "Design and Construction", select "Design & Construction" Services-Current Solicitations', scroll to 'Current Solicitations'. Any issued addenda in connection with this project will be posted under 'Current Solicitations'. The bidder may also call the **[Architect of Record: Firm Name, Phone Number]** and Senior Buyer at 571-423-2279 prior to bid submission in order to determine whether any addenda have been issued in connection with this solicitation." Notwithstanding any provision to the contrary, the failure of any bidder to receive any such addenda or interpretations shall neither constitute grounds for withdrawal of a bid nor relieve such bidder from any obligation under his Bid as submitted. "Points of Interests" will be attached to Addendum 1, which will replace Pre-Bid meetings/addenda. All addenda so issued shall become part of the Contract Documents.
- C. The bidders for this Project are notified that the site for performance of the Work is "unclassified" and that, as such, complete, accurate and/or reliable information regarding surface and subsurface conditions likely to be encountered during performance of the Work is not available. Each bidder shall be provided full and complete access to the site of the Work (but only upon prearrangement with the Office of Design & Construction as to all aspects of the site visit) in order to conduct, at its expense, such tests and investigations of the site as it deems appropriate under the circumstances (and of which it has provided ten (10) days advance written notice to Owner) in order to evaluate and satisfy itself as to the

surface and subsurface conditions likely to be encountered during performance of the Work.

Bidders which do not comply with the foregoing prearrangement and notice provisions shall not be permitted to visit the site or to conduct tests and investigations of the site.

It is the intent of these Contract Documents that the successful bidder for this Project shall bear full and complete responsibility for all surface and subsurface conditions, whether known or unknown, reasonably foreseeable or not, that shall be encountered during the performance of the Work and that, as such, each bidder shall include in its bid price for the Work an amount that it deems sufficient, in its sole and absolute discretion, to protect such bidder from the increased costs of performance that it may incur as a result of its assumption of responsibility for all such surface and subsurface conditions. Notwithstanding any provision in the Contract Documents to the contrary, the successful bidder shall in no event be entitled to additional compensation, time or other relief from its obligations under the Contract Documents as a direct or indirect result of surface or subsurface conditions encountered during performance of the Work. Pursuant to the Contract Documents, the successful bidder shall waive any and all claims against the Owner and the Architect that such bidder has, or may have in the future, arising out of or in connection with surface and subsurface conditions encountered during performance of the Work. In the event that the Owner or the Architect (or any of its or their representatives) provide the bidders with access to or copies of any reports, data or other materials or information pertaining to the surface or subsurface conditions at the site of the Project, each bidder shall: (a) acknowledge that such reports, data or other materials or information were supplied without representation or warranty as to the accuracy or completeness thereof; and (b) certify that it did not rely upon any such information in tabulating its bid price for the Work.

4. BID SECURITY

- A. Each bid shall be accompanied by a bid bond in an amount equal to five percent (5%) of the total amount of the principal's bid on the form prescribed herein (Section 00301). The original bid bond shall be submitted to the Office of Design and Construction, 8115 Gatehouse Road, Suite 3400, Falls Church, Virginia 22042-1203, **twenty-four (24) hours prior to the bid opening**. The bid bond shall be issued by a surety company licensed to conduct business as a surety in the Commonwealth of Virginia and otherwise satisfying any further requirements with respect to sureties set forth in the General Conditions. In lieu of a bid bond, a bidder may submit a certified check, cashier's check or cash escrow in the face amount required for the bond. Such bid security shall be given as a guarantee that the bidder will enter into a contract and provide the required contract security and insurance if awarded the work.
- B. The bid security of the unsuccessful bidders will be returned on or before the date that is five (5) days after the execution of the contract or, if no such contract

shall have been executed, on or before the date that is 60 days after the date of opening of the bids. The bid security of the successful bidder will be returned only after such bidder shall have executed the agreement and furnished the contract security and evidence of insurance required hereunder.

- C. If the bidder to whom the Contract is awarded refuses or neglects to execute the agreement or fails to furnish the required contract security and evidence of insurance within ten (10) days after receipt of the notice, the amount of such bidder's bid security shall be forfeited to the Owner; provided, however, that no such forfeiture shall exceed the lesser of: (i) the difference between the bid for which the bond was written and the next low bid; and (ii) the face amount of the bid bond. If the bidder to whom the contract is awarded refuses or neglects to execute the agreement or fails to furnish the required contract security and evidence of insurance, then the award of the contract may be annulled and the Owner may: (i) award a contract hereunder to the next best bidder and such bidder shall fulfill every requirement set forth in these documents as if it were the original party to whom the award was made; or (ii) reject all of the bids submitted hereunder, as its interest may require. Except as provided herein with regard to withdrawal of bids, no plea of mistake in the bid shall be available to the bidder for the recovery of its bid security or as a defense to any action based upon such bidder's failure or refusal to execute a contract and to furnish the required contract security and evidence of insurance.

5. CONTRACT SECURITY

- A. The Required Documentation and the Owner/Contractor Agreement will be sent to the successful bidder on the following Monday after bid opening. The Owner/Contractor Agreement shall be signed by an authorized officer of your company. Within seven (7) business days from the date of the Required Documentation, the successful bidder shall execute and deliver to the Owner four (4) copies of the Owner/Contractor Agreement. In Addition, the successful bidder shall furnish the following:
- 1) Two (2) original copies of the performance bond in an amount equal to 100 percent of the contract sum conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications, and conditions of the contract.
 - 2) Two (2) original copies of the payment bond in an amount equal to 100 percent of the contract sum conditioned upon the prompt and faithful payment of all persons and entities who have and fulfill contracts which are directly with the contractor for performing labor or furnishing materials in the prosecution of the work provided for in the contract.
 - 3) One (1) or more certificates of insurance evidencing the types and amounts of insurance coverage required to be maintained by the Contractor under the Contract Documents.

- B. The Notice To Proceed (NTP) and the counter signed Owner/Contractor Agreement will be sent to the successful bidder on the following Monday of FCPS's School Board approval. The successful bidder will be authorized and directed to proceed with the Work after seven (7) business days of the FCPS's School Board approval.
- C. Each of the following Subcontractors shall submit Performance and Payment Bonds in the amount of one hundred percent (100 percent) of its subcontract amount. Bonds shall (i) be substantially in the form herein provided (Sections 00302 and 00303), (ii) name the Contractor as obligee, and (iii) be issued by a surety company licensed to conduct business in Virginia. Cost of said Bonds shall be included in the Contract Sum:
- 1) Electrical
 - 2) Plumbing / HVAC
 - 3) Sprinkler
 - 4) Roofing
 - 5) Structural Steel, Joists & Decks (New Schools Only)
 - 6) Site and Site Utilities
- D. Any performance or payment bond required hereunder shall be in the form included in these Contract Documents and shall be executed by a surety company that is legally authorized to transact business as a surety in the Commonwealth of Virginia and that otherwise satisfies any requirements with respect to sureties set forth in the General Conditions. In lieu of a payment and/or performance bond, the successful bidder may furnish a certified check or cash escrow in the face amount(s) required for such bond(s).

6. BIDS

- A. In order to be entitled to consideration hereunder, bids shall be made in accordance with the following instructions.
- 1) Before submitting a bid, bidders shall visit the site of the work, fully inform themselves as to all existing conditions and limitations, and shall include in the bid a sum to cover the cost of all items included in the Contract Documents.
 - 2) Bids shall be made in duplicate upon the Bid Form, a copy of which is bound herein. Bids shall be completed, including each and every item; bids shall be stated both in writing and in figures. The signatures of all persons shall be in longhand. The completed Bid form shall be without erasures or alterations.
 - 3) No Bid shall contain any recapitulation of the work to be performed, and no alternate bid will be considered unless called for. No exceptions, exclusions or qualifications, unless expressly authorized, shall be permitted on the Bid Form. No oral, telegraphic or telephonic bids, or

modifications, either to the Bid Form or the Bid Envelope, shall be considered.

- 4) Bids shall be time-stamped and deposited in the bid box in Suite 3400, 8115 Gatehouse Road, Falls Church, VA 22042, on or before the day and hour set for the opening of bids, enclosed in an opaque sealed envelope and bearing the title of the work, name of bidder and bidder's Virginia Contractor License Number.
- 5) Bids shall be firm and irrevocable for a period of 60 days following the date of opening of the bids.

7. **OPENING OF BIDS**

Bids will be opened and read aloud at the time and place set forth in the Invitation to Bid. Bidders, their representatives, and other interested persons may be present at the opening of the bids. In the event that only one Bid Form is received by the Owner in response to the Invitation to Bid, the Owner may, in its discretion, decline to open such bid and return the unopened envelope to the bidder.

8. **LATE BIDS**

Any Bids or unsolicited materials relating to a Bid that are received by the Owner after the date and time specified for the submission of bids will not be eligible for consideration by the Owner. Bids received after the bid submission deadline will be returned to the Bidder unopened, providing that sufficient bid identification information is shown on the outside of the bid envelope.

9. **WITHDRAWAL OF BIDS:**

- A. A bidder may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake in the bid, 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.

If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor, or material made directly in the compilation of a bid that shall 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.

B. The following is the procedure for withdrawal of a bid and is stated in the advertisement for bids:

- 1) A bidder, who seeks to withdraw his bid in accordance with this provision, shall give notice in writing of his claim of right to withdraw his bid within two business days after the conclusion of the bid opening procedure and shall submit original work papers with such notice to:

Jessica Gillis
Executive Director, Capital Improvements and Planning
Facilities & Transportation Services
Fairfax County Public Schools
Office of Design and Construction
8115 Gatehouse Road, Suite 3400
Falls Church, VA 22042
Telephone Number 571-423-2200; Fax 571-423-2217
Email: jrgillis@fcps.edu

The mistake shall be proved only from the original work papers, documents, and materials delivered as required herein. The work papers, documents, and materials submitted by the bidder shall, at the bidder's request, be considered trade secrets or proprietary information subject to the conditions of subsection F of Section 2.2-4342 of the Code of Virginia.

- C. No bid may be withdrawn when the result would be the awarding of this Contract to another bidder in which the ownership of the withdrawing bidder is more than five percent (5%).
- D. If a bid is withdrawn, the lowest remaining bid shall be deemed to be the low bid. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor, or perform any subcontract or other work agreement for the person or firm to whom the Contract is ultimately awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.
- E. The Office of Design and Construction (D&C), acting for the School Board, shall notify the bidder in writing within five (5) business days of its decision regarding the bidder's request to withdraw its bid. If D&C denies the withdrawal of a bid, it shall state in such notice the reasons for its decision and award the contract to such bidder at the bid price, provided such bidder is a responsible and responsive bidder. At the same time that the notice is provided, D&C shall return all work papers and copies thereof that have been submitted by the bidder.

10. **CANCELLATION, REJECTION OF BIDS; WAIVER OF INFORMALITIES**

The Owner reserves the right to cancel this solicitation, to accept or reject any or all bids submitted hereunder, or to waive any informality in any one or all bids received.

11. AWARD OF CONTRACT

- A. The Contract will be awarded, if at all, under the terms and conditions of the Contract Documents to the lowest responsive and responsible bidder, as determined by the Owner, with due consideration given to the ability of the bidder to cooperate with separate contractors for the Project and to coordinate, schedule and complete the Work within the prescribed time period. The Owner reserves the right to award the Contract that would be in the best interests of the Owner.
- B. Public notice of the award of contract or the announcement of the decision to award a contract will be set forth on the website of Fairfax County Public Schools www.fcps.edu, search for "Bid Results", select "Design and Construction Services Current Solicitations", scroll to Bid Results. While school division staff may communicate procurement results to bidders or offerors, each bidder or offeror has the responsibility to monitor the FCPS website for its own purposes.
- C. The Owner reserves the right to require submission of references in sufficient time to make inquiries regarding the responsibility of the bidder before making the award, and the right to require a recent financial statement from the bidder if the Owner deems it necessary. The Owner also emphasizes its intention not to award any contract to a bidder whose past performance shows his firm to be generally late in performance of construction contracts. The ability of the low bidder to provide the required bonds will not in and of itself establish the responsibility of the bidder.
- D. The Owner reserves the right to defer award of any Contract for a period of 60 days after the due date for the bids. Bid prices shall be binding for 60 days following the due date for proposals, unless period for award of bids hereunder is extended by mutual consent of all parties, in which case bid prices shall be binding for such longer period as shall have been agreed upon.
- E. Under circumstances where no add alternates are included on the Bid Form, the low bidder shall be determined by the Owner based upon a comparison of the base bid amounts set forth on such Bid Forms. In the event that one or more add alternates are included on the Bid Form, the low bidder shall be determined by the Owner based upon the aggregate amount of: (i) the base bid, and (ii) any add alternates selected by the Owner. Add alternates shall be selected by the Owner based upon its authorized construction budget and the Owner's needs and requirements at the time of the bid opening. The Owner reserves the right, in its sole discretion, to select or reject any or all of the add alternates (or to select any combination of add alternates) included in the Bid Form. The Owner shall determine the low bidder for the base bid and any selected add alternates by means of a "blind" bid review process which shall operate generally as follows:
- 1) At the bid opening, a designated staff member from the Owner's Office of Design and Construction shall complete two bid tabulation sheets, the

- first of which shall identify each bidder by name, and the second of which shall omit the names of the bidders and shall refer to each bidder by a generic term such as "Contractor A" and "Contractor B." The Director of the Owner's Office of Design and Construction or his designee (the "Director") shall not attend the bid opening.
- 2) Following the bid opening, school system staff shall submit only the second, anonymous bid tabulation sheet to the Director for his or her review and consideration. The Director shall determine the low bidder based on the aggregate amount of the base bid and any selected add alternates set forth on the second anonymous bid tabulation sheet, and shall circle and initial his or her choices on such form.
 - 3) Once the Director's selections have been made, the two tabulation sheets shall be compared, and the identity of the low bidder for the base bid and any selected add alternates shall be established.
- F. Any quantities set forth on the Bid Form represent estimates only and are included solely for the purpose of evaluating and comparing the bids received.
- G. A "responsive bidder" shall mean a bidder who has submitted a bid which conforms, in all material respects, to the requirements of the bidding documents.
- H. A "responsible bidder" shall mean a bidder who 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.
- I. The Office of Design and Construction reserves the right to require from the bidder:
- 1) Submission of references within two (2) business days after the opening of the bids;
 - 2) A list of projects completed by bidder within the last two (2) years which are similar in size and scope to the work described in this solicitation; and/or
 - 3) Financial statements indicating current financial status, prepared in accordance with generally accepted accounting principles, by a duly licensed CPA.
- J. The successful low bidder, upon notice of award of contract, shall submit a completed "Responsible Land Disturber Certification" through FCPS, to Plan and Document Control, Office of Land Development Services (LDS), Fairfax County DPWES.

12. PROTEST OF AWARD OR DECISION TO AWARD

- A. Any bidder may protest the award or the decision to award this Contract by submitting a protest in writing to the Assistant Superintendent, or designee, for the Department of Facilities and Transportation Services 8115 Gatehouse Road, Suite 3400, Falls Church, VA 22042, no later than ten (10) days after the award or the announcement of the decision to award, whichever occurs first; however, that no protest shall lie for a claim that the selected bidder is not a responsible bidder.

The written protest must include the basis for the protest and the nature of the relief sought. The Assistant Superintendent, or designee, for the Department of Facilities and Transportation Services shall issue a decision in writing within ten (10) days of receipt of the protest, stating the reasons for the action taken.

This written decision shall be final unless the bidder appeals within ten (10) days of receipt of the written decision by instituting legal action as provided in the Code of Virginia.

Nothing in this section shall be construed to permit a bidder to challenge the validity of the terms and conditions of the Invitation to Bid.

- B. If, prior to the award, it is determined that the decision to award is arbitrary and capricious, then the sole relief shall be a finding to that effect.

If, after an award, it is determined that an award of a contract was arbitrary or capricious, then the sole relief shall be as hereinafter provided.

Where the award has been made but performance has not yet begun, the performance may be enjoined.

Where the award has been made and performance has begun, the Assistant Superintendent, or designee, for the Department of Facilities and Transportation Services may declare the Contract void upon a finding that the action is in the best interest of the school division.

Where a contract is declared void, the performing contractor shall be compensated for the cost of performance at the rate specified in the Contract up to the time of such declaration. In no event shall the performing contractor be entitled to lost profits.

- C. Pending final determination of a protest, the validity of the award shall not be affected by the fact that a protest has been filed.
- D. An award need not be delayed for the period allowed a bidder to protest, but in the event of a timely protest, no further action to award this Contract will be taken unless the Assistant Superintendent, or designee, for the Department of Facilities

and Transportation Services makes a written determination that proceeding without delay is necessary to protect the public interest or that the bid will expire.

13. SUBSTITUTIONS; PRE-APPROVED SUPPLIERS

- A. Unless otherwise provided in the bidding documents, the name of a certain brand, make, or manufacturer is intended to restrict bidders to the specific brand, make, or manufacturer specified. Substitute materials proposed as equal to materials specified shall be submitted in writing to the Owner by the bidder with full substantiating data for evaluation no later than ten (10) days prior to bid opening; substitute materials shall not be considered for evaluation after this time period. Proposed substitute materials which equal or exceed the performance standard of the specified materials in the sole judgment of the Owner will be included in an "Approved Substitute Materials Bulletin" to be issued prior to the bid opening date.
- B. For purposes of this solicitation and any resulting contract, the Owner's designation of any one or more manufacturers, subcontractors and/or suppliers as "pre-approved" shall signify only that such manufacturers, subcontractors and suppliers previously have submitted work samples to the Owner that satisfied the Owner's requirements. The Owner's designation of any one or more manufacturers, subcontractors and/or suppliers as "pre-approved" shall in no event be deemed or construed to be a representation or warranty on the part of the Owner of any such manufacturer's, subcontractor's or supplier's capability of or capacity for (in terms of financial wherewithal, personnel and equipment availability, managerial ability, product quality or otherwise) performing or furnishing any portion of the Work in accordance with the requirements of this solicitation. Each bidder shall conduct such independent investigation into the qualifications, experience and abilities of its selected manufacturers, subcontractors and suppliers, as it deems appropriate under the circumstances.

14. SMALL AND MINORITY BUSINESS ENTERPRISES

- A. The Fairfax County Human Rights Ordinances and relevant Federal and State Laws, orders and regulations require Fairfax County to ensure that its procurement practices are non-discriminatory and promote equality of opportunity for Small, Minority and Women-Owned Business Enterprises.
- B. Small Business/Organization is an independently owned and operated business which, together with affiliates, has 250 or fewer employees or average annual gross receipts of \$10 million or less averaged over the previous three years.
- C. Minority Business is a business concern that is at least 51 percent owned by one or more minority individuals or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in the corporation, partnership or limited liability company or other entity is owned by one or more minority individuals and both the management and daily business operations are controlled by one or more minority individuals. Such

individuals shall include Asian American, African American, Hispanic American, Native American, Eskimo or Aleut.

- D. Woman-Owned Business is a business concern that is at least 51 percent owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest is owned by one or more women who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more women who are U.S. citizens or legal resident aliens.

15. CONFLICT OF INTEREST

The provisions of the State and Local Government Conflict of Interests Act (Va. Code § § 2.2-3100 *et seq.*) and Article 6 of the Virginia Public Procurement Act entitled "Ethics in Public Contracting" (Va. Code Ann. § § 2.2-4367 *et seq.*) are incorporated herein by reference, and all Bidding Documents shall be deemed to incorporate appropriate reference to these provisions. The Contractor shall incorporate the above conflict-of-interest clause in each subcontract.

16. GOVERNING LAW

- A. The Contract Documents shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia, without reference to conflict of laws principles. In the event that there is a conflict between any provision set forth in the Contract Documents and the Code of Virginia, and specifically Section 2.2-4300 *et seq.* (the "Virginia Public Procurement Act"), the Code of Virginia shall control. The Contractor is cognizant of the provisions of the Comprehensive Conflict of Interest Act (Va. Code Ann. Section 2.2-3100 through 2.2-3127) and Article 6 of the Virginia Public Procurement Act entitled "Ethics in Public Contracting" (Va. Code Ann. Section 2.2-4367 through 2.2-4377).
- B. Legal Provisions Deemed Included: Each and every provision of any law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein and if, through mistake or otherwise, any such provision is not inserted or is not correctly inserted, then upon application of either party the Contract shall forthwith be physically amended to make such insertion. The Owner does not discriminate against faith-based organizations.

17. COMPLIANCE WITH LAWS; PERMITS, FEES, AND NOTICES

The successful bidder shall be required to comply with all local, state and federal laws, rules, regulations and ordinances applicable to the contract and to the work contemplated hereby. The successful bidder shall be required to obtain, at its expense, all permits, licenses and other authorizations necessary for the prosecution of the Work, except that the Owner shall obtain, at its expense, the General Building Permit and any easement agreement necessary and indispensable to the completion of the Project. The

successful bidder shall be responsible for giving all notices and complying with all laws, ordinances, rules, regulations and directives of any public authority bearing on the performance of the work.

18. CONSTRUCTION SAFETY

- A. The Contractor shall comply with the construction safety standards promulgated by the U.S. Department of Labor and by the Virginia Department of Labor and Industry.

END OF SECTION

SECTION 00300

BID FORM

Name of Bidder: _____

Bidder's Mailing
Address for Notices: _____

Bidder's Principal
Office Address: _____

Telephone No.: _____
Fax No.: _____
Email Address: _____

Bidder's Designated Contact Person: _____

TO: FAIRFAX COUNTY SCHOOL BOARD (the "Owner")
8115 Gatehouse Road, Suite 3400
Falls Church, VA 22042

RE: **[PROJECT NAME/DESCRIPTION]**

Ladies and Gentlemen:

The undersigned Bidder, having examined the Drawings, Specifications and remaining Contract Documents for the above-referenced Project and having visited the site and examined all conditions affecting the Work, hereby proposes and agrees to furnish all labor, supplies, materials, and equipment and to perform all actions necessary to complete the entire Work in strict accordance with the Contract Documents for the following bid amount (to be set forth in words and in figures in the spaces set forth below):

Base Bid Amount:

_____ Dollars and _____ Cents; \$ _____

[Insert Bid Alternates, if any]

1. **Certain Agreements of the Bidder.** The undersigned Bidder hereby makes the following representations, warranties and covenants to the Owner, which representations, warranties and covenants are intended to be relied upon by the Owner in making an award of the above-referenced Contract.

A. The undersigned Bidder hereby acknowledges that time is of the essence to the Contract and agrees to commence the Work on the date set forth as the date for

commencement of the Work in the Notice to Proceed or, if no such date is specified, then immediately after receipt of the Notice to Proceed. The undersigned covenants and agrees to fully complete the Work prior to the expiration of the Contract Period, as such term is defined in the Contract Documents. The undersigned hereby declares that the Contract Period is sufficient to assure timely and satisfactory completion of the Work. The undersigned Bidder acknowledges that, in the event that the Work is not completed within the timeframes established in the Contract Documents, then he will be assessed liquidated damages in the amount set forth in Section 01010, Summary of Work, for each day that the time consumed in completing the Work exceeds the time provided therefor in the Contract Documents.

- B. The undersigned Bidder hereby certifies that the Bid Amount includes: (a) all labor, supplies, materials, equipment, and permits required to complete the Work in its entirety in strict accordance with the Contract Documents; (b) all costs associated with the successful bidder's responsibilities for coordination and cooperation with the Owner and any Separate Contractors at the site of this Project; (c) all costs associated with the successful bidder's responsibilities with regard to surface and subsurface conditions that may be encountered during performance of the Work; (d) all applicable sales and use taxes; and (e) allowances, if any, contemplated by the Contract Documents.
- C. By signing this Bid, the undersigned Bidder hereby certifies that: (i) neither the Bidder nor any employee of the Bidder who will have direct contact with students has been convicted of a felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child; and (ii), unless expressly disclosed in an attachment to this Bid on the Bidder's letterhead stationery, neither the Bidder nor any employee of the Bidder who will have direct contact with students has been convicted of a crime of moral turpitude.
- D. The undersigned Bidder hereby represents and warrants to the Owner that the Bidder: (a) has reviewed and thoroughly understands the scope, terms and conditions set forth in this solicitation; (b) has made due inquiry of the School Board as to the existence of any addenda issued in connection with this solicitation; (c) is satisfied that it has received any and all such addenda and the Bidder has taken the contents thereof into consideration when preparing and submitting this Bid; and (d) accepts full and complete responsibility for the receipt of any and all such addenda and waives any claim of mistake or error in its Proposal based upon its failure, in fact, to have received any one or more addenda.
- E. The undersigned Bidder further hereby represents and warrants to the Owner that the Bidder: (a) has been provided the opportunity to conduct, at its expense, such tests and investigations of the site as it deems appropriate under the circumstances in order to evaluate and satisfy itself as to the surface and subsurface conditions likely to be encountered during performance of the Work; (b) if successful hereunder, shall bear full and complete responsibility for all surface and subsurface conditions, whether known or unknown, reasonably foreseeable or not, that shall be encountered during performance of the Work; and (c) has included in its bid price an amount that it deems sufficient, in its sole

and absolute discretion, to protect such bidder from the additional costs of performance that it may incur as a result of its assumption of responsibility for all surface and subsurface conditions encountered during performance of the Work. The Bidder hereby acknowledges that any reports, data, or other materials or information supplied by or on behalf of the Owner and/or the Architect with regard to surface and/or subsurface conditions at the site of the Project were given without representation or warranty as to the accuracy or completeness thereof and that the bidder did not rely upon any such information in tabulating its bid price for the Work.

- F. The undersigned Bidder covenants and agrees that in the event this Bid is one of the three lowest, as determined by Owner, Bidder will deliver to the Owner, within 48 hours after the bid opening, a written list of subcontractors (including names, address, and telephone number) for the following portions of the Work:

Electrical	Food Service Equipment
Plumbing	Roofing
Mechanical	Automatic Temperature Controls
Communication and Special Systems	Casework
Site and Site Utilities	Masonry
Structural Steel, Joists and Decks	Sprinkler

2. “Preapproved” or “approved” Manufacturers, Subcontractors and/or Suppliers.

- A. For purposes of this solicitation and any contract which may result herefrom, the Owner’s designation of any one or more manufacturers, subcontractors and/or suppliers as “preapproved” or “approved” shall signify only that such manufacturers, subcontractors and suppliers previously have submitted work samples to the Owner which satisfied the Owner’s requirements for a specified portion of the Work. The Owner’s designation of any one or more manufacturers, subcontractors and/or suppliers as “preapproved” or “approved” shall in no event be deemed or construed to be a representation or warranty on the part of the Owner of any such manufacturer’s, subcontractor’s or supplier’s capability or capacity (in terms of financial wherewithal, personnel and equipment availability, managerial ability or otherwise) of performing any portion of the Work in accordance with the requirements of the Contract Documents. Each Bidder shall conduct such independent investigation into the qualifications, experience and abilities of its selected manufacturers, subcontractors and suppliers as it deems appropriate under the circumstances.

- B. The Contractor hereby acknowledges and agrees that, as between the Owner and the Contractor, the Contractor shall bear full and complete responsibility for the performance of its subcontractors, manufacturers and suppliers, regardless of whether any such subcontractor, manufacturer or supplier was designated as “preapproved” or “approved” by the Owner. The Owner’s designation of any one or more manufacturers, subcontractors and/or suppliers as “preapproved” shall in no event be deemed or construed to be a representation or warranty on the part of the Owner of any such manufacturer’s, subcontractor’s or supplier’s capability or capacity (in terms of financial wherewithal, personnel and equipment availability, managerial ability or otherwise) of performing any portion of the Work

in accordance with the requirements of the Contract Documents. The Contractor is responsible for conducting such independent investigation into the qualifications, experience and abilities of its selected manufacturers, subcontractors and suppliers, as it deems appropriate under the circumstances.

3. Miscellaneous Provisions.

- A. In the event that changes in the Work, not covered in the Contract Documents and involving added cost, are directed to be performed on a cost-plus fee basis, such fee shall be calculated in accordance with Section No. 01153, paragraph 1.06.
- B. The Owner reserves the right to defer award of Contract for a period of 60 days after the date for submission of bids, or for such longer period as shall be agreed upon by the parties in writing.
- C. The Owner reserves the right to accept or reject any proposed subcontractor, supplier, or materials/product proposed as equal to that specified herein.
- D. Minority or small business firms information:

Please check the following information relevant to your firm: (See Instructions to Bidders for definitions).

Virginia Small Business and Supplier Diversity Certification Number: _____
SWaM Certification Type

Minority Business Firm: Yes _____ No _____

Small Business Firm: Yes _____ No _____

Women-Owned Firm: Yes _____ No _____

The above information is requested for statistical purposes only. All bidders tendering responsive and responsible bids hereunder will receive equal consideration for award.

4. Fairfax County Construction Safety Resolution. The Contractor shall abide by, and shall be subject to, the Fairfax County Construction Safety Resolution, as adopted by the Fairfax County Board of Supervisors on December 8, 2003, and as excerpted and modified below.

- A. Each bid submitted for a contract for construction, alteration, and/or repairs, shall include a list of all the following actions:
 - 1) Willful violations, violations for failure to abate, or repeated violations, for which the Bidder was cited by (a) the United States Occupational Safety and Health Administration; (b) the Virginia Occupational Safety and Health Administration; or (c) the occupational safety and health plan for any other public jurisdiction; or

- 2) Three (3) or more serious construction safety violations for which the Bidder was cited by the (a) United States Occupational Safety and Health Administration; or (b) the Virginia Occupational Safety and Health Administration; or (c) the occupational safety and health plan from any other public jurisdiction.
 - 3) Termination of a contract between the Bidder and any public entity by its purchasing agent or his designee for safety violations.
- B. If the Bidder has not received or been the subject of any such violations referenced in paragraph A in the three (3) years prior to the bid submission, then the Bidder shall so indicate by certification of Safety Violations. The Bidder will also indicate on this form each state in which work was performed in the three (3) years prior to the bid submission.
- C. No construction contract, as discussed above, may be bid on by any Bidder or contractor who has been the subject of any citations for the type and number of violations listed in paragraph A, above, which have become final within three (3) years prior to bid submission.
- 1) Notwithstanding the language of paragraph C, above, any Bidder or contractor who has been the subject of a violation, as described in paragraph A(1), which has become final within three (3) years prior to bid submission, may bid, if the Bidder or contractor satisfactorily passes an eligibility evaluation, as determined by Owner.
 - 2) Notwithstanding the language of paragraph C, above, any Bidder or contractor who has been the subject of the type and number of violations as described in paragraph A(2), which have become final within three (3) years prior to bid submission, may bid, if the Bidder or contractor satisfactorily passes an eligibility evaluation, as determined by Owner.
 - 3) Notwithstanding the language of paragraph C, above, any Bidder or contractor who has previously been terminated from a County contract, as described in paragraph A(3), within three (3) years prior to the bid submission, if the Bidder or contractor satisfactorily passes an eligibility evaluation, as determined by Owner.
- D. Prior to bidding on a project under the provisions of paragraph C above, a contractor may request that a determination be made regarding its eligibility to submit a bid on a contract under the terms of this resolution. However, this request for determination and any subsequent adjudication process must be completed prior to submitting a bid on any project and the request for determination (including all information required) must be received by Owner no later than twenty-one (21) days before bids are due, unless otherwise stated in the Advertisement for Bid. The information required to be submitted by the Bidder for evaluation is stated in the County Safety Resolution and is available from the Owner's Office of Design and Construction Services. The determination of eligibility rendered by the Director of Design & Construction or his designee shall be final.

- E. No Contractor or Subcontractor contracting for any part of the contract work shall require any laborer, mechanic, or other person employed in the performance of the contract to work in surroundings or under working conditions which are hazardous or dangerous to his safety, as determined under construction safety standards promulgated by the U. S. Department of Labor or by the Virginia Department of Labor and Industry.
- F. No contractor awarded a School Board construction contract shall knowingly employ or contract with any person, company, or corporation for services pursuant to that contract if such person, company, or corporation could not have been awarded such contract due to the restrictions above.

By signing this Bid, the undersigned Bidder confirms that it has not received or been the subject of safety violations in the three (3) years prior to the date of this bid submission, and is in compliance with the requirements above.

The undersigned Bidder hereby acknowledges and agrees that the Owner has the right to reject any or all bids and to waive any informality in a bid. Except as expressly set forth in the Instructions to Bidders, this Bid, once submitted, may not be withdrawn for a period of 60 days from the date fixed for opening of the Bids.

Accompanying this Bid, at the election of the undersigned Bidder, is: (I) a certified check, (ii) a cash escrow, or (iii) a bid bond in an amount equal 5% of the total amount of the Principals's Bid.

Bidder's disclosure pursuant to Safety Resolution (as stated above):

Safety Violation(s): _____

List of public jurisdictions (states and District of Columbia) in which Bidder performed work in the 3 years prior to bid submission:

(Legal Name of Bidder)

By: _____
 (Signature of Bidder's Authorized Representative)

Printed Name: _____
 Title: _____
 Date: _____

Bidder's Virginia Contractor's License Number: _____

Bidder's Virginia State Corporation Commission ID Number (SCC ID#): _____

Fairfax County Business/Professional/Occupation License Number (BPOL #): _____

State in which Bidder's Principal Office is Located: _____

END OF SECTION

SECTION 00301

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____ of _____ (hereinafter called the "Principal"), and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in _____, and authorized to do business in the Commonwealth of Virginia as a surety (hereinafter called the "Surety"), are held and firmly bound unto FAIRFAX COUNTY SCHOOL BOARD (hereinafter called the "Obligee") in the full and just sum which is equal to 5% of the total amount of the Principal's Bid (as that term is defined below), as submitted to the Obligee (such total amount referred to herein as the "Total Bid"), in good and lawful money of the United States of America, to be paid upon demand of the Obligee, for the payment of such sum well and truly to be made, the Principal and the Surety bind themselves, their respective successors, and permitted assigns, jointly and severally and firmly by these presents. The Total Bid is the aggregate amount (including amounts set forth with respect to any and all Alternates) set forth on the Principal's Bid Form for performance of the work described below, as submitted to and maintained by the Obligee (such Bid Form referred to herein as the "Bid"). The Surety hereby acknowledges and agrees that the Bid shall be deemed to be incorporated by reference in this Bid Bond to the same extent as if set forth fully herein.

WHEREAS, the Principal intends to submit, or has submitted to the Obligee, a Bid for the Principal to perform work for the Obligee, designated as:

(hereinafter called the "Project") and,

WHEREAS, the Principal desires to provide this Bid Bond in lieu of a certified check or cash escrow otherwise required to accompany the Principal's Bid.

NOW THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT, if the Bid be accepted by the Obligee, and if the Principal shall, within ten days after the date of receipt of a written Notice of Award from the Obligee or any agency or department thereof, (i) execute a Contract in accordance with the Bid and upon the terms, conditions and price set forth therein, in the form and manner required by the Obligee, (ii) execute a sufficient and satisfactory Performance Bond in the amount of 100% of the total Contract Sum and a sufficient and satisfactory Payment Bond in the amount of 100% of the total Contract Sum, each payable to the Obligee, on a form prescribed by Obligee and with a surety satisfactory to Obligee, and (iii) provide the Obligee with copies of all required insurance policies, then this obligation is to be void; otherwise this obligation shall be and remain in full force and in the event of the failure of any or all of the foregoing requirements to be satisfied within the time period specified above, the Principal and the Surety immediately shall pay to the Obligee, upon demand, the lesser of: (a) the amount hereof and (b) the difference between the Bid and the next low bid for the Project, in each case in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

Based upon the Surety's present knowledge and information, the Surety knows of no reason why it would not issue payment and performance bonds on behalf of the Principal for the above-

referenced Project. The foregoing statement shall not be construed as a commitment on the part of the Surety to issue either or both of such bonds on behalf of the Principal.

The obligations evidenced hereby shall constitute the joint and several obligations of the Principal, the Surety, and their respective successors and permitted assigns.

Unless the context requires otherwise, capitalized terms not otherwise defined in this Bond shall have the meanings assigned to them in the Contract Documents.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, we have hereunto set our signatures and seals this _____ day of _____ 20____, all pursuant to due authorization.

_____(SEAL)
Principal (Bidder)
By: _____
Name: _____
Title: _____
Address: _____

State of _____

County/City of _____

The foregoing bond was acknowledged before me this _____, 20____, by _____, whose title is _____, on behalf of _____, the Principal

Notary Public

Title or Rank _____
Serial Number, if any _____

_____(SEAL)
Surety
By: _____
Attorney-in-Fact (attach copy of Power of Attorney)
Name: _____
Title: _____
Address: _____

State of _____
County/City of: _____

The foregoing bond was acknowledged before me this _____, 20____, by _____ whose title is Attorney-in-Fact, on behalf of _____, Surety.

Notary Public

Title or Rank _____
Serial Number, if any _____

SECTION 00302

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____ of (hereinafter called the "Principal"), and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in the Commonwealth of Virginia as a surety (hereinafter called the "Surety"), are held and firmly bound unto the FAIRFAX COUNTY SCHOOL BOARD (hereinafter called the "Obligee") in the sum of _____ Dollars (\$_____) lawful money of the United States of America for the payment of which well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally and firmly by these presents, to perform all Work in accordance with the requirements of the Contract Documents for the Project.

WHEREAS, the Principal has entered into a certain written agreement with the Obligee, dated as of the ____ day of _____, 20____, (hereinafter called the "Contract"), for _____, which Contract is by reference made a part hereof;

WHEREAS, the Principal is obligated to furnish security with respect to its obligation to perform the work to be performed under the Contract; and

WHEREAS, the Principal desires to furnish this Performance Bond in lieu of a certified check or cash escrow otherwise required to be provided to the Obligee.

NOW THEREFORE, THE CONDITIONS OF THE ABOVE OBLIGATIONS ARE SUCH THAT, if the Principal and its successors or assigns, or any of them shall:

Well and truly and in good, sufficient, and workmanlike manner perform or cause to be performed the Contract, and each and every of the covenants, promises, agreements, warranties, and provisions to be performed by the Principal set forth therein, in strict conformity with the plans and specifications, and complete the same within the time period specified therein, all as may be amended from time to time by the parties thereto, and fully indemnify and save harmless the Obligee from all costs and damages which it may suffer by reason of the Principal's failure to do so and fully reimburse and repay the Obligee all costs and expenses which it may incur in making good any such default, then these obligations shall be null and void, otherwise they shall remain in full force and effect.

PROVIDED, HOWEVER, that this bond is subject to the following conditions and limitations:

- (a) In no event shall the Surety, or its successors or assigns be liable hereunder for a greater sum than the amount of this bond.
- (b) No action on this bond shall be brought unless within one year after: (i) completion of the Contract, including the expiration of all warranties and

guarantees; or (ii) discovery of the defect or breach of warranty, if the action be for such, in all other cases.

The Surety, for value received, on behalf of itself and its successors and assigns, hereby stipulates and agrees that the obligations of the Surety and of its successors and assigns under this bond shall not in any manner be impaired or affected by: (a) any extension of time, modification, omission, addition or amendment of or to the Contract or the work to be performed thereunder; (b) any payment thereunder before the time required therein; (c) any waiver of any provision thereof; or (d) any assignment, subletting or other transfer of all or of any part thereof or of any work to be performed or of any moneys due or to become due thereunder; and the Surety, for itself and its successors and assigns, does hereby waive any right to receive notice of any and all of such extensions, modifications, omissions, additions, amendments, payments, waivers, assignments, subcontracts and transfers.

The Surety hereby stipulates and agrees that, in the event that the Obligeo declares the Principal to be in default, the Surety will promptly, at the Obligeo's election: (a) perform and complete the work to be performed under the Contract in accordance with the terms, conditions and covenants set forth therein with a duly licensed and qualified contractor designated by Obligeo; (b) obtain bids from qualified contractors for completing the work to be performed under the Contract in accordance with the terms, conditions and covenants set forth therein and, upon determination by the Obligeo and the Surety of the lowest responsible and responsible bidder, (i) arrange for a contract between such bidder and the Obligeo and (ii) make funds available directly to the Obligeo, or to such contractor(s) as the Obligeo shall designate, to pay the costs of completion less the balance of the contract price as such may have been adjusted by change order (such amount, including other costs and damages for which the Surety may be liable hereunder, not to exceed the penal sum set forth in the first paragraph hereof); or (c) remedy the default. The Surety further stipulates and agrees that, within 45 days after its receipt of written notice from the Obligeo specifying the Obligeo's election of (a), (b) or (c) above, the Surety shall have resumed performance of the work or shall have caused the performance of the work to have been resumed, in accordance with the Obligeo's election. In the event the Surety fails to resume the Work within such 45 day period, the Obligeo may elect to perform or arrange for the performance of the Work at the sole cost and expense of the Surety in addition to any other rights and remedies available to Obligeo. As employed herein, the phrases (i) "balance of the contract price" shall mean the total amount payable by the Obligeo to the Principal under the Contract after all proper adjustments have been made, less the aggregate of all amounts paid by the Obligeo to the Principal thereunder and (ii) "resume the Work" shall mean the commencement and diligent performance of actual work activities at the site, as demonstrated by discernable daily progress at the rate contemplated by the Contract. All payments to be made by the Surety hereunder shall be paid within thirty (30) days after the Surety's receipt of a request or demand therefor.

The Obligeo's omission to call upon the Surety in any instance shall in no event release the Surety from any obligation hereunder.

All notices, requests, demands and other communications which are provided hereunder, shall be in writing and shall be deemed to have been duly given upon the hand delivery thereof during business hours, or upon the earlier of receipt or three (3) days after posting by registered mail or certified mail, return receipt requested, or on the next business day following delivery to

a reliable overnight delivery service, if to the Principal or the Obligee, to the addresses set forth in the Contract, and if to the Surety, to the address set forth beneath its signature.

The obligations evidenced hereby shall constitute the joint and several obligations of the Contractor, the Surety, and their respective heirs, executors, administrators, successors and assigns.

Unless the context requires otherwise, capitalized terms not otherwise defined in this Bond shall have the meanings assigned to them in the Contract Documents.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, we have hereunto set our signatures and seals this _____ day of _____ 20____, all pursuant to due authorization.

_____(SEAL)
Principal (Contractor)
By: _____
Name: _____
Title: _____
Address: _____

State of _____
County/City of _____

The foregoing bond was acknowledged before me this _____, 20____, by _____, whose title is _____, on behalf of _____, the Principal

Notary Public

Title or Rank _____
Serial Number, if any _____

_____(SEAL)
Surety
By: _____
Attorney-in-Fact (attach copy of Power of Attorney)
Name: _____
Title: _____
Address: _____

State of _____
County/City of: _____

The foregoing bond was acknowledged before me this _____, 20____, by _____ whose title is Attorney-in-Fact, on behalf of _____, Surety.

Notary Public

Title or Rank _____
Serial Number, if any _____

SECTION 00303

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____ of (hereinafter called the "Principal"), and _____, a corporation created and existing under the laws of the State of _____, and having its principal office in the City of _____ and authorized to transact business in the Commonwealth of Virginia as Surety (hereinafter called the "Surety") are held and firmly bound unto FAIRFAX COUNTY SCHOOL BOARD (hereinafter called the "Obligee" in the sum of Dollars (\$_____) lawful money of the United States of America, for the payment of which well and truly to be made, the said Principal binds itself and its successors and assigns, and the said Surety binds itself and its successors and assigns, all jointly and severally, firmly by these presents to pay for all labor performed and material furnished in accordance with the Contract Documents for the Project.

WHEREAS, the Principal has entered into a certain written agreement with the Obligee, dated as of the ____ day of _____, 20__ (hereinafter called the "Contract"), for _____, which Contract is by reference made a part hereof.

WHEREAS, the Principal is obligated to furnish security with respect to its obligation to pay for all labor performed and material furnished pursuant to the Contract; and

WHEREAS, the Principal desires to furnish this Payment Bond in lieu of a certified check or cash escrow otherwise required to be provided to the Obligee.

NOW, THEREFORE, THE CONDITIONS OF THE ABOVE OBLIGATIONS ARE SUCH THAT, if the Principal and its successors or assigns, or any or either of them shall:

Pay or cause to be paid the wages and compensation for labor performed and services rendered of all persons engaged in the prosecution of the work provided for therein, whether such persons be agents, servants or employees of the Principal, and of its successors or assigns, or of any subcontractor or any assignee thereof, including all persons so engaged who perform the work of laborers or of mechanics regardless of any contractual relationship between the Principal, or its assigns, or any subcontractor or any assignee thereof, and such laborers or mechanics, but not including office employees not regularly stationed at the site of the work, and further, shall pay or cause to be paid all lawful claims of subcontractors and of materialmen and other third persons arising out of or in connection with the Contract and the work, labor, services, supplies and materials furnished in and about the performance and completion thereof, then these obligations shall be null and void, otherwise they shall remain in full force and effect.

PROVIDED, however, that this bond is subject to the following conditions and limitations:

- a. All persons who have performed or rendered services, as aforesaid, all subcontractors, and all persons, firms, corporations, including materialmen and third persons, as aforesaid, furnishing work, labor, services, supplies and material under or in connection with the Contract or in or about the performance

and completion thereof, shall have a direct right of action (subject to the prior right of the Obligee under any claim which it may assert against the Principal and its successors, and assigns and/or the Surety and its successors and assigns) against the Principal and its successors, and assigns and/or the Surety and its successors and assigns on this bond, which right of action shall be asserted in proceedings instituted in the State in which such work, labor, services, supplies or material was performed, rendered or furnished, or where work, labor, services, supplies or material has been performed, rendered or furnished, as aforesaid, in more than one State, then in any such State. Insofar as permitted by the laws of such State, such right of action shall be asserted in a proceeding instituted in the name of the Obligee to the use and benefit of the person, firm or corporation instituting such action and of all other persons, firms and corporations having claims hereunder, and any other person, firm or corporation having a claim hereunder shall have the right to be made a party to such proceedings (but not later than one year after the performance of the Contract including the expiration of any warranty or guarantee) and to have such claim adjudicated in such action and judgment tendered thereof. Prior to the institution of such a proceeding by a person, firm or corporation in the name of the Obligee, as aforesaid, such person, firm or corporation shall furnish the Obligee with a bond of indemnity for costs, which bond shall be in a form and in an amount satisfactory to the Obligee.

- b. Neither the Surety nor its successors or assigns shall be liable hereunder for any damages or compensation recoverable under any worker's compensation or employer's liability statute.
- c. In no event shall the Surety, or its successors or assigns be liable hereunder for a greater sum than the amount of this bond, or subject to any suit, action or proceeding thereon that is instituted by any person, firm or corporation under the provisions of the above section(s), later than one year after such person last performed labor or last furnished or supplied materials.

And the Surety, for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligations of the Surety and of its successors and assigns, and this bond shall in no way be impaired or affected by any extension of time, modification, omission, addition or change in or to the Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by a waiver of any provision thereof, or by an assignment, subletting or other transfer thereof, or of any part thereof, or of any work to be performed or of any moneys due or to become due thereunder; and the Surety, for itself and its successors and assigns, does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby stipulates and agrees that any and all things done and omitted to be done by and in relation to executors, administrators, successors, assignees, subcontractors, and other transferees, shall have the same effect as to the Surety and its successors and assigns, as though done or omitted to be done by and in relation to the Principal.

The Principal, for itself and its successors and assigns, and the Surety, for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the Obligee to require a bond containing the foregoing provisions, and they do

hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm, or corporation, including subcontractors, materialmen and third persons, for work, labor services, supplies or material, performed, rendered or furnished as aforesaid, upon the ground that there is no law authorizing the Obligee to require the foregoing provisions to be placed in this bond.

Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Principal shall promptly furnish a copy of this Bond or shall permit a copy to be made on behalf of such potential beneficiary.

The obligations evidenced hereby shall constitute the joint and several obligations of the Contractor, the Surety, and their respective heirs, executors, administrators, successors and assigns.

Unless the context requires otherwise, capitalized terms not otherwise defined in this Bond shall have the meanings assigned to them in the Contract Documents.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, we have hereunto set our signatures and seals this _____ day of _____ 20____, all pursuant to due authorization.

_____(SEAL)
Principal (Contractor)
By: _____
Name: _____
Title: _____
Address: _____

State of _____
County/City of _____

The foregoing bond was acknowledged before me this _____, 20____, by _____, whose title is _____, on behalf of _____, the Principal

Notary Public

Title or Rank _____
Serial Number, if any _____

_____(SEAL)
Surety
By: _____
Attorney-in-Fact (attach copy of Power of Attorney)
Name: _____
Title: _____
Address: _____

State of _____
County/City of: _____

The foregoing bond was acknowledged before me this _____, 20____, by _____ whose title is Attorney-in-Fact, on behalf of _____, Surety.

Notary Public

Title or Rank _____
Serial Number, if any _____

END OF SECTION

SECTION 00700

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SECTION 00700

GENERAL CONDITIONS

PART 1 - DEFINITIONS

- 1.01 Architect. The duly licensed individual or entity who has been engaged by the Owner to observe performance of the Work and to consult with and advise the Owner during the construction process. As employed herein, the term "Architect" may refer to an individual, an organization or to the Architect's authorized representative.
- 1.02 Change Order. A written order to the Contractor signed by the Owner, the Architect, and the Contractor, which authorizes a change in the Work, an adjustment to the Contract Sum, and/or an adjustment to the Contract Period. The latest edition of AIA Standard Form G701 shall be utilized.
- 1.03 Construction Schedule. The schedule for completion of the Work. The Construction Schedule shall be developed utilizing a Critical Path method of scheduling, indicating time periods allotted for the performance of all constituent parts of the Work within the Contract Period.
- 1.04 Contract or Contract Documents. The terms "Contract" and "Contract Documents" shall be used interchangeably herein and shall consist of the following:
- A. The signed Agreement;
 - B. The General Conditions of the Contract, which appear herein;
 - C. The Drawings and Specifications;
 - D. The Supplementary Conditions;
 - E. Any Addenda issued prior to execution of the Agreement;
 - F. The Notice of Award issued by the Owner to the Contractor;
 - G. The Notice to Proceed issued by the Owner to the Contractor;
 - H. Any modifications which are issued subsequent to the execution of the Agreement and which may take the form of a Work Order, a Change Order, or written interpretations issued by the Architect;
 - I. The Contractor's Payment and Performance Bonds;
 - J. The Bidding Documents, which shall include the Contractor's completed Bid Proposal Form and the Instructions to Bidders; and
 - K. All provisions required by Law or Regulation to be incorporated herein, regardless of whether any such provision is referred to or set forth expressly in these Contract Documents.

- 1.05 Contract Period. The period of time allotted in the Contract Documents for completion of the Work, as such period may be adjusted from time to time in the manner prescribed herein.
- 1.06 Contract Sum. The total amount payable to the Contractor for performance of the Work. The Contract Sum is stated in the Contract Documents and shall be subject to adjustments in the manner specified herein.
- 1.07 Contractor. The corporation, limited liability company, partnership or other person or entity that contracts with the Owner to perform the Work. As employed herein, the term "Contractor" may refer to an individual, an organization, or to the Contractor's authorized representative.
- 1.08 Critical Path. The logical and necessary sequence through which all Work items must be completed within their respective timeframes or the completion date for the Project will change. A delay in the completion of any Work item that is on the Critical Path necessarily causes a corresponding delay to the Date of Substantial Completion.
- 1.09 Date of Final Completion. The date certified by the Architect as the date upon which the Work is completely finished, which event shall be achieved by the Contractor within the time period specified in Section 01010, Summary of Work.
- 1.10 Date of Substantial Completion. The date certified by the Architect as the date upon which the Work has been sufficiently completed to allow the Work to be utilized by the Owner for the purpose for which it was intended. Such event shall be achieved by the Contractor within the time period specified in Section 01010, Summary of Work.
- 1.11 Day. The term "day" shall mean "calendar day."
- 1.12 Defective. An item described herein as "defective" shall be deemed to be unsatisfactory, faulty, or deficient in that it does not conform to the requirements of the Contract Documents, or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to the Date of Final Completion of the Work (unless responsibility for the protection thereof has been assumed by the Owner as of an earlier date).
- 1.13 Director, Office of Design and Construction. The official in charge of day to day construction matters for the Owner. The Director may designate a representative to act on his or her behalf.
- 1.14 Float. The period of time between the early start date and the late start date, or the early finish date and the late finish date of any of the activities set forth on the Construction Schedule. The Owner shall have and retain exclusive ownership of the Float.
- 1.15 Laws and/or Regulations. Any and all laws, rules, regulations, ordinances, codes, and/or orders of any and all governmental bodies, agencies, authorities, and/or courts, which are applicable to the Work (or any aspect thereof) and are in effect at any time or from time to time during the Contract Period.

- 1.16 Notice. Notice shall mean written notice. Written notice shall be deemed to have been duly served on the Contractor if delivered by U.S. Mail, hand delivery, or facsimile transmission to the Contractor's office at the Project or to the business address or fax number of the Contractor as stated in its Bid Form Proposal; or if delivered in person to the Contractor, to the Contractor's foreman or superintendent for the Project, or any officer or director of the Contractor. Unless otherwise specified herein, Notice shall be deemed to have been duly served on the Owner if delivered by U.S. Mail, hand delivery, or facsimile transmission (with a duplicate copy transmitted by another means of delivery authorized hereunder) to the Office of Design and Construction Services, Fairfax County Public Schools, Gatehouse Administration Center, 8115 Gatehouse Road, Suite 3400, Falls Church, Virginia 22042, fax number (571)-423-2317.
- 1.17 Notice to Proceed. A written notice from the Owner to the Contractor, which gives consent for commencement of the Work. Unless otherwise provided, Work shall commence on the date specified in the Notice to Proceed.
- 1.18 Overhead. All costs of administration, field office and home office costs (including extended costs), general superintendence, office engineering and estimating costs, other required insurance, materials used in temporary structures (not including form work), additional premiums on the Performance and Payment Bonds of the Contractor, the use of small tools, scheduling costs, cumulative impact costs and all other costs incidental to the performance of a change in the Work or to the cost of doing business. Small tools are defined as any tool with a replacement value less than \$1,000.
- 1.19 Owner. The School Board of Fairfax County, Virginia, its authorized representatives and employees.
- 1.20 Prevailing Wage Rate. The rate, amount, or level of wages, salaries, benefits and other remuneration prevailing for the corresponding classes of mechanics, laborers, or workers employed for the same work in the same trade or occupation in the locality in which the Project is located, as determined by the Commissioner of Labor and Industry.
- 1.21 Project. The entire improvement of which this Contract and the Work contemplated hereby forms a part. The Project may include construction and/or other activities that are to be performed by the Owner or by one or more Separate Contractors.
- 1.22 Separate Contractor. Any corporation, limited liability company, partnership or other person or entity that contracts with the Owner to perform one or more portions of the Project, other than the Work.
- 1.23 Shop Drawings. All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and are submitted by the Contractor to illustrate a portion of the Work. Shop Drawings are not Contract Documents.
- 1.24 Site. The area upon or in which the Contractor's operations are performed and such other areas adjacent thereto as may be designated as such by the Architect. The Site may be

shared by the Contractor with the Owner and with Separate Contractors and their subcontractors.

- 1.25 Subcontractor. Any corporation, limited liability company, partnership or other person or entity, other than an employee of the Contractor, who contracts with the Contractor to furnish or who actually furnishes labor, materials, services or equipment, or any combination thereof to the Contractor in connection with the Work.
- 1.26 Submittal Schedule. A schedule for submission to the Architect of all required shop drawings, equipment data, and the like, which reflects lead times of critical submittals and is coordinated with the Construction Schedule for timely progress.
- 1.27 Sub-Subcontractor. Any corporation, limited liability company, partnership or other person or entity, other than an employee of a Subcontractor, who contracts with a Subcontractor to furnish, or who actually furnishes labor, materials, service or equipment, or any combination thereof to a Subcontractor in connection with the Work.
- 1.28 Surety. Any entity that has executed as Surety the Contractor's performance and/or payment bonds securing performance of the Work contemplated by this Contract and/or providing for protection of claimants who have and fulfill contracts to supply labor or materials to the Contractor in connection with the Work.
- 1.29 Work. Everything explicitly or implicitly required to be furnished or performed under the Contract Documents. The Work may represent the whole, or a necessary and interdependent part of, the Project.

Number and Gender of Words. Whenever the Contract so admits or requires, all references to one number shall be deemed to extend to and include the other number, whether singular of plural, and the use of any gender shall be applicable to all genders.

PART 2 - EXECUTION AND INTENT OF THE CONTRACT

- 2.01 Execution of Contract Documents. Four (4) copies of the Contract Documents shall be signed by both the Owner and the Contractor.
- 2.02 Familiarity with Site. The Contractor's execution of the Agreement shall constitute a representation that the Contractor has visited the Site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with the requirements of the Contract Documents.
- 2.03 Order of Precedence. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work, including without limitation, all labor, materials, equipment and furnishings required in connection therewith. The Contract Documents are complimentary, and what is required by one shall be as binding as if required by all. In the event of any conflict, error or ambiguity in or among the various Contract Documents, such documents shall be accorded the following order of precedence:

Change Orders
Notice to Proceed
Notice of Award
Addenda
Supplementary Conditions
General Conditions
Agreement
Instructions to Bidders
Drawings and Specifications
Payment and Performance Bonds
Bid Form

Except as otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

- A. the provisions of any standard, specification, manual, or code of any technical society, organization or association (whether or not specifically incorporated by reference in the Contract Documents); or
 - B. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).
- 2.04 Division of Work. The subdivision of the Drawings and Specifications into divisions, sections and articles is for the purpose of ease of reference only and shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. The Contractor shall be responsible for segregating the Work among the various trades, if necessary or desirable in its discretion.
- A. The Specifications shall serve to amplify the requirements of materials and methods. The mention in any section of the Specifications of any article or operation requires that the Contractor shall provide all such items indicated on, or reasonably inferred from, the Drawings, furnishing for such purpose all labor, materials and equipment required in connection therewith. Omission of any article or operation does not relieve the Contractor of the responsibility for completion of the Work intended by the Drawings and Specifications to be included in the Contract.
- 2.05 Contract Interpretations. The Owner or the Contractor may request contract interpretations in writing from the Architect. Such requests for interpretations must be submitted sufficiently in advance of the date upon which the interpretation is actually required by the Owner or the Contractor to allow the Architect to issue the interpretation so as not to delay the progress of the Work. Written interpretations so requested shall be issued by the Architect in a manner commensurate with the timely execution of the Work, shall be consistent with the intent of the Contract Documents, and shall be in accordance with established progress schedules.

2.06 Copies and Ownership of Drawings, Specifications and Other Documents.

- A. The Contractor will be furnished **[one (1)]** electronic set of Drawings, Specifications and other documents prepared by the Architect (the "Architect's Documents") free of charge. Additional sets may be purchased by the Contractor at the cost of reproduction.
- B. Neither the Contractor nor any Subcontractor or supplier or other person or organization performing or furnishing any of the Work:
 - 1. shall have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the Architect's seal; or
 - 2. shall reuse any of such Drawings, Specifications, other documents, or copies on extensions of the Project or any other project without written consent of the Owner and the Architect.

PART 3 - ARCHITECT

- 3.01 **Contract Administration.** The Architect shall provide administration of the Contract in accordance with the Contract Documents and the Agreement between the Owner and the Architect.
- 3.02 **Owner's Representative.** The Architect shall serve as the Owner's representative during construction, until final payment is due, and with the Owner's concurrence, from time to time during the Correction Period described in Paragraph 12.05(B). The Architect shall advise and cooperate with the Owner and shall act on the Owner's behalf in accordance with the Contract Documents. The Owner shall issue instructions to the Contractor or, at its option, elect to have the Architect issue instructions to the Contractor.
- 3.03 **Observation of Work.** The Architect shall have access to the Work and shall visit the Site periodically in order to determine the progress of the Work and to assess the quality of the completed Work. Based upon its on-site evaluations, the Architect will advise the Owner of the progress of the Work and will endeavor to guard the Owner against defects and deficiencies in the Work. The Architect shall not have control over or charge of and shall not be responsible for construction methods, techniques, procedures, sequences or safety measures employed in connection with the Work. The Architect shall not be responsible for the failure of the Contractor, Subcontractors, or Sub-subcontractors to perform the Work in accordance with the Contract Documents.
- 3.04 **Payment Certifications.** Based upon the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect shall review and certify the amounts due the Contractor. The Architect may, in its discretion, revise the applications for payment to show the actual value of Work completed in accordance with the Architect's observations of the Work. The Contractor agrees to be bound by the Architect's revisions to the applications for payment.

- 3.05 Interpretation of Contract Documents. The Architect shall interpret the Contract Documents in accordance with Paragraph 2.05, and shall serve as the impartial judge of the performance of the Work.
- 3.06 Rejection of Work. The Architect and/or the Owner shall have the authority to reject Work that is defective or that otherwise does not conform to the requirements of the Contract Documents. The Architect and/or the Owner shall have the authority to order special inspections or tests, regardless of whether or not the Work has been fabricated, installed or completed. No responsibility or duty of the Architect and/or the Owner to the Contractor, Subcontractors, or Sub-subcontractors shall be created by this authority or by good faith decisions rendered in the exercise of this authority.
- 3.07 Preparation of Change Orders; Review of Submittals. The Architect shall prepare Change Orders, shall perform inspections to determine the Dates of Substantial and Final Completion, shall review all required documents submitted by the Contractor, and shall issue Certificates of Substantial Completion and Final Payment in accordance with the provisions of Paragraphs 12.04 and 12.05.
- 3.08 No Contractual Relationship. No contractual relationship shall exist or be deemed to exist between the Architect and the Contractor.
- 3.09 Ownership of Drawings and Specifications. Original Drawings and Specifications are the property of the Architect. Notwithstanding such fact, however, the Project is the property of the Owner, and the Architect may not use the Drawings and Specifications for any purpose not relating to the Project without the Owner's consent. The Owner shall be furnished with such reproductions of Drawings and Specifications as the Owner may reasonably require. Upon completion of the Work or any earlier termination of the Agreement pursuant to Part 17, the Architect will revise the Drawings to reflect changes made during construction and the Architect will promptly furnish the Owner with one complete set of reproducible record prints. All such reproductions shall be the property of the Owner who may use them without the Architect's permission for other projects, for additions to this Project, and/or for completion of this Project by others.

PART 4 - THE OWNER

- 4.01 Owner Representative. The Owner shall provide one or more representatives to observe the Work; provided, however, that the presence of the Owner's representatives shall in no way constitute an approval of means, methods or materials which do not conform to the requirements of the Contract Documents.
- 4.02 Rejection of Work. The Owner shall have the right to reject Work in accordance with Paragraph 3.06.
- 4.03 Completion and Correction of Work. The Owner shall have the right to complete or correct the Work in accordance with Paragraphs 4.05 and 12.05(D).
- 4.04 Review of Payment Applications. The Owner shall have the right to review, revise, and approve the Architect's certifications concerning payment.

- 4.05 Right to Supplement Contractor's Work Force. In the event that the Contractor fails (in the opinion of the Owner) within 3 days following Notice from the Owner: (a) to correct defective Work; or (b) to supply labor, materials, or equipment that is necessary to complete the Work in strict accordance with the requirements of the Contract Documents, then the Owner shall have the right to (i) order the Contractor to stop the Work or a designated portion thereof; and/or (ii) supplement the Contractor's forces, in each case to the extent deemed necessary and advisable by the Owner and until such time as, in the opinion of the Owner, the cause of the order or action shall have been corrected. The Owner shall have the right to: (a) correct the deficiencies set forth in the Notice, either with its own forces or with a separate contractor engaged by the Owner to perform such corrections; (b) deduct the cost of correcting such deficiencies (including costs for additional services in connection therewith) from amounts then or thereafter due the Contractor under the Contract Documents; and (c) order the Contractor to re-start at a designated time all or any portion of the Work stopped by the Owner. If the amounts then or thereafter due the Contractor are insufficient to cover the cost of correcting the deficiencies, then the difference shall be payable by the Contractor to the Owner upon written demand. The Architect's determination of cost hereunder shall be final and binding upon the parties. The Owner's exercise of the right to correct deficiencies shall be in addition to, and shall in no way prejudice or limit, any other remedies available to the Owner. In the event that it is determined for any reason that grounds for stopping all or any portion of the Work did not exist, then, at the election of the Owner, the rights and obligations of the parties hereunder shall be the same as if the Notice directing the Contractor to stop the Work had been delivered under the provisions of Paragraph 17.06 hereof; provided, however, that the Contractor in such event shall be deemed to have received seven days prior written Notice of termination. Any compensation determined to be due the Contractor pursuant to Paragraph 17.06 shall be offset by the cost of correcting the Work. The Contractor shall in no event be entitled to receive anticipated profits or consequential damages of any kind in connection with any termination or action hereunder.
- 4.06 No Discrimination Against Faith-Based Organizations. The Owner does not discriminate against faith-based organizations on the basis of the organization's religious character, or impose conditions that (i) restrict the religious character of the faith-based organizations, except as provided by law, or (ii) impair, diminish or discourage the exercise of religious freedom by the recipients of such goods, services or disbursements.

PART 5 - CONTRACTOR

- 5.01 General Duties and Obligations.
- A. Contractor Responsibilities. The Contractor shall perform all the Work and, except as otherwise expressly provided herein, shall furnish, at its own cost and expense, all labor, materials, equipment, and other facilities as may be necessary and proper for performing and completing the Work. The Contractor shall be responsible for the entire Work until completed and finally accepted by the Owner.
- B. Quality Workmanship. Unless otherwise provided herein, the Work shall be performed in accordance with the best modern practice and with materials and

workmanship of highest quality, all as determined by and entirely to the satisfaction of the Owner and the Architect.

- C. **Supervision and Construction Procedures.** The Contractor shall supervise and direct the Work and coordinate the Work with that of Separate Contractors, if any, using its best skill and attention. Unless otherwise expressly provided, the Contractor shall be solely responsible for and shall have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. Unless otherwise expressly provided, the means and methods of construction shall be such as the Contractor may choose; provided, however, that the Contractor shall employ adequate and safe procedures, methods, structures and equipment. Neither the Architect's approval nor its failure to exercise its right of approval shall relieve the Contractor of its obligation to accomplish the result intended by the Contract, nor shall the Architect's approval or failure to approve create a cause of action for damages. Notwithstanding the rights and remedies available to the Owner and the Architect hereunder, including without limitation, their respective rights to monitor the progress of the Work and to accept or retract acceptance of Subcontractors, the Contractor expressly acknowledges and agrees that it is in charge of and in control of the Work.
- D. **Contractor's Review of Documents.** The Contractor shall study and review the Contract Documents and shall compare them with each other and with any information made available by the Owner. If the Contractor finds a conflict, error, ambiguity or discrepancy in or among the Contract Documents, the Contractor shall immediately call it to the attention of the Owner and the Architect in writing before proceeding with the Work affected thereby. The Owner promptly shall resolve the matter in writing. Work performed by the Contractor after issuance of the Notice to Proceed and prior to written resolution thereof by the Owner shall be performed at the Contractor's sole risk.
- E. **Contractor's Verification.** The Contractor shall be responsible for verifying all dimensions, quantities and details set forth in the Contract Documents and shall notify the Owner and the Architect in writing of all errors, omissions, conflicts and discrepancies. The Contractor acknowledges and agrees that all equipment, materials, finishes, and other such listings are provided for the convenience of the Architect and the Contractor and are not guaranteed to be complete. The Contractor hereby assumes all responsibility for the making of estimates of the size, kind, quantity, and quality of materials, supplies and equipment included in Work.
- F. **Differing Site Conditions.** It is the intent of these Contract Documents that the Contractor shall bear full and complete responsibility for all surface and subsurface conditions, whether known or unknown, reasonably foreseeable or not, that shall be encountered during the performance of the Work. Notwithstanding any provision in the Contract Documents to the contrary, the Contractor shall in no event be entitled to additional compensation, time or other relief from its obligations under the Contract Documents as a direct or indirect result of any surface or subsurface conditions encountered during performance of the Work.

Consequently, the Contractor hereby waives any and all claims against the Owner and/or the Architect (and any of their members, officers, employees and authorized representatives) that the Contractor has, or may have in the future, arising out of or in connection with. (i) any surface and subsurface conditions encountered during performance of the Work; and (ii) any inaccurate or incomplete reports, data or other materials or information given to the Contractor by or on behalf of the Owner or the Architect that pertains to the surface or subsurface conditions at the Site of the Project. The Contractor covenants and agrees that it shall not make any claim for additional compensation from the Owner as a result of any such subsurface conditions.

- G. Notice to Owner and Architect. The Contractor shall submit to the Owner and the Architect in writing all items required to be brought to the Owner's and/or Architect's attention or to be submitted for approval. These items must be submitted sufficiently in advance of the date upon which the information or approval is actually required by the Contractor to allow the Owner and Architect to take appropriate actions so as not to delay the Work. The Contractor shall not have any right to an extension of time due to delays caused by its failure to submit any item in a timely fashion.

5.02 Character and Competency.

- A. Certain Representations, Warranties and Covenants. The Contractor represents that it is a duly organized and licensed entity which employs qualified and experienced personnel who specialize in performing the type of construction services required hereunder. The Contractor agrees to provide a sufficient number of personnel who are suitably qualified and experienced and who are in all respects acceptable to the Owner to perform the Work in an efficient and timely manner. The Contractor represents that it is capable in all respects (including the possession of sufficient financial resources to provide fully for the payment of employees) of performing the Work and agrees to provide construction services of high quality. The Contractor agrees to diligently and conscientiously devote its resources to the performance of the Work. The Owner, upon written Notice to the Contractor, and in the Owner's sole discretion, shall have the right to direct the Contractor to remove an employee permanently from the Site for any reason.
- B. Direct Contact Certification. The Contractor hereby certifies that. (i) neither the Contractor nor any employee of the Contractor who will have direct contact with students has been convicted of a felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child; and (ii) absent prior Notice to the Owner, neither the Contractor nor any employee of the Contractor who will have direct contact with students has been convicted of a crime of moral turpitude. The foregoing certification shall be binding upon the Contractor throughout the Contract Period and the Contractor hereby covenants and agrees to provide the Owner with immediate Notice of any event or circumstance that renders such certification untrue. The Contractor will ensure that no worker shall perform Work in occupied areas during school hours unless prior written approval

has been granted by the Owner and proper safety precautions have been exercised to isolate the area of the Work.

- C. Prohibited Activities; Removal from Site. Alcoholic beverages, illegal drugs, and weapons are prohibited on the Site and shall constitute grounds for immediate removal from the Site of the Project. The Contractor shall ensure that neither its employees nor those of any Subcontractor shall fraternize in any manner with any student of Fairfax County Public Schools at the Site of the Work. The Owner shall have the right to remove from the job Site any person whose presence the Owner deems detrimental to the best interests of the Fairfax County Public Schools. Any individual who is removed from the Site pursuant to this paragraph may not return to such Site or to that of any other project of Owner without the prior written permission of the Director of the Owner's Office of Design and Construction.
- D. Contractor's Use of Premises. See Section 01010, Summary of Work, for detailed requirements regarding Contractor's use of premises.

5.03 Permits, Fees and Notices.

- A. Compliance with Laws and Regulations; Required Permits. The Contractor shall comply with all Laws and Regulations and shall obtain, at its expense, all permits, licenses and other authorizations necessary for the prosecution of the Work, except that the Owner shall obtain, at its expense, the General Building Permit and/or any easement agreement necessary and indispensable to the completion of the Project.
- B. Conflict with Laws and Regulations. The Contractor shall be responsible for giving all Notices and complying with all Laws and Regulations. In the event that the Contractor determines that the Contract Documents, or any of them, do not conform in any respect with any Law or Regulation, he shall promptly inform the Architect of such fact in writing. Any required change shall be adjusted by Work Order and incorporated into a subsequent Change Order. If the Contractor performs any Work knowing it to be in conflict with any Law or Regulation without prior notification to the Architect and Owner, the Contractor shall accept all responsibility and bear all costs relating thereto.
- C. VDOT Permits. When applicable, the Contractor shall be responsible for acquiring any Virginia Department of Transportation ("VDOT") permits required for the Project. The Contractor shall be responsible for all application fees, bonding costs and inspection fees associated with such permits. When applicable, the Owner shall pay the Civil Engineer of Record for any costs incurred for additional engineering services required by VDOT in order to obtain these permits.

- 5.04 Responsibility for Those Performing the Work. The Contractor shall be responsible and accountable to the Owner for the acts and omissions of its employees in connection with the performance of the Work and for any Subcontractors or other persons or entities performing any of the Work under a contract with the Contractor or a contract with a Subcontractor.

5.05 Drawings and Specifications at the Site. The Contractor shall maintain one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications at the Site of the Project. All of the documents are to be kept in good order and marked to record all changes made during construction. The documents shall be made available to the Owner and Architect during performance of the Work. Upon completion of the Work, the Drawings, together with all changes and revisions made during construction of the Project, shall be delivered to the Architect.

5.06 Construction Schedule.

- A. Preparation of Construction Schedule. The Contractor, promptly after receipt of the Notice of Award, shall prepare and submit to the Owner and the Architect, for their review and approval, the Construction Schedule. The Construction Schedule, as approved, shall. (i) provide for the expeditious and diligent performance of the Work within the Contract Period; and (ii) be revised as necessary, in the opinion of the Owner, to accommodate and to reflect the progress of the Project as a whole.
- B. Submittal Schedule. The Contractor shall prepare and keep current, for the Architect's approval, a schedule of submittals (the "Submittal Schedule") which is coordinated with the Construction Schedule and allows the Architect reasonable time to review all submittals.
- C. Compliance with Schedules. The Contractor shall conform at all times to the most recent Construction Schedule and Submittal Schedule.
- D. Additional Scheduling Requirements. Additional scheduling requirements are contained in Section 01310 of the General Requirements.
- E. No Reliance on Silence of Owner or Architect. The Owner's or Architect's silence as to a submitted Construction Schedule that fails to meet or satisfy, in any respect, any milestone dates or other time limitations set forth in the Contract Documents shall not relieve the Contractor of its obligation to meet those time limits, nor shall it render the Owner or Architect liable to any Separate Contractor who suffers damages, increased costs or delays as a result thereof. Similarly, the Owner's or Architect's silence with regard to a Construction Schedule submitted by the Contractor that shows performance in advance of such time limits or milestones shall not create any rights in favor of the Contractor, a Separate Contractor or any other person or entity for performance in advance of such time limits or milestones.

5.07 Shop Drawings.

- A. Submission of Shop Drawings. The Contractor shall prepare and submit to the Architect Shop Drawings and similar submittals required by the Contract Documents with reasonable promptness and in accordance with the Submittal Schedule so as not to cause a delay in the Work or in the activities of the Owner or of Separate Contractors. Submittals presented by the Contractor that are not required by the Contract Documents may be returned without action.

- B. Review Process. The Contractor shall not perform any portion of the Work requiring submittal and review of Shop Drawings or similar submittals until the respective submittal has been approved by the Architect. Such Work shall be performed in strict accordance with the approved submittals.
 - C. Verification and Coordination. By approving and submitting Shop Drawings and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
 - D. Deviation from Contract Documents. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and the Architect has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings or similar submittals by the Architect's approval thereof.
 - E. Attention to Revisions. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings or similar submittals, to revisions other than those requested by the Architect on previous submittals.
 - F. Informational Submittals. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents.
 - G. Additional Shop Drawing Requirements. Additional requirements are contained in Section 01340 of the General Requirements.
- 5.08 Inspections of Work in Place. The Contractor shall be responsible for inspection of portions of Work already performed hereunder to determine that such portions are in proper condition to receive subsequent Work.
- 5.09 Required Tests and Inspections. The Contractor shall give the Owner and the Architect sufficient prior Notice of the date and time of required tests and inspections. Unless otherwise provided in the Contract Documents, the Contractor shall be responsible for all costs associated with such tests or inspections.
- 5.10 Use of Site. The Contractor shall confine the Work to areas permitted by the Contract Documents and any applicable laws, ordinances or permits and shall not unreasonably encumber the Project with any materials or equipment.
- 5.11 Indemnification.
- A. The Contractor hereby assumes all liability for and agrees to indemnify and hold harmless the Owner and the Architect and its or their respective Members, officers, authorized representatives and employees (each of whom shall be referred to

herein as an "Indemnified Party") from and against any and all claims, losses, costs, damages, penalties, liabilities and fees (including reasonable attorneys' fees) and expenses resulting from: (i) any material breach of the representations, warranties, covenants and agreements of the Contractor contained in the Contract Documents; (ii) any injuries to persons or property caused by the negligence or other wrongful conduct of the Contractor, any Subcontractor, or any of its or their respective employees or authorized representatives; (iii) any claims filed by the Contractor (or by a Subcontractor, if permitted by law) that are adjudicated in favor of the Owner; or (iv) any other claim arising in any other manner out of or in connection with the performance of this Contract by or on behalf of the Contractor.

Notwithstanding the foregoing, the Contractor will in no event be obligated hereunder to indemnify or hold harmless any Indemnified Party against liability for damage arising out of bodily injury to persons or damage to property suffered in the course of the Work, caused by or resulting solely from the negligence of such Indemnified Party.

- B. In the event that a claim is brought against an Indemnified Party by. (a) the Contractor or an employee of the Contractor; (b) any Subcontractor or supplier or any employee thereof; (c) any person or entity engaged by or through the Contractor or any Subcontractor or supplier to furnish or perform any portion of the Work; or (d) any person or entity for whom the Contractor or any Subcontractor or supplier may be vicariously liable, then the indemnification obligations set forth in Section 5.11(A) shall not be limited in any respect by any limitation on the type or amount of damages, compensation, benefits or other remuneration payable by or for the Contractor or any Subcontractor, supplier or other such person or entity under any laws, rules, regulations or plans of any nature governing workers' compensation, disability benefits or other employee benefits.
- C. Claims on Behalf of Subcontractors. No claim of any nature shall be made against an Indemnified Party by or on behalf of a Subcontractor unless the Contractor first shall have. (i) evaluated such claim thoroughly and determined it to be meritorious; (ii) issued a written Notice to the Subcontractor finding the Subcontractor's claim to be meritorious and setting forth any additional compensation or additional days to be paid or granted to the Subcontractor on account of such claim; and (iii) paid the Subcontractor in full for such claim. In presenting such a claim, the Contractor shall provide the Owner and the Architect with a copy of the written Notice to the Subcontractor and with evidence of payment in full of the Subcontractor's claim. No such claim shall exceed the amount actually paid to the Subcontractor by the Contractor.

The Contractor covenants and agrees not to bring a claim against an Indemnified Party for indemnity based upon a Subcontractor's claim except as specifically permitted in this subsection.

- D. Liability Unaffected. Nothing contained herein shall in any manner create any liability against the Owner on account of any claim for labor, services, or materials, or of Subcontractors, and nothing herein contained shall affect the liability of the

Contractor or its Sureties to the Owner or to any workmen or materialmen upon bonds given in connection with this Contract. The Contractor hereby acknowledges and agrees that, as between the Owner and the Contractor, the Contractor shall bear full and complete responsibility for the performance of its Subcontractors, manufacturers and suppliers, regardless of whether any such Subcontractor, manufacturer or supplier was designated as "preapproved" by the Owner.

- 5.12 Conflict of Interest. The provisions of the State and Local Government Conflict of Interests Act (Va. Code Ann. " 2.2-3100, *et seq.*) and Article IV of the Virginia Public Procurement Act entitled "Ethics in Public Contracting" (Va. Code Ann. " 2.2-4367, *et seq.*) as the same may be amended from time to time, are incorporated herein by reference. The Contractor shall incorporate the foregoing conflict of interests clause in each subcontract entered into in connection with the Work.
- 5.13 Non-discrimination. The Contractor hereby covenants and agrees as follows:
- A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, except where religion, sex or national origin 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 laws, rules or regulations shall be deemed sufficient for the purpose of satisfying the requirements of this Paragraph 5.13.

The Contractor will include the provisions of the foregoing Paragraph 5.13 (A), (B) and (C) in every subcontract or purchase order of over \$10,000, in order that the provisions contained herein will be binding upon each Subcontractor or vendor in connection with the Work.

- 5.14 Subcontractor Bonds. The Contractor hereby covenants and agrees to require such bonds of any subcontractors as may be specified in the Instructions to Bidders.
- 5.15 Safety and Health Program. The Contractor shall establish and maintain a program to protect the safety and health of all persons (employees, visitors, public) at the Site. Such program shall designate a qualified individual as responsible for implementation of the program, and establish procedures for coordinating safety and health activities with Separate Contractors at the Site. The program shall comply with all Laws and Regulations, including but not limited to the Virginia Occupational and Health Standards for the Construction Industry, 29 CFR Part 1926.20 and 1926.21, and the American National Standards Institute, A10.38-2000 and A10.33-1998 (R2004).

- 5.16 Prevailing Wage Requirements: The Contractor covenants and agrees that the remuneration to any individual performing services as a mechanic, laborer, or worker for the Work will be paid at a rate not less than the Prevailing Wage Rate. The Contractor further covenants and agrees to comply, and cause each Subcontractor to comply, with the following requirements applicable to the Work performed under this Contract:
- A. Upon award of the Contract, the Contractor will certify, under oath, to the Commissioner of Labor and Industry, the pay scale for each craft or trade to be employed on, or to provide labor for, the Project or the Work by the Contractor and any Subcontractors. The Contractor's certification will, for each such craft or trade, specify the total hourly amount to be paid to employees, including wages and applicable fringe benefits, provide an itemization of the amount paid in wages and each applicable benefit, and list the names and addresses of any third-party fund, plan or program to which benefit payments will be made on behalf of employees. Within five (5) days after submitting its certification to the Commissioner of Labor and Industry, the Contractor will provide a copy of the certification to the Owner.
 - B. The Contractor and each Subcontractor will keep, maintain, and preserve: (i) records relating to the wages paid to, and hours worked by, each individual performing the work of any mechanic, laborer, or worker; and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or worker on the Project is employed during each workday and week. The Contractor and each Subcontractor will: (a) preserve such records for a minimum of six (6) years from contract expiration or termination; (b) make such records available to the Department of Labor and Industry or the Owner within 10 days of a request; and (c) certify that such records reflect the actual hours worked and the amount paid to its workers for the time period covered by the request.
 - C. The Contractor and each Subcontractor will post the Prevailing Wage Rates for each craft or trade involved in the Project and the Work, including the effective date of any changes thereto, in a prominent and easily accessible place at the Site or at any such places as are used by the Contractor or Subcontractors to pay wages to their workers. Such posting must be made in English and in such other languages as may be specified by the Owner in order to provide meaningful access to the information in the posting to workers with limited English proficiency. Within ten (10) days of such posting, the Contractor and each Subcontractor shall certify to the Commissioner of Labor and Industry its compliance with the posting obligation set forth herein.
 - D. The Contractor and each Subcontractor will comply with all requirements and obligations applicable to contractors and/or subcontractors pursuant to Section 2-3-2 of the Prevailing Wage Ordinance adopted by the Fairfax County Board of Supervisors on January 25, 2022, as the same may be amended from time to time. The Prevailing Wage Ordinance may be viewed at https://library.municode.com/va/fairfax_county/ordinances/code_of_ordinances?nodelid=1149114

- 5.17 Drug-Free Workplace Requirement. During the performance of the Work, 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 purposes hereof, a "drug-free workplace" shall mean the Site.

PART 6 - SUBCONTRACTORS

- 6.01 Absence of Contractual Relationship. Nothing contained in the Contract Documents shall operate to, or otherwise have the effect of, creating a contractual relationship between the Owner or the Architect, on the one hand, and any Subcontractor or Sub-subcontractor on the other.
- 6.02 Award of Subcontracts and Other Contracts for Portions of the Work.
- A. List of Subcontractors. Unless otherwise specified in the Contract Documents, within ten (10) days after receipt of the Notice of Award of the Contract, the Contractor must submit a written statement to the Architect and the Owner setting forth the name, address, and telephone number of each proposed Subcontractor and Sub-subcontractor and the portion of the Work and/or materials which each such Subcontractor or Sub-subcontractor is proposed to perform or provide, as the case may be. The Contractor also must furnish any other information (including but not limited to an OSHA Form 300) to establish to the satisfaction of the Owner and the Architect that the proposed Subcontractor has the necessary facilities, skill, integrity, safety records, past experience and financial resources to perform the Work in strict accordance with the terms and conditions of the Contract Documents. The Architect shall advise the Owner of its opinion with regard to each proposed Subcontractor and Sub-subcontractor.
- B. Review by Owner. If the Owner finds, in its sole and absolute discretion, that a proposed Subcontractor or Sub-subcontractor is not qualified, then the Contractor will be notified promptly of such decision in writing. If no such Notice is provided within 20 days after the Contractor's submission of a written statement, then the Owner shall be deemed to have accepted the Subcontractor. If it is determined a Subcontractor or Sub-Subcontractor is not qualified, then the Contractor must utilize another Subcontractor or Sub-Subcontractor at no additional cost to the Owner. The Owner may retract its acceptance of any Subcontractor in the event such Subcontractor evidences an unwillingness or inability to perform its portion of the Work in strict accordance with the requirements of the Contract Documents.

Notice of such retraction will be given in writing to the Contractor. Upon receipt of notification of such rejection or retraction, the Contractor shall submit a new Subcontractor for the Owner's review. Any increase or decrease in the Contract Sum resulting from the required substitution shall be adjusted by appropriate Change Order; provided, however, that. (i) no increase in the Contract Sum will be allowed for substitutions unless the Contractor has submitted a list of proposed Subcontractors in accordance with the provisions hereof; and (ii) no such increase shall exceed the amount set forth with respect to such Work, plus 10%.

- C. Rejection of Subcontractor. The Contractor shall not enter into a contract for performance of any portion of the Work with any Subcontractor who has been rejected by the Owner and/or the Architect.
 - D. Subcontracts. Upon request, the Contractor promptly shall file with the Owner a complete copy of any one or more of its subcontracts. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind Subcontractors to the Contractor in accordance with the terms of these Contract Documents insofar as applicable to the Work of Subcontractors, and to give the Contractor the same power to terminate any subcontract that the Owner may exercise to terminate the Contractor under the provisions of these Contract Documents.
 - E. Responsibility for Subcontractors. The Owner's review or acceptance of Subcontractors as described herein shall not relieve the Contractor of any of its responsibilities, obligations and liabilities hereunder. The Contractor shall be solely responsible to the Owner for the acts, defaults, or omissions of its Subcontractors and of its Subcontractors' officers, authorized representatives and employees.
- 6.03 Subcontractor and Sub-subcontractor Agreements. Work performed by Subcontractors and Sub-subcontractors shall be set forth in a signed, written agreement between the parties. Each such agreement shall:
- A. be consistent in all respects with these Contract Documents and shall neither. (i) contain a provision which negates, conflicts with or otherwise compromises the requirements of the Contract Documents; or (ii) contain a provision which limits or otherwise adversely affects the rights of the Owner and the Architect as such rights are defined in the Contract Documents;
 - B. require timely processing of applications for payment and of claims for additional costs, damages, or time, in order that the Contractor may in turn promptly process such applications or claims in conformance with the Contract Documents;
 - C. waive the rights of either party against the other in regard to claims for fire or other peril covered by the property insurance described in Paragraph 14.02. Such waiver shall not exclude either party from rightful access to the proceeds of such insurance; and

- D. make specific reference to this Paragraph 6.03 of the General Conditions as a mutually binding provision.

6.04 Payments to Subcontractors.

- A. The Contractor will be liable for the entire amount owed to any Subcontractor with which it contracts, provided that the Contractor will not be liable for amounts otherwise reducible due to the Subcontractor's noncompliance with the terms of its contract. However, in the event that the Contractor withholds all or a part of the amount promised to the Subcontractor under the Contract, the Contractor must notify the Subcontractor, in writing, of its intention to withhold all or a part of the Subcontractor's payment with the reason for nonpayment. Payment by the Owner to the Contractor will not be a condition precedent to payment to any lower-tier Subcontractor. Any provision in the Contract Documents contrary to this paragraph will be unenforceable.
- B. Within seven (7) days after receipt of payment from the Owner, the Contractor shall:
 - 1. Pay each Subcontractor for the proportionate share of the total payment received by the Contractor attributable to Work performed by such Subcontractor; or
 - 2. Notify the Owner and the Subcontractor in writing of the intention to withhold all or part of the amounts due a Subcontractor pursuant to Paragraph 6.04(B)(1) above, and state the reason in reasonable detail for such withholding.
- C. In the event the Contractor fails to submit a timely Application for Payment, and that failure is due exclusively to the actions of the Contractor, the Subcontractor shall have the right to be paid by the Contractor upon demand the amounts due as described in Paragraph 6.04(B)(1).
- D. The Contractor shall pay interest on amounts owed to the Subcontractor which remain unpaid seven (7) days after the Contractor's receipt of payment from the Owner; provided, however, that amounts owed the Subcontractor which have been withheld properly pursuant to Paragraph 6.04(B)(2) shall not accrue interest. Interest on amounts due the Subcontractor and unpaid shall accrue at the rate of .5 percent per month; provided, however, that the Contractor's obligation to pay interest hereunder shall in no event be construed to be or otherwise become an obligation of the Owner. Claims for reimbursement by the Owner for interest charges owed by the Contractor to any Subcontractor shall not be allowed.
- E. Insurance proceeds received by the Contractor under the insurance policies described in Part 14 shall be equitably distributed to the affected Subcontractors in accordance with their respective interests in the underlying claim.

- F. Information concerning percentages of completion of Work performed by a Subcontractor as shown in Application for Payment may be made available to that Subcontractor upon mutual agreement with the Architect and the Owner.
- G. The Contractor shall include in each subcontract a requirement that each Subcontractor shall be bound by and subject to the provisions of Paragraph 6.04(B) through 6.04(E) above in regard to payments made by such Subcontractor to its Sub-subcontractors.

PART 7 - SEPARATE CONTRACTS

- 7.01 **Owner's Right to Award Separate Contracts.** The Owner reserves the right to award one or more separate contracts in connection with other portions of the Project or other construction or operations at the Site. The Contractor hereby acknowledges that for all or some of the Contract Period such Separate Contractors may be present at the Site. The Contractor hereby assumes the risk of delays and disruptions caused by the presence of Separate Contractors at the Site and hereby covenants and agrees that it shall not make a claim against the Owner for additional compensation as a result of the activities of such Separate Contractors, unless such activities give rise to an "unreasonable delay" as set forth in Part 11 hereof.
- 7.02 **Covenant to Coordinate and Cooperate.** As part of the Work and at no additional cost to the Owner, the Contractor covenants and agrees at all times during its performance of the Work to coordinate such performance with the activities and operations of any Separate Contractors. The Contractor shall use its good faith best efforts to cooperate, coordinate and consult with the Owner and all Separate Contractors in the performance of the Work. The Contractor shall connect and coordinate the Contractor's construction and related operations with the construction and related operations of any Separate Contractors to the extent necessary to achieve the timely and satisfactory completion of the Work and in such a manner as to avoid delaying, interfering with, or otherwise placing undue burden upon the activities of any Separate Contractor. The Contractor shall afford the Owner and each Separate Contractor reasonable opportunity for introduction and storage of their materials and equipment and reasonable access to the Site for performance of their respective activities.
- 7.03 **No Interference with Separate Contractors.** The Contractor shall not take any action, or omit to take any action, that will delay, interfere with, or otherwise unduly burden the activities of a Separate Contractor or that will obstruct reasonable access by any Separate Contractor to the site of such Separate Contractor's activities and operations.
- 7.04 **Scheduling with Separate Contractors.** Upon request by the Owner, the Contractor shall meet with the Owner and any Separate Contractors at times designated by the Owner in order to review the Construction Schedule and the schedules of the Separate Contractors and to coordinate and conform those schedules. The Contractor promptly shall make any revisions to the Construction Schedule that are required, in the Owner's sole discretion, to serve the interests of the Project as a whole. The Construction Schedule, as revised, shall then constitute the schedule to be used by the Contractor until subsequently revised.

- 7.05 Report of Discrepancies. Whenever the Contractor's Work depends for proper execution or results upon construction or operations by a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect in writing any apparent discrepancies or defects in such construction or operations performed by a Separate Contractor that would render it unsuitable for such proper execution and results. Failure of the Contractor to report such apparent discrepancies and/or defects shall constitute an acknowledgment that the Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

PART 8 - MISCELLANEOUS PROVISIONS

- 8.01 Governing Law. The Contract Documents shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia, without reference to conflict of laws principles.
- 8.02 Successors, Assigns and Legal Representatives. Except as provided in Part 6 hereof with respect to Subcontractors, this Agreement shall not be assigned, sublet or transferred, in whole or in part, by operation of law or otherwise, by either of the parties hereto except with the prior written consent of the other. Unless specifically stated to the contrary in any written consent to an assignment, no assignment shall operate to release or discharge the assignor from any duty or responsibility under this Agreement. The Owner's consent to a particular subcontract or assignment shall in no event constitute a waiver of the Owner's right to consent to any further or additional subcontracts or assignments.
- 8.03 Entire Agreement. The Contract Documents constitute the entire agreement among the parties pertaining to the Work and supersedes all prior and contemporaneous agreements and understandings of the parties in connection therewith. The Contract Documents may not be modified or amended orally or by course of conduct. Any modification or amendment shall be set forth in a written Change Order executed by the Owner and the Contractor.
- 8.04 Royalties and Patents. The Contract Sum includes all royalties and costs arising from patents, trademarks, and copyrights in any way involved in the Work. Whenever the Contractor is required or desires to use any design, device, material or process covered by letters of patent or copyright, the Contractor shall indemnify and save harmless the Owner and Architect, their officers, agents and employees from any and all claims for infringement by reason of the use of any such patented design, device, tool, material, equipment, or process to be performed under the Contract, and shall indemnify the Owner and the Architect, their officers, agents, authorized representatives, and employees for any costs, expenses and damages which may be incurred by reason of any such infringement at any time during the prosecution and after the completion of the Work. Notwithstanding the foregoing, the Contractor shall not be liable hereunder to the extent that any infringement arises by virtue of a design or implementation supplied to the Contractor by the Owner or the Architect.
- 8.05 Contractual Claims.

- A. If the Contractor wishes to make a contractual claim, whether for extra compensation, damages or any other relief, he shall provide Notice to the Owner and to the Architect in accordance with the provisions of Paragraph 8.09 hereof. The Contractor's failure to comply strictly with the requirements of Paragraph 8.09 shall result in waiver of the claim
- B. Resolution of any outstanding claims, counterclaims, disputes and other matters in question arising out of or relating to the Contract Documents to the extent not resolved by the parties hereto, shall be decided by a court of competent jurisdiction in the Commonwealth of Virginia; provided, however, that nothing contained herein shall be construed to invalidate the finality of the Owner's decisions. The Owner and the Contractor hereby waive any right they may have to a jury trial in connection with the resolution of any such claim, counterclaim, dispute or other matter arising out of or in connection with the Contract Documents. In any such court proceeding, the Owner shall have the right to bifurcate or otherwise reserve the court's determination regarding issues of: (i) the Owner's entitlement to recovery from the Contractor of the Owner's attorney's fees and costs; and (ii) the quantum of any such recovery, until after a decision or other disposition by the court in the underlying matter.

8.06 Tests and Inspections.

- A. The Contractor shall give the Owner and Architect sufficient prior Notice of the date and time of required tests or inspections. The Contractor shall be responsible for all costs associated with such tests or inspections, unless otherwise specifically excluded from the scope of Work defined in the Contract Documents.
- B. If, during the course of the Work, the Architect or Owner decides it is reasonable and necessary to perform supplemental inspections or testing not required by law or Contract Documents, then the Contractor will be instructed in writing to arrange for such testing. It shall be the responsibility of the Contractor to give timely Notice of such inspections or testing to the Owner and Architect. If the supplemental testing or inspections reveal defective or non-complying Work, then the Contractor shall be responsible for all costs associated with the performance of the tests or inspections, any additional costs required to rectify the defective or non-complying Work, and any costs for additional architectural services related thereto. If the Work is found to be in compliance with the requirements of the Contract Documents, then the Contractor shall be entitled to an equitable adjustment in for the reasonable associated costs of the testing or inspections.
- C. The Contractor shall be responsible for securing all certificates or records of additional tests or inspections, and distributing them to the Owner and Architect in a timely manner.
- D. Performance of required or supplemental inspections and testing by persons or organizations other than the Contractor, Subcontractors, or Sub-subcontractors, shall not compromise performance of the Work in compliance with the Contract Documents.

8.07 Conflict with Provisions of Laws or Regulations.

- A. In the event that there is a conflict between a provision of these Contract Documents and that of any Law or Regulation, such conflicting Law or Regulation shall control.
- B. All legal provisions required by law to be included in the Contract Documents shall be deemed to be a part hereof, whether actually set forth or not herein.

8.08 No Claims Against Individuals. No claim whatsoever shall be made by the Contractor against any officer, Member, authorized representative or employee of the Owner or the Architect for, or on account of, anything done or omitted to be done in connection with this Contract, and the Contractor shall be strictly liable for all costs, attorneys fees and expenses incurred by any individual or entity who is sued in violation of this Paragraph.**8.09 Disputes.**

- A. **Notice of Claim.** If the Contractor wishes to dispute that any Work required, necessitated, or ordered by the Architect or the Owner, or otherwise to claim any action required or ordered by the Architect or the Owner to be taken or not taken violates the terms and provisions of this Contract, then he shall proceed with such Work and/or comply with such requirement or order without delay and shall, within five days after the earlier of (a) commencing such Work or (b) receiving Notice of such requirement or order, notify the Owner and the Architect, in writing, of his claim with respect thereto and request a final determination thereof. In order to invoke the procedures of this Paragraph, the Contractor's request must. (i) refer specifically to this Paragraph by number; (ii) in the case of the Owner, be hand-delivered both to the office of the Director, Office of Design and Construction and to the Project Manager at the Site; (iii) contain a full explanation of the basis of the Contractor's position, and the rationale for Contractor's request, including actual photocopies of all materials or documents (other than Contract Documents) referred to in the Contractor's request; (iv) detail the quantum of any relief requested by the Contractor and provide verified substantiation of all such amounts; (v) describe in detail any other relief requested; (vi) describe in detail all efforts the Contractor has made to mitigate any alleged loss or otherwise avoid the claim; and (vii) be signed by an officer of Contractor under oath. No request for a Change Order, request for change proposal, or other requested modification shall be sufficient, on its own or collectively to satisfy or to defer the commencement of the Notice requirements set forth herein.
- B. **Claim Review Process.** The Owner shall issue a written determination with regard to any such claim on or before the date that is 14 days after the date of its receipt of the Contractor's written request; provided, however, that in the event that the Owner determines, based upon the size or complexity of the claim at issue, that additional time is required for the issuance of a response, the Owner shall issue written Notice of such finding to the Contractor within 14 days following the date of its receipt of the Contractor's written request and shall issue a written determination with regard to such claim on or before the date that is 60 days after the later of (i)

the date of the Owner's receipt of the Contractor's written request or (ii) the Contractor's submission of all supplemental information where such has been requested by the Owner. The Contractor's failure to submit promptly any supplemental information requested by the Owner shall result in the waiver of the claim. In order to reserve its right to claim compensation for such Work, or damages resulting from such compliance, the Contractor shall, within five days after receiving Notice of the Owner's determination and direction, notify the Owner and the Architect, in writing, that the Work is being performed, or that the determination and direction is being complied with, under protest. Failure of the Contractor to so notify the Owner and the Architect as provided herein shall constitute a waiver and release of the Contractor's right to claim compensation for any Work performed under protest or damages resulting from such compliance. Should Owner fail to issue a written determination within the time periods specified herein, such failure shall be deemed to be a denial of the claim entitling the Contractor to institute legal action with respect to the claim without further administrative review by Owner. In no event shall Contractor be permitted to make a total cost claim or the like against Owner, nor any other claim which fails to conform strictly to the above standards or to Virginia law; any such claims shall be deemed to be null and void.

- C. Undisputed Amounts; Claims for Extension of Time. All monies owed and not in dispute will be made available to the Contractor in accordance with the Contract Documents. Any request for an extension of time in connection with disputed Work shall be governed by Part 11 hereof.
- 8.10 Benefit of Agreement. The Contract Documents shall be enforceable and binding upon, and shall inure to the benefit of, the parties hereto, their respective successors and permitted assigns. Nothing contained herein, express or implied, is intended to or shall confer upon any other person any rights, benefits or remedies of any nature whatsoever under or by reason of this Agreement.
- 8.11 No Estoppel. Neither the Owner, nor any officer, Member, employee, or authorized representative thereof, will be bound, precluded, or estopped by any action, determination, decision, acceptance, return, certificate, or payment made or given under or in connection with this Contract by any officer, employee, Member or authorized representative of the Owner or of the Architect, at any time either before or after final completion and acceptance of the Work or any payment therefor. The Owner may, at any time and from time to time. (a) show the true and correct classification, amount, quality, or character of the Work performed, or that any determination, decision, acceptance, return certificate or payment is incorrect or was improperly made in any respect, or that the Work or any part thereof does not in fact conform to the requirements of the Contract Documents; (b) demand and recover from the Contractor any overpayment made to him or such damages as the Owner may sustain by reason of the Contractor's failure to comply with the requirements of the Contract Documents; or (c) both of the foregoing clauses (a) and (b).
- 8.12 No Waiver of Rights. No act or omission on the part of the Owner (including but not limited to those matters set forth in A through D below) shall be deemed to constitute a waiver of any right, duty, obligation or other provision set forth in these Contract Documents:

- A. inspections conducted by the Owner, the Architect, or any of their respective employees, officers, Members or authorized representatives;
- B. orders for the payment of money;
- C. payments for, or acceptance of, all or any part of the Work;
- D. extensions of time or changes to the Contract Documents, Specifications or Drawings.

In order to be effective, any waiver by the Owner must be in writing and must expressly use the term "waiver," or a variation thereof. In no event shall any waiver of any breach of this Contract be held as a waiver of any subsequent breach of this Contract. The terms of this Contract shall be in addition to, and not a limitation on, any and all rights and remedies which the Owner has or may have at law or in equity. The Owner will have the right to enjoin the Contractor against any breach of the terms of this Contract without any showing that such relief is necessary to avoid irreparable injury or that there is no adequate remedy at law.

PART 9 - CHANGES IN THE WORK

9.01 Minor Changes.

- A. **Owner's Right to Make Changes.** The Owner reserves the right to make such additions, deletions, or changes to the Work as may be necessary in its sole and absolute discretion to complete the Work; provided, however, that no such additions, deletions or changes shall materially affect the substance hereof or materially change the Contract Sum. This Contract shall in no way be invalidated by any such additions, deletions or changes. No claim shall be made by the Contractor for loss of anticipated profits resulting from any such addition, deletion, or change to the Work.
- B. **Construction Conditions.** Construction conditions may require minor changes in the location and installation of the Work and equipment to be furnished and other Work to be performed hereunder. The Contractor, when ordered by the Architect, shall make such adjustments and changes in the locations and Work as may be necessary without additional cost to the Owner, provided such adjustments and changes do not materially alter the character and quantity of the Work as a whole, or the Contract Sum, and provided further that Drawings and Specifications showing such adjustments and changes are given to the Contractor by the Owner or Architect within a reasonable time before work involving such adjustment and changes is begun. The Owner and the Architect shall be the sole judges of what constitutes a minor change for which no additional compensation shall be allowed.
- C. **Time Extension for Minor Changes.** The Contractor shall be entitled to an extension of time for such minor changes only for the number of days which the Architect may determine to be necessary to complete such changes and only to the extent that such changes actually delay the completion of the Project, and then

only if the Contractor shall have strictly complied with all the requirements of the Contract Documents.

9.02 Extra Work.

- A. Order for Extra Work. The Owner may, in its sole and absolute discretion, at any time by issuance of a Work Order or Change Order and without notice to the Sureties require the performance of such Extra Work as it deems necessary or desirable. A Work Order or a Change Order covering Extra Work shall be valid only if issued in writing and signed by the Owner and the Architect, and the Extra Work so ordered must be performed by the Contractor. The Contractor hereby covenants and agrees to perform such Extra Work on the terms and conditions set forth in the applicable Work Order or Change Order, as the case may be, and hereby waives any claim, suit or cause of action of any nature based, in whole or in part, upon the allegation that any Extra Work ordered hereunder and/or any Work omitted pursuant to Paragraph 9.03 hereof, individually or in the aggregate, constitute a cardinal change to, or other material deviation from, the Contract Documents and/or the Work contemplated thereby. Any attempt by the Contractor to alter or modify a Change Order or to reserve a claim thereunder shall be void and of no legal effect. Each Change Order, when executed, shall constitute full and final compensation for all matters directly or indirectly related to or arising from the changes to the Work ordered thereby (the "Changed Work"), including, but not limited to, all Overhead and all other direct and indirect costs associated with the Changed Work and any and all adjustments (of whatever nature) to the Contract Sum or to the Contract Period attributable to the Changed Work.
- B. Compensation for Extra Work. The amount of compensation to be paid to the Contractor for any Extra Work set forth in a Work Order or a Change Order shall be determined as follows:
1. By such applicable unit prices, if any, as are set forth in the Contract; or
 2. If no such unit prices are set forth, then by a lump sum or other prices mutually agreed upon by the Owner and the Contractor; or
 3. If no such unit prices are set forth in the Contract and if the parties cannot agree upon a lump sum or other unit prices, then by the actual and reasonable costs as determined by the Architect in accordance with Section 01153 of the General Requirements.
- C. Full and Final Compensation. Regardless of the manner in which the adjustment to the Contract Sum on account of Extra Work is determined, such adjustment shall be deemed to include all amounts, whether direct, indirect or consequential, resulting from the performance of the Extra Work, including but not limited to all Overhead. The adjustment to the Contract Sum, if any, shall constitute the final, full and mutual accord and satisfaction for all costs related to such change.

- D. Notice and Records of Extra Work. At least one day prior to the performance of Extra Work hereunder, the Contractor shall provide Notice to the Owner and Architect setting forth: (1) his intention to perform Extra Work; (2) the nature of the Extra Work and the precise location, time of commencement, duration, and basis therefor; and (3) Subcontractors involved therein. Unless such Notice of Extra Work is provided in the manner prescribed herein, such Extra Work shall not be compensated. Records of Extra Work performed hereunder, if any, shall be submitted by the Contractor to the Owner at the end of each day on which such Extra Work shall have been performed. Duplicate copies of accepted records shall be made and signed by both the Contractor or its representative and the Owner's representative, and one copy shall be retained by each.
- E. Payment Requests. Payment requests for approved and duly authorized Extra Work shall be submitted by the Contractor upon a certified statement supported by receipted bills. Such statements shall be submitted for payment by the Owner in the month in which such Extra Work was performed and in accordance with Paragraph 12.03 hereof.
- F. Time Extension for Extra Work. The Contractor shall be entitled to an extension of time for Extra Work duly authorized by the Architect only for the number of days required, in the opinion of the Architect, to complete such Extra Work, and then only if the Contractor has strictly complied with all the requirements of the Contract Documents.

9.03 Omitted Work.

- A. Omission of Work by Owner. The Owner may at any time by a written order and without notice to any Surety require the omission of such Work as the Owner may find necessary or desirable in its sole and absolute discretion.
- B. Order for Omission of Work. Order An order for omission of Work shall be valid only if signed by the Owner and the Architect and the Work so ordered must be omitted by the Contractor. The amount of any credit due the Owner as a result of any such omission of Work shall be determined in accordance with Paragraph 9.02(B)(1), (2) and (3) above.

9.04 Suspension of Work.

- A. Suspension of Work by Owner. The Owner may suspend the Work by written order in order to. (i) coordinate the activities and operations of the Contractor with that of any Separate Contractors; (ii) expedite completion of the Project, even though completion of the Work may be delayed thereby; or (iii) serve the best interests of the Owner or of the Project as a whole. No single suspension by the Owner shall exceed 10 days.
- B. Order for Suspension of Work. An order for suspension of the Work (or any portion thereof) shall be signed by the Owner and the Architect, shall identify the Work that is to be suspended by the Contractor, and shall set forth the effective dates of

such suspension. Such order (and the effective dates of the suspension) may be updated by the Owner from time to time during the course of the suspension.

- C. Compensation for Suspension. In the event of a suspension of the Work (or any portion thereof) hereunder, the Contractor shall accept as full compensation for such suspension. (i) the actual costs incurred by the Contractor on this Project for demobilization and remobilization, as documented to the satisfaction of the Owner and the Architect; and (b) an extension of time for completion of the Work for such number of days as the Owner and the Architect shall determine that the suspension shall have actually and adversely impacted the Critical Path for the Work.

9.05 Audit. The Owner and its authorized representatives shall, until the expiration of three years from the date of final payment under these Contract Documents, have the right to examine and copy those books, records, accounts, documents, papers and other supporting data which involve transactions related to this Contract or which otherwise permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein (the "Records"), and the Contractor hereby covenants to maintain the Records in good order for such time and to deliver promptly the Records to the Owner within 5 days after its written request. In the event that the Contractor fails to comply with this Paragraph 9.05, then the Owner, in addition to any other available remedies, shall have the right to withhold payment of amounts otherwise due the Contractor until such time as the Contractor shall have complied fully with the obligations set forth herein.

PART 10 - CHANGE ORDER AND WORK ORDER PROCEDURES

10.01 Definitions.

- A. Change Order. Refer to the definition in Paragraph 1.02.
- B. Work Order. Refer to the definition in Paragraph 1.28.
- C. Overhead. Refer to the definition in Paragraph 1.18.

10.02 Change Orders. See Section 01153 of the General Requirements.

PART 11 - TIME

11.01 Time of Start and Completion; Liquidated Damages.

- A. Commencement and Performance of Work; Time of the Essence. The Contractor shall commence the Work within ten (10) days after the date stated as the date to proceed in the Notice to Proceed. Time being of the essence with respect to this Contract, the Contractor shall prosecute the Work diligently, using such means and methods of construction as will secure its full completion in accordance with the requirements of the Contract Documents, and will complete the Work within the Contract Period. By executing the Agreement, the Contractor confirms that the

Contract Period constitutes a reasonable period for performing the Work. The Contractor shall proceed expeditiously with adequate forces, scheduling and resources to complete the Work within the Contract Period. The actual Dates of Substantial and Final Completion will be established by the Architect after inspections have been conducted in accordance with Paragraphs 12.04 and 12.05 hereof.

- B. Liquidated Damages. The Owner and the Contractor hereby acknowledge and agree that time is of the essence with respect to this Contract and that in the event the Contractor fails to complete the Work within the Contract Period, the Owner will incur actual and considerable monetary damage, the actual amounts of which are uncertain and not readily ascertainable. The stipulated amount per day set forth in the Summary of Work (Section 01010) is reasonably in proportion to the probable loss to the Owner and that amount per day is hereby agreed upon as the liquidated damages for each day that the time consumed in completing the Work exceeds the time allowed. This stipulated amount shall in no event be considered to be a penalty or otherwise than as the liquidated and adjusted damages to the Owner because of the delay, and the Contractor and its Surety hereby agree that the stated sum per day for each such day of delay shall be deducted and retained out of the monies which may become due hereunder and if not so deductible, the Contractor and its Surety shall be liable therefor.

11.02 Extension of Time.

- A. Extension of Time. The parties to this Contract wish to provide a framework for resolving issues in connection with any delays that may occur on this Project. No extension beyond the date of completion fixed by the terms of the Contract will be effective unless granted in writing and signed by the Owner's representative.
- B. Contractor's Notice of Delay. Notice of delay must be given in writing to the Director of the Owner's Office of Design and Construction, with copies to the Architect and to the Owner's on-Site project manager within 5 days after the commencement of the delay and in strict accordance with the General Conditions. Each such Notice shall. (i) be submitted in written, narrative form on the Contractor's letterhead; (ii) be identified as a "Notice of Delay;" (iii) shall describe, in reasonable detail, the nature of the delay encountered; (iv) shall have appended to it a copy of this Paragraph 11.02; and (v) shall set forth the date of the commencement of the delay. An update to the Construction Schedule shall in no event be deemed to be sufficient, on its own and unless submitted as part of an application for extension of time as provided herein, to satisfy the Notice of requirements set forth in this Paragraph 11.02. In case of a continuing cause of delay, only one Notice shall be required.
- C. Contractor's Application for Extension of Time. The Contractor's application for any extension of time shall be in writing and addressed to the Director of the Owner's Office of Design and Construction, with copies to the Architect and to the Owner's on-site project manager, not more than 20 days after the commencement of the delay. Any such application for extension of time shall. (i) be on the

Contractor's letterhead; (ii) describe in reasonable detail the reasons for and causes of the delay; (iii) demonstrate in a clear and convincing fashion the extent to which, if any, the delay impacts the Critical Path for the Project; (iv) contain a justification for each additional day which is requested; (v) be identified as an "Application for Extension of Time; and (vi) have appended to it a copy of this Paragraph 11.02(A), together with copies of any documents referenced therein. If the delay should continue for longer than 20 days, the Contractor must submit the substantiation and support for such delay no less frequently than in 20 day increments. Any application for extension of time which does not conform in every respect to the requirements of this Paragraph 11.02(A) shall be deemed to have been waived.

- D. Basis for Extension of Time. If such an application is made, the Contractor shall be entitled to an extension of time for delay in completion of the Work if obstructed or delayed in the commencement, prosecution or completion of any part of the Work on the Critical Path by any act or delay of the Owner, or by riot, insurrection, war, pestilence, acts of public authorities, fire, earthquakes, or by strikes, or other causes, which causes of delay mentioned in this Paragraph, in the opinion of the Owner, are entirely beyond the expectation and control of the Contractor.
- E. Measurement of Delay. The Contractor shall, however, be entitled to an extension of time for such causes only for the number of days of delay which the Architect may determine to be due solely and exclusively to such causes and only to the extent that such occurrences actually and adversely impact the Critical Path for the Work, and then only if the Contractor shall have strictly complied with all of the requirements of these Contract Documents.
- F. Delay for Abnormal Weather Conditions. The Contract Period will be adjusted to account for unusually severe and abnormal weather conditions that prevent or inhibit the Contractor's performance of the Work and lengthen the Critical Path indicated on the Construction Schedule (such unusually severe and abnormal weather conditions referred to herein as "Inclement Weather"). The occurrence of Inclement Weather shall be established by reference to climatological data compiled by the U.S. Department of Commerce National Oceanic and Atmospheric Administration for Washington-Dulles International Airport or Washington National Airport, whichever is closest to the Site of the Project.
- G. Procedure for Protesting Denial of Extension of Time. In the event that the Contractor is denied an extension of time hereunder, he may contest such decision by notifying the Architect, the Director of the Owner's Office of Design and Construction and the Project Manager in writing within four days after the issuance of such denial, stating in detail its reasons for disagreement and submitting all information necessary for a final determination by the Owner pursuant to Paragraph 8.09 hereof. The Contractor shall provide the Architect and the Owner with all substantive information that supports the Contractor's claim for an extension of time. The Contractor must address all elements of the denial of such time extension. No claim for an extension of time under this provision will be valid unless submitted as stated herein.

- H. Supplier and Subcontractor Delays. Except as expressly set forth in Section 11.02(J), delays caused by the failure of the Contractor's materialmen, manufacturers, and dealers to furnish approved shop drawings, materials, fixtures, equipment, appliances, or other supplies on time or the failure of Subcontractors to perform their Work in conformity with the approved Construction Schedule shall not constitute a basis for an extension of time.
- I. Remedy for Delay. Except as expressly set forth in Section 11.02(J) hereof, no claim for payment, compensation or adjustment of any kind (other than the extensions of time provided for herein) shall be made or asserted against the Owner by the Contractor for costs or damages caused by hindrances or delays from any cause, whether such hindrances or delays be avoidable or unavoidable, and the Contractor shall make no claim for damages by reason of any such hindrances or delays, and will accept in full satisfaction of such hindrances or delays an extension of time to complete performance of the Work as specified.
- J. Owner-Caused Delay. Notwithstanding the provisions of Section 11.02(I), nothing contained herein is intended to, or shall have the effect of, waiving, releasing or extinguishing any rights of the Contractor to recover costs or damages for an unreasonable delay in performing this Contract, either on its behalf or on behalf of a Subcontractor, if and to the extent that such delay is caused by acts or omissions of the Owner, its agents or employees, and due to causes within their control. In order to seek costs or damages in connection with any such unreasonable delay, the Contractor must comply fully with each of the requirements set forth in Section 11.02(B) hereof, and shall identify each Notice of delay and application for extension of time submitted thereunder, respectively, as a "Notice of Delay and Additional Costs" and as an "Application for Extension of Time and Additional Costs." Each Notice of Delay and Additional Costs shall contain, in addition to the requirements set forth in Section 11.02(B). (i) a description of the nature of the monetary loss or damage associated with the unreasonable delay; (ii) an explanation as to why the delay is deemed to be "unreasonable;" (iii) a clear demonstration of how such unreasonable delay was caused solely and exclusively by acts or omissions of the Owner, its agents and employees, and due to causes within their control; and (iv) a detailed description of all efforts the Contractor has made to mitigate any alleged loss or otherwise avoid the claim. In addition to the requirements set forth in Section 11.02(B), each Application for Extension of Time and Additional Costs shall demonstrate in a clear and convincing fashion. (i) that the delay was "unreasonable;" and (ii) the extent, if any, to which the delay was caused by acts or omissions of the Owner, its agents or employees, and due to causes within their control. In the event it is determined that the Contractor (either on its behalf or on behalf of a Subcontractor) is entitled to costs or damages on account of such an Owner-caused unreasonable delay, the amount thereof shall be determined as set forth in Section 11.02(K).
- K. Contractor's Liquidated Damages. The parties recognize the difficulty in calculating damages incurred by the Contractor resulting from unreasonable delays caused by acts or omissions of the Owner, its agents and/or employees, and due to causes within their control. As such, the parties hereby agree that the

amount set forth in the Summary of Work (Section 01010) shall be the liquidated damages for each and every day that the Contractor and/or any Subcontractor(s) incurs compensable costs or damages for unreasonable delays in performing this Contract and that this figure represents a reasonably accurate forecast of the daily aggregate, anticipated actual damages in the event of an unreasonable delay. The parties hereby acknowledge and agree that the liquidated damages provided for hereunder represent full and final compensation for all losses, costs and damages incurred in the aggregate by the Contractor and its Subcontractors (if any) in connection with an unreasonable delay and that neither the Contractor nor any Subcontractor will in any event submit a claim or seek further or additional compensation in excess of the stated amount. The Contractor shall include in each of its subcontract agreements for the Project a liquidated damages provision similar to that set forth herein.

- L. Reimbursement of Owner's Costs and Expenses. In the event that the Contractor makes a claim against the Owner for costs or damages due to unreasonable delays caused by the Owner, its agents and/or employees and such claim is determined to be false or to have no basis in law or otherwise is resolved in favor of the Owner, in whole or in part, then the Contractor shall be liable to the Owner for a percentage of all the costs the Owner incurs in investigating, analyzing, negotiating, and litigating the claim. The percentage for which the Contractor shall be liable shall be equal to the percentage of the Contractor's total delay claim that is determined through litigation or administrative procedures to be false or to have no basis in law or otherwise resolved in favor of the Owner.
- M. Phased Construction. Where portions of the Work have been phased in order to accommodate Owner's use of existing premises, and the beginning date and ending date for the performance of the phased Work have been stipulated, and the beginning date must be changed to accommodate unforeseen circumstances, then the ending date shall accordingly be adjusted so that the amount of time allotted for the phased Work shall not change.

PART 12 - PAYMENTS AND COMPLETION

12.01 Prices.

- A. Contract Sum. For the Contractor's complete performance of the Work, the Owner agrees to pay, and the Contractor agrees to accept, subject to the terms and conditions hereof, the Contract Sum, taking into consideration any deductions based on award of a combination of alternates, if applicable, plus the amount required to be paid for Extra Work ordered under Paragraph 9.02 hereof, less credit for any Work omitted pursuant to Paragraph 9.03 hereof.
- B. Unit Prices; Estimated Quantities. The amount awarded as a unit price for any unit price Contract item shall represent payment in full for all the material, equipment and labor necessary to complete, in conformity with the Contract Documents, each unit or item of Work shown, specified, or required with respect to such unit price Contract Item. With respect to unit price items, the number of units actually required

to complete the Work under the Contract may be less or more than stated in the bid. The Contractor agrees that no claim will be made for any damages or for loss of profits or overhead because of a difference between the quantities of the various classes of Work assumed and stated in the bid as a basis for comparing bids and the quantities of Work actually performed.

- C. No Other Payments Due. No payment other than the amount awarded will be made for any class of work included in a lump sum Contract item or a unit price Contract item, unless specific provision is made therefor in the Contract Documents.

12.02 Submission of Schedule of Values. See Section 01370 of the General Requirements. The Schedule of Values, once accepted by the Architect, may be used for checking the Contractor's applications for partial payments hereunder but shall not be binding upon the Owner or the Architect for any purpose whatsoever.

12.03 Partial Payments.

- A. Applications for Partial Payment. On or about the first of each month, the Contractor shall make and certify an estimate of the amount and fair value of the Work performed during the preceding month and may apply for partial payment. The Architect may, in his discretion, revise the estimate to show the actual value of Work completed in accordance with the Architect's observation of the Work. The Contractor agrees to be bound by the Architect's revisions to its applications for partial payment. Whenever the monthly estimate, after approval by the Architect, shows that the value of the Work completed during the period covered by the payment request exceeds \$1,000.00, the Architect will issue a Certificate of Payment for such Work. Such Certificate will authorize payment by the Owner in an amount equal to the value of the Work completed less any sums retained or deducted by the Owner under the terms of the Contract Documents, and less retainage of 5 percent of payments claimed. Within 45 days after receipt of each Certificate of Payment, the Owner shall pay the Contractor in accordance with the applicable Certificate and the Contract Documents. Unless withheld in accordance with Paragraph 12.03(B) hereof, amounts not paid when due shall accrue interest at a rate of .5% per month. The Owner may, in its sole and absolute discretion, reduce the amount of retainage withheld, in the latter stages of the Project. For additional requirements, see Section 01152 for other Requirements.
- B. Withholding Payment. The Owner may withhold payment to the Contractor hereunder to such extent as may be necessary in the opinion of the Architect to protect the Owner due to loss because of:
 - 1. defective Work not remedied;
 - 2. third party claims (including Separate Contractor Claims) filed or reasonable evidence indicating probable filing of such claims;

3. failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
 4. reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 5. damage to the Owner or another person or entity (including a Separate Contractor);
 6. reasonable evidence that the Work will not be completed within the Contract Period;
 7. persistent failure to carry out the Work in accordance with, or to otherwise observe the requirements of, the Contract Documents; or
 8. liability, damage, or loss due to injury to persons or damages to the Work or property of Separate Contractors, or the subcontractors of others, caused by the act or neglect of the Contractor or any of its Subcontractors or Sub-subcontractors.
- C. Owner's Application of Withheld Amounts. The Owner shall have the right, as an authorized representative for the Contractor and without the Surety's consent, to apply any such amounts so withheld in such manner as the Owner may deem proper to satisfy such claims or to secure such protection. The application of these amounts shall be deemed payments for the account of the Contractor and shall reduce the Owner's obligation to the Contractor accordingly.
- D. Payment for Materials and Equipment. Unless otherwise provided herein, no partial payment will be made for any materials or equipment supplied hereunder before they are. (i) incorporated in the Work in a permanent manner as required by the Contract Documents, (ii) properly stored at the Site of the Project or (iii) properly stored in a bonded warehouse to the satisfaction of the Owner.
- E. Equipment and Materials Stored On Site. The cost of equipment and materials delivered and stored at the Site of the Project and tested for adequacy may be included in the Contractor's application for partial payment; provided, however, that the Contractor shall furnish written evidence satisfactory to the Owner that the Contractor is the owner of such materials or equipment at the time of payment therefor by the Owner and that such equipment is being stored and maintained in accordance with the Contract Documents and the manufacturer's recommendations. The amount to be paid by the Owner for such equipment and nonperishables will be 90 percent of the documented invoice cost to the Contractor as supported by receipted bills, which shall be furnished to Owner at the time the request for payment is made. Such payment shall not relieve the Contractor of full responsibility for completion of the Work and for protection of materials and equipment until incorporated in the Work in a permanent manner as required by the Contract Documents.

- F. Payment Affidavits. Before any payment will be made under this Contract, the Contractor and every Subcontractor, if required, shall deliver to the Architect a written, verified statement, in satisfactory form, showing in detail all amounts then due and unpaid by the Contractor to all laborers, workers, and mechanics, employed under the Contract for the performance of the Work at the Site of the Project, for daily or weekly wages, or to other persons for materials, equipment, or for supplies delivered at the Site of the Project during the period covered by the payment request.
- G. No Improper Payments. Upon the request of the Architect, as a prerequisite for payment pursuant to the terms of this Contract, the Contractor shall give the Owner a statement that no employee of the Owner has received or has been promised, directly or indirectly, any financial benefit, by way of a fee, commission, finder's fee or in any other manner, or any other remuneration arising from or directly or indirectly related to this Contract. All parties agree that the Owner shall have the right, in its sole and absolute discretion, to withhold payment to the extent of any such fee or commission. The Contractor shall not be entitled to interest and shall not have any claim on account of any payments being withheld under this Paragraph 12.03 G.

12.04 Substantial Completion.

- A. Notice of Substantial Completion; Inspection by Architect. When the Contractor considers that the Work, or in the case of phased construction, such portion thereof which the Owner agrees in writing to accept separately, is substantially complete, the Contractor shall provide the Owner and the Architect written notification of such fact. The Contractor shall conduct a "pre-punch" inspection, and shall submit a written and dated "pre-punch" list prior to requesting the formal Punch List Inspection by the Owner and the Architect. (The Contractor shall have the Job Superintendent and a representative from each of the major sub-contractors present at the Punch List Inspection) Upon receipt of the Contractor's "pre-punch" list and concurrence of the Owner's Field Inspector, the Architect and the Owner shall conduct the Punch List Inspection and shall prepare a comprehensive list of items to be completed and/or corrected. The Contractor shall proceed promptly to complete and correct items on the list. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Subsequently, the Architect and the Owner will make an inspection to determine whether the Work, or such designated portion thereof, is substantially complete. If the Architect's inspection discloses any item, whether or not included on the list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. The Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.
1. Phased construction. Where the Work shall be performed in phases, Owner acceptance of each phase shall not occur until all of the following activities have taken place:

- a. The Contractor shall perform a “pre-punch” inspection, shall notify the Owner upon completion of the inspection, and shall supply the Owner with a written and dated copy of its “pre-punch” list, which shall compile all deficiencies in the work observed by the Contractor.
 - b. The Owner and Architect shall review the “pre-punch” list, and shall determine whether or not a “punch list” inspection shall take place.
 - c. Upon such determination, the Owner, the Architect and the Contractor (including the Job Superintendent and a representative from each of the major sub-contractors) shall conduct the “punch list” inspection and shall compile a list of deficiencies for correction by the Contractor. The Contractor shall correct the deficiencies contained in the “punch list” in the time period indicated in Paragraph 12.04(B).
 - d. The Contractor shall not proceed to the next construction phase until all items on the “punch list” have been corrected, and the Owner has agreed in writing to allow the Contractor to proceed to the next phase.
- B. Punch List:
1. The Contractor shall have a maximum of sixty (60) days after the date of issuance of any punch list to complete all of the Work items contained thereon. Where the Project consists of discrete construction phases, the Contractor shall have a maximum of fourteen (14) days after the date of each punch list for each phase to complete the Work contained on the list. If the Work is not completed within the designated period, the sum of \$50.00 per day per punch list item will be deducted from the Contract Sum until the Date of Final Completion.
 2. In the event that the Contractor refuses or fails to complete any one or more punch list items within the time period specified herein, then the Owner shall have the right (but not the obligation) to complete any such Punch List item with its own forces or with such other contractors as it deems advisable and to charge the account of the Contractor and its Surety therefore. This right of completion shall be in addition to, and not in lieu of, any remedy provided by another section of these Contract Documents. In the event the Owner exercises its right hereunder to complete all items on a Punch List, the \$50.00 daily amount shall not thereafter continue to be assessed for that Punch List item, although nothing contained herein shall be construed to eliminate or reduce the daily amount then accrued.
- C. Certification By Architect. When the Work, or any Owner-designated portion thereof, is substantially complete, the Architect shall prepare and issue a Certificate of Substantial Completion (substantially in the form of AIA Document

6704) which shall establish the date of Substantial Completion, the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate of Substantial Completion. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work, or such designated portion thereof, unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Owner and to the Contractor for their written acceptance of responsibilities assigned to each of them therein.

- D. Payment by Owner. Upon Substantial Completion of the Work, or such Owner-designated portion thereof, and upon application by the Contractor and issuance of a Certificate of Substantial Completion by the Architect, the Owner shall make payment, less retainage, for such Work or such portion thereof as provided in the Contract Documents.

12.05 Final Inspection.

- A. Notice of Final Completion; Inspection by Architect. Upon written notification by the Contractor that the Work is finally complete, and upon the Contractor's submission of a final application for payment, the Architect will conduct a final inspection of the Work. When the Architect determines that the Work has been satisfactorily completed and the Contract Documents fully performed, he shall promptly prepare and issue a Final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of its observations and inspections, the Work has been completed in accordance with the Contract Documents and that the amount stated in the Final Certificate of Payment, less the Correction Retainage (as defined below), is due and payable.
- B. Payment by Owner; Correction Retainage. The Owner shall, within 45 days after receipt of the Final Certificate of Payment, pay the Contractor the amount stated therein, less a percentage of the Contract Sum based upon the following schedule:

Cost of Contract (\$5,000 minimum)	Retained %
Up to and including \$ 50,000	1.00%
Above \$50,000 to \$750,000 inclusive	0.75%
Above \$750,000 to \$1,250,000 inclusive	0.60%
Above \$1,250,000 to \$2,000,000 inclusive	0.50%
Above \$2,000,000 to \$3,000,000 inclusive	0.425%
Above \$3,000,000	0.4%

Such retained sum (the "Correction Retainage") shall be held by the Owner for a period of one year from the Date of Substantial Completion (the "Correction Period") as collateral security for the prompt and complete correction and/or performance by the Contractor of any and all Work determined by the Owner, in its sole and absolute discretion, to be defective, incomplete or to have been improperly performed. The Owner shall pay to the Contractor the Correction

Retainage, less any amounts expended in accordance with Paragraph 12.05(D), within thirty days after the expiration of the Correction Period.

- C. **Correction of Work by Contractor.** In the event the Work, or any portion thereof, is determined during the Correction Period to be defective, incomplete or to have been improperly performed, the Contractor shall, within three days after written Notice from the Owner, commence to remove all defective and deteriorated Work and materials and replace it with Work and materials that conform in all respects with the requirements of the Contract Documents and to complete all incomplete work in accordance with the Contract Documents within 14 days or such longer period as shall be requested by the Contractor and agreed-upon by the Owner.
- D. **Contractor's Failure to Correct Work.** In the event the Contractor fails to commence the removal, replacement, completion or correction of such Work within three days after the date of written Notice from the Owner and to complete such Work within the time period established in Paragraph 12.05(C), then the Owner will cause such work to be performed by other contractors and will deduct the cost of such Work from the Correction Retainage. In the event that the Correction Retainage is insufficient to cover such costs, then the Owner shall charge the Contractor and its Surety for the amount of the deficiency and the Contractor and/or the Surety shall pay such amount to the Owner in full on or before the date that is thirty days after the expiration of the Correction Period.
- 12.06 **Final Payment Request.** Neither final payment nor any retainage shall become due until the Contractor submits the following items to the Architect. (i) an affidavit that payrolls, bills for materials and equipment, and all other indebtedness in connection with the Work for which the Owner might be responsible have been paid or otherwise satisfied; (ii) a certificate evidencing that insurance required by the Contract Documents to remain in force following final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written Notice has been provided to the Owner; (iii) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents; (iv) consent of the Surety to final payment; and (v) if required by the Owner, other data establishing the payment or satisfaction of obligations (such receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract) and such guaranties and indemnities all in such form and detail as may be required by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner, in its sole and absolute discretion, sufficient to indemnify the Owner against any claim or lien. If any such claim remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such claim, including all costs associated therewith, including reasonable attorneys' fees.
- 12.07 **Effect of Final Payment.** The Contractor's acceptance of final payment constitutes a waiver of all claims against the Owner in connection with the Project, except for the Contractor's claim to the Correction Retainage, if any, when due. No payment, final or otherwise, shall operate to release the Contractor, or its Surety, from any obligations under the Contract.

PART 13 - PROTECTION OF PERSONS AND PROPERTY

- 13.01 Safety Program. The Contractor shall be responsible for instituting, maintaining and supervising prudent safety procedures, as well as for complying with all safety laws, regulations, ordinances and other directives of jurisdictional authorities in order to prevent injury, damage or loss to:
- A. All employees involved in performance of the Work;
 - B. All students, teachers, administrative personnel, and employees, and other persons in proximity to, or otherwise affected by the Work;
 - C. The Work, materials and equipment to be incorporated therein, whether in storage on or off the Site;
 - D. Property at the Site or in proximity to the Work and which is designated to be maintain by the Contractor;
 - E. Property that is located on-site or in proximity to the Work and is designated to be altered, renovated or relocated by the Contractor.
- 13.02 Use of Explosives. The use of explosives shall be allowed only. (i) when necessary for the performance of the Work; (ii) when prior Notice is given to, and when the approval is received from, the Owner; and (iii) when conducted by qualified personnel in accordance with applicable safety laws and regulations.
- 13.03 Protection of Work. During performance of the Work and until final acceptance thereof, the Contractor shall be under an absolute obligation to protect the finished and unfinished Work against any damage, loss, or injury. The Contractor shall take proper precautions to protect the finished Work from loss or damage, pending completion and final acceptance of all Work included in the Contract. Such precautions shall not relieve the Contractor from any and all liability and responsibility for loss or damage to the Work occurring before final acceptance by the Owner. Such loss or damage shall be at the risk of and borne by the Contractor, whether arising from acts or omissions of the Contractor or others and whether or not covered by the Contractor's builder's risk insurance. In the event of any such loss or damage, the Contractor shall repair, replace, and make good the Work without extension of time. Therefore, the Contractor shall take special precautions throughout all its operations to guard against fire and shall reduce the amount of inflammable materials stored at the Site to the minimum amount consistent with the proper handling and storing of such materials.
- 13.04 Safety Representative. The Contractor shall select one or more on-site personnel whose duty shall be accident prevention. One such person shall be the Contractor's superintendent, unless otherwise designated by the Contractor in writing to the Owner and the Architect.
- 13.05 Structural Overload. The Contractor shall not structurally overload or permit any part of the Work to be overloaded so as to endanger its safety or the safety of others.

PART 14 - INSURANCE

14.01 Contractor's Statutory and Legal Liability Insurance.

- A. During the Contract Period, the Contractor shall, at its own expense, purchase and maintain insurance to provide coverage for claims resulting from the Contractor's performance of the Work. Such coverage shall extend to work performance by Subcontractors, persons or organizations directly or indirectly hired by the Contractor or any Subcontractor in connection with the Work, or any other persons or organizations who may cause liability to be incurred by the Contractor or any Subcontractor in connection with the Work. Such coverage shall include the following:
1. Claims arising under workers' compensation, disability benefit, or other related benefits programs.
 2. Claims resulting from bodily injury, occupational illness or death of any employee performing the Work.
 3. Claims resulting from bodily injury, illness, disease, or death of any person in contact with the Work but who is not engaged as an employee.
 4. Claims arising under personal injury liability coverage for injury to any employee, which are directly or indirectly attributable to its employment for performance of the Work.
 5. Claims arising under personal injury liability coverage for injury to any person not an employee, which are attributable to performance of the Work.
 6. Claims arising for damage or destruction of tangible property, including loss of use of the affected property as a result of such damage or destruction.
- B. During the Contract Period, the Contractor shall, at its own expense, purchase and maintain the following insurance in the minimum limits specified with companies properly licensed to do business in the Commonwealth of Virginia, rated not less than A-/VII by A.M. Best Company and satisfactory to Owner. The Contractor shall maintain and provide proof of General Liability and Umbrella Excess Liability insurance for at least one (1) year following completion of the project. The Owner, "The Fairfax County School Board, its members, officers, authorized representatives and employees", shall be designated on each policy as "The Fairfax County School Board" as an additional named insured except for workers' compensation where the correct certificate of insurance coverage shall be furnished.
1. Workers' Compensation including Occupational Disease and Employer's Liability Insurance.

- a. Statutory. Amounts and coverage as required by District of Columbia, Maryland, and Virginia Workers' Compensation Law, including provision for voluntary D. C. benefits as required in labor union agreements, and including the "All States" endorsement.
 - b. Employer's Liability.

Bodily Injury by Accident - \$100,000 Each Accident
Bodily Injury by Disease - \$500,000 Policy Limit
Bodily Injury by Disease - \$100,000 Each Employee
2. Commercial General Liability Insurance. Contractor shall provide coverage written on ISO occurrence form CG 00 01 10 01 (or a substitute form providing equivalent coverage) to include the following:
- a. Contractual liability as required by the indemnification provision of Paragraph 5.11.
 - b. Personal injury liability, including offenses related to employment.
 - c. Coverage of explosion, collapse, or underground hazards.
 - d. Broad form property damage liability, including completed operations coverage.
 - e. Additional insured endorsement shall include coverage for Owner with respect to liability arising out of the completed operations of Contractor.
 - f. Additional Insured coverage shall apply as primary insurance and shall be non-contributory with respect to any other insurance or self-insurance programs afforded to Owner.
 - g. Status of the Owner as an insured shall not restrict coverage with respect to the escape of pollutants at or from a site owned or occupied by the Owner.
 - h. There shall be no endorsement or modification limiting the scope of coverage for liability arising from pollution.
 - i. Limits of Commercial General Liability Insurance.
 - (1) \$1,000,000 bodily injury and property damage per occurrence;
 - (2) \$1,000,000 personal injury and advertising injury per person;

- (3) \$2,000,000 products/completed operations aggregate; and
 - (4) \$1,000,000 aggregate products and completed operations; and
 - (5) \$2,000,000 general aggregate, per project.
- ii. Business Auto Liability Insurance. (Includes owned, non-owned and hired vehicles.)
 - (1) Contractual liability coverage shall be included with respect to all auto rentals or lease agreements.
 - (2) Limits of \$1,000,000 combined bodily injury and property damage per accident.
 - iii. Umbrella Excess Liability Insurance. Unless a different dollar limit is prescribed for this division of the Work in Section 01010, the lesser of \$5,000,000 or that amount which, when added to requirements of Paragraphs 14.01(B)(1), 14.01(B)(2), 14.01(B)(3) and 14.01(B)(4), total \$5,000,000. (For example, a \$4,000,000 umbrella in excess of the \$1,000,000 limits under the sections listed above shall meet the limits requirements of this paragraph). Coverage terms and conditions under the Umbrella Excess Liability Insurance policy shall be at least as broad as underlying coverages.
 - i. The limits of liability of the insurance described in Paragraph 14.01(B) may be superseded if the limits prescribed by law are greater.
 - j. Owner's Liability Insurance. The Owner may, at its own expense, purchase and maintain its own liability insurance to protect against claims which may arise in connection with the Work, or the Owner may self insure such risks.

14.02 Property Insurance.

- A. The Contractor shall purchase and maintain property insurance upon the entire Work at the Site to the full insurance value thereof. This insurance shall include the interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work, and shall insure against all risks of loss. Such insurance shall include, but not be limited to, coverage for the following:

1. Loss by explosion of boilers during testing (any exclusion applicable to such loss shall be waived).
2. Partial or complete occupancy by the Owner (any exclusion applicable to occupancy shall be removed).
3. Loss without coinsurance penalty (coinsurance or similar "insurance to value" requirements shall be eliminated).
4. Coverage of property in transit and unscheduled locations sufficient in limits to adequately cover maximum anticipated values at risk.
5. Coverage of Contractor's labor, overhead and profit.

A copy of this policy of insurance shall be available upon written request by the Owner.

14.03 Notice of Insurance.

- A. Proof of insurance, satisfactory to Owner, for each type of coverage listed herein shall be provided within 10 days after the Contractor's receipt of the Award Letter, and no Work shall proceed unless all such insurance is in effect. The Contractor shall not allow any Subcontractor to commence Work on its subcontract until all such insurance of the Subcontractor has been so obtained and approved by the Contractor and found to be in accordance with the requirements set forth herein. The Contractor certifies by commencement of the Work that its insurance and that of Subcontractors is in effect and meets the requirements set forth herein.

14.04 Notice of Cancellation.

- A. All of the aforesaid insurance policies must be endorsed to provide that the insurance company shall give 30 days prior written Notice to the Owner if the policies are to be terminated or if any changes are made during the life of the Contract which will affect in any way the insurance requirements set forth herein.

14.05 Copies of Insurance Policies.

- A. Before commencing the Work, the Contractor shall cause its insurance carrier to provide the Owner with a certified copy of each policy that he and each of its Subcontractors shall carry in accordance herewith, together with receipted bills evidencing proof of premium payment.

14.06 No Waiver.

- A. Nothing contained herein shall have effect or shall be deemed to effect a waiver of the Owner's sovereign immunity under law.

PART 15 - CONTRACT SECURITY

15.01 Contract Security.

- A. The Contractor shall execute and deliver to the Owner Performance and Payment Bonds on the forms provided herein, each in an amount equal to the Contract Sum. The Performance and Payment Bonds shall be executed by a solvent and responsible surety company licensed to conduct business in the Commonwealth of Virginia, named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Department, and acceptable to the Owner. These bonds shall be issued and countersigned by a local authorized representative of such surety company who is a resident of the Commonwealth of Virginia, regularly commissioned and licensed in the Commonwealth and producing satisfactory evidence of the authority of the person or persons executing the bonds to execute them on behalf of the Surety. The Performance and Payment Bonds shall serve as security for the faithful performance of this Contract, and for the payment of all persons performing labor and furnishing materials and services in connection with this Contract. The premiums on the Performance and Payment Bonds shall be paid by the Contractor and shall be included in the Contract Sum.
- B. If at any time the Owner shall become dissatisfied with any Surety or Sureties upon the Performance and Payment Bonds, or if for any other reason such bond shall cease to be adequate security for the Contractor, the Contractor shall within five days after notification of such fact, substitute acceptable bonds in such form and sum and signed by such other sureties as may be satisfactory to the Owner. The premiums on such Bonds shall be paid by the Contractor and shall be included in the Contract Sum. No further partial payments shall be deemed due nor shall be made until the new sureties have qualified.
- C. The Contract Documents may require one or more of the Subcontractors to furnish payment and/or performance bonds.

PART 16 - UNCOVERING AND CORRECTION OF WORK

16.01 Uncovering of Work.

- A. If a portion of the Work is covered contrary to the Architect's request or to the requirements contained in the Contract Documents, the Contractor shall, at its own expense and upon the written request of the Architect or Owner, uncover and replace such Work without an adjustment to the Contract Period.
- B. If a portion of the Work has been covered which the Architect has not specifically requested to observe prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work is not in accordance with the Contract Documents, the costs of uncovering and replacing

such Work shall be deducted from amounts then or thereafter due the Contractor and, if such amounts are insufficient to cover such costs, then the Contractor shall pay any such deficiency promptly following written demand by the Owner.

16.02 Correction of Work.

- A. The Contractor shall promptly correct any Work which is defective or otherwise fails to conform to the requirements of the Contract Documents (the "Rejected Work"), whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs associated with the correction of any Rejected Work, including additional testing and inspections and compensation for the Architect's services and expenses made necessary thereby.
- B. The Contractor's obligation to correct defective or non-complying Work shall continue for a period of one (1) year after the date of Substantial Completion. The time period of this obligation may be extended by terms of warranties or other circumstances where required by law. The Contractor shall correct the Work in accordance with Paragraph 16.02(A) promptly following receipt of a written request by the Owner.
- C. Nothing contained herein shall affect the Owner's right to correct nonconforming Work pursuant to Paragraph 12.05(D) hereof.

16.03 Acceptance of Defective or Nonconforming Work.

The Owner reserves the right to accept any defective or noncomplying Work; provided, however, that in such event the Contract Sum shall be reduced by an appropriate and equitable amount to account for such defect or noncompliance. Such adjustment shall be effected whether or not final payment has been made pursuant to Paragraph 12.05 hereof.

PART 17 - CONTRACTOR'S DEFAULT & TERMINATION

17.01 Owner's Right and Notice.

- A. The parties agree that:
 - 1. if the Contractor fails to begin the Work when required to do so; or
 - 2. if, at any time during the progress of the Work, the Contractor is not prosecuting the Work with reasonable speed and diligence, or is delaying the Work unreasonably or unnecessarily; or
 - 3. if the force of workmen or the quality or quantity of material furnished is not sufficient to insure completion of the Work within the Contract Period and in strict accordance with the Contract Documents; or

4. if the Contractor fails to make prompt payments to suppliers or to Subcontractors for Work performed in connection with the Contract; or
5. if the Contractor fails to cooperate in good faith with the Owner and/or any Separate Contractor, or in any manner of substance fails to observe the provisions of this Contract; or
6. if any of the Work, machinery, or equipment is defective and is not replaced as herein provided;

then the Architect shall certify such fact or condition to the Owner and the Owner, without prejudice to any other rights or remedies it may have hereunder, shall have the right to declare the Contractor in default in whole or in part. In the event the Owner elects to declare the Contractor in default, the Owner shall notify the Contractor and its Sureties by written Notice describing the nature of the default and providing the Contractor a right to cure such default within three calendar days after the date of the Notice, or within such longer period as the Owner, in its sole and absolute discretion, may prescribe. In the event the default is not cured within the time period specified by the Owner, the Owner shall have the right to take any actions necessary to correct or complete the Work, as set forth in Paragraph 17.03 hereof.

17.02 Contractor's Duty upon Default. Upon Notice from the Owner that he is in default hereunder, the Contractor shall discontinue all further operations in connection with the Work, or such specified part thereof, and shall immediately vacate the Site, or such specified part thereof, leaving untouched all plant, materials, equipment, tools, supplies and job site records, and shall cooperate fully with the Owner by providing the Owner with any keys or access devices used to gain entry to the Site.

17.03 Completion of Work after Default.

- A. If the Contractor defaults or neglects to perform the Work in accordance with the Contract Documents and fails within a three (3) day period after receipt of written Notice from the Owner to commence and continue correction of such default or neglect, the Owner may, without prejudice to the other rights the Owner may have, correct such defaults or deficiencies by such means and in such manner, by contract with or without public letting, or otherwise as it may deem advisable, utilizing for such purpose without additional cost to the Owner such of the Contractor's plant, materials, equipment, tools and supplies remaining on the Site, and also such Subcontractors as it may deem advisable and may take any or all of the following actions:
 1. delete part or parts of the Work from the Contract and contract to have it performed by others;
 2. supplement the Contractor's work force;

3. withhold payments due the Contractor and use such payments to satisfy any claims for monies owed by the Contractor in connection with the Project, in accordance with Paragraph 12.03(B);
 4. replace or repair any defective Work, machinery or equipment;
 5. terminate the Contractor.
- B. The Contractor and his Sureties shall bear all costs associated with completing or correcting the Work, including without limitation, the cost of reletting, the amount of any liquidated damages, and any and all costs incurred in connection with the actions listed in this Paragraph 17.03. Any costs incurred in connection with completing or correcting the Work shall be deducted from the amounts then or thereafter due the Contractor. In the event such amounts are not sufficient to cover the costs incurred in connection with completing or correcting the Work, the Contractor and its Surety shall pay to the Owner the amount of any deficiency.
- 17.04 Partial Default. In the event the Owner declares the Contractor in default in accordance with the provisions of Paragraph 17.01 hereof with respect to a portion of the Work, the Contractor shall discontinue such portion of the Work declared in default, shall continue performing the remainder of the Work in strict conformity with the terms of the Contract and shall not hinder or interfere with any other contractor or persons whom the Owner may engage to complete the Work for which the Contractor was declared in default. The costs of such completion shall be paid by the Contractor and its Sureties as provided in Paragraph 17.03(B).
- 17.05 Owner's Right to Terminate for Cause. The parties agree that:
- A. if legal proceedings have been instituted by others than the Owner in such manner as to interfere with the progress of the Work and to potentially subject the Owner to the peril of litigation or outside claims; or
 - B. if the Contractor is adjudicated bankrupt or makes an assignment for the benefit of creditors; or
 - C. if in any proceeding instituted by or against the Contractor, an order is made or entered granting an extension of the time of payment, composition, adjustment, modification, settlement or satisfaction of its debts or liabilities; or
 - D. if a receiver or trustee is appointed for the Contractor or the Contractor's property; or
 - E. if the Contract or any part hereof is sublet without the prior written consent of the Owner; or
 - F. if the Contract or any rights, monies, or claims hereunder are assigned in whole or in part by the Contractor, otherwise than as herein specified; or

- G. if the Work to be done under this Contract is abandoned; or
- H. if the Contractor fails to cure any default declared pursuant to Paragraph 17.01 within the time period specified therefor;

then such fact or condition shall be certified by the Architect to the Owner and thereupon, without prejudice to any other rights or remedies the Owner may have, the Owner shall have the right to terminate the Contract immediately upon written Notice to the Contractor.

If, after issuance of a Notice of termination of the Contract under the provisions of this Paragraph 17.05, it is determined for any reason that the Contractor was not in default under the provisions of Paragraph 17.05(A) through 17.05(H), or that cause for such termination otherwise did not exist under the provisions of Paragraph 17.05(A) through 17.05(H), then the rights and obligations of the parties shall be the same as if the Notice of termination had been delivered under the provisions of Paragraph 17.06 hereof; provided, however, that the Contractor in such event shall be deemed to have received seven days prior written Notice of termination. Any compensation thereupon owing to the Contractor under Paragraph 17.06 shall be offset by the cost of remedying any defective Work performed by or on behalf the Contractor. In no event shall the Contractor be entitled to recover anticipated profits or consequential damages of any kind in connection with any termination of these Contract Documents.

- 17.06 Owner's Right to Terminate for Convenience. The Owner shall have the right to terminate this Contract at its own convenience for any reason by giving seven days prior written Notice of termination to the Contractor. In such event, the Contractor shall be paid an amount equal to the lesser of. (1) the actual cost of any Work, labor or materials actually performed or in place and the actual cost of any labor, equipment or materials ordered in good faith which could not be canceled, less the salvage value thereof, plus 10%; or (2) the pro rata percentage of completion based upon the Schedule of Values (as described in Paragraph 12.02) plus the actual cost of any labor, equipment or materials ordered in good faith which could not be canceled, less the salvage value thereof. Each subcontract shall contain a similar termination provision for the benefit of the Contractor and the Owner. The Contractor shall not be entitled to receive anticipated profits on unperformed portions of the Work or consequential damages. The Owner and its authorized representatives shall have the right in accordance with the provisions of Paragraph 9.05 to verify any amounts claimed by the Contractor to be due under this Paragraph.

PART 18 - MISCELLANEOUS SPECIAL CONDITIONS

18.01 Laying Out Work.

- A. The Contractor shall, upon entering the Site of the Project for the purpose of commencing the Work, locate all general reference points and take all such action as is necessary to prevent their destruction; lay out the Work, except where otherwise required by Contract Documents, and be responsible for all lines, elevations, measurements of buildings, grading, paving, utilities and other Work executed by him under the Contract. The Contractor shall exercise proper and reasonable care in verifying figures shown on the Drawings before laying out the

Work and will be held responsible for any error resulting from its failure to exercise such care.

- B. The Contractor shall establish permanent bench marks referenced to finish floor lines. Contractor shall employ a licensed surveyor who shall, after masonry corners have been set, certify over its seal to the Owner that the building is located properly in relation to property lines and in accordance with Drawings.

18.02 Inspection and Approval of Site Improvements.

- A. On-site and off-site improvements shall conform to the County of Fairfax Design and Construction Standards.
- B. The Contractor shall notify the Owner's field representative three days prior to the beginning of all street or storm sewer work.
- C. All work shall be staked out by a certified surveyor and cut sheets shall be submitted to the Department of Public Works with a copy to the Owner's Field Representative.
- D. The Contractor shall perform the Work in such a manner as to prevent the washing of any soil, silt or debris onto adjacent properties and he shall be held responsible for any damage resulting from its failure to prevent the washing of such materials upon adjacent properties for a period of one year after final acceptance of the completed Work.

18.03 Partial Use or Occupancy. The Contractor shall permit the Owner to use and occupy any completed or partially completed portion or unit of the Project prior to final acceptance by the Owner.

The Owner's use and occupancy shall not constitute final acceptance of the Work and shall in no event relieve the Contractor of its obligation to maintain the insurance coverage described in Part 14 hereof.

18.04 Release of Bonds. The Surety providing the bonds in connection with the Project shall obtain a written release from the Owner prior to the expiration date of the bonds.

18.05 No Asbestos. No materials or equipment containing asbestos shall be utilized in the construction of the Project.

END OF SECTION

SECTION 01010(A)

SUMMARY OF WORK (ADDITIONS)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and general provisions of contract including General Conditions and other Division One through Division Sixteen Specifications Sections, apply to this section.

- A. Temporary Trailer Allowance: Section 01020
- B. Applicable Standards: Section 01091
- C. Temporary Utilities: Section 01510
- D. Construction Aids: Section 01520
- E. Barriers: Section 01530
- F. Temporary Controls: Section 01560
- G. Cleaning: Section 01710
- H. Selective Demolition: Section 02070

1.02 WORK COVERED BY CONTRACT DOCUMENTS

1.03 CONTRACT METHOD

- A. Construction of the Work under a single lump sum contract.

1.04 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for Work and for construction operations.

1.05 CONTRACTOR'S DUTIES

- A. Except as specifically noted, provide and pay for:
 - 1. Labor, materials, and equipment.

2. Tools, construction equipment, and machinery.
 3. Water, heat, and utilities including electrical power required for construction.
 4. Other facilities and services necessary for proper execution and completion of work.
- B. Temporary Power and Lighting: Provide in accordance with Section 01510.
- C. Pay legally required sales, consumer and use taxes.
- D. The Owner shall obtain and pay for the General Building Permit. The Contractor shall obtain and pay for all other permits required by law for the execution of this Work.
- E. The Contractor shall also obtain and pay for certificates, inspections including but not limited to Fire Marshal's review and inspection fees and other legal fees required, both permanent and temporary, including plumbing, mechanical, sprinkler, electrical and highway permits. NOTE: Sewer frontage or availability and water frontage and tap-on fees or charges will be paid by Owner.
- F. The Owner will provide access to Kahua construction management software. The Contractor shall utilize this software for all communications and submissions during the project.

1.06 COORDINATION OF WORK SEQUENCE

- A. Perform survey of existing site and building prior to commencing demolition work or other work affecting existing facilities.
- B. Coordinate performance of work with school principal and staff in order to minimize disruption of normal activities during school hours. Operations requiring access to the existing facility that would cause such disruption will be scheduled for evening hours, summer recess or school holidays. See phasing, paragraph 2.02.
- C. Coordinate the work for the various sections of Specifications to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- D. Verify that the characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

- E. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

1.07 FIELD ENGINEERING

- A. Provide field engineering services; establish grades, lines, and levels, by use of recognized engineering survey practices.
- B. Control datum for survey is that established by Owner-provided survey. Locate and protect control and reference points.

1.08 REFERENCE STANDARDS

- A. For Products specified by association or trade standards, comply with requirements of the standards, except when more rigid requirements are specified or required by applicable codes.
- B. The date of the standard is that which was in effect as of the Bid date, unless a specific date is indicated.
- C. Obtain copies of standards as specified in the Contract Documents. Maintain copies at job site during progress of the specific work.

PART 2 - SCHEDULE OF COMPLETION

2.01 CONSTRUCTION TIME

- A. The Work shall be substantially complete and certified by the Architect on or before _____. The work shall be finally complete on or before _____.
- B. Liquidated Damages: Should the Work not be performed on or before the times stated, there will be deducted from the contract balance the sum of _____ (\$ _____) per consecutive calendar days, as Liquidated Damages, but not as a penalty, for each days delay after expiration of such period, and until final completion of the work and its acceptance by the Owner.
- C. Submittals required under section 01340: Should submittals not be received by the architect within the time periods indicated in Section 01340, there will be deducted from the contract balance the sum of one hundred dollars (\$100.00)

per consecutive calendar days, per submittal, as liquidated damages, but not as a penalty, for each day beyond the allowable time periods.

(List Phase or Phases and Dollar amount of Liquidated Damages per day.)

2.02 WORK SEQUENCE

Construct work in accordance with Project Schedule established under Section 01310; coordinate the schedule and operations with the Owner's Representative. There shall be no shutdown of electricity, water, or heat during the life of this project unless approved in writing by the Owner.

PART 3 - USE OF PREMISES

3.01 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall coordinate use of premises under direction of Owner's Representative.
 - 1. The Contractor shall maintain a drug free workplace for all his employees and subcontractors. The possession and/or use of drugs and alcohol are strictly prohibited on school property, and shall constitute grounds for immediate removal from the project site (Refer to Section 00700, General Conditions, 5.02C and 5.16).
 - 2. Smoking, use of improper language, fraternization by contractor's employees with students and staff are prohibited and shall constitute grounds for immediate removal from the project site (Refer to Section 00700, General Conditions, 5.02C).
- B. Contractor shall assume full responsibility for protection and safekeeping of Products under this Contract stored on the site.
- C. Contractor shall move any stored Products, under Contractor's control, which interfere with operations of the Owner.
- D. Contractor shall, at his option, obtain and pay for the use of additional storage or work areas needed for operations.
- E. Contractor shall limit his use of the existing building for work and for storage to allow for:
 - 1. Owner Occupancy
 - 2. Public Use

- F. Contractor shall provide temporary toilet facilities for use by his employees and other workers associated with the project. Contractor shall provide and maintain enough toilets to comply with OSHA and ANSI standards: 20 or less workers require 1 toilet, 20 or more require 1 toilet and 1 urinal per 40 workers, 200 or more require 1 toilet and 1 urinal per 50 workers. Toilets that are not maintained in a usable, sanitary condition shall not be considered "provided" or "available". The use of existing facilities is not permitted.
- G. In order to work overtime, a minimum of five (5) workers, excluding foreman and superintendent, must be available and willing to work. No overtime shall be allowed if this minimum crew size cannot be guaranteed.

3.02 WORK IN, OR ADJACENT TO, EXISTING OR OCCUPIED AREAS

A. Integrity of Existing Facility

- 1. Conduct operations to maintain the existing building in a secure, weather tight condition.
- 2. Repair damage to existing structures, equipment and furnishings resulting from the Contractor's operations within the building and on the site.
- 3. Where corridor ceilings have been removed and sprinkler mains have been installed to serve renovated space or new additions, sprinkler heads shall be temporarily installed and activated in the upright position and shall remain in the upright position until the ceiling concealment inspection has occurred, and the finished ceilings in those corridors can be completed.

B. Safety and Integrity of Occupied Areas

- 1. Where corridors shall be maintained for occupant use, no construction materials shall be stored or stockpiled. No Construction materials shall be stored in a manner that restricts means of egress which are required be remain open for use by building occupants.
 - a. A minimum clear corridor width of 72" shall be maintained in all active corridors.
- 2. All existing emergency exit lights and fire alarms shall remain operational in occupied areas.
- 3. Means of egress for occupied areas shall be maintained with hard surfaced, non-slip walkways, ramps or other platforms. Use temporary handrails, barricades or canopies in accordance with Construction Phasing Plan requirements and requirements of Section 01520.

4. No work such as welding, soldering, or cutting, which is considered hazardous to the building occupants, shall take place in occupied areas during school operating hours.
5. Contractor shall take all necessary safety precautions to clearly delineate the construction areas with temporary barricades, dust partitions, and temporary construction fences as appropriate (See Section 01520, Construction Aids and Section 01530, Barriers).
6. Temporary partitions shall be dustproof partitions extending from floor to underside of deck. Doors through these partitions shall be lockable and self-closing.
7. Use temporary fencing to isolate on-site staging areas, storage yards and construction access ways. All temporary storage areas and construction trailers shall be enclosed with 6' high construction fences. Refer to 2.03, Temporary Enclosures, Section 01520.
8. No pneumatic, gas powered or other noise producing equipment, or other equipment powered by flammable fuels shall be allowed in an occupied area.
 - a. Temporary heat shall be supplied by electric heaters only.
9. No hoisting shall be allowed over the school building during normal school hours or other times when the building is occupied for school related activities or other events.
10. Fire extinguishers are required in all construction areas.
11. Do not perform any work during normal school hours (or during times when school related activities or other events are being conducted) that could cause the fire alarm to be inadvertently activated. Do not perform any work during these times that could negatively impact operational sprinkler systems.
12. Roofing tanker trucks shall not be placed near windows and/or fresh air intakes of occupied areas. No roofing shall take place above occupied areas.
13. Where VAT (vinyl asbestos tile) and/or other asbestos containing materials (ACM) require removal prior to installation of new VCT flooring or where other work disturbs ACM, such removal shall be done under separate contract by Fairfax County Public Schools, except as noted in Section 02070 (See Section 02070, Selective Demolition).

14. All painting performed by spray application shall be done only when the building is unoccupied.
15. Do not locate masonry saws near any window or door opening or near a fresh air intake. Locate saws in fenced construction areas only.
16. Use of school supplies or school equipment by the Contractor is prohibited.
17. Where existing windows and/or doors are removed, and new replacement windows and/or doors are not available, the Contractor shall provide secure plywood coverings over the openings. No wall openings of any kind, no matter how small, shall be left uncovered after completion of a work shift.
18. No loud construction activities shall be allowed during school hours. Workers shall not operate radios, CD players, or "boom boxes" in the school building.

C. Scheduling and Operations

1. Schedule deliveries to avoid conflicts with morning student arrivals and afternoon student departures. Coordinate with the school to determine actual starting and ending times and approximate time periods for arrival and departure. No deliveries shall be allowed during these periods.
2. No work shall be allowed in corridors in occupied areas during school operating hours. Work such as cutting, demolition and patching, use of ladders and scaffolding, and presence of construction materials in these corridors between the hours of 6:00 AM and at least 30 minutes after scheduled release of students shall not be allowed.
3. Elementary Schools: No work shall be allowed in a corridor in an occupied area which is adjacent to, and provides access to, SACC (School-Aged Child Care) Rooms between the hours of 7:15 AM and 6:15 PM.

PART 4 - PRECAUTIONS AND SAFETY

4.01 SPECIAL REQUIREMENTS

- A. Fire Protection: Provide and maintain an adequate number of hand fire extinguishers at convenient and appropriate locations during construction. Avoid all accumulations of flammable debris by removing rubbish promptly. Take all other precautions necessary to prevent fire. Supervise closely the storage of paint materials and other combustible products.

1. Existing fire alarm and detection system must remain operable at all times during construction.
- B. Accident Prevention and Safety: Comply will 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 AGC'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. All scaffolds shall be built in accordance with all requirements of local, state and Federal laws and regulations.
- C. Crisis Preparedness – “Shelter in Place”
1. FCPS has developed a “Shelter in Place” procedure to protect students, teachers, administrative staff and construction workers in the event that a dangerous chemical or biological agent is released into the environment during occupied hours.
 2. Upon notification by Public Safety Officials, all individuals on school grounds shall be directed to move indoors. All windows and doors shall be closed and locked. All heating, ventilating and air conditioning systems shall be shut down.
 3. “Shelter in Place” emergencies are generally of short duration (several minutes to one or two hours). All individuals shall remain inside until Public Safety Officials have deemed that the area is safe.
 4. It is the General Contractor’s responsibility to familiarize his employees and subcontractors with the school’s “Shelter in Place” plans and procedures. Note that once an emergency has been declared, no workers, subcontractors or suppliers who may be in transit to the job site shall be allowed into the area until the emergency is over.
- D. ID Badges: The Owner shall supply identification badges which shall be worn by all tradesmen working on this project. No employees of the Contractor, subcontractors or sub-contractors, material suppliers or other persons associated with the project shall enter the existing school building or school property without an approved identification badge. Failure to comply with this requirement will be cause for immediate and permanent removal of the employee(s) in question from this and any other school building. Contractor shall maintain an identification badge log and record each badge number and to whom it was given and when.
1. Badge shall be a minimum 2" x 3 1/2".

2. Visible at all times.
 3. Bright color (orange, lime green, etc.)
- E. See paragraph 3.02, this Section, for additional specific precautions or restrictions related to safety.

END OF SECTION

SECTION 01010(B)

SUMMARY OF WORK (NEW SCHOOLS)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and general provisions of contract including General Conditions and other Division One through Division Sixteen Specifications Sections, apply to this section.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

1.03 CONTRACT METHOD

A. Construction of the Work under a single lump sum contract.

1.04 CONTRACTOR USE OF PREMISES

A. Limit use of premises for Work and for construction operations.

1.05 CONTRACTOR'S DUTIES

A. Except as specifically noted, provide and pay for:

1. Labor, materials, and equipment.
2. Tools, construction equipment, and machinery.
3. Water, heat, and utilities including electrical power required for construction.
4. Other facilities and services necessary for proper execution and completion of work.

B. Temporary Power and Lighting: Provide in accordance with Section 01510.

C. Pay legally required sales, consumer and use taxes.

D. The Owner shall obtain and pay for the General Building Permit. The Contractor shall obtain and pay for all other permits required by law for the execution of this Work.

- E. The Contractor shall also obtain and pay for certificates, inspections including but not limited to Fire Marshal's review and inspection fees and other legal fees required, both permanent and temporary, including plumbing, mechanical, sprinkler, electrical and highway permits. NOTE: Sewer frontage or availability and water frontage and tap-on fees or charges will be paid by Owner.
- F. The Owner will provide access to Kahua construction management software. The Contractor shall utilize this software for all communications and submissions during the project.

1.06 COORDINATION OF WORK SEQUENCE

- A. Coordinate the work for the various sections of Specifications to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. Verify that the characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

1.07 FIELD ENGINEERING

- A. Provide field engineering services; establish grades, lines, and levels, by use of recognized engineering survey practices.
- B. Control datum for survey is that established by Owner-provided survey. Locate and protect control and reference points.

1.08 REFERENCE STANDARDS

- A. For Products specified by association or trade standards, comply with requirements of the standards, except when more rigid requirements are specified or required by applicable codes.
- B. The date of the standard is that which was in effect as of the Bid date, unless a specific date is indicated.

- C. Obtain copies of standards as specified in the Contract Documents. Maintain copies at job site during progress of the specific work.

PART 2 - SCHEDULE OF COMPLETION

2.01 CONSTRUCTION TIME

- A. The Work shall be substantially complete and certified by the Architect on or before _____. The work shall be finally complete on or before _____.
- B. Liquidated Damages: Should the Work not be performed on or before the times stated, there will be deducted from the contract balance the sum of _____ (\$ _____) per consecutive calendar days, as Liquidated Damages, but not as a penalty, for each days delay after expiration of such period, and until final completion of the work and its acceptance by the Owner.
- C. Submittals required under section 01340: Should submittals not be received by the architect within the time periods indicated in Section 01340, there will be deducted from the contract balance the sum of one hundred dollars (\$100.00) per consecutive calendar days, per submittal, as liquidated damages, but not as a penalty, for each day beyond the allowable time periods.

2.02 WORK SEQUENCE

Construct work in accordance with Project Schedule established under Section 01310; coordinate the schedule and operations with the Owner's Representative.

PART 3 - USE OF PREMISES

3.01 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall coordinate use of premises under direction of Owner's Representative.
 - 1. The Contractor shall maintain a drug free workplace for all his employees and subcontractors. The possession and/or use of drugs and alcohol are strictly prohibited on school property, and shall constitute grounds for immediate removal from the project site (Refer to Section 00700, General Conditions, 5.02C and 5.16).
 - 2. Smoking, use of improper language, fraternization by contractor's employees with students and staff are prohibited and shall constitute grounds for immediate removal from the project site (Refer to Section 00700, General Conditions, 5.02C).

- B. Contractor shall assume full responsibility for protection and safekeeping of Products under this Contract stored on the site.
- C. Contractor shall move any stored Products, under Contractor's control, which interfere with operations of the Owner.
- D. Contractor shall, at his option, obtain and pay for the use of additional storage or work areas needed for operations.
- E. Contractor shall limit his use of the existing building for work and for storage to allow for:
 - 1. Owner Occupancy
- F. Contractor shall provide temporary toilet facilities for use by his employees and other workers associated with the project. Contractor shall provide and maintain enough toilets to comply with OSHA and ANSI standards: 20 or less workers require 1 toilet, 20 or more require 1 toilet and 1 urinal per 40 workers, 200 or more require 1 toilet and 1 urinal per 50 workers. Toilets that are not maintained in a usable, sanitary condition shall not be considered "provided" or "available".
- G. In order to work overtime, a minimum of five (5) workers, excluding foreman and superintendent, must be available and willing to work. No overtime shall be allowed if this minimum crew size cannot be guaranteed.

3.02 WORK IN, OR ADJACENT TO, EXISTING OR OCCUPIED AREAS

- A. Use temporary fencing to isolate on-site staging areas, storage yards and construction access ways. All temporary storage areas and construction trailers shall be enclosed with 6' high construction fences. Refer to 2.03, Temporary Enclosures, Section 01520.
- B. No pneumatic, gas powered or other noise producing equipment, or other equipment powered by flammable fuels shall be allowed in an occupied area.
 - 1. Temporary heat shall be supplied by electric heaters only.
- C. Fire extinguishers are required in all construction areas.

PART 4 - PRECAUTIONS AND SAFETY

4.01 SPECIAL REQUIREMENTS

- A. Fire Protection: Provide and maintain an adequate number of hand fire extinguishers at convenient and appropriate locations during construction. Avoid all accumulations of flammable debris by removing rubbish promptly. Take all

other precautions necessary to prevent fire. Supervise closely the storage of paint materials and other combustible products.

1. Existing fire alarm and detection system must remain operable at all times during construction.
- B. Accident Prevention and Safety: Comply will 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 AGC'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. All scaffolds shall be built in accordance with all requirements of local, state and Federal laws and regulations.
- C. Crisis Preparedness – “Shelter in Place”
1. FCPS has developed a “Shelter in Place” procedure to protect students, teachers, administrative staff and construction workers in the event that a dangerous chemical or biological agent is released into the environment during occupied hours.
 2. Upon notification by Public Safety Officials, all individuals on school grounds shall be directed to move indoors. All windows and doors shall be closed and locked. All heating, ventilating and air conditioning systems shall be shut down.
 3. “Shelter in Place” emergencies are generally of short duration (several minutes to one or two hours). All individuals shall remain inside until Public Safety Officials have deemed that the area is safe.
 4. It is the General Contractor’s responsibility to familiarize his employees and subcontractors with the school’s “Shelter in Place” plans and procedures. Note that once an emergency has been declared, no workers, subcontractors or suppliers who may be in transit to the job site shall be allowed into the area until the emergency is over.
- D. ID Badges: The Owner shall supply identification badges which shall be worn by all tradesmen working on this project. No employees of the Contractor, subcontractors or sub-contractors, material suppliers or other persons associated with the project shall enter the existing school building or school property without an approved identification badge. Failure to comply with this requirement will be cause for immediate and permanent removal of the employee(s) in question from

this and any other school building. Contractor shall maintain an identification badge log and record each badge number and to whom it was given and when.

1. Badge shall be a minimum 2" x 3 1/2".
 2. Visible at all times.
 3. Bright color (orange, lime green, etc.)
- E. See paragraph 3.02, this Section, for additional specific precautions or restrictions related to safety.

END OF SECTION

SECTION 01010(C)

SUMMARY OF WORK (RENOVATIONS)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS: Drawings and general provisions of contract including General Conditions and other Division One through Division Sixteen Specifications Sections, apply to this section, with special attention to the following:

- A. Temporary Trailer Allowance: Section 01020
- B. Applicable Standards: Section 01091
- C. Temporary Utilities: Section 01510
- D. Construction Aids: Section 01520
- E. Barriers: Section 01530
- F. Temporary Controls: Section 01560
- G. Cleaning: Section 01710
- H. Selective Demolition: Section 02070

1.02 SCOPE OF WORK COVERED BY CONTRACT DOCUMENTS

- A. *(Provide a general description of the project, including site work, building renovation scope, additions, and upgrades or replacement of major systems, such as HVAC, Plumbing, Electrical and Special Systems.)*
- B. The work shall be completed in phases as indicated on the Construction Phasing Drawings, in order to allow the Owner partial and continuing occupancy of the existing building during construction.
- C. Normal operations shall be maintained during the course of the school year. The FCPS School year calendar is attached for Contractor's reference *(Insert a copy of the calendar here or at the end of Section)*.
- D. To protect students and staff health and enhance the learning environment of school children, the new school building has been designed with CHPS (Collaborative for High Performance Schools) criteria in mind and must achieve the CHPS Designed status. The Contractor must be familiar with VA-CHPS criteria and responsibilities that accompany a CHPS project.

1.03 CONTRACT METHOD

- A. Construction of the Work under a single lump sum contract.

1.04 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for Work and for construction operations.

1.05 CONTRACTOR'S DUTIES

- A. Except as specifically noted, provide and pay for:
 - 1. Labor, materials, and equipment.
 - 2. Tools, construction equipment, and machinery.
 - 3. Water, heat, and utilities including electrical power required for construction.
 - 4. Other facilities and services necessary for proper execution and completion of work.
- B. Temporary Power and Lighting: Provide in accordance with Section 01510
- C. Pay legally required sales, consumer and use taxes.
- D. The Owner shall obtain and pay for the General Building Permit. The Contractor shall obtain and pay for all other permits required by law for the execution of this Work.
- E. The Contractor shall also obtain and pay for certificates, inspections including but not limited to Fire Marshal's review and inspection fees and other legal fees required, both permanent and temporary, including plumbing, mechanical, sprinkler, electrical and highway permits. NOTE: Sewer frontage or availability and water frontage and tap-on fees or charges will be paid by Owner.
- F. The Owner will provide access to Kahua construction management software. The Contractor shall utilize this software for all communications and submissions during the project.

1.06 COORDINATION

- A. Perform survey of existing site and building prior to commencing demolition work or other work affecting existing facilities.
- B. Coordinate performance of work with school principal and staff in order to minimize disruption of normal activities during school hours. Operations requiring access to the existing facility that would cause such disruption will be scheduled for evening hours, summer recess or school holidays. See phasing, paragraph 2.02.

- C. Coordinate the work for the various sections of Specifications to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- D. Verify that the characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- E. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

1.07 FIELD ENGINEERING

- A. Provide field engineering service; establish grades, lines, and levels, by use of recognized engineering survey practices.
- B. Control datum for survey is that established by Owner-provided survey. Locate and protect control and reference points.

1.08 REFERENCE STANDARDS

- A. For Products specified by association or trade standards, comply with requirements of the standards, except when more rigid requirements are specified or required by applicable codes.
- B. The date of the standard is that which was in effect as of the Bid date, unless a specific date is indicated.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work. Refer to Section 01091, Applicable Standards.

PART 2 - SCHEDULE OF COMPLETION

2.01 CONSTRUCTION TIME

- A. The Work shall be substantially complete and certified by the Architect on or before _____ The work shall be finally complete on or before _____.
- B. Liquidated Damages:

1. Total Project: Should the Work not be performed on or before the times stated, there will be deducted from the Contract Balance the sum of _____ (\$_____) per consecutive calendar days, as Liquidated Damages, but not as a penalty, for each day's delay after expiration of such period, and until final completion of the Work and its acceptance by the Owner.

2. Work phases: Should the Work of each phase not be performed on or before the completion dates established by the Work Sequence, there will be deducted from the contract balance the following sums for each phase, per consecutive calendar days, as Liquidated Damages, but not as a penalty, for each days delay after expiration of the completion dates, and until acceptance by the Owner:

3. Submittals required under section 01340: Should submittals not be received by the architect within the time periods indicated in Section 01340, there will be deducted from the contract balance the sum of one hundred dollars (\$100.00) per consecutive calendar days, per submittal, as liquidated damages, but not as a penalty, for each day beyond the allowable time periods.

(List Phase or Phases and Dollar amount of Liquidated Damages per day.)

2.02 WORK SEQUENCE

- A. Construct work in accordance with Project Schedule established under Section 01310; coordinate the schedule and operations with the Owner's Representative. There shall be no shutdown of electricity, water, sanitary/storm sewers, or heat during the life of the project unless approved in writing by the Owner. The Contractor is responsible for providing temporary air conditioning or heating for those areas which are scheduled to be occupied for school use and the Contractor has demolished the existing air conditioning or heating system. Maintain minimum corridor temperature at 68°F during heating season.

Date of Commencement	Date of Substantial
Portion of Work	Completion

- B. Commencement of each phase of work in existing classrooms shall not occur until sufficient materials and equipment are available for the particular phase, and sufficient numbers of workmen are available to execute the work in the time period indicated.

- C. Work Shifts: Where required by construction schedule and in order to ensure completion of work phases during the time periods indicated, the contractor shall

operate two (2) separate, full time, work shifts per day, employing trades, skills and specialties including, but not limited to, the following:

1. General labor
2. Cleaning staff
3. Special systems technicians
4. Electrical
5. Sprinkler
6. Plumbing
7. HVAC
8. The contractor may modify this list to include other trades, skills and specialties as necessary to comply with the construction phasing schedule.

D. Where night shifts are in operation, the Contractor shall be allowed four (4) ten-hour night shifts per week, Monday through Thursday, during the school year. Friday nights and Saturday nights shall be available for school use during the school year.

PART 3 - USE OF PREMISES

3.01 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall coordinate use of premises under direction of Owner's Representative.
1. The Contractor shall maintain a drug free workplace for all his employees and subcontractors. The possession and/or use of drugs and alcohol are strictly forbidden on school property, and shall constitute grounds for immediate removal from the project site (Refer to Section 00700, General Conditions, 5.02C and 5.16).
 2. Smoking, use of improper language and fraternization by contractor's employees with students and staff are prohibited and shall constitute grounds for immediate removal from the project site (Refer to Section 00700, General Conditions, 5.02C).
- B. Contractor shall assume full responsibility for protection and safekeeping of Products under this Contract stored on the site.

- C. Contractor shall move any stored Products, under Contractor's control, which interfere with operations of the Owner.
- D. Contractor shall, at his option, obtain and pay for the use of additional storage or work areas needed for operations.
- E. Contractor shall limit his use of the existing building for work and for storage to allow for:
 - 1. Owner Occupancy
 - 2. Public Use
- F. Contractor shall provide temporary toilet facilities for use by his employees and other workers associated with the project. Contractor shall provide and maintain enough toilets to comply with OSHA and ANSI standards: 20 or less workers require 1 toilet, 20 or more require 1 toilet and 1 urinal per 40 workers, 200 or more require 1 toilet and 1 urinal per 50 workers. Toilets that are not maintained in a usable, sanitary condition shall not be considered "provided" or "available". The use of existing facilities is not permitted. Temporary toilets shall be located out of sight of the school building entrances and windows and away from staff and student travel paths. When site conditions do not allow for such placement, contractor shall provide and maintain a temporary privacy screen or other visual obstruction to prevent exposure of construction workers to staff or students. Privacy screen or other visual obstruction shall not impede the temporary toilet service vehicles from cleaning and maintenance operations, and shall not cause other inherent safety issues (e.g., uncapped rebar used as posts). Location of temporary toilets should be such that water runoff from cleaning operations do not contaminate student and staff travel paths. Final location to be approved by Owner.
- G. In order to work overtime, a minimum of five (5) workers, excluding foreman and superintendent, must be available and willing to work. No overtime shall be allowed if this minimum crew size cannot be guaranteed.

3.02 WORK IN, OR ADJACENT TO, EXISTING OR OCCUPIED AREAS

- A. Integrity of Existing Facility
 - 1. Conduct operations to maintain the existing building in a secure, weather tight condition.
 - 2. Repair damage to existing structures, equipment and furnishings resulting from the Contractor's operations within the building and on the site.
 - 3. Where corridor ceilings have been removed and sprinkler mains have been installed to serve renovated space or new additions, sprinkler heads shall be temporarily installed and activated in the upright position and shall remain in the upright position until the ceiling concealment

inspection has occurred, and the finished ceilings in those corridors can be completed.

B. Safety and Integrity of Occupied Areas

1. Where corridors shall be maintained for occupant use, no construction materials shall be stored or stockpiled. No Construction materials shall be stored in a manner that restricts means of egress which are required to remain open for use by building occupants.
 - a. A minimum clear corridor width of 72" shall be maintained in all active corridors.
2. All existing emergency exit lights and fire alarms shall remain operational in occupied areas.
3. Means of egress for occupied areas shall be maintained with hard surfaced, non-slip walkways, ramps or other platforms. Use temporary handrails, barricades or canopies in accordance with Construction Phasing Plan requirements and requirements of Section 01520.
4. No work such as welding, soldering, or cutting, which is considered hazardous to the building occupants, shall take place in occupied areas during school operating hours.
5. Contractor shall take all necessary safety precautions to clearly delineate the construction areas with temporary barricades, dust partitions, and temporary construction fences as appropriate (See Section 01520, Construction Aids and Section 01530, Barriers).
6. Temporary partitions shall be dustproof partitions extending from floor to underside of deck. Doors through these partitions shall be lockable and self-closing.
7. Use temporary fencing to isolate on-site staging areas, storage yards and construction access ways. All temporary storage areas and construction trailers shall be enclosed with 6' high construction fences. Refer to 2.03, Temporary Enclosures, Section 01520.
8. No pneumatic, gas powered or other noise producing equipment, or other equipment powered by flammable fuels shall be allowed in occupied or renovation areas before or during normal school hours. Use of this equipment shall be permitted after normal school hours and weekends only. Comply with OSHA 1926.850.
 - a. Temporary heat shall be supplied by electric heaters only.

9. No hoisting shall be allowed over the school building during normal school hours or other times when the building is occupied for school related activities or other events.
10. Fire extinguishers are required in all construction areas. Comply with OSHA 1923.150.
11. Do not perform any work, including demolition, during normal school hours (or during times when school related activities or other events are being conducted) that could cause the fire alarm to be inadvertently activated. Do not perform any work during these times that could negatively impact operational sprinkler systems.
12. Roofing tanker trucks shall not be placed near windows and/or fresh air intakes of occupied areas. No roofing shall take place above occupied areas.
13. Where VAT (vinyl asbestos tile) and/or other asbestos containing materials (ACM) require removal prior to installation of new VCT flooring or where other work disturbs ACM, such removal shall be done under separate contract by Fairfax County Public Schools, except as noted in Section 02070 (See Section 02070, Selective Demolition).
14. All painting performed by spray application shall be done only when the building is unoccupied.
15. Do not locate masonry saws near any window or door opening or near a fresh air intake. Locate saws in fenced construction areas only.
16. Use of school supplies or school equipment by the Contractor is prohibited.
17. Where existing windows and/or doors are removed, and new replacement windows and/or doors are not available, the Contractor shall provide secure plywood coverings over the openings. No wall openings of any kind, no matter how small, shall be left uncovered after completion of a work shift.
18. No loud construction activities shall be allowed during school hours. Workers shall not operate radios, CD players, or "boom boxes" in the school building.

C. Scheduling and Operations

1. Schedule deliveries to avoid conflicts with morning student arrivals and afternoon student departures. Coordinate with the school to determine actual starting and ending times and approximate time periods for arrival and departure. No deliveries shall be allowed during these periods.

2. No work shall be allowed in corridors in occupied areas during school operating hours. Work such as cutting, demolition and patching, use of ladders and scaffolding, and presence of construction materials in these corridors between the hours of 6:00 AM and at least 30 minutes after scheduled release of students shall not be allowed.
3. Elementary Schools: No work shall be allowed in a corridor in an occupied area which is adjacent to, and provides access to, SACC (School-Aged Child Care) Rooms between the hours of 7:15 AM and 6:15 PM.
4. For each work phase, the Contractor shall remove and temporarily store all loose equipment (desks, chairs, bookcases furniture, etc.) and boxes within the rooms being renovated in an approved, designated location on the site. The school will be responsible for boxing and tagging all items prior to removal and storage. At the completion of the work phase, the Contractor shall move the stored items to their final location as directed by the Owner's Field Representative. The Contractor can expect the following inventory as typical equipment for removal, storage and relocation, which includes but is not limited to:
 - a. Classrooms: Approximately 30 desks, 30 chairs, 1 teacher wardrobe unit, teacher desk and chair, 2 or more file cabinets and 2 or more bookcases.
 - b. Computer Labs: Approximately 30 computer desks and 30 chairs.
 - c. Administrative and Guidance Offices: Approximately 1 desk, 1 chair, 1 credenza, and 1 bookshelf for each office. Please refer to the contract documents for number of spaces/offices.
 - d. Subschool Offices (High School): Approximately 1 desk, 1 chair, 1 credenza and 1 bookshelf for each office. Please refer to the contract documents for number of spaces/offices.
 - e. Itinerant and Miscellaneous Offices: Approximately 1 desk, 1 chair, 1 credenza and 1 bookshelf for each office. Please refer to the contract documents for number of spaces/offices.
 - f. Library (Elementary School): Approximately 250 boxes, 10 tables, 40 chairs, 3 desks and 3 chairs for staff. One move to temporary location and one move to final location.
 - g. Library (Middle School): Approximately 350 boxes, 15 tables, 60 chairs, 3 desks and 3 chairs for staff. One move to temporary location and one move to final location.

- h. Library (High School): Approximately 500 boxes 25 tables, 100 chairs, 4 lounge chairs, 3 desks and 3 chairs for staff. One move to temporary location and one move to final location.
 - i. Kitchen (Elementary School): Approximately 2 work tables, 2 pan racks, 3 carts, 8 pan carriers, 2 dunnage racks, 2 ice cream cabinets, 2 milk coolers, 8 mobile shelving units and other miscellaneous equipment. All items shall be stored onsite until all new equipment is onsite and accounted for.
 - j. Kitchen (Middle School): Approximately 3 work tables, 6 pan racks, 4 carts, 14 pan carriers, dunnage racks, 3 ice cream cabinets, 3 milk coolers, 10 mobile shelving units and other miscellaneous equipment. All items shall be stored onsite until all new equipment is onsite and accounted for.
 - k. Kitchen (High School): Approximately 6 work tables, 6 pan racks, 4 carts, 14 pan carriers, 2 mixers, 1 slicer, 1 lidding machine and conveyor, 30 dunnage racks, 5 ice cream cabinets, 5 milk coolers, 20 mobile shelving units and other miscellaneous equipment. All items shall be stored onsite until all new equipment is onsite and accounted for.
 - l. Gymnasium (Elementary School): Mats, portable game standards, equipment transporters and other miscellaneous equipment.
 - m. Gymnasium (Middle School): Landing mats, portable game standards, fitness room equipment, equipment transporters and other miscellaneous equipment.
 - n. Gymnasium Complex (High School): Pommel horses, wrestling mats, landing mats, balance beams, parallel bars, portable game standards, equipment transporters, weight room equipment (such as bench, leg and shoulder presses, weight sets, plate racks) and other miscellaneous equipment.
5. Do not start demolition of occupied space until the materials required for renovation are on the project site. The list of materials includes: floor finishes and base, millwork (pencil sharpener blocks, map rack blocking, etc), paint, doors and hardware, windows and venetian blinds, ceilings, power and lighting, HVAC equipment and controls, clocks, sound system, fire alarm system, security system, intercommunications system, telecommunications system, and sprinkler system.
6. Do not install doors unless all hardware and vision panel glass for the doors is on the project site.

7. Contractor shall postpone or reschedule work to a later shift and/or weekends and holidays whenever such work would disrupt or interfere with student testing, such as SAT (Scholastic Aptitude Test) or SOL (Standards of Learning) tests. Contractor shall coordinate with school staff or Liaison for actual dates and times of testing.

F. Cleaning

1. Dust and mop corridors every morning before teachers arrive. Dust and mop any areas made dirty by construction operations on a daily basis.
2. Contractor shall immediately remove construction equipment and debris and clean any work zone located in an occupied area, once the work is completed or halted for a significant period of time.
3. Contractor shall provide consistent and frequent (daily) vacuuming to minimize and control dust levels in work areas (See Section 01710, Cleaning).

E. Systems Maintenance

1. Where the sequence of work requires work to be continuously performed in existing corridor ceiling spaces in occupied areas, tie all light fixtures at each corner of fixture to existing joists above, tie all smoke detection devices as close to structure as possible, and secure all security, intercommunications, telecommunications, and other active wiring which is not housed in conduit.
2. Do not remove existing wiring such as CATV, intercommunications, telecommunications, etc until the new wiring is in place and operational.
3. Prior to installation, Contractor shall obtain approval from Owner's Field Representative to run temporary wiring.
4. Inspect and change filters in HVAC equipment frequently during construction and prior to occupancy by Owner. Owner will not occupy any renovated area unless the entire HVAC system (including exhaust systems and automatic temperature controls) is operational.
5. All PRVs shall be fully operational at all times. Do not demolish any existing PRVs until replacement units are on site and new wiring is installed and ready for connection.

3.03 OWNER OCCUPANCY

- A. The Contractor shall schedule his operations for completion of portions of the Work, for the Owner's occupancy upon Substantial Completion of the entire Work.

- B. The Contractor agrees to permit the Owner to use and occupy a portion or unit of the project prior to formal acceptance of the total project by the Owner, provided the Owner:
 - 1. Secures written consent of the Contractor (except in the event in the opinion of the Architect, the Contractor is chargeable with unwarranted delay in final cleanup of punch list items or other contract requirements, the Owner may occupy without Contractor's consent);
 - 2. Secures endorsement from the insurance carrier and consent of the surety to permit occupancy of the building or use of the project during the remaining period of construction.
- C. Owner will occupy the premises during the normal 10-month school year for the conduct of his normal operations. Cooperate with Owner's Representative in all construction operations to minimize conflict and to facilitate continued owner usage.

PART 4 - PRECAUTIONS AND SAFETY

4.01 SPECIAL REQUIREMENTS

- A. Fire Protection: Provide and maintain an adequate number of hand fire extinguishers at convenient and appropriate locations during construction. Avoid all accumulations of flammable debris by removing rubbish promptly. Take all other precautions necessary to prevent fire. Supervise closely the storage of paint materials and other combustible products.
 - 1. Existing fire alarm and detection system must remain operable at all times during construction.
- B. Accident Prevention and Safety: Comply will 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 AGC'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. All scaffolds shall be built in accordance with all requirements of local, state and Federal laws and regulations.
- C. Crisis Preparedness – “Shelter in Place”

1. FCPS has developed a "Shelter in Place" procedure to protect students, teachers, administrative staff and construction workers in the event that a dangerous chemical or biological agent is released into the environment during occupied hours.
 2. Upon notification by Public Safety Officials, all individuals on school grounds shall be directed to move indoors. All windows and doors shall be closed and locked. All heating, ventilating and air conditioning systems shall be shut down.
 3. "Shelter in Place" emergencies are generally of short duration (several minutes to one or two hours). All individuals shall remain inside until Public Safety Officials have deemed that the area is safe.
 4. It is the General Contractor's responsibility to familiarize his employees and subcontractors with the school's "Shelter in Place" plans and procedures. Note that once an emergency has been declared, no workers, subcontractors or suppliers who may be in transit to the job site shall be allowed into the area until the emergency is over.
- D. ID Badges: The Owner shall supply identification badges which shall be worn by all tradesmen working on this project. No employees of the Contractor, subcontractors or sub-contractors, material suppliers or other persons associated with the project shall enter the existing school building or school property without an approved identification badge. Failure to comply with this requirement will be cause for immediate and permanent removal of the employee(s) in question from this and any other school building. Contractor shall maintain an identification badge log and record each badge number and to whom it was given and when.
1. Badge shall be a minimum 2" x 3 1/2".
 2. Visible at all times.
 3. Bright color (orange, lime green, etc.)
- E. See paragraph 3.02, this Section, for additional specific precautions or restrictions related to safety.

END OF SECTION

SECTION 01020

ALLOWANCES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 DESCRIPTION OF WORK

- A. This Section pertains to the provision of all items of Work which may or may not be defined in other Sections, but shall be provided in the Contract Price as defined by the allowances specified in Part Two of this Section.

1.03 REQUIREMENTS

- A. Basis of Quantity Allowances: The stated quantity allowances represent the complete estimate of material or items contemplated to be furnished and installed in the Project. The Contract Price shall include all storage or additional transportation costs due to timing of delivery and installation.
- B. Guarantee for Allowances: All allowance materials or items shall be included in the Contractor's guarantee for the Project.
- C. All overhead, profit, taxes, licenses, fees or other expenses related to the purchase and installation of the referenced allowance materials or items shall be included in the base bid, except for work covered by the contingency allowance.
- D. Any money remaining in the Allowances at the close of the project shall be credited to the Owner.
- E. No samples, Shop Drawings, or catalog cuts of allowance items will be reviewed unless the total cost or unit price is included with the Contractor's submission.
- F. Contractor shall obtain Owner's written approval to exceed any allowance amount prior to ordering materials or performing the work involved.

PART 2 - ALLOWANCES

2.01 LIST OF ALLOWANCES:

- A. Contingency Allowance: _____.
 - 1. The cost of any items paid for out of this allowance shall be confirmed by a Change Order including materials, labor, insurance, payroll taxes,

supervision, bond premium costs, transportation, equipment rental, etc., and the percentages for overhead and profit set forth in the Conditions of the Contract. Contractors shall not include any additional mark-up on the allowance in the bid.

- B. The Contractor shall allow the sum of \$ _____ for Testing, Adjusting and Balancing (TAB) as specified in Section 15990.
- C. The Contractor shall allow the sum of \$ _____ for Commissioning as specified in Section 15995.
- D. The Contractor shall allow the sum of \$ _____ for installation and utility hook-up of temporary classroom trailers.
- E. New Schools: The Contractor shall allow the sum of \$ _____ for traffic control devices (Wink-O-Matics).
- F. High School Renovations: The Contractor shall include in the base bid the cost to construct and remove a total of 10,000 square feet of temporary partitions for separation of phased construction from occupied portions of the building.
- G. The Contractor shall allow the sum of \$ _____ for provision and installation of modular playground equipment, including ground cover and edging (New Elementary Schools Only).
- H. The Contractor shall allow the sum of \$ 15,000 for provision and installation of school sign (Elementary Schools Only).

END OF SECTION

**INSTRUCTIONS FOR EDITING
AND COORDINATION
SECTION 01040**

SUPERVISION AND COORDINATION

1. Paragraph 1.03.A: Delete this paragraph if this is not a new high school or high school renovation.
2. Paragraph 1.03.B: Edit this paragraph to require only one superintendent if this is a new school or an addition.

SECTION 01040

SUPERVISION AND COORDINATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 RELATED WORK

- A. Section 01153: Change Order Procedures.
- B. Section 01340: Shop Drawings, Product Data and Samples.
- C. Section 01410: Testing Laboratory Services.
- D. Section 01720: Project Record Information.

1.03 DESCRIPTION OF WORK

- A. (New High Schools and High School Renovations Only): Contractor shall employ and pay for the services of a full time, qualified Project Manager, located at the project site, dedicated solely to the project, for the duration of the construction work.
- B. This contract will require the Contractor to utilize two shifts for part or all of the project. The Contractor shall employ and pay for the services of two full time, qualified Project Superintendents (one for each shift) for the duration of the construction work.
- C. Qualifications of Project Manager and Project Superintendents:
 - 1. Experienced in field work of the type required for this Project.
 - 2. Submit name and address to Architect/Engineer.

1.04 PROJECT MANAGER'S RESPONSIBILITIES

- A. Implement Change Order procedures in accordance with Section 01153.
- B. Assist Project Superintendent(s) with schedules, material deliveries and subcontractor coordination and scheduling.
- C. Participate in Progress Meetings

1.05 PROJECT SUPERINTENDENT RESPONSIBILITIES

- A. Coordinate the work of the Contractor and the Subcontractors for the work of all trades.
- B. Coordinate the schedules of the Contractor, the Subcontractors and materials and equipment suppliers.
- C. Verify timely deliveries of products for installation by the trades.
- D. Verify that labor and materials are adequate to maintain schedules.
- E. Conduct conferences and maintain communications with Subcontractors, suppliers, and other concerned parties as necessary to:
 - 1. Maintain coordination and schedules.
 - 2. Resolve matters in dispute.
- F. Participate in Project Meetings.
- G. Report progress of work. Submit daily report to Owner's Representative listing number and type of work force and work in progress.
- H. Recommend needed changes in Schedules.
- I. Assist in compiling and assembling Project Record Information.
- J. Observe required testing. Maintain a record of tests including:
 - 1. Testing agency and name of inspector.
 - 2. Subcontractor.
 - 3. Manufacturer's representative present.
 - 4. Date and time of testing.
 - 5. Type of product or equipment.
 - 6. Type of test, and results.
 - 7. Retesting required.
- K. Verify that Subcontractors maintain accurate record documents.
- L. Attend all punch list inspections.

1.06 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- A. Prior to submittal, review for compliance with Contract Documents. Contractor shall stamp submittals approving them for materials, fit and coordination, prior to submission to Architect.
- B. Check field dimensions and clearance dimensions.
- C. Check relation to available space.
- D. Check anchor bolt settings.
- E. Review the effect of any changes on the work of other contracts or trades.
- F. Check compatibility with equipment and work of other trades.

END OF SECTION

SECTION 01045
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 DESCRIPTION

- A. Contractor shall be responsible for all cutting, fitting, and patching, including attendant excavation and backfill, required to complete the work and to:
 - 1. Make its several parts fit together properly.
 - 2. Uncover portions of the Work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Contract Documents.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetration of non-structural surfaces for installation of piping and electrical conduit.
- B. Related Requirements in other parts of the project manual:
 - 1. Basic responsibilities of other parties: General Conditions Section 00700.

1.03 RELATED WORK

- 1. Summary of Work: Section 01010.
- 2. Construction Aids: Section 01520
- 3. Barriers: Section 01530
- 4. Selective Demolition: Section 02070
- 5. Earthwork: Section 02200
- 6. Temporary Shoring: Section 02250

1.04 SUBMITTALS

- A. Submit a written existing building survey to Architect and the Owner's Representative prior to any work being started.
- B. Submit a written request to Architect and the Owner's Representative well in advance of executing any cutting or alteration which affects:
 - 1. The work of the Owner or any separate contractor.
 - 2. The structural value or integrity of any element of the Project.
 - 3. The integrity or effectiveness of weather-exposed or moisture resistant elements or systems.
 - 4. The efficient, operational life, maintenance or safety of operational elements.
 - 5. The visual qualities of the sight-exposed elements.
- C. Submit a written notice to Architect and the Owner's Representative designating the date and the time the work will be uncovered.

PART 2 - PRODUCTS**2.01 MATERIALS**

- A. Comply with specifications and standards for each specific product involved.

PART 3 - EXECUTION**3.01 INSPECTION**

- A. General Contractor shall conduct an existing building survey with the Owners representative prior to any construction operations. A written report shall be made of existing project conditions, including elements subject to damage or to movement during cutting of patching.
- B. After uncovering work inspect the conditions affecting installation of products, or performance of the work.
- C. Report unsatisfactory or questionable conditions to the Architect and the Owner's Representative in writing; do not proceed with the work until the Architect and the Owner's Representative have provided further instructions.
- D. Verify that areas to be demolished are unoccupied and discontinued in use.

- E. Verify that all utilities within the area to be demolished have been cut off and capped.
- F. Do not commence work until conditions are acceptable to Architect and Owner's Representative.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure the structural value or integrity of the affected portion of the work.
- B. Provide devices and methods as necessary to protect other portions of the Project from damage.
- C. Provide protection from the elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.
- D. Remove items scheduled to be salvaged for Owner, and place in designated storage area.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods that will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Restore work that has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents.
- E. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through walls, floors, roofs and other surfaces.
- F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish the entire unit.
- G. Demolish concrete and masonry in small sections. Cut concrete and masonry at junctures with construction to remain using power-driven masonry saw or hand tools; do not use power-driven impact tools during school hours.

- H. Do not use power-driven impact tools in or near occupied areas during school hours (see Section 01010, Summary of Work).

END OF SECTION

SECTION 01050
FIELD ENGINEERING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 DESCRIPTION

- A. Provide and pay for field engineering services required for the Project.
- B. Provide and pay for survey work required in execution of the Project.
- C. Provide and pay for civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.
- D. Owner's Representative will identify existing control points and property line corner stakes indicated on the Drawings as required.

1.03 RELATED WORK

- A. General Conditions: Section 00700
- B. Summary of Work: Section 01010
- C. Storm/sanitary sewers and water mains: Section 02721
- D. Current "Fairfax County public facilities manual"

1.04 QUALIFICATIONS OF SURVEYOR OR ENGINEER

- A. Qualified engineer or registered land surveyor, acceptable to Contractor and Owner.

1.05 SURVEY REFERENCE POINTS

- A. The Owner will provide a benchmark on the site and property corners or references for the location and stakeout of this work.
- B. Locate and protect control points prior to starting site work, and preserve all permanent reference points during construction.
- C. Make no changes or relocations without prior written notice to Architect.

- D. Report to Architect when any reference point is lost or destroyed or required relocation because of necessary changes in grades or locations.
- E. Require surveyor to replace Project Control points which may be lost or destroyed at no cost to the Owner.

1.06 ACCURACY OF EXISTING TOPOGRAPHY

- A. The existing contours shown on the site plans are correct within one half a contour interval (1') on at least eighty percent (80%) of the site, and contours on the remaining twenty percent (20%) are in error by no more than 1 contour interval (2').

1.07 STAKES & GRADES

- A. The Contractor shall set rough grade stakes in sufficient number so that the site can be accurately graded to meet the intent of the site plan. Stakes for final grading will be set and topsoil of the required thickness shall be spread to the required grade. Stakes, with appropriate cut sheets, shall be set for all sanitary and storm sewers on all curbs and gutters. The stakes shall be set on minimum 50-foot stations and at all odd pluses.
- B. Upon completion of subgrade excavation and embankment in all areas to be paved, the subgrade elevation may be checked by the Owner. Grade stakes indicating the finished compacted surface of the base course shall be set, prior to installing base material. The Contractor shall save all such stakes. Upon completion of all work, and before acceptance of same, proper tests for determination of compaction, gradation, thickness, etc., of base and surface courses shall be made by the Owner.

1.08 EASEMENTS

- A. The Contractor shall verify the acquisition of all off-site easements prior to the start of any off-site construction. This shall be done by contacting the Architect.
- B. The Contractor shall restore all off-site easements in accordance with the terms of the easement agreement. He shall clean up all rubbish and surplus materials, and leave the easement in presentable shape at least comparable with the condition that it was before the construction work began. Upon completion of said restoration, the Contractor shall obtain a written release from the property owner granting the easement.
- C. Information as to existing underground construction and sub-surface conditions such as rock, unstable material or ground water is shown in accordance with the best available data. All must be investigated or verified in the field prior to or upon construction by the Contractor. Location and elevation of points of pickup or discharge of sanitary or storm sewage and surface water and inverts for

sanitary or storm connections shall be verified prior to construction by the Contractor.

- D. The existence and location of underground utilities and/or other construction indicated on the plans are not guaranteed and shall be investigated and verified in the field by the Contractor. Trenches, in which these utilities and/or construction are placed, are not guaranteed as to degree of compaction and shall be investigated and verified in the field by the Contractor. If these trenches are not up to present standards of 95% compaction, they shall be compacted to 95% compaction prior to or upon construction by the Contractor. Work in the vicinity of existing structures and utilities shall be carefully done by hand. The Contractor shall be held responsible for any damage to and for maintenance and protection of existing facilities and structures.
- E. Any existing structures, services or other appurtenances located in or affected by the construction of the work herein shall be adjusted, moved or relocated as required. The work shall be performed by the Contractor.
- F. Utility poles, lines and gas mains that are the property of the utility companies will be relocated when required by others upon reasonable advance notification.

1.09 RECORDS

- A. On completion of foundation walls and major site improvements prepare a certified survey showing all dimensions, locations, angles and elevations of construction.
- B. Storm and Sanitary "As-Builts:" The Contractor shall provide the Owner with "As-Built" storm and sanitary sewer plans traced on mylar, showing plan and profile, both in ink. The plans shall be prepared by a duly licensed engineer or land surveyor and certified by him as accurately showing the rims, inverts, and percents of grade of the sewers and shall meet all other requirements of Fairfax County for "As-Built" storm and sanitary sewer plans. Submit to Fairfax County Department of Public Works and Environmental Services (DPWES) for approval.
- C. Grading "As-Built:" Upon completion of all site work and improvements, the Contractor shall so notify the Owner in writing stating that the work has been completed in accordance with the plans and specifications. The Contractor shall prepare at his expense "As-Built" drawings of the site work. Final acceptance of the on-site and off-site improvements shall be contingent upon the "As-Built" drawings showing substantial compliance with the contract documents. The Contractor shall pay for subsequent "As-Built" drawings required by his noncompliance with the contract documents.

1.10 SUBMITTALS

- A. Submit name and address of Surveyor or professional engineer to Architect.

- B. On request of Architect submit documentation to verify accuracy of field engineering work.
- C. Submit certificate signed by registered engineer or surveyor certifying that elevations and locations of improvements are in conformance or non-conformance with Contract Documents.
- D. Rough grade cut sheets shall be submitted to the Department of Public Works for approval 24 hours prior to the start of construction. Furnish to Owner's Field Representative a copy of the approved cut sheets.

END OF SECTION

SECTION 01091

APPLICABLE STANDARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 through Division 16 Specification Sections, apply to this Section.

1.02 RELATED WORK

- A. Specific naming of codes or standards occurs in other sections of these specifications.

1.03 DESCRIPTION

- A. Throughout the Contract Documents, reference is made to codes and standards which establish qualities and types of workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics.
- B. Where materials or workmanship are specified in the Contract Documents to meet or exceed the specifically named code or standard, it is the Contractor's responsibility to provide materials and workmanship which meet or exceed the specifically named code or standard.
 - 1. It is the Contractor's responsibility, when so required by the Contract Documents or by written request from the Architect, to provide all required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or standard. Such proof shall be in the form requested in writing by the Architect, and generally will be required to be copies of a certified report of tests conducted by a testing agency approved for that purpose by the Architect.
- C. The most current adopted edition of the individual standards or test procedures, published by the associations establishing applicable standards, and referenced throughout the Contract Documents, shall apply. Exception: The edition of the VUSBC governing the Contract Documents shall be that edition which was in force for purposes of permit review and issuance by Fairfax County Department of Public Works and Environmental Services (DPWES).

1.04 QUALITY ASSURANCE

- A. Familiarity with pertinent codes and standards: In procuring all items used in this Work, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this Work meet or exceed the specified requirements.

- B. Rejection of non-complying items: The Architect reserves the right to reject items incorporated into the Work which fail to meet the specified minimum requirements. The Architect further reserves the right, and without prejudice to other recourse the Architect may take, to accept non-complying items subject to an adjustment in the Contract Amount as approved by the Architect and the Owner.

1.05 APPLICABLE INDUSTRY AND CODE REFERENCE STANDARDS

- A. Applicable standards listed in the Specifications include, but are not necessarily limited to, standards promulgated by the following agencies and organizations:
1. AAMA - American Architectural Manufacturers Association, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268. 1-847-303-5664.
 2. AASHTO - American Association of State Highway and Transportation Officials, 444 N. Capitol St., N.W., Suite 249, Washington, D.C. 20001. 1-202-624-5800.
 3. ACI - American Concrete Institute, 38800 Country Club Drive, Farmington Hills, MI 48333-9094. 1-248-848-3700.
 4. AGA - American Gas Association, 400 N. Capitol Street., N.W., Washington, D. C. 20001. 1-800-841-8430.
 5. AISC - American Institute of Steel Construction, Inc., One East Wacker Drive, Suite 3100, Chicago, IL 60601-2001. 1-312—670-2400.
 6. ICC/ANSI A117.1-2003 - American National Standards Institute, Inc. 25 West 43rd Street, Fourth Floor, New York, NY 10036. 1-212-642-4900.
 7. ASTM - American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. 1-610-832-9585.
 8. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE), 1791 Tullie Cir., N.E., Atlanta, GA 30329. 1-800-5-ASHRAE.
 9. AWI - Architectural Woodwork Institute, 1952 Isaac Newton Square W., Reston, VA 20190. 1-703-733-0600.
 10. AWS - American Welding Society, Inc., 550 N.W., Lejuene Road, Miami, FL 33126. 1-800-433-9353.
 11. BIA - Brick Industry Association, 11490 Commerce Park Drive, #300, Reston, VA 22091-1525. 1-703-620-0010.

12. BHMA – Builder’s Hardware Manufacturers Association, 355 Lexington Ave., 17th Floor, New York, NY 10017. 1-212-297-2122.
13. CRI – Carpet and Rug Institute, 310 Holiday Ave., P.O. Box 2048, Dalton, GA 30722. 1-800-882-8846.
14. CRSI - Concrete Reinforcing Steel Institute, 933 North Plum Grove Road, Schaumburg, IL 60173-4758. 1-847-517-1200.
15. CS - Commercial Standard of NIST, U.S. Department of Commerce, Government Printing Office, Washington, D.C. 20402.
16. DHI – Door and Hardware Institute, 14150, Newbrook Dr., Suite 200, Chantilly, VA 20151-2223. 1-703-222-2410.
17. Glass Association of North America, 2945 S.W. Wanamaker Dr., Suite A, Topeka, KS 66614. 1-785-271-0208.
18. International Building Code, International Code Council, Inc., in cooperation with Building Officials and Code Administrators International, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, 1-800-214-4321 (as incorporated into the Virginia USBC).
19. MFMA – Maple Flooring Manufacturers Association, 60 Revere Dr., Suite 500, Northbrook, IL 60062. 1-847-480-9138.
20. NAAMM - The National Association of Architectural Metal Manufacturers, 8 South Michigan Avenue, Suite 100, Chicago, IL 60603. 1-312-332-0405.
21. NCMA - National Concrete Masonry Association, 2302 Horse Pen Road, P.O. Box 781, Herndon, VA 20171-3499. 1-703-713-1900.
22. NEC - National Electrical Code (See NFPA).
23. NEMA - National Electrical Manufacturers Association, 660 White Plains Rd., Suite 600, Tarrytown, NY 10591. 1-914-524-8650.
24. NFPA - National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269. 1-800-344-3555.
25. NIST - National Institute of Standards and Technology, Office of Standards Service, 100 Bureau Dr., Gaithersburg, MD 20899. 1-301-975-2758.
26. NRCA - National Roofing Contractors Association, 10255 West Higgins Road, Suite 600, Rosemont, IL 60018-5607. 1-847-299-9070.

27. NSF - National Sanitation Foundation, 3475 Plymouth Road, Ann Arbor, MI 48105.
28. NTMA – National Terrazzo and Mosaic Association, 110 E. Market St., Suite 200A, Leesburg, VA 20176. 1-800-323-9736.
29. OSHA - Occupational Safety and Health Administration, US Dept. of Labor/OSHA, 200 Constitution Avenue, N.W., Washington, D.C. 20210. 1-202-693-1999.
30. PCA - Portland Cement Association, 5420 Old Orchard Road, Skokie, IL 60077-1083. 1-847-966-6200.
31. SMACNA - Sheet Metal and Air-Conditioning Contractors Association International, 4201 Lafayette Center Dr., Chantilly, VA 20151. 1-703-803-2980.
32. SDI - Steel Deck Institute, P.O. Box 25, Fox River Grove, IL 60021-0025. 1-847-458-4647.
33. SDI - Steel Door Institute, 30200 Detroit Road, Cleveland, OH 44145-1967. 1-440-899-0010.
34. SJI - Steel Joist Institute, 3127 10th Avenue, North, Myrtle Beach, South Carolina 29577-6760. 1-843-626-1995.
35. SSPC - Steel Structures Painting Council, 40 24th Street, 6th Floor, Pittsburgh, Pennsylvania 15222-4656. 1-412-281-2331.
36. TCA - Tile Council of America, Inc., 100 Clemson Research Boulevard, Anderson, SC 29625. 1-864-646-TILE.
37. UL - Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, Illinois 60062-2096. 1-877-854-3577.
38. VDOT - Virginia Department of Transportation, P.O. Box 256, 2400 Pine Forest Drive, Colonial Heights, Virginia 23834.
39. Federal Specs and Federal Standards - General Services Administration, Specification Section, Room 6654, 7th & D Streets S.W., Washington, D.C. 20407.
40. VUSBC - Virginia Uniform Statewide Building Code.
41. 2010 ADA Standards for Accessible Design. Department of Justice 800-514-0301

42. Fairfax County Special Inspections Program: Special Inspections: Implementation in Fairfax County – Current Edition (SIFC- Current Edition), as administered by the Fairfax County Critical Structures Section, Department of Public Works and Environmental Services.
43. Fairfax County “Public Facilities Manual” (PFM).
44. Commonwealth of Virginia, “Erosion and Sediment Control Handbook.”
45. VA CHPS-Virginia Collaborative for High Performance Schools, 2443 Fair Oaks Blvd. #259, Sacramento, CA 95825.

1.06 JOB SITE ACCESS

- A. The Contractor shall provide one (1) copy of all reference standards at the job site for review by the Architect and Owner's Representative.

END OF SECTION

SECTION 01092

APPLICABLE FCPS STANDARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 through Division 16 Specification Sections, apply to this Section.

1.02 RELATED WORK (including, but not limited to, the following)

- A. Section 08710: Finish Hardware
- B. Section 10100: Markerboards, and Tack boards
- C. Section 10800: Toilet Accessories
- D. Section 12302: Wood Casework
- E. Section 12304: Plastic Laminate Faced Casework and Fixtures
- F. Section 12360: Library Casework
- G. Section 15450/15451: Plumbing Fixtures and Trim
- H. Section 15900: Automatic Temperature Controls
- I. Division 16 Specification Sections
- J. 2010 ADA Standards for Accessible Design Department of Justice
- K. ICC/ANSI A117.1 –2009

1.03 DESCRIPTION

- A. This section establishes the standard required mounting heights for the types of equipment and accessories normally associated with the scope of school construction. Contractor shall coordinate the standards listed herein with the Construction Drawings and other specifications sections of the construction documents to determine applicability of the standards to equipment and accessories specified for the work, and the suitability of mounting height dimensions to the building occupants, where more than one dimension is listed for a particular item or accessory.

1.04 QUALITY ASSURANCE

- A. The Contractor shall be responsible for ensuring that the trades associated with the installation of the equipment and accessories referenced herein are familiar with these standards as they relate to the work of each trade.

1.05 EQUIPMENT MOUNTING HEIGHTS

- A. Fairfax County Public Schools standard for equipment installation heights:

1. **LAVATORIES:** (Measured from floor to top of rim)
 - a. Grades PS (Preschool),
K,1,2,3,4,5,6 = 27"
Accessible = 30" (24" clear knee space)
 - b. Grades 7,8,9,10,11,12, and Adults = 31"
Accessible = 34" max (29" clear knee space at rim
by 8" deep, minimum, 27" clear
to bottom of bowl)

2. **URINALS:** (Measured from floor to top of rim)
 - a. Grades PS,K,1,2,3,4,5,6 and = 17" (centerline of flush valve
Accessible 11.5" from top of urinal)
 - b. Grades 7,8,9,10,11,12, and Adults = 24" (centerline of flush valve
Accessible = 17" max (rim height A.F.F.)

3. **WATER CLOSETS:** (Measured from floor to top of rim)
 - a. Grades PS,K,1,2,3,4,5,6 = 15" (centerline of flush valve 26"
Accessible = 15" A.F.F.)
 - b. Grades 7,8,9,10,11,12, and Adults = 15" (centerline of flush valve 29"
Accessible = 18" A.F.F.)

4. **DRINKING FOUNTAINS, EWC's:** (Measured from floor to spout)
 - a. Grades PS,K,1,2,3,4,5,6 = 28"
Accessible = 30" max for parallel approach
(24" clear knee space for forward
approach)
 - b. Grades 7,8,9,10,11,12, and Adults = 42"
Accessible = 36" (27" clear knee space)

5. **SHOWER HEADS:** (Measured from floor to head)
 - a. All Grades - Boys = 78"
 - b. All Grades - Girls = 72"
 - c. Adults = 78"

6. **COMPUTER COUNTERS:** (Measured from floor to top)
- | | | | |
|----|-----------------------------------|---|-----|
| a. | Grades PS,K,1,2,3 | = | 24" |
| b. | Grades 4,5,6 | = | 27" |
| c. | Grades 7,8,9,10,11,12, and Adults | = | 30" |
| d. | Accessible | = | 34" |
7. **COUNTERTOPS:** (measured from finish floor to top or sink rim surface if provided)
- | | | | |
|----|--|-------------------------------------|-----|
| a. | Grades PS, K, 1, 2, 3 | = | 24" |
| b. | Grades 4, 5, 6 | = | 27" |
| c. | Grades 7,8,9,10,11,12, and Adults | = | 36" |
| d. | Accessible sink tops (Grades PS, K thru 6) | 30" (24" min. clear knee space) | |
| e. | Accessible sink tops (Grades 7 thru 12 and Adults) | 34" max (27" min. clear knee space) | |
8. **ACCESSIBLE GRAB BARS:** (Measured from finish floor to top of bar)
- | | | | |
|----|-----------------------------------|---|---|
| a. | Grades PS,K,1,2,3,4,5,6 | = | 27" Horizontal Bars
30" Vertical Bars (to bottom of bar) |
| b. | Grades 7,8,9,10,11,12, and Adults | = | 36" Horizontal Bars
41" Vertical Bars (to bottom of bar) |
9. **HANDRAILS:** (Measured from ramp or stair nosing to top of gripping surface)
- | | | | |
|----|---|---|-----|
| a. | All grades and adults
(including adult accessible) | = | 36" |
| b. | Grades PS,1,2,3,4,5,6
(child accessible) | = | 25" |
10. **PAPER TOWEL DISPENSERS:** (Measured from floor to towel slot)
- | | | | |
|----|-----------------------------------|---|----------|
| a. | Grades PS, K, 1, 2,3,4,5,6 | = | 40" max. |
| b. | Grades 7,8,9,10,11,12, and Adults | = | 44" max. |
11. **PAPER TOWEL WASTE RECEPTACLE:** (Measured from floor to top of unit)
- | | | | |
|----|-----------------------|---|----------|
| a. | All Grades and Adults | = | 27" max. |
|----|-----------------------|---|----------|
12. **TOILET PAPER HOLDERS:** (Measured from floor to centerline of roll)
- | | | | |
|----|-----------------------|---|-----|
| a. | All Grades and Adults | = | 20" |
|----|-----------------------|---|-----|

13. **WARM AIR HAIR DRYERS:** (Measured from floor to centerline of push button switch)
- a. All Grades and Adults = 40"
14. **SOAP DISPENSERS:** (Measured from floor to bottom of dispenser)
- a. Grades PS,K,1,2,3,4,5,6 = 36"
- b. Grades 7,8,9,10,11,12, and Adults = 40"
15. **FEMININE NAPKIN DISPOSAL:** (Measured from floor to top of unit)
- a. Grades 4,5,6,7,8,9,10,11,12, and Adults = 27"
16. **MIRRORS:** (Measured from floor to bottom of reflective surface/mirror)
- a. Grades 9,10,11,12, and Adults = 40"
- b. Tall Mirror All Grades-Group Toilets = 24"
17. **FIRE EXTINGUISHERS:** (Measured from floor to top of cabinet <4" deep)
- a. All Grades and Adults = 56"
18. **PENCIL SHARPENER BLOCKS:** (Measured from floor to top of 8" x 8" wood block)
- a. Grades PS,K,1,2,3 = 32"
- b. Grades 4,5,6 = 38"
- c. Grades 7,8,9,10,11,12 = 42"
19. **CORRIDOR TACK STRIPS:**
- a. (2) strips - 6'-8" A.F.F. and 4'-8" A.F.F.
- b. Stop strips 36" from door/window frames
- c. Maximum strip length 20'. Provide 5' break between strips.
20. **MARKERBOARDS & TACKBOARDS:** (Measured from floor to bottom of writing or tackable surface)
- a. Grades PS,K,1,2,3 = 32"
- b. Grades 4,5,6 and other instructional spaces = 32"
- c. Grades 7,8,9,10,11,12, and Adults = 36"
21. **DOOR HARDWARE:** (Measured from floor to centerline of hardware)
- a. Grades PS,K,1,2,3,4,5,6
- 1) Push Plates = 42"
- 2) Pull Handles = 42"
- 3) Levers = 36"

- 4) Panic Exit = 36" centerline of push bar
- 5) Deadlocks = 48" maximum

- b. Grades 7,8,9,10,11,12, and Adults
 - 1) Push Plates = 50"
 - 2) Pull Handles = 42"
 - 3) Levers = 36"
 - 4) Panic Exit = 40" centerline of push bar
 - 5) Deadlocks = 48" maximum

- 22. **CCMS SENSORS:** (Measured from floor to centerline of box)
 - a. All Occupied Spaces = 5'-6" A.F.F.

- 23. **THERMOSTATS:** (Measured from floor to top of box)
 - a. All Occupied spaces = 4'-0 A.F.F.

- 24. **CONV. RECEPTACLES:** (Measured from floor to bottom of box)
 - a. General Areas = 1'-4" A.F.F.
 - b. Special Areas = As required/check with Owner

- 25. **CLOCK OUTLETS:**
 - a. General Areas = 6" from ceiling to top of box
 - b. Special Areas = As required/check with Owner

- 26. **LIGHT SWITCHES:** (Measured from floor to top of box)
 - a. All Areas = 4'-0" A.F.F.

- 27. **FIRE ALARM PULL SWITCHES:** (Measured from floor to top of box)
 - a. All Areas = 4'-0" A.F.F.

- 28. **FIRE ALARM BELLS/HORNS:** (Measured from floor to top of box)
 - a. All Areas = 6'-8" A.F.F.
(or 6" below ceiling, whichever is lower)

- 29. **INTERCOM SPEAKERS:**
 - a. General Areas = Flush with ceiling
 - b. Special Areas = As required/check with Owner

- 30. **T. V. OUTLETS:** (Measured from floor to bottom of box)

- a. General Areas = 1'-4" A.F.F.
 - b. TV/VCR Fixed = 1'-0" Below ceiling
 - c. TV/VCR on Cart = 5'-0" A.F.F.
 - d. Special Areas = As required/check with Owner
31. **TELECOMMUNICATIONS:**
(Measured from floor to bottom of box) = 1'-4' A.F.F.
32. **SOUND SYSTEM CALL SWITCHES:**
(Measured from floor to top of box) = 4'-0" A.F.F.
33. **SMOKE/HEAT DETECTOR:**
- a. General Areas = Ceiling
 - b. Special Areas = As required/check with Owner
34. **WIRELESS ACCESS POINT:**
- a. Locate unit 1'-0" below ceiling. For ceiling heights 11'-0" A.F.F. or higher, mount unit at 10'-0" A.F.F.
35. **LIBRARY SHELVING:** (Measured from floor to top)
- a. Grades PS,K,1,2,3,4,5,6
 - 1) check-out desk = 32" H
 - 2) easy books 13" deep = 42" H (min.), 48" H (max.)
 - 3) reference 13" deep = 48" H
 - 4) free standing 13" deep = 48" H, wall shelving 13" deep, 72" H
 - b. Grades 7,8,9,10,11,12 and Adults
 - 1) check-out desk = 39" H
 - 2) reference 13" deep = 48" H
 - 3) free standing 13" deep = 48" H
 - 4) wall shelving 13" deep = 84" H
 - c. 36" wide path minimum
36. **KITCHEN SERVING LINES:**
- a. Elementary School Finish Floor to Tray Slide (27" clear to under side of tray slide) = 28" min.
 - b. Level Floor (Measured from floor to top of unit, middle and high schools) = 34"
 - c. Minimum width = 36"

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 01100

BID ALTERNATES

1. This section is required only if project scope includes alternate prices.
2. List all alternates applicable to project. Coordinate with Proposal Form, Section 00300.

SECTION 01100

BID ALTERNATES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this Section, with special attention to the following:
 - 1. Section 00300 - Bid Form.

1.02 DESCRIPTION

- A. The bid shall include a lump sum amount constituting a base bid. The individual amounts proposed for addition to the base bid for each alternate specified shall be stated separately.
 - 1. The base bid shall include all costs for performing all work indicated or specified, but excluding those items of work indicated and/or specified to be added as alternates.
 - 2. The alternate prices shall be a sum for adding work as indicated or specified. Alternate prices shall include all costs of labor, materials, taxes, equipment and tools, other direct costs, indirect costs, safety costs, overhead, taxes, insurance profit, delay costs and any other related cost required to perform the alternate work plus overhead and profit.
- B. The Owner will evaluate acceptance of the bid alternates in accordance with item 2 of the Bid Form (Section 00300).
- C. The Contract Time will be the same regardless of the bid alternates that are selected by the Owner.

1.03 BID ALTERNATES

(LIST BID ALTERNATES HERE)

END OF SECTION

SECTION 01152

APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to the Work of this Section.

1.02 DESCRIPTION

- A. Submit Applications for Payment to Architect in accordance with the schedule established by Conditions of the Contract and Agreement Between Owner and Contractor.

1.03 RELATED WORK

- A. Lump Sum Price: Agreement Between Owner and Contractor.
- B. Progress Payments, Retainages, and Final Payment. General Conditions, Section 00700.
- C. Allowances: Section 01020.
- D. Construction Progress Schedules: Section 01310.
- E. Schedule of Values: Section 01370.
- F. Contract Close-out: Section 01700.

1.04 FORMS

- A. Application for each progress payment shall be prepared using the standard Fairfax County Public Schools Forms (copy enclosed), which include the following:
 - 1. Requisition Form
 - 2. Stored Material Log
 - 3. Change Order Log
 - 4. Certification Form

1.05 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Fill in required information, complete list of all component items of Work, fill in columns for all line items included in the Schedule of Values. Round all values off to the nearest dollar.
- B. Requisition Form: Describe each line item and list scheduled value, previous completed value, value of work for the current application, total value to date, and balance of uncompleted work. Calculate percentage of completion. Provide a total for all line items for each column.
- C. Stored Material Log: Describe all stored materials, listing previous value, received value for the application period, and installed value for the application period. List the total of these values (current value) for each item. Provide a total for all columns, less 10% retainage.
 - 1. The Contractor may bill for materials stored off the site with the following provisions:
 - a. Provide a copy of manufacturers invoice indicating nature of materials and amount of invoice.
 - b. Indicate location of materials stored.
 - c. Materials shall be marked to indicate that they are the property of Fairfax County Public Schools, and to indicate their destination.
 - d. Provide proof of sufficient insurance coverage to cover the value of the materials stored. The policy or certificate of insurance shall be in the name of Fairfax County Public Schools and must be submitted prior to the submission of the requisition. The Owner reserves the right to inspect the materials stored off the site prior to processing the requisition.
- D. Change Order Log: Identify and describe all Change Orders, Change Proposals and prepared Modification Requests. List total value, previous value, value for application period, total value to date, and balance of uncompleted work. Provide a total for all columns, less 5% retainage.
- E. Complete all items in item 1, "Analysis of Work Performed" on the certification form.
- F. Execute certification form with the signature of a duly authorized officer of the Contractor on all copies of the completed form.
- G. Submit 5 copies of the application for payment.

1.06 PROGRESS PAYMENTS

- A. The Owner will make a Progress Payment to the Contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under this Contract, but to insure the proper performance of this contract, the Owner will retain five percent (5%) of the value of change orders and ten percent (10%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at or off the site until final completion and acceptance of all work included in the Contract.
- B. As the Work progresses, the Owner may in its sole and absolute discretion decide to reduce the retainage on a Project where such is found to be in the best interests of the school division. **[Delete for Elementary and Middle schools]**

1.07 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application Form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700: Contract Close-out.

1.08 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment on a monthly basis or as stipulated in the Owner Contractor agreement.
- B. Submit for review and obtain certification signature of the School Board Inspector on all completed copies of the application. The Contractor shall provide supplementary information to facilitate review of application if requested.
- C. Upon review and certification by the School Board Inspector, submit all copies to the Architect. Upon review and certification by the architect, all copies shall be forwarded to the School Board representative.
- D. Upon review and certification by the School Board representative, the application shall be forwarded for payment.
- E. Upon rejection by any certifying party, the Contractor shall make corrections or adjustments required by the rejection, and shall be required to obtain certification of the corrected application by all parties.

END OF SECTION

CONTRACTOR LETTERHEAD

FAIRFAX COUNTY PUBLIC SCHOOLS REQUISITION

PROJECT:
DATE:
REQUISITION #

1. ANALYSIS OF WORK PERFORMED

Table with 4 columns: Item (A-H), Description, Percentage, and Value. Items include Total Cost of Work Performed to Date, Less Amount Retained, Net Amount Earned on Contract to Date, Materials Stored, Add or Deduct Change Orders, Total Amount Earned on Contract to Date, Less Previous Payments, and Balance Due This Payment.

2. CERTIFICATION OF CONTRACTOR

ACCORDING TO THE BEST OF MY KNOWLEDGE AND BELIEF, I CERTIFY THAT ALL ITEMS AND AMOUNTS SHOWN ON THE FACE OF THIS REQUISITION FOR PAYMENT ARE CORRECT; THAT ALL WORK HAS BEEN PERFORMED AND/OR MATERIAL SUPPLIED IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE REFERENCED CONTRACT, AND/OR DULY AUTHORIZED DEVIATIONS, SUBSTITUTIONS, ALTERATIONS, AND/OR ADDITIONS; THAT THE FOREGOING IS A TRUE AND CORRECT STATEMENT OF THE CONTRACT ACCOUNT UP TO AND INCLUDING THE LAST DAY OF THE PERIOD COVERED BY THIS REQUISITION; THAT NO PART OF THE "BALANCE DUE THIS PAYMENT" HAS BEEN RECEIVED AND THAT I WILL MAKE TIMELY PAYMENT FROM THESE PROCEEDS TO MY SUBCONTRACTORS AND/OR SUPPLIERS IN ACCORDANCE WITH MY CONTRACTUAL ARRANGEMENTS WITH THEM.

BY CONTRACTOR SIGNATURE OF AUTHORIZED REPRESENTATIVE
19 TITLE

3. CERTIFICATION OF SCHOOL BOARD INSPECTOR

I CERTIFY THAT I HAVE CHECKED AND VERIFIED THE ABOVE AND FOREGOING REQUISITION FOR PAYMENT DURING MY REGULAR INSPECTION.

SCHOOL BOARD INSPECTOR DATE

4. CERTIFICATION OF ARCHITECT

I CERTIFY THAT I HAVE CHECKED AND VERIFIED THE ABOVE AND FOREGOING REQUISITION FOR PAYMENT; THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF IT IS A TRUE AND CORRECT STATEMENT OF WORK PERFORMED AND/OR MATERIAL SUPPLIED BY THE CONTRACTOR; THAT ALL WORK AND/OR MATERIAL INCLUDED IN THIS REQUISITION HAS BEEN INSPECTED BY ME AND/OR BY DULY AUTHORIZED REPRESENTATIVE OR ASSISTANTS AND THAT IT HAS BEEN PERFORMED AND/OR SUPPLIED IN FULL ACCORDANCE WITH REQUIREMENTS OF THE REFERENCED CONTRACT; AND THAT PAYMENT CLAIMED BY THE CONTRACTOR IS CORRECTLY COMPUTED ON THE BASIS OF WORK PERFORMED AND/OR MATERIAL SUPPLIED TO DATE.

SIGNED ARCHITECT DATE

5. PRE-PAYMENT CERTIFICATION BY FAIRFAX COUNTY SCHOOL BOARD

I CERTIFY THAT I HAVE CHECKED AND VERIFIED THIS REQUISITION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT IS A TRUE AND CORRECT STATEMENT OF WORK PERFORMED AND/OR MATERIAL SUPPLIED BY THE CONTRACTOR; THAT ALL WORK INCLUDED IN THIS ESTIMATE HAS BEEN INSPECTED AND THAT IT HAS BEEN PERFORMED AND OR SUPPLIED IN FULL ACCORDANCE WITH REQUIREMENTS OF THE CONTRACT.

FAIRFAX COUNTY SCHOOL BOARD

SIGNED DATE

SECTION 01153
CHANGE ORDER PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specifications Section, apply to this Section.

1.02 RELATED WORK

- A. General Conditions of the Contract: Section 00700.
- B. Section 01020: Contingency Allowance.
- C. Section 01152: Applications for Payment.
- D. Section 01370: Schedule of Values.
- E. Section 01630: Substitutions

1.03 WORK DESCRIPTION

- A. Promptly implement Change Order procedures:
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records for work done on a time-and-material/force account basis.
 - 3. Provide full documentation to Architect/Engineer on request.
- B. Contractor and Owner will designate in writing the person who is authorized to execute Change Orders.

1.04 DEFINITIONS

- A. Change Order: See Section 00700, General Conditions.
- B. Proposed Modification: See Section 00700, General Conditions.

1.05 PRELIMINARY PROCEDURES

- A. Owner or Architect/Engineer may initiate changes by submitting Proposed Modification to Contractor. Request will include:

1. Detailed description of the Change, Products, and location of the change in the Project.
 2. Supplementary or revised Drawings and Specifications.
 3. A specific period of time during which the requested price will be considered valid, which shall be 90 calendar days, unless otherwise stated.
 4. The specific action to be initiated by the Contractor.
 5. The amounts of the unit prices to be:
 - a. Those stated in the Agreement and the Proposal Form.
 - b. Those mutually agreed upon between Owner and Contractor.
- B. Contractor may initiate changes by submitting a written notice to Architect/Engineer, containing:
1. Description of the proposed changes.
 2. Statement of the reason for making the changes.
 3. Statement of the effect on the Contract Sum and the Contract Time.
 4. Statement of the effect on the work.
 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.
 6. All claims by the Contractor arising out of or relating to the performance of the work or any termination hereunder shall be made in writing and shall be decided by the Director of the Office of Design and Construction or his designated representative. All claims must be filed with the Office of Design and Construction within five (5) calendar days after sustaining the injury underlying the claim. Failure to comply with this provision shall constitute an absolute waiver of such claim. The Director or the Office of Design and Construction or his designated representative shall issue his written decision within thirty (30) days of his receipt of the written claim which decision shall be final.

1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Owner and Architect/Engineer to evaluate the quotation.

1. Proposal costs attributable to labor shall be based upon labor rates for each category of personnel. A list of labor rates shall be submitted to the Owner for review and concurrence within 30 calendar days of the Notice to Proceed. See paragraph B2 below for allowable inclusions for establishment of labor rates.
- B. Provide data for lump sum proposals in accordance with the following criteria:
1. The Contractor's proposal shall be itemized and segregated by labor, equipment, and materials for the various components of the Change in the Work (no aggregate labor total will be acceptable) and shall be accompanied by signed proposals of any Subcontractors who shall perform any portion of the Change in the Work and of any entities who shall furnish materials or equipment for incorporation therein.
 2. The portion of the proposal relating to labor, whether by the Contractor's forces or the forces of any of its Subcontractors, shall include anticipated gross wages of Job Site labor, including foremen, who shall be directly involved in the Change in the Work (for such time as they will be so involved), plus payroll costs (including premium costs of overtime labor, if overtime is authorized, Social Security, Federal or State unemployment insurance taxes and fringe benefits required by collective bargaining agreements entered into by the Contractor or any such Subcontractor in connection with such labor).
 3. The portion of the proposal relating to materials may include the reasonable anticipated direct costs to the Contractor or to any of its Subcontractors of materials shall be purchased for incorporation in the Change in the Work, plus transportation and applicable sales or use taxes.
 4. The proposal may further include the Contractor's and any of his Subcontractor's reasonable anticipated equipment rental costs, except small hand tools, in connection with the Change in the Work. For rented equipment an hourly rental rate shall be used which shall be determined by using the monthly rental rates taken from the current edition of the RS Means for construction Equipment and dividing it by 176. An allowance shall be made for operating costs for each and every hour the equipment is actually operating in accordance with the rates listed in the aforesaid RSMMeans database. The Contractor shall be allowed no more than 65% of the rental rate on Contractor owned equipment.
 5. Base Cost is defined as the total of labor, material, and equipment rentals as described in Subparagraphs 1.06B3 and 1.06B4. The actual net cost in money to the Owner for the Change in the Work shall be computed as follows:

- a. Contractor overhead and profit: If the Contractor performs the Change in the Work, his compensation shall be the Base Costs as described above, plus a mark-up of 20% on Base Costs less than or equal to \$10,000. If the Base Costs exceed \$10,000, his compensation shall be the Base Cost, plus a mark-up of 20% on Base Costs less than or equal to \$10,000, and a mark-up of 15% on Base Costs above \$10,000.
 - b. Subcontractor overhead and profit: If the work is performed by a Subcontractor, his compensation shall be the Base Costs as described above plus a mark-up as described in Paragraph 5.a. above for overhead and profit. The Contractor's compensation shall be a mark-up of ten percent (10%) of the Subcontractors Base Costs.
 - c. Sub-subcontractor overhead and profit: If the work is performed by a Sub-subcontractor, his compensation shall be the Base Costs as herein described plus a mark-up as described in paragraph 5.a. above for overhead and profit. The Subcontractors compensation shall be a mark-up of ten percent (10%) of the Sub-subcontractor's Base Costs for his overhead. The Contractor's compensation will be a mark-up of ten percent (10%) of the Sub-subcontractor Base Costs.
6. The mark-up on the cost of labor, materials, and equipment described in Paragraphs 5.a., 5.b., and 5.c. above shall compensate the Contractor, Subcontractor or Sub-subcontractor for all indirect costs associated with or relating to the Change in the Work including, but not limited to, labor and/or equipment inefficiency, acceleration, changes in sequence, delays, overtime, interference, impact on unchanged work, gross receipts tax, superintendent, small tools, reproduction, administration, insurance, unrelated safety requirements, temporary structures and offices, all other general and administrative, home office, and field office expenses.
- a. The mark-up on the cost of labor, materials, and equipment described in Paragraphs 5.b. and 5.c. above shall compensate the contractor or Subcontractor for all indirect costs associated with or relating to the change in the Work including but not limited to, gross receipt tax, superintendent, reproduction, administration, and insurance.
- C. Support each claim for additional costs, and for work done on a time-and-material basis, with documentation as required for a lump-sum proposal, plus additional information:
1. Name of the Owner's authorized agent who ordered the work, and date of the order. Include copies of written authorization when applicable.

2. Dates and times that work was performed, and by whom, verified and signed by Owner's Field Representative.
 3. Time record, summary of hours worked, and hourly rates paid.
 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, including listing of quantities.
 - c. Subcontracts.
- D. Document requests for substitutions of Products as specified in Section 01600.

1.07 PREPARATION OF CHANGE ORDERS

- A. Architect/Owner will prepare each Change Order. Three copies shall be prepared, each with original signature.
- B. Form: Change Order - AIA Document G701.
- C. Change Order will describe changes in the work, both additions, deletions and any voided proposed modifications.
- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.
- E. Upon completion of work under a Change Order, enter the pertinent changes in Record Documents.

1.08 CHANGE ORDER CONTENTS

- A. Contents of Change Orders will be based on, either:
 1. Architect/Engineer's proposed Modification and Contractor's responsive Proposal as mutually agreed between Owner and Contractor.
 2. Contractor's Proposal for a change as recommended by Architect/Engineer and as mutually agreed between Owner and Contractor.
- B. Owner and Architect/Engineer will sign and date the Change Order as authorization for the Contractor to proceed with the changes.
- C. Contractor will sign and date the Change Order to indicate agreement with the terms therein.

END OF SECTION

SECTION 01200
PROJECT MEETINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 RELATED WORK

- A. Pre-Bid Conferences: Instructions to Bidders.
- B. Summary of Work: Section 01010.
- C. Construction Progress Schedules: Section 01310.
- D. Shop Drawings, Product Data and Samples: Section 01340.
- E. Project Record Information: Section 01720.
- F. Operating and Maintenance Data: Section 01730.

1.03 DESCRIPTION OF WORK

- A. Architect/Owner will schedule and administer pre-construction meetings, periodic progress meetings and specially called meetings throughout the progress of the Work. Architect/Owner will:
 - 1. Preside at meetings.
 - 2. Record the minutes, including all significant proceedings and decisions.
 - 3. Distribute copies of minutes after each meeting to the Contractor, Owner's Office, and Owner's Representative.
- B. Representatives of Contractor, Subcontractors and suppliers attending the meeting shall be qualified and authorized to act on behalf of the entity each represents.
- C. Architect will attend meetings to ascertain that Work is being expedited consistent with Contract Documents and the construction schedules. Consulting Engineers will attend meetings when so directed by the Architect.

1.04 PRE-CONSTRUCTION MEETING

- A. Schedule immediately after date of Notice to Proceed.

- B. Location: A central site, convenient for all parties, as designated by the Owner.
- C. Attendance:
 - 1. Owner's Representative.
 - 2. Architect/Engineers.
 - 3. Contractor's Superintendent.
 - 4. Major Subcontractors.
 - 5. Major Suppliers.
 - 6. Others as appropriate as determined by the Architect and Contractor.
- D. Suggested Agenda (including, but not limited to the following):
 - 1. Distribution and discussion of:
 - a. List of major subcontractors and suppliers.
 - b. Projected Construction Schedules.
 - 2. Critical work sequencing:
 - a. Major equipment deliveries and priorities.
 - 3. Project Coordination.
 - a. Designation of responsible personnel.
 - 4. Procedures and processing of:
 - a. Field decisions.
 - b. Submittals.
 - c. Change Orders.
 - d. Applications for Payment.
 - 5. Adequacy of distribution of Contract Documents.
 - 6. Procedures for maintaining Record Information.
 - 7. Use of premises:

- a. Office, work, and storage areas.
- b. Owner's requirements.
8. Construction facilities, controls and construction aids.
9. Temporary utilities.
10. Safety and first aid procedures.
11. Security procedures.

1.05 PROGRESS MEETINGS

- A. Schedule progress meetings every second week unless it is determined by Architect and Owner that additional meetings are necessary.
- B. Hold specially called meetings as required by progress of the work.
- C. Location of the meetings: The Project field office of the Contractor.
- D. Attendance:
 1. Architect and his professional consultants as needed.
 2. Subcontractors as appropriate. (Major and Active)
 3. Suppliers as appropriate. (Major and Active)
 4. Owner's Representatives
- E. Agenda of each progress meeting.
 1. Review and approval of minutes of previous meeting
 2. Safety Concerns
 3. School Coordination Issues
 4. Submittals
 5. Delivery Schedules
 6. Utility Coordination
 7. Field observations, problems, conflicts
 8. Outstanding RFI's, PM's, CO's

9. Outstanding Punch Lists
10. Uncorrected Deficiencies
11. Status of DPWES, Fire Marshal, Health Inspections
12. Third Party Inspections and Certifications
13. Abatement Issues
14. Any other problems which might impact the schedule
15. Corrective measures and procedures to regain projected schedule
16. Previous two-week look-ahead review
17. Two-week look-ahead
18. Maintenance of quality standards and controls
19. Site Cleanliness
20. Security Issues
21. Project Closeout related items
22. Other pertinent business

END OF SECTION

SECTION 01310

CONSTRUCTION PROGRESS SCHEDULES

- 1.1 GENERAL. This section specifies requirements and procedures in preparing computerized schedules and reports for planning, coordinating, executing, and monitoring the progress of the Work. Work shall be scheduled using the Critical Path Method (CPM) type of network analysis. Scheduling software shall be Primavera Project Planner (P3, or most recent version for Microsoft Windows) or Microsoft Project Pro 2003 (such software to be referred to herein as the "Specified Software").

The Contractor shall employ a trained and experienced construction scheduling person knowledgeable in construction work sequencing, productivity, scheduling, and application of the Specified Software system. This person shall work together with the Contractor's management team and with the Architect and the Owner to deliver acceptable products outlined in this section.

- 1.2 SCHEDULING RESPONSIBILITIES.

1.2.1. Critical Path Method. The Construction Schedule shall be developed by means of a critical path method of scheduling and shall be used to monitor job progress. The Contractor shall be responsible for providing all information concerning the sequencing, logic and duration of all activities as well as providing the initial critical path method ("CPM") logic network diagram (in electronic and paper form) and tabular report data. Once the initial logic network diagram is accepted by the Architect and the Owner, the Contractor shall be responsible for providing monthly update information on logic, percentage completion, actual start and finish dates, and duration changes as requested by the Owner.

1.2.2. Large-Scale Plots; Posting of Schedule and Schedule Updates. The Contractor shall provide a large scale plot of the initial schedule and of any subsequent updated schedules. The schedules shall be posted in the progress meeting trailer and in the FCPS Representative's trailer at the Project Site.

1.2.3. Schedule Accuracy. The initial Construction Schedule and all update information shall be provided by the Contractor. This information shall constitute a representation of the best efforts of the Contractor and his subcontractors with regard to the manner in which they intend to accomplish the Work within the Contract Period. Similarly, all progress information to be provided by and through the Contractor shall constitute an accurate representation of his or his subcontractor's or supplier's actual performance. The Construction Schedule shall at all times remain an accurate reflection of the Contractor's actual or projected sequencing of Work. Once accepted by the Owner, adherence to the established Construction Schedule shall be obligatory upon the Contractor and his subcontractors for performance of the Work. The Owner shall have the right to require the Contractor to revise the Construction Schedule if in his judgment the schedule does not accurately reflect the actual prosecution of the Work, or the Contractor is in violation of any provisions of this section. The Contractor shall revise the Construction Schedule to meet the above criteria as often as is

necessary during the performance of the Work without additional cost to the Owner.

1.3 SUBMITTALS.

- 1.3.1. Qualifications. The Contractor shall submit a statement of qualifications to perform computerized CPM scheduling. The submittal shall verify that either the Contractor has in-house capability qualified to use CPM technique and the Specified Software or that the Contractor has arranged for the services of a CPM consultant so qualified. In either event the statement shall identify the individual(s) who will perform the CPM scheduling. Capability shall be verified by description of construction projects on which the individual has successfully utilized computerized CPM scheduling and shall include at least two projects of similar nature, scope, and value, neither of which shall be less than one-half the Contract Sum for the Project. The statement shall also identify the contact persons for the referenced projects with current telephone and address information. Unless otherwise agreed in writing by the Owner, the Contractor shall assign the individual who will perform the scheduling to a full-time, onsite position.
- 1.3.2. 90-Day CPM Network Diagram. Within 14 days after issuance of the Notice to Proceed, the Contractor shall submit to the Architect six (6) prints of his proposed CPM network diagram (also in electronic form) and tabular reports for the first 90 days of the Work. This initial logic diagram shall be drawn as described herein and submitted on sheets 36 inches by 48 inches and shall include both procurement and construction activities. The schedule will be the subject of a schedule review meeting with the Contractor, the Architect, and the Owner within 14 days after its submission. The Contractor shall revise and resubmit the 90-day schedule until it is acceptable to the Owner.
- 1.3.3. Complete CPM Network Diagram. Within 60 days after issuance of the Notice to Proceed, the Contractor shall submit to the Architect six (6) sets of his proposed CPM logic diagram (also in electronic form) and tabular reports for the entire Contract duration and shall include both procurement and construction activities. The tabular reports shall include the following:
- a. Report of activities sorted by activity number. Activity numbers, where practical, shall correlate to the area numbers designated on the drawings.
 - b. Report of activities sorted by early start date and late start date.
 - c. Report of activities sorted by total float, as such term is defined below.
 - d. Report of activities sorted by responsibility code. Responsibility codes shall be established for the Contractor, Architect, Owner, Subcontractors, Suppliers, etc. These codes shall be identified in the network diagram.

- e. A successor-predecessor report which shall identify the successor and predecessor activities for each activity and ties between schedule activities.
- f. Report of resource loading.
- g. Report of cost loading.
- h. Cash flow curves, cumulative and per month sorted by early start dates.
- i. Activity codes, values, and coding dictionary.

The logic diagram shall be drawn as described herein and will be the subject of a schedule review meeting with the Contractor, the Architect, and the Owner within two weeks after its submission. If a review of the submitted CPM schedule indicates a work plan which will not result in completion of the Work within the Contract Period, it shall be the Contractor's responsibility to revise the CPM schedule as required by the Owner and resubmit it until it is acceptable.

The Contractor's failure to submit an acceptable CPM schedule may, without limitation and in the Owner's sole discretion, constitute cause for the withholding of any partial payment otherwise due under the Contract Documents. The accepted schedule will be designated the "original Construction Schedule".

Acceptance of the Contractor's proposed CPM schedule by the Owner will in no event constitute its representation that the Work can be completed as indicated on such schedule.

- 1.3.4. Submittal Schedule. In addition to the above scheduling requirements, the Contractor shall submit a complete separate and independent schedule and detailed listing of anticipated submittals during the Contract Period. The submittal schedule shall be submitted within 30 days after Notice to Proceed. The submittal schedule shall then be accepted or revised as required by the Owner within 10 working days after receipt, and the Contractor shall incorporate the dates and review durations into his complete CPM schedule.

The Contractor shall coordinate his submittals with those of his Subcontractors and suppliers. The anticipated submission due date for each submittal shall be indicated along with the date on which its return is required. For planning purposes, the Architect will return shop drawings within 10 working days after receipt. Whenever the review of a particular submittal is on the critical path, such submittal shall be clearly marked in red with the words "Critical Path" by the Contractor at the time of submission.

The Submittal Schedule, including a detailed listing of submittals, shall be revised and resubmitted each month for use as a tracking log.

- 1.3.5. Look Ahead Reports. The Contractor shall also submit two-week look ahead reports.

1.4 NETWORK REQUIREMENTS.

- 1.4.1. Network Diagrams. The network diagram shall show the order and interdependence of activities and the sequence in which the Work is to be accomplished as planned by the Contractor. The purpose of the network analysis diagram is to show how the start of a given activity is dependent on the completion of preceding activities and how its completion restricts the start of succeeding activities. A time scaled precedence format shall be followed. The detailed network diagram shall be time scaled showing a continuous flow from left to right.

- 1.4.2. Schedule Activities Groupings. The schedule activities shall be organized into two major groups: procurement and construction.

Procurement activities shall include, but not be limited to, the following:

- a. Major submittal items.
- b. Review and acceptance of major submittal items.
- c. Fabrication and delivery of major submittal items.

Fabrication and delivery of the major submittal items shall be tied logically to the correct construction activity in the overall Construction Schedule.

Construction activities shall be physical work activities that describe how the job will be constructed.

- 1.4.3. Breakdown of Activities and Coding Structure. The Contractor shall breakdown the Work into activities with durations of no greater than 15 working days each, except for nonconstruction activities such as procurement of materials, delivery of equipment, and other activities which may require longer durations. To the extent feasible, activities related to a specific physical area of the Project shall be grouped on the network for ease of understanding and simplification. The selection and number of activities and coding of activities shall be subject to the review and acceptance by the Architect and Owner.

The coding shall follow the designation conventions of the facilities outlined on the drawings and in the specifications and shall include identification of Subcontractors, suppliers/vendors and fabricators, and other parties reporting to the Contractor.

Each activity on the network shall have indicated for it the following:

- a. A single duration, no longer than 15 working days which represents the single best estimate of the expected elapsed time considering the scope of work involved in the activity. Durations shall be expressed in days. Normal holidays and weather delays shall be included. One critical path shall be shown for the schedule.
- b. A unique activity identification (I.D.) number shall be assigned to each activity. The I.D. number may contain up to 10 alpha-numeric characters.
- c. A brief description of the activity shall be included. If this description is not definitive, a separate listing of each activity and a descriptive narrative may be required.
- d. Each activity (except for procurement activities) shall be cost loaded as specified herein to indicate the total estimated costs of the activity. No activity shall exceed \$50,000 except for an equipment item or other item approved by the Owner. Material costs shall be assigned to delivery activities.
- e. Each activity shall be manhour loaded with the estimated manhours to be expended on each activity.

1.4.4. Incomplete Schedules. Notwithstanding the network review by the Architect and/or the Owner, the failure to include on a network any element of the Work required for the performance of this Contract shall not excuse the Contractor from completing all Work required within the Contract Period.

1.4.5. Early Finish Schedules. A CPM schedule which shows a completion of any milestone or completion dates prior to the contractual completion date for that milestone or completion date may be accepted, but in no event shall be acceptable as a basis for a claim for delay against the Owner and Architect and any of their authorized representatives if the early completion date is not met by the Contractor.

1.5 COST LOADING.

1.5.1. Schedule of Values. Each activity on the Construction Schedule shall be allocated a dollar value in accordance with the provisions of this section. Each activity's assigned cost shall consist of labor, equipment, and materials costs, and a *pro rata* contribution to overhead and profit. The aggregate amount of all activity costs shall equal the Contract Sum. In submitting cost data, the Contractor certifies that it is not unbalanced and that the value assigned to each activity represents the Contractor's estimate of the actual costs of performing that activity.

The accepted schedule of values shall be deemed to represent a fair, reasonable, and equitable dollar cost allocation for each activity on the Contractor's construction schedule.

- 1.5.2. Documentation. If, in the opinion of the Architect and the Owner, the cost data do not meet the requirements for a balanced bid breakdown, the Contractor shall present documentation to the Architect substantiating any cost allocation on the cost data. Cost allocations shall be considered unbalanced if any activity on the construction schedule has been assigned, in the opinion of the Owner, a disproportionate allocation of direct costs, overhead, or profit.

1.6 PROGRESS OF THE WORK

- 1.6.1. Start of Work. The Work shall be started in accordance with Article 11 of the General Conditions and the Notice to Proceed. The Work shall be executed with such progress as may be required to prevent delay to separate contractors or to the completion of the Project as a whole. The Work shall be executed at such times and in or on such parts of the site and with such forces, material, and equipment, as to assure completion of the Work within the Contract Period.
- 1.6.2. Delays to Critical Path. Whenever it becomes apparent that delays to the critical path have occurred (other than an unreasonable delay caused by the Owner) and that, as a result, the Work will not be completed within the Contract Period, the Contractor, at the direction of the Owner, shall take one or more of the following actions at no additional cost to the Owner:
- a. Increase construction and other manpower in such quantities and crafts as will substantially eliminate the backlog of Work.
 - b. Increase the number of working hours per shift, shifts per day, or working days per week; the amount of construction equipment; the forms for concrete work; etc., or any combination of the foregoing to substantially eliminate the backlog of Work.
 - c. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities, and comply with the revised schedule.
 - d. The Contractor shall submit to the Owner for review a written statement of the steps he intends to take to remove or arrest the delay to the schedule. The Contractor shall promptly provide such level of effort to bring the Work back on schedule. Should schedule delays persist, the Contractor's Surety may be asked to attend schedule update meetings.
 - e. Failure of the Contractor to comply with the requirements herein shall subject him, without limitation and at the Owner's sole discretion, to withholding, in whole or in part, of payments otherwise due the Contractor for Work performed under the Contract. Any withholding of monies is not a penalty for noncompliance, but is an assurance for the Owner that funds will be available to implement these requirements should the Contractor fail to do so, since failure of the Contractor to comply with these requirements shall mean that the Contractor failed to prosecute the

Work with such diligence as to ensure its completion within the Contract Period.

1.7 SCHEDULE DATES.

1.7.1. Changed Work. If the Contractor claims acceleration charges in a cost proposal, the Contractor shall document a sub-network in the schedule depicting the changed Work and its effect on other activities. This sub-network shall be tied to the main network with appropriate logic so that a true analysis of the critical path can be made in order to prove acceleration costs.

1.7.2. Extensions of Time. The Contract Period will be adjusted only for causes specified in the Contract Documents. In the event that the Contractor requests an extension of any Contract Period, he shall furnish such justification and supporting evidence as the Owner or Architect may deem necessary, and as provided for in the General Conditions for a determination as to whether the Contractor is entitled to an extension of time under the provisions of this Contract. The Owner will, after receipt of such justification and supporting evidence, make a determination in the manner specified in the General Conditions and will advise the Contractor in writing thereof. If the Owner finds that the Contractor is entitled to an extension of the Contract Period under the provisions of the Contract Documents, then the Owner's determination as to the total number of days of extension shall be based upon the current accepted and updated Construction Schedule and on all data relevant to the extension. Such data shall be included in an update of the Construction Schedule. The Contractor acknowledges and agrees that actual delays in activities which, according to the Construction Schedule do not affect any contract completion date shown by the critical path in the network, do not have any effect on the Contract completion dates, and therefore, will not entitle the Contractor to an extension of time or to any change in the Contract Period.

All information known to the Contractor at the time concerning the nature and extent of the delay shall be submitted in writing in accordance with the General Conditions. Within the time frame stated in the General Conditions but before the date of final payment under this Contract, all information as required above concerning the delay must be submitted to the Architect and to the Owner. No time extension will be granted for requests which are not submitted with the specified time limits.

1.7.3. Schedule Adjustment by Owner. From time to time it may be necessary for the Contract Schedule and completion time to be adjusted by the Owner to reflect the effects of job conditions, acts or omissions of other contractors not directly associated with the Contract, weather, technical difficulties, strikes, unavoidable delays on the part of the Owner or his representatives, and other unforeseeable conditions which may require schedule adjustments and/or extensions of the Contract Period. Under such conditions the Contractor shall reschedule the Work to reflect the changed conditions, and the Contractor shall revise his schedule accordingly. Time extensions affecting the Contract Period shall be

granted by the Owner in writing. No additional compensation shall be made to the Contractor for such schedule changes. The Owner has the right to accelerate performance of the Work. The Contractor will be entitled additional compensation in the event that the Owner requires completion of the Project prior to the expiration of the Contract Period; provided that such acceleration is not required as a result of the fault or neglect of the Contractor.

- 1.7.4. Schedule Meetings. The Contractor shall participate in such periodic scheduling meetings, and shall furnish such periodic schedule updates, as may be required by the Owner in order to meet the needs of the Project, as such are determined by the Owner.

1.8 FLOAT.

- 1.8.1. Definition of Float. As employed in the Contract Documents, the terms “float” and “float time” shall be used interchangeably to mean the period of time between the early start date and the late start date, or the early finish date and the late finish date of any activities set forth on the Construction Schedule.
- 1.8.2. Ownership of Float. The Owner shall have and retain exclusive ownership of the float.
- 1.8.3. Float Time. The Contractor shall not be entitled to any adjustment to the Contract Period, the Construction Schedule, or the Contract Sum, or to any additional payment of any sort by reason of the loss of use of any float time. The Owner may initiate changes to the Work that absorb float time without obligation to adjust or extend the overall completion date or any intermediate completion dates set forth in the CPM network. Owner-initiated changes that affect the critical path on the CPM network shall be the sole grounds for extending (or shortening) the Contract Period. Contractor-initiated changes that encroach on the float time identified in the CPM network may be accomplished with the Owner’s prior approval. Such changes, however, shall give way to Owner-initiated changes competing for the same float time. Delays in the critical path that are not associated with proper requests for time extensions in accordance with Part 11 of the General Conditions shall be deemed to be the responsibility of the Contractor.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General Conditions and other Division 1 through Division 16 Specifications apply to this Section, with special attention to the following:
1. Construction Progress Schedules: Section 01310.
 2. Respective Sections of the Specifications requiring submittals: Consult Division 15 and 16 for any additional requirements.
 3. The Fairfax County Special Inspections Manual/"Special Inspections: Implementation in Fairfax County" (Edition in force at time of project permit). Review and approval of fabrication and erection submittals as required by the Special Inspections Program.
 4. Fairfax County Public Schools Agreement between Owner and Architect, Paragraph 1(D).5.j: The Architect shall make available to the Contractor compact disks containing the floor plan backgrounds, reflected ceiling plans and building sections. These electronic files shall be used for preparing submittals which require equipment locations and systems layouts.

1.02 DESCRIPTION OF WORK

- A. Submit shop drawings, product data and samples required by Contract Documents.

1.03 SHOP SUBMITTALS

- A. Identify details by reference to sheet and detail numbers shown on Contract Drawings.
- B. Sheet size minimum: 8 1/2" x 11"; maximum: 30" x 42". All sheets in one submittal shall be of uniform size.
- C. Drawings: Submit one (1) set of electronic documents; one (1) electronic set shall be returned to the Contractor for reproduction and distribution. Contractor shall provide one (1) paper set of approved prints to the Owner. For submittals requiring special inspection review, provide additional sets as required by the special inspection manual.

- D. For submittals other than drawings, such as written specifications, maintenance instructions, calculations and catalog data which are capable of xerographic duplicating, provide one electronic copy. One (1) copy shall be returned to the Contractor for duplication and distribution. Contractor shall provide one (1) printed copy to the Owner.

1.04 PRODUCT DATA:

- A. Manufacturer's standard schematic drawings.
 - 1. Delete information not applicable to project.
 - 2. Provide additional information applicable to project.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:
 - 1. Mark each copy to identify pertinent materials, products or models.
 - 2. Indicate dimensions and clearances required.
 - 3. Indicate performance characteristics and capacities.
 - 4. Indicate wiring diagrams and controls.

1.05 SAMPLES

- A. Office samples shall be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of product or material with integrally related parts and attachments devices.
 - 2. Full range of color samples.
- B. Field samples and mock-ups.
 - 1. Erect at project site at location acceptable to Architect.
 - 2. Construct each sample or mock-up complete.
- C. Provide a minimum of three (3) samples unless specified otherwise. Two (2) samples shall be retained by the Owner.

1.06 SUBMITTALS REQUIRING JURISDICTIONAL APPROVAL

- A. Certain categories of submittals are required to be reviewed and approved by appropriate jurisdictional authority prior to incorporating into the Work. Make

such submittals first to the Architect for review, then submit to the approving authority.

- B. Structural Submittals; to each drawing affix the seal and signature of a Professional Engineer licensed in the State of Virginia, including, without limitation:
 - 1. Foundation piles and caissons, reinforced concrete framing systems, structural steel components and framing, steel roof trusses and girders, open-web steel joists, steel deck systems, steel stair railing and guardrail systems, steel ladders, cold-formed metal framing.

1.07 SUBMITTALS FOR CHPS APPROVAL

- 1. Provide documentation from the manufacturer that the products meet or exceed the requirements of CHPS.

1.08 CONTRACTOR RESPONSIBILITIES

- A. Review shop drawings, product data and samples prior to submission for conformance to contract requirements. Return non-conforming submittals to originator.
 - 1. Contractor shall stamp each submittal with a stamp bearing the following information:

Approved for Construction
 Approved as Noted
 Submittal Deviates from Contract Requirements

Contractor
 Date: _____
 Review by: _____
 Return by: _____
 Spec. Section: _____
 Submittal No.: _____

Indicate action taken of each submittal by checking appropriate box. If information on stamp is incomplete, submittal will be returned with no action taken.

- B. Verify:
 - 1. Floor Plan layouts provided by Architect on electronic media.
 - 2. Field measurements
 - 3. Field construction criteria

4. Catalog numbers and similar data.
- C. Coordinate each submittal with requirements of work and of Contract Documents.
- D. Contractor's responsibility for errors and omissions in submittals is not relieved by Architect's review of submittals.
- E. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Architect's review of submittals, unless Architect gives written acceptance of specific deviations.
- F. At time of submission, note deviations in submittals from requirements of Contract Documents.
- G. Begin no work which requires submittals unless such submittals have been returned with Architect's stamp and initials or signatures indicating review.
- H. Distribute copies of submittals to parties concerned.

1.09 SUBMISSION REQUIREMENTS

- A. Schedule submissions for receipt by the architect from the date of Notice to Proceed (NTP) as follows:
 1. Finish materials and packaged or prefabricated equipment: Maximum of 45 calendar days from NTP.
 2. Designed systems (such as, but not limited to, casework, control systems, fire protection special systems window and curtain wall systems): Maximum of 90 calendar days from NTP.
 3. Liquidated damages: Liquidated damages shall be assessed for each consecutive calendar day beyond the maximum time periods indicated above. Refer to Section 01010, summary of work.
- B. Shop Drawings: Submit the required number of prints of each Drawing, including fabrication, erection, layout, and setting drawings until final acceptance is obtained.
- C. Product Data: Submit copies of manufacturer's descriptive data for materials, equipment and fixtures, including catalog sheets, showing dimensions, performance characteristics and capacities; wiring diagrams and controls; schedules; and other pertinent information as required. Indicate compliance with applicable referenced quality standards.
- D. Samples: Submit samples specified in product specification sections.

1. Provide full range for color, texture or pattern selection.
 2. Samples shall be marked, tagged, or otherwise identified with name of Contractor, name of project, purpose for which samples are submitted, and date, and be accompanied by letter of transmittal containing similar information, together with specification paragraph number for identification of each item.
- E. Submittals shall include:
1. Date and revision dates.
 2. Project title and number _____.
 3. The names of:
 - a. Architect
 - b. Contractor
 - c. Subcontractor
 - d. Supplier
 - e. Manufacturer
 - f. Separate detailer when pertinent.
 4. Identification of product or material.
 5. Relation to adjacent materials.
 6. Field dimensions, clearly identified as such.
 7. Specification section number.
 8. Applicable standards, such as ASTM number or Federal Specification.
 9. Space for Architect's stamp. (3" x 5" min.)
 10. Identification of deviations from Contract Documents.

1.10 RESUBMISSION REQUIREMENTS

- A. Shop Drawings
1. Revise drawings in accordance with review comments and resubmit as specified for initial submittal.
 2. Indicate changes that have been made. Indicate resubmittal status by adding "R" after the original submittal number.

- B. Project Data and Samples: Submit new data and samples as specified for initial submittal.

1.11 ARCHITECT'S DUTIES

- A. Review for:
 - 1. Design concept of project.
 - 2. Information given in Contract Documents.
 - 3. Review consultants' shop drawings for coordination with Contract Documents.
- B. Review of separate item does not constitute review of an assembly in which item functions.
- C. Affix stamp and initials or signature certifying to review of submittal.
- D. Return submittals to Contractor for reproduction and distribution.

END OF SECTION

SECTION 01370
SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section, with special attention to the following:
 - 1. Allowances: Section 01020
 - 2. Application for Payment: Section 01152

1.02 DESCRIPTION OF WORK

- A. Submit to the Architect a Schedule of Values allocated to the various portions for the Work within ten days after award of Contract.
- B. Upon request of the Architect, support the values with data substantiating their correctness.
- C. The Schedule of Values, unless objected to by the Architect, shall be used only as the basis for the Contractor's Applications for Payment.

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. The form for the Schedule of Values shall be the Fairfax County School Board's "Schedule of Amounts for Contract Payments" and will be obtained from the School Board's Office of Design and Construction. The form shall be completed in detail including quantities and unit costs.
- B. Identify Schedule with:
 - 1. Complete title of Project and location.
 - 2. Name of Architect and Architect's Commission Number.
 - 3. Name and address of Contractor.
 - 4. Date of Submission.
- C. Organize the Content of Schedule into columns with headings as follows:
 - 1. Item No. (Column No. 1).
 - 2. Description of Item (Column No. 2).

3. Quantity (Column No. 3).
 4. Unit of Measure (Column No. 4).
 5. Cost per unit (Column No. 5).
 6. Total cost of Item (Column No. 6).
- D. Column numbers above are identical to Requisition for Payment column numbers.
- E. Information in Schedule of Values shall be incorporated into proper and identical lines and columns of all Requisitions for Payment, and shall serve as a basis for computing Progress Payments during construction.
- F. All line items shall be separated into all sub-values of major products and all information for all sub-values shall be as outlined above.
- G. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
- H. The sum of all values listed in the Schedule shall equal the total Contract Sum.
- 1.04 SUBMITTALS
- A. Submit six (6) copies for review by the Architect and Owner immediately after the Notice to Proceed. The Architect and Owner shall review and approve, or require modifications of the submittal. If modifications are required, make corrections and resubmit.

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 RELATED WORK

- A. Additional Requirements of all parties to the Contract: General Conditions, Section 00700.
- B. Summary of Work: Section 01010.
- C. Supervision and Coordination: Section 01040.
- D. Construction Progress Schedules: Section 01310.
- E. Shop Drawings, Product Data and Samples: Section 01340.
- F. Testing Laboratory Services: Section 01410.
- G. Materials and Equipment: Section 01600.

1.03 REFERENCE STANDARD

- A. ASTM E329-77 (1983) Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as used in construction.

1.04 QUALITY CONTROL

- A. The Owner, with the cooperation of the Contractor, shall maintain an adequate inspection system and perform such inspections and tests as will assure that the work performed under the Contract conforms to the Contract Documents and shall maintain and make available to the Architect adequate records of such inspections and tests.

1.05 DEFINITIONS

- A. Factory Tests: Tests made on various products and component parts prior to shipment to the job site, including but not limited to such items as transformer, boilers, air conditioning equipment, electrical equipment, and precast concrete.

- B. Field Tests: Tests or analysis made at, or in the vicinity of the job site in connection with the actual construction.
- C. Product: A type or category of manufactured goods, constructions and installations, or their associated services.
- D. Testing Laboratory: An individual or firm whose function includes testing, analyzing or inspecting "products."
- E. Certified Test Reports: Reports are reports of tests signed by a qualified professional attesting that tests were performed in accordance with the test method specified, that the test results reported are accurate, and that items tested either meet or fail to meet the stated minimum requirements. These test reports include those performed by Factory Mutual, Underwriters Laboratories, Inc., and others.
- F. Certified Inspection Reports: Those signed by approved inspectors attesting at the items inspected meet the specification requirements other than any exception included in the report.
- G. Manufacturer's Certificate of Conformance or Compliance: A certificate signed by an authorized manufacturer's official attesting that the material or equipment delivered meets the specifications requirements.

1.06 SUBMITTALS

- A. Submittals shall be prepared in accordance with the General Requirements and submitted to the Owner for approval. Each submittal shall be accompanied with a cover letter signed by the Lab. Each item proposed to be incorporated into the Contract shall be clearly marked and identified in the submittals, and shall be cross-referenced to the Contract Drawings and Specifications so as to identify clearly the use for which it is intended.
- B. Submit the number required by the Contractor plus four (4) copies for the Architect.
- C. Certified Test Reports: Before delivery of materials and equipment, certified copies of the reports of all tests listed in the technical sections shall be submitted and approved. The testing shall have been performed in a laboratory meeting the requirements specified herein. Unless otherwise specified the tests shall have been performed within three years of submittal of the reports for approval. Test reports shall be accompanied by the certificate from the manufacturer certifying that the material and equipment proposed to be supplied is of the same type, quality, manufacturer, and make as that tested.
- D. Manufacturer's Certificates of Conformance or Compliance: Manufacturer's certification furnished by the Contractor on items of materials and equipment incorporated into the work will be accepted only when this method will assure full

compliance with the provisions of the Contract, as determined by the Architect. Pre-printed certifications will not be acceptable. All certifications shall be in the original. The original of all manufacturer's certifications shall name the appropriate item of equipment or material, specification, standard, or other document specified as controlling the quality of that item and shall have attached thereto certified copies of test data upon which the certifications are based. All certificates shall be signed by the manufacturer's official authorized to sign certificates of conformance or compliance.

- E. Laboratory Reports: Reports shall cite the contract requirements, the test or analysis procedures used, the actual test results, and include a statement that the item tested or analyzed conforms or fails to conform to the specification requirements. All test reports shall be signed by a representative of the testing laboratory authorized to sign certified test reports.

1.07 QUALITY CONTROL REQUIREMENTS

- A. The Testing Laboratory shall inspect and test all work under the contract and maintain records of the inspections and tests. Approvals, except those required for field installations, field applications, and field tests, shall be obtained before delivery of materials and equipment to the project site.
- B. Factory Tests: Unless otherwise specified, the Contractor will arrange for factory tests when they are required under the Contract.
- C. Factory Inspection: Unless otherwise specified, the Contractor will arrange for factory inspection when required under the Contract.
- D. Field Inspections and Tests by the Owner: The Owner will provide and pay for all equipment, instruments, qualified personnel, and facilities necessary to inspect all work and perform all tests required by the Contract.
- E. Approval of Testing Laboratories: All laboratory work under this Contract shall be performed by a laboratory approved by the Owner. The basis of approval includes the following:
 - 1. Testing laboratories performing work not in connection with concrete, steel or bituminous materials shall comply with Sections 3 and 4 of ASTM E329.
- F. Repeated Tests and Inspections: The Owner will repeat tests and inspections after each correction made to non-conforming materials and workmanship until tests and inspections indicate that the materials, equipment, and workmanship conform to the Contract requirements. The retesting and reinspection shall be performed by the testing lab. The Contractor shall pay for any retesting and reinspection.

END OF SECTION

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 RELATED WORK

- A. Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities: Conditions of the Contract
- B. Certification of Products: The respective sections of Specifications.
- C. Testing, adjusting and balancing of equipment: The respective sections of Specifications.
- D. Laboratory tests required and standards for testing: Each Specification Section listed.

1.03 DESCRIPTION OF WORK

- A. Owner will employ and pay for the services of an Independent Testing Laboratory to perform specified services and testing.
- B. Employment of the laboratory shall in no way relieve the Contractor's obligations to perform the Work of the Contract.

1.04 SUBMITTALS

- A. Submit a copy of report of inspection of facilities made by Materials Reference Laboratory of National Institute of Standards and Technology (NIST) during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.

1.05 QUALIFICATION OF LABORATORY

- A. Authorized to operate in the Commonwealth of Virginia.

1.06 TESTING EQUIPMENT

- A. Calibrated at reasonable intervals by devices of accuracy traceable to either:
 - 1. National Institute of Standards and Technology (NIST).

2. Accepted values of natural physical constants.

1.07 LABORATORY DUTIES

- A. Cooperate with Architect and Contractor; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction.
- C. Comply with specified standards.
- D. Ascertain compliance of materials with requirements of Contract Documents.
- E. Promptly notify Architect/Owner and Contractor of observed irregularities or deficiencies of work products.
- F. Promptly submit written report of each test and inspection; one copy each to Architect, Owner, Contractor and one copy to Record Documents File. Each report shall include:
 1. Date issued.
 2. Project title and number.
 3. Testing laboratory name, address and telephone number.
 4. Name and signature of laboratory inspector.
 5. Date and time of sampling or inspection.
 6. Record of temperature and weather conditions.
 7. Date of test.
 8. Identification of product and specification section.
 9. Location of sample or test in the Project.
 10. Type of inspection or test.
 11. Results of tests and compliance with Contract Documents.
 12. Interpretation of test results, when requested by Architect/Engineer.
 13. Employment of personnel making test samples.
 14. Perform additional tests as required by Architect/Engineer or the Owner.

1.08 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or expand requirements of the Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

1.09 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, provide access to Work, to Manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Furnish copies of Products test reports as required.
- D. Furnish incidental labor and facilities.
- E. To provide access to Work to be tested.
- F. To obtain and handle samples at the Project site or at the source of the product to be tested.
- G. To facilitate inspections and tests.
- H. For storage and curing of test samples, provide a suitable storage box at the site.
- I. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
- J. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.
- K. Make arrangements with laboratory and pay for additional samples and tests required for Contractor's convenience, including concrete design mixes.
- L. Pay for the services of the Independent Testing Laboratory to perform additional inspections, sampling and testing required when initial tests indicate that work does not comply with Contract Documents.

END OF SECTION

01410-3

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SECTION 01505

CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General Conditions and Division One Specification Sections, apply to the Work of this Section with special attention to the following:
 - 1. Section 01010, Summary of Work
 - 2. Section 01200, Project Meetings
 - 3. Section 01400, Quality Control
 - 4. Section 01560, Temporary Controls
 - 5. Section 01700, Contract Close Out
 - 6. Section 01800, Sustainable Design Requirements

1.02 RELATED WORK

- A. Section 02070, Selective Demolition – Recycling of Materials Resulting from selective demolition in Existing Building.

1.03 REFERENCES

- A. Environmental Protection Agency, “Waste Wise” Program (www.epa.gov/wastewise/)
- B. Institute of Scrap Recycling Industries, Inc., Washington, D.C. (www.isri.org)
- C. Triangle J Council of Governments, Research Triangle Park, NC, “Waste Spec” (www.tjcog.dst.nc.us)
 - 1. Appendix A: Preparing Estimates on Recycling
 - 2. Appendix D: Sample Waste Management Plan

1.04 SUMMARY OF WORK

- A. The Contractor shall minimize the amount of non-hazardous construction waste disposal into landfills and shall salvage as much non-hazardous construction waste as possible for shipment to recycling collection centers.
 - 1. Revenues or cost savings resulting from recovery of recycled construction waste materials shall accrue to the Contractor.
- B. Provide labor for material handling, provide storage enclosures and containers, signage, transportation, and other resources required in order to implement the construction waste management operations described in this section. The

Contractor shall maintain a clearly designated on-site collection area for the temporary stock piling of construction waste designated to be recycled, separated from other non-recyclable materials that shall be disposed of legally.

1. Provide clearly identified enclosures, bins or labeled containers for each type of recyclable waste material to be temporarily stockpiled in the collection area. Include signage listing acceptable or unacceptable materials for each enclosure, bin or container.
2. Locate collection area convenient to work areas, but not in a location that will impede free flow of construction traffic, inhibit performance of construction activities or adversely affect school daily operations. Locate collection area to minimize interference with roads, streets, walkways, and other facilities adjacent to the project site.
3. Provide adequate vehicle access and working clearance for pick up of waste materials for delivery to recycling processing centers.

1.05 QUALITY ASSURANCE

- A. The Contractor shall designate a full time, on-site representative to oversee compliance of subcontractors, and other personnel associated with the project, with the construction waste requirements of this Section.
- B. Within 30 days of the date of the Notice to Proceed, review construction waste management procedures with Owner's Representative. Include the following:
 1. A proposed list of construction waste materials to be recycled to meet a diversion percentage goal of a minimum of 50% of construction and demolition materials to be recycled.
 2. A proposed on site location for waste material collection area.
 3. A list of local or regional recycling processing centers and the type of materials that each center will accept. The list shall include name, address, and telephone number of each center.
 4. A description of methods that shall be used for separating and storing construction waste materials, including types of containers and container labeling.

PART 2 - PRODUCTS

2.01 RECYCLABLE MATERIALS

- A. Construction waste materials designated for recycling include, but are not limited to, the following:

1. General waste:
 - a. Paper and beverage containers used by on-site construction staff and workers
2. Uncontaminated packaging and shipping materials:
 - a. Corrugated cardboard
 - b. Metal banding/strapping
 - c. Wood pallets
 - d. Packing shims
 - e. Paper wrappings
 - f. Wood crates
 - g. Polystyrene packing material
3. Construction metals:
 - a. Light gauge framing members (cutoffs)
 - b. Metal floor and roof decking (deck cutouts, etc.)
 - c. Plumbing/Mechanical piping
 - 1) Schedule 40 black steel
 - 2) Copper
 - 3) Ductile iron
 - 4) Cast iron
 - d. Electrical conduit
 - e. Concrete reinforcing steel
 - f. Sheet metal (ductwork, metal flashings)
 - g. Suspension wire
 - h. Miscellaneous structural framing steel (angles, channels, etc.)
4. Clean unfinished wood:
 - a. Dimensional lumber
 - b. Wood trim
 - c. Wood athletic and stage flooring
 - d. Wood sheet materials such as plywood
5. Clean, unfinished gypsum board
6. Other construction waste materials identified by Contractor that are capable of being recycled

PART 3 - EXECUTION**3.01 IMPLEMENTATION AND PERFORMANCE**

- A. The Contractor shall conduct a preconstruction meeting to familiarize subcontractors, fabricators, suppliers, and other personnel associated with the project, with the approved job site waste management procedures and requirements for recyclable materials. The contractor shall provide each meeting participant with a written copy of the procedures. Include discussion of the following:
1. Waste management procedures for each individual trade.
 2. Procedures for separation, handling and stockpiling of construction waste materials.
 3. Procedures for periodic waste collection and transport to recycling processing centers.
- B. The Contractor shall provide updates of ongoing waste management practices as a recurring agenda item during regular job progress meetings. Discussion shall include the following:
1. Types of construction waste materials currently being stockpiled on site.
 2. Verification that correct procedures for separation, handling, stockpiling and transporting are being followed.
 3. Verification that periodic and frequent collection and transport of materials to recycling collection centers is being maintained.

3.02 COLLECTION AREA

- A. On site collection area shall be established on site plan prior to bidding. Alternate sites may be established until the location has been approved by the Owner's Representative.

3.03 CONSTRUCTION WASTE MATERIAL HANDLING

- A. Place, grade, and shape material stockpiles to shed surface water. Cover stockpiles where needed to avoid wind blown debris and dust. For stockpiled materials subject to deterioration from weather exposure, store above ground and provide cover.
- B. Waste management documentation:

- a. Compile weight tickets for all wastes removed from the site including recycled and salvaged materials to document diversion percentages achieved.
- b. Recycling summary: Recycle and waste data will be collected into a summary document for construction documentation.
- C. Periodically inspect enclosures, bins and containers for contamination and misplaced waste materials. Clean enclosures, bins and containers, and remove contaminated or inappropriate materials.
- D. Control the amount of temporarily stockpiled, recyclable waste materials by arranging frequent, periodic removal of materials to off-site collection centers, in order to avoid over-accumulation in the collection area. Remove and transport materials in a manner that will prevent spillage.
- E. Organize and store recycled waste materials in tight, dense bundles. Comply with special requirements of collection centers.
- F. Wood materials: Sort and stock dimensional materials according to size, type, and length.
 - 1. Where possible, arrange for return of wood pallets to material or equipment suppliers and manufacturers. Otherwise, break down pallets into component pieces and sort by size and length.
 - 2. Crates: Break down into component pieces and sort by size and length.
- G. Structural Steel: Sort and stack structural steel members according to size, type of member, and length.
- H. Gypsum Board: Stack large, uncontaminated pieces on wood pallets and store under cover.
- I. Piping and conduit: Reduce tubular items to straight lengths and stockpile by type and size.
- J. Sheet metal and metal strapping: Flatten and fold to fit into containers.
- K. Cardboard packaging and boxes: Break down into flat sheets. Bundle and store above ground and under cover.
- L. Polystyrene packing material: Separate and bag.

3.04 FINAL CLEAN UP

- A. At project closeout, ensure that all recyclable construction waste materials have been removed and delivered to collection centers. Remove all enclosures and containers from the Project Site.

- B. Re-grade and re-establish all areas disturbed by recycling activities in accordance with the requirements of Division 2, Site Work, and the County approved Civil Drawings.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 01510

TEMPORARY UTILITIES

1. Page 01510-1, Paragraph 2.02: Delete this paragraph if project scope involves additions or alterations to an existing facility.
2. Page 01510-2, Paragraph 2.03: Delete this paragraph if project scope involves new construction only.
3. Page 01510-3, Paragraph 2.06: Edit this paragraph depending upon scope of work.

SECTION 01510
TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Summary of Work: Section 01010.
 - 2. Field Offices and Sheds: Section 01590.

1.02 DESCRIPTION OF WORK

- A. Furnish, install and maintain temporary utilities required for construction. Remove temporary utilities upon completion of work.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and Local Codes and Regulations and with utility company requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials may be new or used, but shall be adequate in capacity for the required usage, shall not create unsafe conditions, and shall not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING (NEW WORK)

- A. Contractor shall provide electricity for construction use, by arranging with Virginia Power for temporary construction service, providing generators, or by any other methods or combinations thereof deemed appropriate by the Contractor. All costs for service and for power used, shall be paid by the general contractor.
- B. Install circuit and branch wiring, with area distribution boxes located so that power and lighting is available throughout the construction by the use of construction type power cords.

- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.
- D. Provide adequate power and artificial light to field offices for Contractor and Owner's Representative.
- E. After Owner occupies building and assumes payment of power charges, the Contractor shall be charged for electric power on a prorated basis for areas not yet turned over to Owner.
- F. Contractor shall not utilize temporary power sheds dedicated to temporary classroom trailers for construction use. Contractor shall utilize power from the existing building and shall install all equipment necessary.

2.03 TEMPORARY ELECTRICITY AND LIGHTING (ADDITIONS and ALTERATIONS)

- A. Make connections to existing service facilities in compliance with governing code, laws, and regulations.
- B. Owner will be responsible for paying power charges.
- C. Install circuit and branch wiring, with area distribution boxes located so that power and lighting is available throughout the construction by the use of construction type power cords. Use of propane heaters is only permitted at new additions and may not be used in renovation areas.
- D. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.
- E. Provide adequate power and artificial light to field offices for Contractor and owner's Representative.

2.04 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as needed to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation of materials and to protect materials and finishes from damage due to temperature or humidity.
- B. Provide adequate forced ventilation of enclosed areas where curing of installed materials occurs, in order to disperse humidity and noxious odors and to prevent hazardous accumulations of dust, fumes, vapors or gases.
- C. Portable heaters shall be standard UL approved units complete with controls. Use of propane heaters is only permitted at new additions and may not be used in renovation areas.

- D. Provide adequate heat and cooling to field offices of Contractor and Owner's Representative.
- E. Pay all costs of installation, maintenance, operation and removal and for fuel consumed.
- F. No extension of time shall be allowed due to Contractor's failure to provide temporary heat.

2.05 TEMPORARY TELEPHONE SERVICE

- A. Arrange with local telephone service company, provide direct line telephone service at the construction site for the use of personnel and employees. Service required shall be as follows:
 - 1. One direct line instrument in Field Office, and one dedicated line for fax machine.
 - 2. One direct line instrument for the Owner's Representative, and one dedicated line for fax machine.
 - 3. Other instruments at the option of the Contractor, or as required by regulations.
 - 4. Pay all costs for installation, maintenance and removal, and service charges for local calls. Toll charges shall be paid by the party who placed the call.

2.06 TEMPORARY WATER

- A. Provide temporary water required for construction process (new work);

Or, make connections to existing facilities, provide water for construction purposes (additions & renewal work).
- B. Owner will pay costs of water used.

2.07 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations. See section 01010, Contractor Use of Premises.
- B. Service, clean and maintain facilities and enclosures.
- C. Provide one separate sanitary facility for the sole use of the Owners Representative, throughout the construction period.
- D. Use of school facilities by contractor's personnel is prohibited.

PART 3 - EXECUTION

3.01 GENERAL

- A. Comply with applicable requirements in Division 15 - Mechanical, and in Division 16 - Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore existing facilities used for temporary service to specified or original condition, fully operational.

END OF SECTION

SECTION 01520

CONSTRUCTION AIDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Section 01010 "Summary of Work" (Safety precautions)
 - 2. Section 01530 "Barriers".

1.02 DESCRIPTION OF WORK

- A. Furnish, install and maintain required construction aids; remove upon completion of work.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with Federal, State and local codes and regulations.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials may be new or used, suitable for the intended purpose, but shall not violate requirements of applicable codes and standards.

2.02 CONSTRUCTION AIDS

- A. Provide construction aids and equipment as required by personnel and to facilitate the execution of the work; including scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes and other such facilities and equipment.
- B. Refer to respective sections for particular requirements for each trade.
- C. Maintain all facilities and equipment in a first-class condition.

2.03 TEMPORARY ENCLOSURES

- A. Provide temporary enclosures to separate work areas from the areas of existing building occupied by Owner; to prevent penetration of dust, fumes, or moisture into occupied areas, to prevent damage to existing equipment, to protect Owner's

occupants and operations from construction work, and to prevent entry of unauthorized persons. Doors in the construction barrier between the additions / renovated areas shall be self-closing.

- B. Provide temporary exterior and interior doors and frames with self-closing hardware and padlocks. Springs utilized as closers shall not be permitted. Doors shall be solid core wood or hollow metal, and weather stripped. Provide temporary walk-off mats at each passable entrance between occupied and construction areas in order to minimize dust migration. Mats shall be carpet with non-skid backing. Mats shall be rotated and professionally cleaned on a regular basis, in a manner sufficient to maintain visual cleanliness and mitigate airborne dust in occupied spaces. Mats should be dissimilar to the school's own floor mats, in order to minimize confusion for custodial staff.
- C. Where work is phased, enclosures shall be removable as necessary for work being done in each phase. Other enclosures shall be removable as necessary for performance of work and handling of material.
- D. Enclosures shall be 3 5/8", 20 gauge minimum metal stud frames with 5/8" gypsum wallboard to meet two-hour rated construction. Frames shall extend from floor to underside of metal deck and shall completely seal off all necessary areas. On exterior enclosures, substitute 1/2" CDX plywood. Tape or otherwise seal panel joints in gypsum board and plywood. Where exterior enclosures form temporary means of egress, provide 1/2" gypsum sheathing. Insulate exterior enclosures with batt type insulation complying with the requirement of Section 07210, 2.01A.
 - 1. For temporary enclosures or exitways adjacent to work that is occurring overhead, provide structural roof construction that is adequate to protect building occupants using the enclosures or exitways.
 - 2. Secure sole plates of temporary enclosures to existing floors with construction adhesive.
- E. Exterior enclosures: Provide 6 feet high temporary chain link construction fencing to enclose construction work areas, material storage areas, and access ways. Fences shall be added or modified to enclose active work and storage areas as the project progresses. All chain link mesh panels shall be secured with clamps, wire ties shall not be permitted. Mesh shall be knuckled at the top and bottom, securely fastened to panel frames and shall be monitored for protruding wires. Barbed wire shall not be permitted.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Consult with Architect, review site conditions and factors which affect construction procedures and construction aids, including adjacent properties and public facilities which may be affected by the execution of the Work.

3.02 GENERAL

- A. Relocate construction aids as required by progress of construction, by storage or work requirements, and to accommodate legitimate requirements of Owner and other contractors employed at the site.

3.03 REMOVAL

- A. Completely remove temporary materials, equipment and services:
 - 1. When construction needs can be met by use of permanent construction.
 - 2. At completion of the Project.
- B. Clean, and repair damage caused by installation or by use of temporary facilities.
- C. Grade areas of the site affected by temporary installations to required elevations and slopes, and clean the area.
- D. Restore existing and permanent facilities used for temporary purposes to specified or to original condition.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 01530

BARRIERS

1. Paragraph 1.02(B): Delete this paragraph if project involves only new construction.

SECTION 01530

BARRIERS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section with special attention to the following:
 - 1. Summary of Work: Section 01010.
 - 2. Construction Aids, Enclosures: Section 01520.

1.02 DESCRIPTION OF WORK

- A. Furnish, install and maintain suitable barriers to prevent public entry, and to protect the Work, existing facilities, trees and plants from construction operations; remove when no longer needed or at completion of Work.
- B. Maintenance of Means of Egress
 - 1. The Contractor shall keep open and maintain all existing and temporary fire exits in the existing school during the course of construction.
 - 2. Provide alternate fire exits if necessary including barriers and signs as may be required by local fire official.
 - 3. Contractor shall coordinate and arrange with local fire officials to implement a plan for temporary exiting of existing school building should alternate fire exits be required.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with Federal, State, and local codes and regulations.

PART 2 - PRODUCTS

2.01 BARRIERS

- A. Materials shall be determined at Contractor's option, of type, size and quantity as appropriate to serve the required purpose.

PART 3 - EXECUTION**3.01 TREE AND SHRUB PROTECTION**

- A. The Contractor shall preserve and protect all existing trees and shrubs on or adjacent to the site which have not been designated for removal or relocation. The Contractor shall be responsible for all unauthorized cutting or damaging of trees and shrubs, including damage due to careless operation of equipment materials stockpiles shall not be permitted within branch spread. All trees susceptible to possible damage by equipment shall be boxed with boards and wire to protect the trunk. Barricades shall be erected to prevent operation of heavy equipment within the drip lines of trees to remain.
- B. Interfering branches shall be removed without injury to the trunks. Care shall be taken by the Contractor in felling trees authorized for removal to avoid any unnecessary damage to trees and shrubs that are to remain in place. Any branches of trees broken during such operations shall be trimmed in accordance with recommended practice. The Contractor shall replace or restore at his own expense all trees and shrubs not protected as required herein that may be destroyed or damaged by construction operations.

3.02 REMOVAL

- A. Completely remove barricades, including foundations, when construction has progressed to the point that they are no longer needed and when approved by the Architect.
- B. Clean and repair damage caused by installation. Fill and grade the areas of the site to required elevations and slopes and clean the area.

END OF SECTION

SECTION 01560
TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Construction Aids: Section 01520.
 - 2. Barriers: Section 01530.
 - 3. Cleaning: Section 01710.

1.02 RELATED WORK

- A. Related requirements specified in Division 2: Site Work.

1.03 DESCRIPTION OF WORK

- A. Contractor shall provide and pay for all controls required by Fairfax County Regulations for noise, dust, water, pest and rodent, debris, pollution, traffic and erosion whether indicated in the Contract Documents or not.
- B. All site controls and features shall be constructed and maintained in accordance with the latest edition of the Fairfax County Public Facilities Manual.

1.04 OTHER REGULATIONS

- A. All regulations of the Fairfax County Department of Public Works and Environmental Services.

1.05 OPEN BURNING

- A. Not Permitted

1.06 EROSION CONTROL

- A. The Contractor shall perform the work in such a manner as to prevent the washing of any soil, silt, or debris onto adjacent properties, and shall be held responsible for any damage incurred for a period of one year after date of acceptance of the completed work. This includes construction of berms, siltation pond, collars on structures, etc., or any other device that might aid as a deterrent to erosion.

- B. The Contractor shall construct a siltation trap in natural ground at the base of all perimeter fill slopes. The siltation trap shall be 2 feet deep, 2 feet wide at the bottom with 2:1 side slopes. All excavated material shall be placed on the downhill side of the construction to act as a berm. Minimum one-foot top berms shall be maintained at all times during the construction of perimeter fills.
- C. The Contractor agrees to hold the School Board or any of its agents harmless from any and all liability or damage that may arise out of a violation of the Siltation Ordinance and agrees to indemnify them against any loss.
- D. If at any time during the construction of this property silt goes offsite and if, when this occurs, the site plan and specifications for siltation and erosion control as approved by Fairfax County are not being complied with, then the Contractor shall pay to the Owner the sum of \$5,000 as liquidated damages.
- E. This provision for liquidated damages shall be a continuing one and for each and every occurrence there shall be paid to the Owner the sum of \$5,000 as liquidated damages.

1.07 INSPECTION AND APPROVAL

- A. The County School Board of Fairfax County, Virginia, shall provide an inspector to represent it in the inspections of the work. The presence of this inspector shall in no way be construed by the Contractor as approval of methods or materials that do not conform to the requirements of this Contract.

1.08 TRAFFIC CONTROL

- A. The Contractor shall maintain, at his expense, all boundary, adjacent and/or access roads, regardless of status, classification, or ownership, which he or his subcontractor uses, under permit or otherwise during the course of construction of this project. Maintenance shall be performed as needed to keep the road passable at all times, so as to guarantee that other users of the road can travel thereon with a minimum of inconvenience and interruption of normal routine.
- B. Contractor shall, at his expense, provide and maintain all traffic control devices, signals, barriers, flares, lights, flagmen, etc. required by law when his operations conflict with the movement of traffic, both vehicular and pedestrian, on dedicated streets and highways.

1.09 PERMITS AND FEES

- A. Contractor shall obtain and pay for all permits and fees required for the performance of this Work.

END OF SECTION

SECTION 01580
CONSTRUCTION SIGNS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Summary of Work: Section 01010.

1.02 DESCRIPTION

- A. Provide temporary on-site information signs.
 - 1. As required and regulated by codes, laws and regulatory agencies.
 - 2. To identify key elements of the construction facilities.
 - 3. To direct traffic.
- B. The Architect and Contractor will be allowed to install their own identification signs.
- C. Remove signs on completion of construction.
- D. Allow no other signs to be displayed.

1.03 INFORMATION SIGNS

- A. Painted signs with painted lettering or standard products.
- B. Size of signs and lettering: As required by regulatory agencies or as appropriate to the usage.
- C. Colors: As required by regulatory agencies, otherwise of uniform colors throughout the Project.
- D. Erect at appropriate locations to provide the required information.

1.04 QUALITY ASSURANCE

- A. Sign Painter: Professional Experience in the type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading for the scheduled construction period.

PART 2 - PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: May be new or used, wood or metal in sound condition structurally adequate to the work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
- C. Thickness: As required by standards to span across framing members, to provide even, smooth surface without waves or buckles.
- D. Rough Hardware: Galvanized.
- E. Paint: Exterior quality, as specified in Section 09900.
- F. Use Bulletin colors for graphics.

PART 3 - EXECUTION

3.01 INFORMATION SIGNS

- A. Paint All Exposed Surfaces: One coat of primer and one coat of exterior paint.
- B. Paint graphics in the styles, sizes, and colors as required.
- C. Install at a height for optimum visibility, on ground-mounted poles or attached to temporary structural surfaces.

3.02 MAINTENANCE

- A. Maintain signs and supports in a neat, clean, condition; repair damages to structure, framing, or sign.

3.03 REMOVAL

- A. Remove signs, framing, supports, and foundations at completion project.

END OF SECTION

INSTRUCTIONS FOR EDITING AND DRAWING COORDINATION

SECTION 01590

FIELD OFFICES AND SHEDS

EDITING:

1. Subparagraph 1.05 (E): Edit as necessary for project scope of work.

SECTION 01590

FIELD OFFICES AND SHEDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Summary of Work: Section 01010
 - 2. Temporary Electricity: Section 01510
 - 3. Temporary Telephone Service: Section 01510
 - 4. Temporary Heat and Ventilation: Section 01510
 - 5. Storage and Protection: Section 01600

1.02 DESCRIPTION OF WORK

- A. Furnish, install and maintain temporary field offices during the entire construction period.
- B. Furnish, install, and maintain storage and work sheds needed for construction.
- C. At completion of work, remove field offices, sheds, and contents.

1.03 REQUIREMENTS AND REGULATORY AGENCIES

- A. Comply with requirements of Federal, State, and local codes and regulations.

1.04 OTHER REQUIREMENTS

- A. Prior to installation of offices and sheds, consult with Architect on location, access and related facilities.

1.05 REQUIREMENTS FOR FACILITIES

- A. Construction: Structurally sound, weather-tight with floors raised above ground.
- B. Temperature Transmission Resistance: Compatible with occupancy and storage requirements.
- C. At Contractor's option, portable or mobile buildings may be used.

- D. Mobile homes, when used, shall be modified for office use.
- E. Office for Owner's Representative: A separate Field Office with plan desk, heat, air conditioning, power and direct line telephone. Note: If electric service is not immediately available, provide power by means of generator of sufficient capacity to operate lights, heat and air conditioning until such time as electric service is available. Provide as follows:
1. A separate trailer for the sole use of Owner's Representative with secure entrance doors, stair and landing access, and one key per occupant.
 2. Area - 672 square feet minimum, with a minimum dimension 14 feet x 48 feet. (Middle Schools and High Schools); 336 square feet minimum, with minimum dimensions of 24 feet x 14 feet (Elementary Schools).
 3. Windows:
 - a. Minimum: Three (3) with a minimum total area of 10% of floor area.
 - b. Operable sash and insect screens for all windows.
 - c. Expanded metal security screens on all windows.
 4. Heavy duty hasps on trailer doors, and hinged steel security bar with padlock closure and padlock.
 5. One (1) outdoor thermometer, mounted to be visible from inside trailer.
 6. Furnishings: Provide the following:
 - a. One plan table: 30 inches x 72 inches x 36 inches high.
 - b. One plan rack to hold a minimum of six racks of Project Drawings.
 - c. Standard four-drawer, legal-size, metal filing cabinet.
 - d. Two straight chairs.
 - e. One drafting table stool.
 - f. One waste basket.
 7. Services: Provide the following:
 - a. Lighting: 50-foot candles at desk top height.

- b. Automatic heating and mechanical cooling equipment to maintain comfortable conditions.
 - c. Minimum of four 110-volt duplex electric convenience outlets; at least one on each wall.
 - d. Two dedicated telephone lines for Owner's use.
 - e. One data line. If available, data can be run from school facility. Coordinate with Owner's representative.
 - f. All-in-One color printer, scanner, copier, fax machine with auto document feeder, auto 2-sided print capability and flat bed input. Include all required parts, ink, service and paper for the duration of the project.
8. The Contractor shall provide (6) OSHA approved type hard hats for the owner's use throughout the life of the project. The hard hats will be returned to the Contractor after Substantial Completion of the project.
- F. Contractors Office and Facilities:
- 1. Size: 672 square feet minimum, with minimum dimensions of 14 feet by 48 feet. Facility shall accommodate Contractor's general use and shall provide space for project meetings.
 - 2. Lighting and Temperature Control: As specified for the Office of the Owner's Representative.
 - 3. Telephone: One direct line instrument for Contractor's use.
 - 4. Fax Machine: One dedicated line for Contractor's use.
- G. Furnishings in Meeting Area:
- 1. Racks and files for Project Record Information in, or adjacent to the meeting area.
 - 2. Other Furnishings: Contractor's option.
 - 3. One 10-inch outdoor type thermometer.
- H. Storage Sheds: Provide as follows:
- 1. To meet requirements of the various trades.
 - 2. Dimensions: Adequate for storage and handling of products.

3. Ventilation: Comply with specified and code requirements for the products stored.
4. Heating: Adequate to maintain temperatures specified in the respective sections for the products stored.

1.06 USE OF EXISTING FACILITIES

- A. Existing facilities at the site shall not be used for field offices or for storage without the written approval of the Owner's Representative.

PART 2 – PRODUCTS

2.01 MATERIALS, EQUIPMENT, FURNISHINGS

- A. May be new or used, but must be serviceable, adequate for the required purpose and must not violate applicable codes or regulations.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Fill and grade sites for temporary structures to provide proper surface drainage.

3.02 INSTALLATION

- A. Construct temporary field offices and storage sheds on proper foundations, provide connections for utility services.
- B. Secure portable or mobile buildings when used.
- C. Provide and secure steps and landings at entrance doors.
- D. Mount thermometer at convenient outside location, not in direct sunlight.

3.03 MAINTENANCE AND CLEANING

- A. Provide periodic maintenance and cleaning for temporary structures, furnishings, equipment, and services.

3.04 REMOVAL

- A. The Field Office including light, heat, cooling, telephone and power will remain at the job site until the punch list work is completed and accepted by the Architect and Owner.

- B. Remove storage sheds and office when they are no longer needed.
- C. Remove foundations and debris; grade the site to required elevations and clean the areas.
- D. Final grade and sod the area as required by the Contract Documents.

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Section 01340: Shop Drawings, Product Data and Samples: Submittal of manufacturers' certificates.
 - 2. Section 01700: Contract Closeout.

1.02 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.03 MANUFACTURER'S INSTRUCTIONS

- A. When work is specified to comply with manufacturers' instructions, submit copies as specified in Section 01340, distribute copies to persons involved, and maintain one set in field office.
- B. Perform work in accordance with details of instructions and specified requirements. Should a conflict exist between Specifications and instructions, consult with Architect.

1.04 DELIVERY AND HANDLING

- A. Transport Products by methods to avoid Product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle Products by methods to prevent soiling or damage.
- C. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged.

1.05 STORAGE AND PROTECTION

- A. Store Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products with weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated Products, place on sloped supports above ground. Cover Products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose, granular materials on solid surfaces in a well-drained area; prevent mixing or contact with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure that Products are undamaged, and are maintained under required conditions.
- E. After installation, provide coverings to protect Products from damage from traffic and construction operations, remove when no longer needed.

PART 2 - PRODUCTS

- 2.01 Products include materials, equipment, and systems.
- 2.02 Comply with Specifications and referenced standards as minimum requirements.
- 2.03 Components required to be supplied in quantity within a Specification section shall be the same, and interchangeable.
- 2.04 No asbestos materials are permitted to be used in the construction of this project.

PART 3 - EXECUTION

(Not used)

END OF SECTION

SECTION 01630

SUBSTITUTIONS AND PRODUCT OPTIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 CONTRACTOR'S OPTIONS

- A. For products specified only by referenced performance standards, select a product and manufacturer meeting all the required standards. After award of contract, evidence of conformance shall be submitted in accordance with Section 01340, Shop Drawings, Product Data and Samples.
- B. For products specified by naming a list of several products and manufacturers, select any product and manufacturer named on the list. Contractor may propose a directly comparable substitution to the specified items in accordance with the requirements of this section.
- C. Products specified by naming one product and manufacturer shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. Contractor may propose a directly comparable substitution to the specified item in accordance with the requirements of this Section.
- D. For products specified by naming one product and manufacturer followed by the phrase "No Substitution", there shall be no option. The contractor shall not be allowed to propose a substitution to the specified item.

1.03 SUBSTITUTIONS

- A. Ten (10) days prior to receipt of bids, Architect will consider formal requests from Contractor for substitution of products; requests received less than 10 days prior to bid due date shall not be considered.
- B. Submit 4 copies of request for substitution. Include:
 - 1. Complete data substantiating compliance of proposed substitution with Contract Documents.
 - 2. For Products:
 - a. Product identification, manufacturer's name and address.

- b. Manufacturer's literature indicating product description, performance and test data, reference standards and range of manufacturers colors if item requires color selection.
 - c. Samples.
 - d. Name and address of similar projects on which product was used, dates of installation, responsible contacts, and telephone numbers.
 3. Detailed description of proposed construction methods with drawing illustrating methods.
 4. Itemized comparison of proposed substitution with product(s) or method(s) specified.
 5. Data relating to changes in construction schedule.
 6. Relation to separate contracts (if applicable).
- C. Request for substitution represents that:
 1. Contractor has personally investigated proposed product or method, and determined that it is equal or superior in all respects to that specified.
 2. Contractor will provide the same guarantee for substitution as for product or method specified.
 3. Contractor will coordinate installation of accepted substitution into work, making such changes as may be required for work to be complete.
 4. Contractor waives all claims for additional costs related to substitution that may arise subsequent to approval.
- D. Substitutions shall not be considered if:
 1. Subsequent to award of contract, such items are indicated or implied on shop drawings or project data submittals, without formal substitution request submitted as specified in this Section.
 2. Acceptance will require substantial revision of Contract Documents.
 3. Acceptance will require additional contract time and will adversely affect construction schedule.
- E. Substitutions will be considered after the deadline only under the following conditions:

1. The specified product is no longer manufactured.
2. The specified product is not available due to a strike or catastrophic occurrence.

PART 2 - PRODUCTS

2.01 NOT APPLICABLE

PART 3 - EXECUTION

3.01 NOT APPLICABLE

END OF SECTION

SECTION 01660

TESTING, ADJUSTING, BALANCING (TAB) AND COMMISSIONING OF SYSTEMS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 RELATED WORK

- A. Division 15 Specifications: Section 15010, General Provisions.
- B. Division 15 Specifications: Section 15900, Automatic Temperature Controls.

1.03 WORK DESCRIPTION

- A. The contractor shall be responsible for coordination with the Testing, Adjusting and Balancing (TAB) Contractor and Commissioning Authority (CA) to perform the work in Division 15000.

- B. Testing, Adjusting and Balancing

- 1. Fairfax County Public Schools shall contract for the services of an independent balancing agency to perform the operations required for testing, adjusting, and balancing of HVAC systems and related work to prove the performance of the systems as shown on the Contract Documents. The Contractor and all associated sub-contractors shall coordinate their work with the balancing agency procedure and protocols. The Contractor and all associated sub-contractors shall provide a minimum of five working days notice in both writing and electronic format to the Fairfax County Public Schools Project Manager and the Fairfax County On-Site Field Representative that the system(s) installations are complete and accessible for testing, adjusting, and balancing.

Projects which incorporate phased construction shall have each HVAC system, in the respective phase, air balanced prior to occupancy with all deficiencies corrected. Water balance for each respective phase shall be considered preliminary with the final water balance to be completed after the last phase of construction has been completed.

- 2. The balancing agency shall submit for review to the Fairfax County Public Schools Project Manager an acceptable procedure for performing the testing, adjusting, and balancing work within thirty (30) days after the agreement between the Fairfax County Public Schools and the Contractor has been signed. This procedure shall be forwarded to the Contractor for coordination of his installations within sixty (60) days after the agreement

between the Fairfax County Public Schools and Contractor has been signed. A pre-conference testing, adjusting, and balancing meeting including, but not limited to representatives of the Fairfax County Public Schools Project Manager, the Fairfax County On-Site Field Representative, the Contractor, the Sub-Contractors and the Architect/Engineer shall be conducted to review the procedure plan and schedule within ninety (90) days after the agreement between the Fairfax County Public Schools and Contractor has been signed.

3. The contractor shall make all the correction to the HVAC system to satisfy the deficiencies noted in the TAB report.

C. Commissioning

1. The Fairfax County Public Schools Office of Design and Construction shall perform the building commissioning and shall act as the CA. The contractor and all associated sub-contractors shall be responsible for participation and coordination within the Commissioning process including but not limited to;

a. Division 15000 (General)

- 1) In each purchase order or subcontract written, include requirements for submittal data, commissioning documentation, O&M data and training.
- 2) Attend commissioning scoping meeting and other meetings necessary to facilitate the commissioning process.
- 3) Provide the CA with normal cut sheets and shop drawing submittals of commissioned equipment.
- 4) Provide additional requested documentation, prior to normal O&M manual submittals, to the CA for development of start-up and functional testing procedures.

- a) This is to include detailed manufacturer installation and start-up, operating, troubleshooting and maintenance procedures, full details of any owner-contracted tests, fan and pump curves, full factory testing reports, if any, and full warranty information, including all responsibilities of the Owner to keep the warranty in force clearly identified. In addition, the installation, start-up and checkout materials that are actually shipped inside the equipment and the actual field checkout sheet forms to be used by the factory or field technicians shall be submitted to the CA.

- b) This contractor shall submit to the CA any additional requested documentation deemed necessary by the CA.
 - 5) Provide a copy of the O&M manuals and submittals of commissioned equipment, through normal channels, to the CA for review and approval.
 - 6) Assist (along with the design engineers) in clarifying the operation and control of commissioned equipment in areas where the specifications, control drawings or equipment documentation is not sufficient for writing detailed testing procedures.
 - 7) Develop a full start-up and initial checkout plan using manufacturer's start-up procedures and the prefunctional checklists from the CA for all commissioned equipment. Submit to CA for review and approval prior to start-up.
 - 8) During startup and initial checkout process, execute the mechanical-related portions of the prefunctional checklists for all commissioned equipment.
 - 9) Perform and clearly document all completed startup and system operational checkout procedures, providing a copy to the CA.
 - 10) Address current A/E punchlist items before functional testing. Air and water TAB shall be completed with discrepancies and concerns remedied before functional testing of the respective air to water related items.
 - 11) Provide skilled technicians to perform functional performance testing under the direction of the CA. Assist the CA in interpreting the monitoring data, as necessary.
 - 12) Correct deficiencies (differences between specified and observed performance) as interpreted by the CA, CM and A/E and retest the equipment.
- b. Division 15000 (Automatic Temperature Controls)
- 1) Provide the following approved submittals to the Commissioning Authority;
 - a) Hardware and software submittals.
 - b) Control panel construction shop drawings.

- c) Narrative description of each control sequence for each piece of equipment controlled
 - d) Diagrams showing all control points, sensor locations, point names, actuators, controllers and, where necessary, points of access, superimposed on diagrams of the physical equipment.
 - e) Logic diagrams showing the logic flow of the system.
 - f) A list of all control points, including analog inputs, analog outputs, digital inputs, and digital outputs. Include the values of all parameters for each system point. Provide a separate list for each standalone control unit.
 - g) A complete control language program listing including all software routines employed in operating the control system. Also provide a program write-up, organized in the same manner as the control software. This narrative shall describe the logic flow of the software and the functions of each routine and sub-routine. It should also explain individual math or logic operations that are not clear from reading the software listing.
 - h) Hardware operation and maintenance manuals.
 - i) Application software and project applications code manuals.
- 2) Verify proper installation and performance of controls / BAS hardware and software provided by others.
 - 3) Integrate installation and programming schedule with construction and commissioning schedules.
 - 4) Provide a control system technician and a control system programmer for use during system verification and functional performance testing.
 - 5) Additional trend logs may be required to facilitate the commissioning process.
 - 6) Manipulate control systems to facilitate verification and performance testing.

TESTING, ADJUSTING, BALANCING (TAB) AND COMMISSIONING OF SYSTEMS SECTION 01660

- 7) Participate in the "Opposite Season" functional performance testing.

PART 2 - PRODUCTS

2.01 NOT APPLICABLE

PART 3 - EXECUTION

3.01 NOT APPLICABLE

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Section 01010 - Summary of Work.
 - 2. Section 01720 - Project Record Information
 - 3. Section 01730 - Operating and Maintenance Data

1.02 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. Owner will occupy designated portion of Project for the purpose of installation of equipment, conduct of business, under provision stated in Certificate of Substantial Completion.
- C. When Contractor considers Work has reached final completion, submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect's inspection.
- D. In addition to submittals required by conditions of Contract, provide submittals required by governing authorities, and submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
- E. Owner's Representative will issue final change order reflecting approved adjustments to Contract Sum not previously made by Change Order.
- F. Ceiling Concealment Inspection.
 - 1. General: Prior to installation of ceiling panels, an inspection shall be conducted to ascertain the quality and degree of completion of all work above the finished ceiling and to record any discrepancies in the Contract Documents. The inspection shall be conducted by the Owner's Representative and the Contractor and recorded on forms provided by the Owner's Representative.

2. Ceiling Suspension System: Grilles, registers, diffusers, light fixtures, and cut panels around fixtures may be installed prior to the inspection, however, ceiling panels shall not be laid in place until after the inspection and all discrepancies have been corrected.
- G. Wall Close-in Inspection: Prior to wall close-in, an inspection shall be conducted to ascertain the quality and degree of completion of all work concealed within walls and record any discrepancies in the Contract Documents. The inspection shall be conducted by the Owner's Representative, Architect, and the Contractor and recorded by the Contractor on forms provided by the Owner's Representative.
- H. Copies of the Inspection Reports: Reports shall be prepared by the Contractor with copies to the Owner's Representative, Architect, and the Consulting Engineers. The inspection report shall be annotated as each discrepancy is corrected and any discrepancy remaining at the time of the Final Inspection shall be included on the punch list.
- I. Substantial Completion: See Section 00700, General Conditions, paragraph 12.04.
- J. Final Inspection: See Section 00700, General Conditions, paragraph 12.05.

1.03 SYSTEMS DEMONSTRATION

- A. Prior to final inspection, demonstrate operation of each system to Owner's Representative.
- B. Instruct Owner's designated operating and maintenance personnel in operation, adjustment, and maintenance of materials, products, equipment and systems, using the operation and maintenance data as the basis of instruction.

END OF SECTION

SECTION 01710

CLEANING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Summary of Work: Section 01010.
 - 2. Sustainable Design Requirements: Section 01800.
 - 3. Indoor Air Quality Management: Section 01810.

1.02 RELATED WORK

- A. Each Specification Section: Cleaning for specific equipment, products, or elements of the work.

1.03 WORK DESCRIPTION

- A. Execute cleaning, during the course of the Work, and at completion of the Work, as required by General Conditions, and as described in Part 3 of this Section.
- B. Nothing in this Section or elsewhere in the Contract Documents shall be construed as relieving the Subcontractors of their individual responsibility to perform periodic clean up of their portion of the Work. Subcontractors shall cooperate with the Contractor to assist in both periodic and final clean up. The Contractor shall enforce this requirement and shall notify each subcontractor of his responsibility for any damage caused by his operations during such cleanups.
- C. If the Contractor fails to clean up, the Owner may do so, and the cost thereof shall be deducted from the Contract Sum.

1.04 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials that will not create hazards to health or property, and which will not damage surfaces.

- B. Use only those cleaning materials and methods recommended by manufacturer of the surface.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 - EXECUTION

3.01 CLEANING DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish. Remove containers from the site at project completion.
- C. Remove waste materials, debris, and rubbish from the site as necessary and dispose of at legal disposal areas away from the site.
- D. Where work is performed adjacent to occupied areas, contractor shall utilize HEPA vacuums to minimize and control dust levels. Use of other types of vacuums shall not be acceptable.
- E. During the course of construction, the building and premises shall present a neat, orderly, and workmanlike appearance.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-need basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Besides the general broom cleaning and refuse removal, the Contractor shall do the following special cleaning for all trades before the final completion and acceptance of the work.
 - 1. Remove putty stains, soil and paint from all glass and wash and polish same.
 - 2. Clean and polish all finishing hardware.

3. Remove all spots, soil and paint from all ceramic tile work, glazing and mirrors.
 4. Clean all plumbing fixtures, accessories and equipment, including all mechanical equipment.
 5. Clean all tile, terrazzo, wood, and other finished floors.
 6. Clean and vacuum all carpet.
 7. Clean premises of all debris and dirt.
 8. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from sight-exposed interior and exterior surfaces.
 9. Polish glossy surfaces to a clear shine.
 10. Clean window frames, entrance frames, hollow metal work and all ornamental iron work.
- C. Ventilating Systems:
1. Clean permanent filters and replace disposable filters if units were operated during construction.
 2. Clean ducts, blower, and coils if units were operated without filters during construction.
- D. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- E. Prior to final completion, or Owner occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas, to verify that the entire Work is clean.

END OF SECTION

SECTION 01720

PROJECT RECORD INFORMATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Section 01730, Operating and Maintenance Data, for pertinent data which shall be included in the Record and Information Booklet.

1.02 DESCRIPTION OF WORK

- A. During the course of construction, and as various portions of the work are performed, the Contractor shall record and maintain an accurate accounting of changes or deviations from the Contract Documents, and any other information which elaborates upon, or supplements, the description of work contained in the Contract Documents.

1.03 SUBMITTALS

- A. Upon completion of work, Contractor shall forward one (1) complete set of all project record information (as built drawings) including the civil, architectural, structural, mechanical, plumbing and electrical portions of the work, as applicable, to the Architect. Based upon this data, the Architect shall prepare reproducible Project Record Documents.

1.04 QUALITY ASSURANCE

- A. Accuracy of Record
 - 1. Make legible entries on each pertinent sheet of drawings, specifications, or other documents as necessary, in order to properly document the entry.
- B. Accuracy shall be such that the Architect may reasonably rely upon the information for preparation of Record Documents, and that the information may be reasonably relied upon for future reference and research by the Owner.
- C. Entries shall be recorded in a timely fashion upon performance or notification of a change or deviation.

1.05 HANDLING OF RECORD INFORMATION

- A. Maintain record information in a secure manner, protected from deterioration, loss or damage until work is completed and the data is ready to be forwarded to the Architect.

PART 2 - PRODUCTS**2.01 PROJECT RECORDS**

- A. The Contractor shall designate one (1) set of Contract Documents for compiling and maintaining project record data. Each individual part of the Contract Documents shall be designated and clearly labeled as "PROJECT RECORD INFORMATION - JOB SET".

PART 3 - EXECUTION**3.01 MAINTENANCE OF JOB SET**

- A. Make entries using colored pencil. Add description notes to clarify entry, such as item description, location and reason for the change. "Cloud" or otherwise highlight entries. Use different colors where different entries overlap.
- B. All entries shall be dated.
- C. Provide record data for in-place arrangements of circuitry, conduit, piping, ductwork, and other systems that are indicated by schematic layouts or diagrams in the Contract Documents. The Owner or Architect may, at his discretion, allow the Contractor to omit record data for items where the elaboration of the layout or diagrams conveys no additional useful information.

3.02 SUBMITTAL TO THE ARCHITECT

- A. Upon completion of the work, forward the Project Record Information set to the Architect. The Architect may require the Contractor to perform corrections, provide additional information, or make other revisions necessary for completeness of data. Make all required corrections or revisions and promptly return the set to the Architect.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 01730

OPERATING AND MAINTENANCE DATA

1. Paragraph 3.01: Edit as appropriate to project scope to add or delete equipment or material data required herein.

SECTION 01730

OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Shop Drawings, Product Data and Samples: Section 01340.
 - 2. Testing, Adjusting and Balancing of Systems: Section 01660
 - 3. Contract Close-out: Section 01700.
 - 4. Project Record Information: Section 01720
 - 5. Warranties and Bonds: Section 01740.
 - 6. Applicable Divisions 2 through 16 Specifications

1.02 DESCRIPTION OF WORK

- A. Compile product data and related information appropriate for Owner's record, maintenance and operation of products, equipment, materials and systems furnished under the Contract.
- B. Prepare record, operating and maintenance data as specified in this Section and as referenced in other pertinent sections of Specifications.
- C. All information shall be organized into a Record and Information Booklet.

1.03 SUBMITTAL PROCEDURES

- A. Prepare three (3) complete copies of the Record and Information Booklet and deliver to the Architect. Provide one (1) additional copy each of the following (including warranties): Special Systems, Communication Systems, House and Stage Lighting Controls and Stage Lighting Systems, Automatic Temperature Controls, and Food Service Equipment.
- B. The Architect shall review the booklets for compliance to the requirements specified in this section. If found to be non-complying, the booklets shall be returned to the Contractor for corrections.

- C. The Architect shall indicate approval of the booklets by review stamp on each copy and shall forward the booklets to the Owner. The Owner shall not accept the booklets unless they have been reviewed and stamped as approved.

PART 2 - PRODUCTS

2.01 FORM OF SUBMITTALS

- A. Prepare data in the form of an instructional manual for use by Owner's personnel.
- B. Format:
 - 1. Size: 8 1/2" x 11".
 - 2. Paper: 20 pound, minimum, white, for typed pages.
 - 3. Text: Manufacturer's printed data, or neatly typewritten. All catalog, data, maintenance and cleaning instructions shall be on manufacturer's letterhead, or have other identification indicating the manufacturer as source of information.
- C. Drawings:
 - 1. Provide reinforced, punched, binder tab, bind in with text.
 - 2. Fold larger Drawings to the size of the text pages.
- D. Provide flyleaf for each separate product, or each piece of operating equipment.
 - 1. Provide typed description of product and major component parts of equipment.
 - 2. Provide indexed tabs.
- E. Cover: Identify each volume with typed or printed title "RECORD AND INFORMATION BOOKLET", and the name of the project.
- F. Identify on each volume a list of general subject matter covered in the manual.
- G. No partial submittals shall be accepted. Contractor shall not deliver Record and Information Booklets to the Architect until all the required documents have been obtained by the Contractor and organized in accordance with the requirements of this Section. Incomplete submissions shall be returned to the Contractor, and all expenses required for resubmission shall be the responsibility of the Contractor.

2.02 BINDERS

- A. Commercial quality three-ring binders with durable and cleanable plastic covers.
- B. Maximum ring size: 3 inches
- C. When multiple binders are used, correlate the data into related, consistent groupings. Mark binders in sequence.

2.03 CONTENT OF BOOKLET

- A. Neatly typewritten table of contents for each volume, arranged in a systematic order by specifications divisions.
- B. Indicate contractor, name of responsible principal, address, and telephone number.
- C. List each product material, piece of equipment, and system required to be included, indexed to the content of the volume. Include serial and/or model numbers of equipment where appropriate, in order to specifically identify such items.
- D. List with each product material, piece of equipment and system as appropriate, the name, address and telephone number of the following with the area of responsibility clearly identified for each:
 - 1. Manufacturer.
 - 2. Representative.
 - 3. Subcontractor or installer.
 - 4. Maintenance Contractor as appropriate.
- E. Indicate local source of supply for parts and replacement.
- F. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- G. Include operating, cleaning and maintenance information.
- H. Include copies of each warranty, bond, and service contract issued.
- I. Information Sheet: Provide information sheet on manufacturer's letterhead indicating the following:
 - 1. Proper procedures in the event of equipment or systems failure.
 - 2. Conditions that may affect the validity of warranties or bonds.

2.04 PRODUCT DATA

- A. Include only those sheets, which are pertinent to the specific product.
- B. Annotate each sheet to:
 - 1. Clearly identify the specific product or part installed.
 - 2. Clearly identify the data applicable to the installation.
 - 3. Delete references to inapplicable information.

2.05 DRAWINGS

- A. Supplement product data with Drawings as necessary to clearly illustrate:
 - 1. Relations of component parts of equipment and systems.
 - 2. Control and flow diagrams.
- B. Coordinate drawings with information in "as-built" drawings, shop submittals or other project record information to assure correct illustration of completed installation.
- C. Do not use project record information as operating and maintenance drawings.
- D. Organize in a consistent format under separate headings for different procedures.
- E. Provide a logical sequence of instructions for each procedure.
- F. Items included in each Booklet: The Booklet shall contain a complete description of all products materials, equipment and systems as outlined in Part 3.

PART 3 - EXECUTION**3.01 PRODUCT, MATERIALS, EQUIPMENT AND SYSTEMS DESCRIPTIONS**

- A. Division 1 - General Requirements
 - 1. Warranties and Bonds: Provide a copy of each warranty, bond and service contract issued. Execute warranties and bonds in accordance with provisions of Section 01740.
- B. Division 2 – Site Work

1. Synthetic athletic surfaces (running track and tennis courts): Provide manufacturer's written recommendations for care and maintenance.
 2. Field irrigation Systems: Provide Maintenance and Operating instructions, including "as built" drawings, suggested operating schedule, shutdown procedures, and home and phone number of installation Contractor.
- C. Division 3 - Concrete
1. Precast Units: Identify each type.
- D. Division 4 - Masonry
1. Brick: Identify each type of brick selected, including size and color.
 2. Concrete Masonry Units: Identify each type of unit used; include fire resistance ratings where applicable.
- E. Division 5 - Metals
1. Floor and Roof Deck: Identify each type of deck; include gauge and other structural properties.
- F. Division 7 - Thermal and Moisture Protection
1. Metal Roofing and Siding: Identify each type; include description of profile, gauge and color.
 2. Membrane Roofing System: Identify system type, system components, insulation type and thickness.
 3. Skylights and Roof Hatches: Provide product description; identify major components.
- G. Division 8 - Doors and Windows
1. Metal and Wood Doors: Identify each type of door including labeled doors; indicate core, veneer and face sheet construction.
 2. Side Folding Gates: Provide manufacturer's catalog data and parts list. Include operating and maintenance instructions, along with lubrication requirements.
 3. Overhead Coiling Grilles, Folding Gates and Rolling Service Doors: Provide manufacturer's catalog data and parts list. Include operating and maintenance instructions, along with lubrication requirements.
 4. Storefronts: Identify type of curtain wall framing used.

5. Windows: Identify each type and include product data and parts list for operating hardware.
 6. Hardware: Furnish as-built schedule with closeout documents, including keying control schedule, manufacturers' installation, adjustment and maintenance information. Include supplier's final inspection report. Provide product descriptions of major door hardware equipment, including but not limited to, hinges, closers, exit devices, locksets, and latch sets.
 7. Glass: Identify each type, design or pattern.
- H. Division 9 - Finishes
1. Finish Schedule: Schedule shall identify each room or space by name and number, with a list of each type of finish to include: floors, base, wainscot, wall coatings, ceilings and all other applicable finishes. Where more than one color pattern or design is used for each type of finish, identify on the schedule.
 2. Ceramic Tile:
 - a. Identify each type; include manufacturers catalog number, name of each color and design or pattern.
 - b. Provide manufacturers recommended maintenance and cleaning instructions.
 3. Acoustical Tile Ceilings: Identify type of grid and each type of panel.
 4. Resilient Tile and Base:
 - a. Identify each type, provide manufacturer's catalog number and name of each color or pattern.
 - b. Provide manufacturer's recommended maintenance and cleaning instructions.
 5. Room Carpet:
 - a. Identify type; include product data and name of each color used.
 - b. Provide manufacturer's recommended maintenance and cleaning instructions.
 6. Wood Flooring-Athletic: Provide manufacturer's product data and written recommended maintenance instructions.
 7. Paint and Coatings: Identify each type of paint and coating by schedule.
- I. Division 10 - Specialties

1. Plastic Toilet Partitions: Provide catalog data and parts list for hardware.
 2. Metal Lockers: Provide catalog data and parts list for hardware, for each type of locker used.
 3. Operable Partitions (Folding and Accordion)
 - a. Identify each type, include manufacturer's catalog data.
 - b. Provide a service manual and parts list.
- J. Division 11 – Equipment
1. Library Materials Security System: Provide data, parts list, and operating and maintenance instructions. Include service contract and service point of contact
 2. Stage curtains, tracks and accessories:
 - a. Provide catalog data for each type of curtain fabric specified, including certification of flame resistance and fire retardant treatment.
 - b. Provide manufacturer's written instructions for care and maintenance.
 - c. Provide parts list for track and accessories.
 3. Theater and Stage Rigging Equipment
 - a. Identify each item of equipment. Include catalog data indicating all accessories.
 - b. Provide Operating and Maintenance Manuals and parts list. Include lubrication schedules.
 4. Motorized Projection Screens
 - a. Provide manufacturer's catalog data and parts list.
 - b. Provide manufacturer's operating and maintenance instructions.
 5. Food Service Equipment
 - a. Identify each item of equipment. Include catalog data showing options and accessories. Arrange by item number in numerical order.

- b. Maintenance and lubrication instructions for each item of equipment furnished.
 2. Heating and air conditioning systems: Include the following:
 - a. Manufacturer's catalog data, parts list and wiring diagram for each item of equipment, along with preventative maintenance instructions.
 - b. Manufacturer's catalog data, "equipment cuts", parts list and diagrams for each type of temperature controls. Include "as built" diagrams incorporating all control system components. Include system description manuals as specified in Section 15900.
 - c. Maintenance and lubrication instructions for each item of equipment.
 3. Ventilating and Exhaust Fans:
 - a. Identify each type, model number, size and capacity.
 - b. Provide service manual, parts list, and catalog data for each type of fan.
- O. Division 16 - Electrical
 1. Power, Lighting and Special Systems: Include the following:
 - a. Manufacturer's catalog data and parts list for each item of service entrance equipment and each item of electrical sub-distribution equipment, along with preventative maintenance instructions.
 - b. Manufacturer's catalog data, "equipment cuts" and parts list for all lighting fixtures; indicate installed locations.
 - c. Manufacturer's catalog data, "equipment cuts", parts list, and "as built" wiring diagrams for all components of all special systems: fire alarm system, sound and intercommunication system, master clock and program system, cable TV and broadband system, and security system.
 - d. Training manuals, where described in the individual sections, are separate from the requirements listed above.

END OF SECTION

SECTION 01740

WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Bid Proposal Bonds: Instructions to Bidders.
 - 2. Performance Bond and Labor and Material Payment Bond: Sections 00302 and 00303.
 - 3. General Warranty of Construction: General Conditions, Section 00700 (16.02).
 - 4. Contract Close-out: Section 01700.
 - 5. Operating and Maintenance Data: Section 01730.

1.02 DESCRIPTION OF WORK

- A. Compile specified Warranties and Bonds.
- B. Co-execute submittals when so specified.
- C. Review submittals to verify compliance with Contract Documents.
- D. Assemble and format, include in Record and Information Booklets and submit to Architect for review and transmittal to Owner.

1.03 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers and subcontractors.
- B. Number of original signed copies required: See Section 01730, submittal procedures.
- C. Product or work item: List each firm or manufacturer, with name of Principal or representative, address and telephone number.
 - 1. Product Identification: Provide serial and/or model numbers for specific identification of equipment.

- D. Indicate date of beginning of warranty, bond or service and maintenance contract.
- E. Specify duration of warranty, bond, or service maintenance contract.
- F. Provide information for Owner's personnel:
 - 1. Proper procedure in case of failure.
 - 2. Instances which might affect the validity of warranty or bond.
- G. Contractor, name of responsible principal, address, and telephone number.

1.04 FORM OF SUBMITTALS

- A. Format:
 - 1. Size 8 1/2" x 11", punch sheets for 3 ring binder.
 - 2. Fold larger sheets to fit into binders.
 - 3. Incorporate into Record and Information Booklets in accordance with format described in Section 01730.

1.05 EFFECTIVE DATE AND DURATION OF WARRANTIES AND BONDS

- A. The Contractor shall provide and maintain warranties on all completed work performed under this Contract for a period of one (1) year, unless noted otherwise in the individual specification section. The start of the Warranty Period for all completed work shall commence on the date of legal occupancy by the Owner for each separate phase.
- B. All materials, products, equipment, etc. provided under this contract shall carry the manufacturer's standard warranties. Where standard equipment through the manufacturer exceed the periods listed in these specifications, the manufacturer's warranty shall take precedence. **No additional cost extended warranties or service agreements are required under this contract.**

1.06 SUBMITTALS REQUIRED

- A. Submit warranties, bonds, and service and maintenance contracts as specified in the respective sections of Specifications, and as specified by this Section.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 01800

SUSTAINABLE DESIGN REQUIREMENTS

1. Include VA-CHPS scorecard in paragraph 3.06 of this section-edit scorecard for project requirements to meet the required minimum CHPS design criteria developed for this project scope of work.

SECTION 01800

SUSTAINABLE DESIGN REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This is a registered Collaborative for High Performance Schools (CHPS) designed project. Refer to VA-CHPS criteria for sustainable design requirements. Requirements can be viewed at www.chps.net.
- B. This Section includes general requirements and procedures for compliance with VA-CHPS, as part of Fairfax County Public Schools, sustainable design for the Project.
 - 1. Other sustainable features are dependent on material selections and may not be specifically identified requirements. Compliance with requirements needed to achieve sustainable design may be used as one criterion to evaluate substitution requests.
 - 2. Additional sustainable requirements depend on the Architect's design and other aspects of the project, which are not part of the Work of the Contract.
 - 3. Refer to Divisions 01 through 16 sections for sustainable requirements specific to the work of each of these sections. Requirements may or may not include reference to sustainability.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Achieve sustainable design requirements, document compliance, and complete a project totals document for the credits listed in the VA-CHPS Scorecard of this section.

1.04 DEFINITIONS

- A. Composite Wood and Agrifiber Products: Particleboard, medium density fiberboard (MDF), plywood, wheatboard, strawboard, panel substrates, and door cores.
- B. Controlled Wood: A component of the "mixed" label which allows mfg. companies to mix FSC certified material with non-certified material. The non-certified component must comply with the origins standards of FSC and must avoid: 1.

Illegally harvested wood. 2. Wood harvested in violation of traditional and civil rights. 3. Wood harvested in forests with high conservation values and is threatened through management practices 4. Wood harvested from conversion of natural forests. 5. Wood harvested from areas where genetically modified trees are planted.

- C. FSC: Forest Stewardship Council.
- D. MERV: Minimum Efficiency Reporting Value.
- E. Regional Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site. If only a fraction of a product or material is extracted/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.
- F. Recycled Content: The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.
 - 1. "Post-consumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.
 - 2. "Pre-consumer" material is defined as material diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.
- G. Vendor: The entity that sells the product to the party responsible for installation.
- H. VOC: Volatile Organic Compounds.

1.05 SUBMITTALS

- A. General:
 - 1. Submit sustainable design documentation submittals required by the project specification sections.
 - 2. Sustainable design submittals should be clearly identified as sustainable design submittals. Circle or highlight information that is intended to fulfill associated sustainable design requirement, and indicate which sustainable design credit(s) the information is intended to fulfill.
- B. Sustainable Design Documentation Submittals:

1. Manufacturers' product data indicating roof material compliance with Solar Reflectance Index requirement (Metal Roofing).
2. WE.C1-Product data for plumbing fixtures indicating water consumption including aerators.
3. Product data for glazing and window, storefront, and curtain wall frames indicating system U-value, solar heat gain coefficient (SHGC), and visible light transmittance (VLT).
4. Product data for HVAC and other refrigeration equipment indicating type and quantity of refrigerant used.
5. Construction Waste Management Plan- submit a completed Plan within 30 days of Notice to Proceed.
6. Manufacturer's certification letter and product data indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.
7. Manufacturer's certification letter and product data for regional materials indicating location and distance from Project of material manufacture and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
8. Manufacturer's product data showing Noise Reduction Coefficient (NRC) of 0.70 or greater for ceiling tile installed in classrooms and core learning spaces.
9. Construction Indoor Air Quality Management Plan: Submit a completed Plan within 14 days after Notice to Proceed.
10. Manufacturer's product data indicating MERV for temporary filters used at return air inlets during construction.
11. Report from testing and inspecting agency indicating results of indoor air quality testing and documentation showing compliance with indoor air quality testing procedures and requirements. Provide results indicating that the maximum chemical contaminant concentration requirements are not exceeded.
12. Manufacturers' product data for adhesives and sealants field-applied inside the weatherproofing system indicating VOC content of each product in grams per Liter (g/L).
13. Manufacturers' product data for paints, coatings, clear wood finishes, floor coatings, stains, primers and shellacs field-applied inside the

weatherproofing system indicating VOC content of each product used in grams per Liter (g/L).

14. Manufacturers' product data for each carpet product installed inside the weatherproofing system indicating compliance with the Carpet and Rug Institute's (CRI's) Green Label Plus Indoor Air Quality Carpet Testing Program thresholds.
 15. Manufacturers' product data for each carpet adhesive installed inside the weatherproofing system indicating VOC content in grams per Liter (g/L).
 16. Manufacturer's product data for each carpet product installed inside the weatherproofing system indicating the presence or absence of styrene butadiene rubber (SBR) latex in the carpet backing material.
 17. Manufacturers' product data for all hard surface flooring installed inside the weatherproofing system indicating compliance with the Resilient Floor Covering Institute's (RFCI's) FloorScore standard. Mineral-based flooring products (tile, masonry, terrazzo, cut stone) and unfinished/untreated wood flooring are excluded from this requirement.
 18. Manufacturers' product data for concrete, wood, bamboo, and cork floor finishes such as sealer, stain and finish field-applied inside the weatherproofing system indicating VOC content of each product in grams per Liter (g/L).
 19. Manufacturers' product data for tile setting adhesives and grout field-applied inside the weatherproofing system indicating VOC content of each product in grams per Liter (g/L).
 20. Manufacturers' product data for any products installed inside the weatherproofing system containing composite wood, agrifiber, or laminating adhesives indicating that they contain no added urea formaldehyde. Materials considered fit-out, furniture, and equipment (FF&E) are not considered base building elements and are thus excluded from this restriction.
- C. Materials considered fit-out, furniture, and equipment (FF&E) are not considered base building elements and are thus excluded from this restriction.

1.06 QUALITY ASSURANCE

- A. Sustainable Coordinator: Engage an experienced person to coordinate sustainable design requirements. Sustainable coordinator may also serve as waste management and IAQ management coordinator.

PART 2-PRODUCTS

2.01 MATERIALS, GENERAL

- A. Provide products and procedures necessary to obtain CHPS credits required in this Section. Although other Sections may specify some requirements that contribute to CHPS credits, the Contractor shall determine additional materials and procedures necessary to obtain CHPS credits indicated.

2.02 RECYCLED CONTENT OF MATERIALS

- A. Credit W.C2 : Building materials shall have recycled content such that post-consumer recycled content plus one-half of pre-consumer content for Project constitutes a minimum of 20 percent of cost of materials used for Project.
 - 1. Cost of post-consumer recycled content plus one-half of pre-consumer recycled content of an item shall be determined by dividing weight of post-consumer recycled content plus one-half of pre-consumer recycled content in the item by total weight of the item and multiplying by cost of the item.
 - 2. Do not include furniture, plumbing, mechanical and electrical components, and specialty items such as elevators and equipment in the calculation.

2.03 REGIONAL MATERIALS

- A. Credit MW.C5: Not less than 20 percent of building materials (by cost) shall be regional materials.

2.04 LOW EMITTING MATERIALS

- A. Credit EQ.C4: The following products and systems, where installed inside the weatherproofing system, shall meet the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
 - 1. Adhesives and sealants.
 - 2. Paints and coatings.
 - 3. Flooring systems.
 - 4. Composite wood and agrifiber products.
 - 5. Ceilings and wall systems.
- B. Comply with Division 1 Section "Indoor Air Quality Requirements".

PART 3- EXECUTION

3.01 COMMISSIONING AND ENHANCED COMMISSIONING

- A. Comply with Divisions 1, and 15 specifications and the Project's Commissioning Plan regarding system performance testing.
- B. Comply with Divisions 1, and 15 specifications and the Project's Commissioning Plan regarding commissioning process activities in addition to the requirements of EQ Prerequisite 1.

3.02 REFRIGERANT AND CLEAN-AGENT FIRE-EXTINGUISHING-AGENT REMOVAL

- A. Comply with Division 15 EE.P4 Eliminate ozone depleting refrigerants.

3.03 CONSTRUCTION WASTE MANAGEMENT

- A. Comply with Division 1 Section 01505 "Construction Waste Management".

3.04 CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT

- A. Comply with Division 1 Section 01810 "Indoor Air Quality Requirements."

3.05 SUSTAINABLE DESIGN DOCUMENTATION SUBMITTAL REQUIREMENTS BY SECTION

- A. Submit the corresponding sustainable design submittals under each pertinent specification section.

3.06 SCORECARD

(ADD SCORECARD)

END OF SECTION

SECTION 01810**INDOOR AIR QUALITY MANAGEMENT****PART 1 - GENERAL**

1.01 SUMMARY

- A. Effective management of indoor air quality during construction is essential to the health of the construction workers and occupants in both renovation and new construction projects. The purpose of this management plan is to assist in minimizing negative impacts of renovation or new construction to the surrounding occupied spaces. Strict adherence to this plan will ensure that an acceptable level of indoor air quality will be maintained in occupied school areas and areas that will be occupied after construction.

1.02 SCOPE

- A. During the course of construction the contractor shall perform all work required by the contract documents in such a manner as to ensure that no negative impacts to indoor air quality occur in occupied areas. Special consideration with regards to planning and quality control shall be utilized to prevent any interference with facility operations as well as to ensure occupant health and safety.

1.03 SUBMITTALS

- A. Construction Indoor Air Quality Plan
 - 1. Two weeks prior to the start of construction the contractor shall submit eight (8) copies of a Construction Indoor Air Quality Plan. This plan must be approved by FCPS. Submittals shall include the following:
 - a. Listing of products and equipment to be used, include MSDS sheets.
 - b. Descriptions of approved barriers which will be used to isolate work areas from occupied areas.
 - c. Identify pathways by which pollutants could migrate from work areas.
 - d. List all pollutants, fumes; odors or dusts that may be released by construction activities.
 - e. Provide procedures for daily cleaning and waste disposal.

- f. List any activities which will need to occur during unoccupied hours to avoid occupant exposure.
 - g. Provide building flush out procedures to be completed prior to occupancy.
 - h. Provide final cleaning schedule and procedures.
 - i. Comply with Division 1 section "Sustainable Design Requirements."
2. The FCPS construction manager shall hold on-site meetings to review the Construction Indoor Air Quality Plan. Plan implementation will be discussed during the projects progress meetings.
- B. Duct cleaning and testing:
- 1. Compliance with SMACNA *Duct Cleanliness for New Construction Guidelines* (Advanced Level) will be demonstrated and maintained. During the course of construction, thirty (30) digital photos during each phase, on phased projects, showing management measures shall be provided by the Division 15 contractor to show compliance with the guideline.
- C. Temporary use of mechanical systems:
- 1. Written approval from the FCPS construction manager must be received for the temporary use of the buildings mechanical systems in construction areas.
 - 2. Filtration product data shall be submitted for filter media used during construction. Include the Minimum Efficiency Reporting Value (MERV). The acceptable MERV level is 8.
- D. All checklists, worksheets, meeting minutes, notifications and deficiency logs related to the projects indoor air quality shall be submitted at the end of each construction phase.

PART 2 - PRODUCTS

2.01 AIR FILTRATION MEDIA

- A. Minimum Efficiency Reporting Value (MERV)
 - 1. Filtration media used during construction shall be MERV 8.
 - 2. Filtration media installed at the end of construction shall be MERV 8.
- B. Cleaning Products and Equipment

1. For each given application only the least toxic and lowest emitting practical spot removers and cleaning agents shall be used. Cleaning products shall be approved prior to use in occupied facilities.
2. High Efficiency Particulate Air (HEPA) filter equipped vacuum shall be used for final cleaning. Vacuums shall meet or exceeds the CRI Seal of Approval/Green Label Vacuum Cleaner Program.

PART 3 - EXECUTION

3.01 ALL PHASES

- A. The contractor is required to meet or exceed the minimum requirements of the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) *IAQ Guidelines for Occupied Buildings Under Construction*, current version, Chapter 3.
- B. When existing and or new HVAC equipment is used during construction, filtration media with a MERV 8 or better shall be used at every return opening. All HVAC equipment and pathways shall be dust and particulate free at the time of substantial completion.
- C. To ensure protection of mechanical systems and indoor air quality, filter media shall be replaced regularly during construction. Visual inspection and filter loading will dictate frequency of changes. Owner shall have final say on frequency. During filter media changes equipment shall be shut down to prevent recirculation of entrained particulate.
- D. Every effort shall be made to ensure HVAC supply and return duct work is kept free of dust, debris, moisture and microbial contamination during fabrication, storage, handling and installation. Any openings of the return or supply ductwork shall be covered on a daily basis, including duct work stored on site prior to installation.
- E. Immediately prior to turnover, new filtration media shall be installed in the HVAC system. Filtration media shall have a MERV 8.
- F. Mechanical rooms shall not be used as storage space for construction materials.
- G. Should existing and or new HVAC equipment be used during construction, measures shall be taken to shut equipment down during the heaviest periods of construction to avoid dust and odors from entering the system. Examples are drywall sanding, painting or finishes which produce offensive odors such as epoxy floor finishes.

3.02 SOURCE CONTROL

- A. Comply with product specifications referenced in Divisions 1-16.
- B. Materials which are absorptive (woven, fibrous or porous in nature, such as insulation, ceiling tiles, carpet and fabrics) shall be protected from exposure to dust, debris and moisture contamination during delivery, storage; and handling during construction, demolition and punch out activities. Material delivery scheduling shall be such that appropriate storage facilities are available for the proper storage of absorptive material as to prevent contamination.
- C. When strong emitting materials are used direct exhaust to the exterior of the building shall be provided. The location of the exhaust outlet shall be directed away from occupied spaces and air intakes.
- D. Care shall be taken to control dust producing activities. The location of masonry cutting saws shall be located away from the building. Any outside air intakes shall be covered with temporary filtration media. Operations involving roofing will take place during unoccupied periods with the HVAC equipment shut down and the outside air dampers closed.

3.03 CONTROL MEASURES

- A. This contractor is responsible for providing manpower, equipment, and materials to meet the requirements of this section.
- B. When work is adjacent to occupied portions of the building work areas shall be separated by barriers. Vertical barriers shall extend from floor to the roof structure above. All penetrations shall be sealed. Floor to floor penetrations shall be sealed. Egress doors to the work areas shall be self-closing and tight sealing. For additional information, see Sections 01010 and 01520.
- C. Only when the work area is properly isolated can work proceed. Activities with potential for odor or dust impacts on occupied space shall be scheduled for unoccupied times.
- D. Construction activities which involve a potential health hazard shall take place during unoccupied times. The use of equipment powered by internal combustion engines, indoor cutting of steel, concrete, masonry, roofing, or other activities which produce significant dust, odors or fumes shall be scheduled after hours, see Section 01010 for additional information.
- E. All openings to the outside of the building shall be sealed after each work shift to protect the building from moisture intrusion.
- F. Covered waste receptacles shall be provided in ample numbers to prevent dust, odors or waste accumulation and shall be emptied daily.

- G. If flooding or water leakage occurs, immediate measures shall be implemented to dry out the affected area.
- H. If at any time the FCPS construction manager determines that the contractor is violating this specification or endangering the building occupants, the contractor must cease operations until corrective actions are taken.

3.04 HOUSEKEEPING DURING CONSTRUCTION

- A. Dust producing activities shall be suppressed by the use of wetting agents or sweeping compounds.
- B. Inspect exhaust equipment and reposition as necessary to prevent the transfer of contaminants to the occupied or finished spaces.
- C. All litter associated with the consumption of food and drink shall be placed in covered waste receptacles and emptied daily. Accumulation of this debris will not be tolerated.
- D. Any absorptive material that is exposed to moisture shall be identified, inspected, and assessed for replacement.

END OF SECTION