

# PROJECT MANUAL



## FORT MILL SCHOOL DISTRICT OAK GROVE ACADEMY

1349 AO JONES BOULEVARD  
FORT MILL SOUTH CAROLINA 29715

**BID SET**

APRIL 29, 2024

**VOLUME NO.**





701-A Lady Street,  
Columbia, SC 29201  
PHONE: 803.765.2418

**LS3P COMMISSION NUMBER: 2201-240267**

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DOCUMENT 000107 – PROJECT DIRECTORY AND SEALS PAGES

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1. PROJECT DESCRIPTION

- 1.1. The Fort Mill School District (FMSD) is accepting Bids for Single Prime Contractor to provide comprehensive services as described, but not limited to, the scope outlined within the Construction Documents. The project is located at Oak Grove Academy (1346 AO Jones Blvd., Fort Mill, SC 29715). Scope shall include demo and renovations of (2) existing classrooms into new office spaces as indicated within the contract documents.

2. DEFINED TERMS

- 2.1. Terms used in the Information to Bidders are defined and have the meanings assigned to them in the General Conditions.

3. COPIES OF BIDDING DOCUMENTS

- 3.1. Only complete sets of Bidding Documents will be issued and shall be used in preparing Bids. Neither the OWNER nor the ARCHITECT/CONSTRUCTION MANAGER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 3.2. Complete sets of Bidding Documents may be obtained in the manner and at the location stated in the Invitation for Bids.

4. QUALIFICATIONS OF BIDDERS

- 4.1. Each Bid must contain evidence of the Bidder's qualifications to do business in the area where the project is located.
- 4.2. To demonstrate his qualifications to perform the Work, each Bidder must be prepared to submit, within five days of OWNER's request, a Statement of Qualifications providing written evidence as to his financial status; previous successful contractual and technical experience in similar work including references, description and volume of present commitments, evidence of possession of valid state, county, and local licenses; Certificates of Competency covering all operations and all areas of political jurisdiction involved in the work of this project; and such other data as may be requested by the OWNER.

4.3. Statement of Bidders Qualifications

If requested by the OWNER, Bidder must submit a Statement of Qualifications (the Qualifications) to include the following information. Bidder must provide all requested information in the Qualifications, and the data given must be clear and comprehensive. This statement shall be notarized and furnished to the OWNER, within five days of OWNER's request. If necessary, the Qualifications questions may be answered on separate, attached sheets. The Bidder may submit any additional information he desires.

- 4.3.1. Name of Bidder.
- 4.3.2. Name(s), address(es), & social security number(s) of company principal(s).
- 4.3.3. Permanent main office address.
- 4.3.4. When organized.
- 4.3.5. If a corporation or company, list the State where incorporated or registered, year incorporated or registered, and the location of the principal place of business.

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- 4.3.6. How many years has your organization been engaged in the contracting business under your present firm or trade name?
- 4.3.7. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion).
- 4.3.8. Under what other and former names has your organization operated?
- 4.3.9. General character of work performed by your company.
- 4.3.10. Has your company ever failed to complete any work awarded to you?
- 4.3.11. Have you ever defaulted on a contract?
- 4.3.12. List the more important projects completed by your company in the last five (5) years, the approximate cost for each project, and the month and year completed.
- 4.3.13. List your major equipment available for this contract.
- 4.3.14. Experience in construction work similar in importance to this project.
- 4.3.15. Background and experience of the principal members of your organization, including officers.
- 4.3.16. Credit available: \$ \_\_\_\_\_.
- 4.3.17. Give bank references: \_\_\_\_\_.
- 4.3.18. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the OWNER?

The following statement shall appear on the submitted Statement of Bidder Qualifications: "The undersigned hereby certifies that information furnished is true and accurate and further authorizes and requests all persons, firms, and corporations to furnish all information requested by the OWNER to allow verification of the information requested in this Statement of Bidder's Qualifications."

### 5. DISQUALIFICATION OF BIDDERS

- 5.1. One Bid: Only one Bid from an individual firm, partnership, company, or corporation under the same or under different names will be considered. If OWNER believes that a Bidder submitted more than one Bid for the work involved, all Bids submitted by that Bidder will be rejected.
- 5.2. Collusion Among Bidders: If OWNER believes that collusion exists among the Bidders, the Bids of all participants in such collusion will be rejected, and no participants in such collusion will be considered in future Proposals for the same work.

### 6. EXAMINATION OF SITE CONDITIONS

- 6.1. Each Bidder, by and through the submission of his Bid, agrees that he has examined the site, the location of all proposed work, and has satisfied himself from his own personal knowledge and experience or professional advice as to the character and location of the site, surface and subsurface conditions, elevations, locations of underground utilities and structures, and any other conditions and obstructions affecting the work, the nature of any



existing construction, and other physical characteristics of the job, in order that the prices which he bids include all costs required for satisfactory completion of the work, including the removal, relocation, or replacement of any objects or obstructions which may be encountered in doing the proposed work.

- 6.2. Reports and records of obstructions and subsurface investigations shown on the Drawings or included in the Bid Documents, were made solely for design purposes. The OWNER and ARCHITECT/CONSTRUCTION MANAGER do not warrant, guarantee or represent that said data is accurate or complete with respect to actual subsurface conditions throughout the site. Therefore, the Bidder, by and through the submission of his Bid, affirms that he has satisfied himself with respect to such site conditions, and, should the Bidder be awarded the Contract, he agrees that he will make no claims against the OWNER or ARCHITECT/CONSTRUCTION MANAGER if, in carrying out the work, he finds that the actual conditions do not conform to those indicated. The OWNER will, upon request, provide each Bidder with reasonable access to the site to conduct such tests and investigations as each Bidder deems necessary for submission of his Bid. If a Bidder obtains such access he shall restore the site to the condition existing prior to conducting said tests and investigations.
- 6.2.1. In reference to those reports of explorations and tests of subsurface conditions at the site which have been utilized by ARCHITECT/CONSTRUCTION MANAGER in preparation of the Contract Documents, Bidder may rely upon the accuracy of the technical data contained in such reports but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purpose of bidding or construction.
- 6.2.2. In reference to those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which has been utilized by ARCHITECT/CONSTRUCTION MANAGER in preparation of the Contract Documents, Bidder may rely upon the accuracy of the technical data contained in such drawings but not upon the completeness for the purpose of bidding or construction.
- Copies of such reports and drawings will be made available by OWNER to any Bidder upon request. Those reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which Bidder is entitled to rely as provided in Paragraphs 6.2.1 and 6.2.2 are incorporated into the Contract Documents by reference.
- 6.3. Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ARCHITECT/CONSTRUCTION MANAGER by owners of such Underground Facilities or others, and OWNER and ARCHITECT/CONSTRUCTION MANAGER do not assume responsibility for the accuracy or completeness thereof.
- 6.4. Should a Bidder find that any subsurface conditions, Underground Facilities, or other physical conditions at or contiguous to the site is of such a nature as to require a change in the Contract Documents due to differing conditions, Bidder shall at once notify the ARCHITECT/CONSTRUCTION MANAGER in writing.
- 6.5. The land upon which the work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by OWNER in performing the Work are identified in the Bid Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by the successful Bidder. Easements for permanent structures or permanent changes in existing structures are to be obtained and/or paid for by OWNER unless otherwise provided in the Contract Documents.

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### 7. EXAMINATION OF CONTRACT DOCUMENTS

- 7.1. Each Bidder shall carefully examine the Contract Documents, and become thoroughly informed regarding any and all conditions and requirements that may in any manner affect cost, progress or performance of the Work to be performed under the Contract. Ignorance on the part of the CONTRACTOR will in no way relieve him of the obligations and responsibilities assumed under the Contract.
- 7.2. Should a Bidder find discrepancies, ambiguities, or omissions in the Bid Documents or Contract Documents or doubt as their meaning, the Bidder shall at once notify the ARCHITECT/CONSTRUCTION MANAGER in writing.
- 7.3. The Submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of Articles 6 and 7; without exception the Bid is premised upon performing and furnishing the Work required by the Contract Document; and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents; and the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

### 8. INTERPRETATIONS, CLARIFICATIONS AND ADDENDA

- 8.1. All questions about the meaning or intent of the Contract Documents or about the bid process must be written. No oral interpretations will be made to any Bidder as to the meaning of the Contract Documents or the bid process. Any inquiry or request for interpretation received prior to the indicated due date will be given consideration. Any changes or interpretations will be made in writing in the form of an addendum and, if issued, posted on the Owner's procurement website: <http://www.fortmillschools.org/departments/procurement/> and will be sent by available means to all known prospective Bidders prior to the established bid opening date. Each Bidder shall acknowledge receipt of such addenda in the space provided on the Bid Form. In case any Bidder fails to acknowledge receipt of such addenda, submission of the bid constitutes acknowledgement of the receipt of all addenda. All addenda are a part of the Contract Documents and each Bidder will be bound by such addenda, whether or not received by him. It is the responsibility of each Bidder to verify that he has received all addenda issued before Bids are opened. Questions received less than five (5) days prior to the date for opening of Bids may not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will have no legal effect.
- 8.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ARCHITECT/CONSTRUCTION MANAGER.
- 8.3. Inquiries regarding interpretation or additional information concerning the Owner's requirements or stipulations concerning this request can be made via email as listed below.

Send questions regarding the Scope of Work on the Request for Information form included in the Project Manual via email to:

Jay Gaither, EIT (LMG)  
[jay@leitnergrp.com](mailto:jay@leitnergrp.com)

## 9. INTERPRETATION OF QUANTITIES

- 9.1. The quantities of work to be performed and materials to be furnished under unit price items, as given in the Bid Form, shall be considered as approximate only and will be used solely for the comparison of Bids received. The OWNER and/or ARCHITECT/CONSTRUCTION MANAGER do not expressly or by implication represent that the actual quantities involved will correspond exactly with the quantities on the Bid Form. The Bidder may not plead misunderstanding or deception because of such estimate or quantities or of the character, location or other conditions pertaining to the work. Payment to the CONTRACTOR under unit price items will be made only for the actual measured quantities of work performed and materials furnished in accordance with the Contract Documents, and it is understood that the quantities may be increased or decreased at the OWNER's option, as provided in the General Conditions, without in any way invalidating any of the unit or lump sum prices Bid.

## 10. ALTERNATES

- 10.1. When certain items of equipment or materials are specified or described as the product of a particular manufacturer - together with any required additional information such as model number, size or catalog number - only such specific items may be used in preparing the Bid, except as hereinafter provided.
- 10.2. A Bidder proposing to seek approval for the use of alternate, substitute, or "equal" items must do so in accordance with the provisions of Section 12 of the General Conditions and must judge for himself that such proposed equipment is of comparable character and quality to that specified. The OWNER or the ARCHITECT/CONSTRUCTION MANAGER will not discuss, approve, or disapprove any alternate or substitution of equipment or materials before execution of the Contract. The cost of changes in related work and additional drawings, which may be required to illustrate or define the alternate or substitute equipment and its relation to the other parts or portions of the work, shall be paid by the Bidder. Substitution of equipment or materials will cause no change in the Contract Time or in the amount of liquidated damages in the Contract Documents.

## 11. GOVERNING LAWS AND REGULATIONS

- 11.1. Upon award of a contract under this request the successful Bidder must comply with the laws of South Carolina including obtaining authorization or licensure to do business with this State if required.
- 11.2. Notwithstanding the fact that applicable statutes may exempt or exclude the successful Bidder from authorization or licensure requirements, by submission of this signed proposal, the Bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising under the Contract Documents and the performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.
- 11.3. The Bidder is required to be familiar with and shall be responsible for complying with all federal, State and local laws, ordinances, rules, and regulations that in any manner affect the work.
- 11.4. The bid prices shall include all sales, consumer, use, and other taxes required to be paid in accordance with the law of the place of the project.

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### 12. PREPARATION OF BIDS

- 12.1. Signature of the Bidder: Each Bidder shall sign the Bid Form in the space provided for the signature. If the Bidder is an individual, the words "doing business as", or "Sole Owner" must appear beneath such signature. In the case of a partnership, the signature of at least one of the partners must follow the firm name and the words "Member of the Firm" should be written beneath such signature. If the Bidder is company, either a member or the managing member must sign the Bid on behalf of the company and provide evidence of his authority to sign the bid. If the Bidder is a corporation, the title of the officer signing the Bid on behalf of the corporation must be stated and evidence of his authority to sign the Bid must be submitted. Bids not signed may be automatically rejected.
- 12.2. The Bidder shall show valid South Carolina Contractor's License Number on the Bid Form. Failure to show this required information in the proper place may cause the Bid to be automatically rejected.
- 12.3. Basis for Bidding: The price bid for each item shall be on a lump sum or unit price basis as specified in the Bid Form. The bid prices shall remain unchanged for the duration of the Contract and no claims for cost escalation during the progress of the work will be considered. All blanks on the Bid Form must be completed in black ink or typewritten.
- 12.4. Price Bid: The total price bid for the work shall be the aggregate of the lump sum prices bid and unit prices multiplied by the appropriate estimated quantities for the individual items and shall be stated in figures in the appropriate place on the Bid Form. In the event that there is a discrepancy on the Bid Form due to unit price extensions or additions, the corrected extensions and additions shall be used to determine the project bid amount. Written values (in words) shall supersede numerical values, when discrepancies exist.

### 13. SUBMISSION OF BIDS

- 13.1. Each bid shall be submitted on the Bid Form as furnished, together with a suitable bid security as herein described.
- 13.2. The Bid, accompanied by bid security, as described in Section 14, and other required documents, shall be submitted in a sealed envelope clearly marked with the Project title (and if applicable, the designated portion of the Project for which the Bid is submitted) and the name and address of the Bidder. If forwarded by mail or other delivery system, the above mentioned envelope shall be enclosed in another envelope with the notation "BID ENCLOSED" on the face of it and addressed to the entity and address stated in the Invitation for Bids. Bids will be received until the date and hour stated in the Invitation for Bids.
- 13.3. Solicitation Number – The Bidder shall also clearly indicate the Solicitation Number of this bid on the outside of the sealed envelope within which the Bid is submitted in person to the Fort Mill School District Office or by mail to 2233 Deerfield Dr. Fort Mill, SC 29715.
- 13.4. If requested by the OWNER, Bidder shall submit, within five days of OWNER's request, a list of the names and addresses of his major subcontractors together with the services they will supply. These subcontractors will be subject to review as to their competency by the OWNER prior to award of Contract and shall be one of the considerations in determining the successful Bidder. After award of Contract, no change in subcontractors shall be made unless approved by the OWNER after a request for such a change, including the reasons therefore, has been submitted in writing by the CONTRACTOR.
- 13.5. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION: The Bidder certifies, by submission of this document or

acceptance of a contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any State, Federal department, or agency. It further agrees by submitting this qualification statement that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the Bidder or any lower tier participant is unable to certify to this statement, it shall attach an explanation to the Bid Form.

#### 14. BID SECURITY

- 14.1. Each Proposal must be accompanied by a Bid Bond made payable to the OWNER in an amount not less than five percent (5%) of the total amount of the Bid if the total amount of the bid exceeds \$30,000. Generally, the bid security of all non-awarded Bidders, including the three (3) lowest responsible Bidders, will be returned within ten (10) days after the OWNER and the accepted Bidder have executed the written Contract and the accepted Bidder has filed acceptable Performance and Indemnity and Payment Bonds. Upon request and no earlier than thirty (30) days after the formal opening of bids, the Owner will return the bid security of any Bidder.
- 14.2. Attorneys-in-Fact who sign Bid Bonds shall file with such bonds a certified copy of their Power of Attorney to sign said Bonds.
- 14.3. Failure of the accepted Bidder to execute a Contract and file acceptable bonds within ten (10) days after a written Notice of Award has been given shall be just cause for the annulment of the award and the forfeiture of the bid security to the OWNER as liquidated damages for damages sustained by OWNER. Award may then be made to the next lowest responsible Bidder or all Bids may be rejected.

#### 15. WITHDRAWAL OF BID

- 15.1. Any Bid may be withdrawn prior to the time scheduled in Invitation for Bids for the receipt thereof. A Bid may also be withdrawn within twenty-four (24) hours after the date of the receipt of the Bids, provided that the Bidder files a duly signed, written notice with OWNER and promptly there after demonstrates, to the reasonable satisfaction of OWNER, that there was a material and substantial mistake in the preparation of its Bid. The Bid security will be returned and the Bidder will be disqualified from further bidding on the work to be provided under the Contract Documents.

#### 16. MODIFICATION OF BIDS

- 16.1. The Owner does not allow modification of bids after submittal.

#### 17. RECEIPT AND OPENING OF BIDS

- 17.1. Bids will be received until the designated time and will be publicly opened and (unless non-responsive) read aloud at the appointed time and place stated in the Invitation for Bids. The person whose duty it is to open the Bids will decide when the specified time has arrived and no Bids received thereafter will be considered. No responsibility will be attached to anyone for the premature opening of a Bid not properly addressed and identified. Bidders or their authorized agents are invited to be present. An abstract of the amounts of the base Bids and major alternates (if any) will be available to Bidders after the opening of Bids.

#### 18. DETERMINATION OF SUCCESSFUL BIDDER

- 18.1. For the purpose of award, the correct summation of the lump sum prices and/or of the products of the estimated quantities shown in the Bid and the unit prices will be considered

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the Bid. Until the final award of the Contract, the OWNER does not bind himself to accept the minimum Bid stated herein, but reserves the right to reject any and all Bids and to waive technical errors and irregularities as may be deemed best for the interests of the OWNER. Bids containing modifications that are incomplete, unbalanced, conditional, and obscure; containing additions not requested or irregularities of any kind; not complying in every respect with the Information to Bidders and the Bid Documents, may be rejected at the option of the OWNER.

- 18.2. In evaluating Bids, OWNER will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, alternates (if any), unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 18.3. OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the qualifications to perform and furnish the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.
- 18.4. The Bids of the three (3) lowest responsible Bidders will remain subject to acceptance for a maximum of one hundred twenty (120) days after the day of the Bid opening, but OWNER may, at its sole discretion, release any Bid and return the bid security prior to that date.

### 19. AWARD OF CONTRACT

- 19.1. The OWNER reserves the right to reject any or all Bids or any part of any Bid, to waive any informality in any Bid, or to re-advertise for all or part of the work contemplated. The OWNER reserves the right, prior to award of Contract, to delete from the scope of the project any item or any combination of items. If Bids are found to be acceptable by the OWNER, written Notice of Award will be given to the lowest responsible Bidder of the acceptance of his Bid and of the award of the Contract to him.
- 19.2. If a Bidder to whom a Contract is awarded forfeits his bid security and the award of the Contract is annulled, the OWNER may either award the Contract to the next lowest responsible Bidder or re-advertise the work.
- 19.3. The Contract will be awarded to the lowest responsible Bidder complying with the applicable conditions of the Contract Documents.
- 19.4. The ability of a Bidder to obtain Performance and Indemnity and Payment Bonds shall not be regarded as the sole test of such Bidder's competence or responsibility.
- 19.5. The OWNER also reserves the right to reject the Bid of a Bidder who has previously failed to perform properly or to complete Contracts of a similar nature on time.

### 20. EXECUTION OF CONTRACT

- 20.1. The Bidder to whom a Contract is awarded will be required to return to the OWNER a minimum of three (3) executed counterparts of the prescribed Contract or Agreement together with the required Performance and Indemnity and Payment Bonds and the required Certificates of Insurance within ten (10) days from the date of Notice of Award. Within ten (10) days thereafter, OWNER shall deliver one fully signed counterpart to CONTRACTOR.

## 21. PERFORMANCE AND PAYMENT BONDS

- 21.1. Simultaneously with his delivery of the executed Contract to the OWNER, a Bidder to whom a Contract has been awarded must deliver to the OWNER executed Performance and Indemnity and Payment Bonds on the prescribed forms each in an amount equal to one hundred percent (100%) of the total amount of the Contract Amount, as security for the faithful performance of the Contract and for the payment of all persons performing labor or furnishing materials in connection therewith. The Performance and Indemnity and Payment Bonds shall have as the surety thereon only such surety company or companies as are authorized to write bonds of such character and amount under the laws of the State of South Carolina and with a resident agent in the county in which the project is located. The Attorney-in-Fact, or other officer who signs the Performance and Indemnity and Payment Bonds for a surety company must file with such bonds a certified copy of his Power-of-Attorney authorizing him to do so.
- 21.2. The Performance and Indemnity and Payment Bonds shall remain in force for one (1) year from the date of final payment of the Work as a protection to the OWNER against losses resulting from latent defects in materials or improper performance of work under the Contract, which may appear or be discovered during that period.
- 21.3. Qualification of Sureties shall be as described in the General Conditions.

## 22. CERTIFICATES OF INSURANCE

- 22.1. Simultaneously with his delivery of the executed Contract and Bonds to the OWNER, the Bidder to whom a Contract has been awarded shall deliver to the OWNER the required Certificates of Insurance and endorsements certifying insurance coverage in amounts not less than the limits of liability and coverages and naming the insureds and additional insureds as provided in the General Conditions, or as required by law, whichever is greater.

## 23. AFFIRMATIVE ACTION

- 23.1. TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 Contractors shall comply with Title VI of the Civil Rights Act of 1964.

## 24. DRUG FREE WORKPLACE

- 24.1. Drug free workplace: During the performance of this project, the CONTRACTOR agrees to provide a drug-free workplace for his employees; 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 workplace and specify the actions that will be taken against employees for violations of such prohibition; and state in all solicitations or advertisements for employees placed by or on behalf of the CONTRACTOR that the CONTRACTOR maintains a drug-free workplace.
- 24.2. For the purposes of this section, “drug-free workplace” means a site for the performance of work done in connection with a specific contract awarded to a CONTRACTOR in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

## 25. CONFLICT OF INTEREST

The successful Contractor shall not knowingly employ, during the period of a contract, or any extensions to it, any professional personnel who are also in the employ of Fort Mill School District

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and who are providing services involving this request or services similar in nature to the scope of this request to the Owner. Furthermore, the Vendor shall not knowingly employ, during the period of a contract or any extensions to it, any Fort Mill School District employee who has participated in the making of a contract until at least two years after his/her termination of employment with Fort Mill School District.

### 26. PROHIBITION OF GRATUITIES

Neither the company, nor any person, employed by the company in the performance of this request, shall offer or give any gift, money or anything of value or any promise for future reward or compensation to any Fort Mill School District employee at any time.

### 27. PUBLIC ACCESS TO PROCUREMENT INFORMATION

Subject to the requirements of the Freedom of Information Act, any confidential commercial or financial information provided by the Bidder in response to this Invitation for Bids will not be disclosed if the Bidder clearly marks "CONFIDENTIAL" on each specific part of its Bid containing confidential information. Confidential commercial or financial information includes proprietary information, trade secrets, or other information exempt from disclosure under S.C. Code Ann. § 30-4-40. The Bidder must only mark the section containing confidential information as "CONFIDENTIAL." Marking the entire document confidential may result in the accidental release of confidential information.

Fort Mill School District disclaims any responsibility for accidentally disclosing information identified by any Bidder as confidential and for disclosing any information that proposer failed to visibly mark as "CONFIDENTIAL." Fort Mill School District may release information marked as confidential if Fort Mill School District determines that the information is not exempt from disclosure under S.C. Code Ann. § 30-4-40.

### 30. THE FORT MILL SCHOOL DISTRICT RESERVES THE RIGHT TO REJECT ANY AND/OR ALL BIDS AND TO WAIVE ANY AND ALL TECHNICALITIES.

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Signature, Title of CONTRACTOR



**CERTIFICATION REGARDING  
IMMIGRATION REFORM & CONTROL**

All Bidders are expected to comply with the Immigration and Reform Control Act of 1986 (IRCA), as may be amended from time to time. This Act, with certain limitations, requires the verification of the employment status of all individuals who were hired on or after November 6, 1986, by the Bidder as well as any sub-consultants. The usual method of verification is through the Employment Verification (I-9) Form. With the submission of this bid, the Bidder hereby certifies without exception that Bidder has complied with all federal and state laws relating to immigration and reform. Any misrepresentation in this regard or any employment of persons not authorized to work in the United States constitutes a material breach and, at the Fort Mill School District's option, may subject the contract to termination and any applicable damages.

The Bidder certifies that, should it be awarded a contract by the Owner, the Bidder will comply with all applicable federal and state laws, standards, orders and regulations affecting a person's participation and eligibility in any program or activity undertaken by the Bidder pursuant to this contract. The Bidder further certifies that it will remain in compliance throughout the term of the contract.

At the Owner's request, the Bidder is expected to produce to the Owner any documentation or other such evidence to verify the Bidder's compliance with any provision, duty, certification, or the like under the contract.

The Bidder agrees to include this certification in contracts between itself and any subcontractors in connection with the services performed under the Contract Documents.

---

Signature and Title of Bidder

1. EXPLANATION TO BIDDERS

Any explanations desired by bidders regarding the meaning or interpretation of the drawings and specifications should be requested in writing on the **Bidder's Request for Information Form**. This form must be submitted with sufficient time allowed for a reply to reach all perspective bidders at least seven (7) days before the submission of the bids. **Oral explanations or instructions given before the award of the Contract will not be binding.** Any interpretations made will be in the form of an addendum to the Specifications or drawings and will be furnished to all bidders and its receipt by the bidder shall be acknowledged on the proposal form in the space provided.

2. APPROVAL OF MATERIALS, EQUIPMENT AND SUBSTITUTIONS PRIOR TO OPENING OF BIDS

A. Substitutions:

The Contract shall be based on the standards of quality established in the Contract Documents. Products specified by reference to standard specifications such as ASTM and similar standards do not require further approval except for interface within the Work. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this Work by the Architect.

B. "Or equal":

Where the phrase "or equal," or "equal as approved by the Architect", occurs in the Contract Documents, do not assume that the materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this Work by the Architect. The decision of the Architect shall be final.

C. Approval of Substitutions and "Or equal" Materials:

In cases where a bidder is in doubt concerning the acceptability of a material that he desires to use as a basis for this bid, the bidder may request the Architect/Engineer's approval to use such material in lieu of that particularly mentioned as a basis of this bid. Requests from material dealers and subcontractors must be made through a prime bidder. Such requests shall be submitted in writing using the **Substitution Request Form**. The Architect/Engineer's approval to use the materials as a basis of bids will, if granted, be in writing and a copy will be forwarded to all other bidders. Approval to use a material as a basis of bids shall not constitute final approval. Such approval granted prior to opening of bids shall be subject to reconsideration after the proposals are received and before the award of the Contract. Final approval of all materials proposed in lieu of those particularly mentioned will be submitted through the apparent low Contractor as provided in Division 1 of the Contract Specifications. In view of the relatively short time available for consideration of requests and advising all parties concerned prior to opening bids, bidders should limit such requests to those they consider particularly important and should submit such requests as far in advance of the opening of bids as practical **and no less than ten (10) days prior to bid opening.**

3. ADDENDA

Changes or corrections may be made to the Drawings and Specifications after they have been issued but before bids are received. In such cases, a written addendum describing the change or corrections will be issued by the Construction Manager and the Architect/Engineer to all bidders. Such Addenda will take precedence over the portion of the Drawings and Specifications concerned and will be considered a part of the Contract Documents. *Except in unusual cases*, addenda will be issued to reach bidders at least three (3) days prior to bid opening.

**4. EXAMINATION OF DRAWINGS AND SPECIFICATIONS**

Each bidder shall carefully examine Drawings and Specifications and all Addenda or other revisions thereto and thoroughly familiarize himself with the detailed requirements thereof prior to submitting a proposal. If any bidder is in doubt as to the true meaning of any part of the Drawings, Specifications or other documents, or if any part of the error, discrepancy, conflict or omission is noted, the bidder should immediately contact the Architect/Engineer and request clarification. The Architect/Engineer will clarify discrepancy, conflict or omission and will notify all bidders by Addendum in cases where the extent of the Work or the cost thereof will be appreciably affected. No allowance will be made after the bids are received for oversight by a bidder. Bidders shall use complete sets of Contract Documents in preparing bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.

The organization of the Specifications into divisions, sections and articles and the arrangement of Drawings shall not control the Bidder in dividing the Work among sub-bidders or in establishing the extent of Work to be performed by any trade.

This Project Manual is, in part, of the "streamlined" type and includes incomplete sentences. Omissions of words or phrases such as "the Contractor shall," "as noted on the drawings" "according to the plans "a," "an", "all," are intentional and shall be supplied by inference by the reader. Words "shall" or "shall be" shall be supplied by inference where a colon (:) is used within a sentence or phrase. Where a manufacturer's name is mentioned, the words "as manufactured by" or "as made by" shall be understood.

**A Pre-Bid Conference will be held for purposes of considering questions posed by Bidders as follows.**

TIME: **May 7, 2024 at 3:00PM**  
PLACE: **2233 Deerfield Dr. Fort Mill, SC 29715**

All interpretations and corrections to Contract Documents deriving from this Conference will be mailed, faxed or electronically mailed to each Bidder of record.

**5. EXAMINATION OF OTHER CONDITIONS AFFECTING THE WORK**

Each bidder shall examine and thoroughly familiarize himself with all existing conditions including all applicable laws, ordinances, rules and regulations that will affect the work prior to submitting a proposal. He shall visit the site, examine the grounds and all existing buildings, utilities and roads and shall ascertain by any reasonable means all conditions that will in any manner affect his work. He shall ask the Architect/Engineer for any additional information that he deems necessary for him to be fully informed as to exactly what is to be expected prior to submitting a proposal. The drawings have been prepared on the basis of surveys and inspections of the site and physical conditions at the site. This, however, shall not relieve the bidder of the necessity for fully informing himself as to the existing physical conditions. Each bidder shall carefully examine the existing conditions as compared to the Contract Documents. Any discrepancies noted between same shall be noted in writing to the Architect/Engineer ten (10) days prior to the established bid date for inclusion in a written Addendum. Verbal or telephone changes will not be considered binding.

Bidder has secured on-site measurements for quantities upon which Bidder's proposal is based and has observed all existing conditions and limitations.

6. DRAWINGS AND SPECIFICATIONS

All copies of Drawings, Specifications and other documents will be accessed by each Bidder through the Owner's Procurement website. Bidding Documents may be downloaded and Bidder's will not be required to return their documents to the Construction Manager at the end of the bid process. The documents are the bidders to keep. The successful bidder will be responsible for reproducing all drawings and specifications that they and their subcontractors require for the project. **NO ADDITIONAL COPIES OF THE DRAWINGS OR SPECIFICATIONS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER UPON AWARD OF THE PROJECT.**

7. PREPARATION AND SUBMISSION OF PROPOSAL

Proposals to be entitled for consideration must be made on the form provided in the Project Manual. All conditions set forth in the "**Bid Form**" and "**Advertisement for Bids**" must be complied with. Figures shall be entered on the Bid Form in writing. All blank spaces shall be filled in properly or indicated as not applicable as necessary. No interlineations or alteration will be made on the proposal form. If erasures are necessary and appear on the forms, each such erasure must be initialed by the person signing the proposal. Proposals shall be placed in an opaque envelope, sealed, addressed and delivered in the manner and at the time stipulated in the Invitation for Bids. Facsimile or telegraphic bids will not be considered. Additionally, modification of bids by facsimile or telegraphic will not be accepted.

8. BID GUARANTEE

The bidder shall include with his proposal a bid bond for the sum of not less than five percent (5%) of the total amount of the bids, as evidence of good faith and as a guarantee that if awarded the Contract, the bidder will execute the Contract and give bond(s) as required by the Specifications. Bid bond does not have to be on an AIA Document.

9. RETURN OF BID BONDS

Bid bonds will be returned to all except the three lowest bidders within ten (10) days after the formal opening of bids. The bid bond of the three lowest bidders will be returned within 48 hours after the Owner and Contractor have executed a Contract and the executed performance bond and payment bond has been approved by the Owner, or, if no award has been made within 120 days after the opening of bids, upon the demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of this bid.

10. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful bidder, upon his failure or refusal to execute and deliver the bonds required within ten (10) days after he has received notice of the acceptance of this bid and or the notice to proceed, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid. **The successful bidder shall mobilize to the site within ten (10) days from receipt of Notice to Proceed. The contract date will be the date of issue for the notice to proceed.**

11. BIDDERS QUALIFICATIONS

Proposals for each contract will be accepted from bidders who are regularly engaged in, and licensed to perform, the work they are bidding, which represents a significant portion of their total volume and who perform this work with individuals regularly employed on their direct payrolls. Before a bid is considered for award, the bidder may be requested by the Construction Manager to submit a statement of facts in detail as to his previous experience in performing similar or comparable work and of his business and technical organization and financial resources and plant available to be used in contemplated work. The bidder may

## SECTION 00 21 13.1 – SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

also be required to submit a statement of facts in detail on his proposed subcontractors as to their previous experience and past performance in performing similar work or comparable work.

### 12. ACCEPTANCE OR REJECTION OF PROPOSAL

The Owner reserves the right to reject any and all bids when such rejection is in the interest of the Owner to reject the bid of the bidder who has previously failed to perform or to complete on time Contracts of a similar nature; and to reject the bid of a bidder who is not, in the opinion of the Architect/Engineer and/or Construction Manager, in a position to perform the Contract. The Owner reserves the right to reject any subcontractor who has previously failed to perform properly in the opinion of the Architect/Engineer, Construction Manager or the Owner. The Owner also reserves the right to waive any informalities and technicalities in bidding. The Owner may also accept or reject any of the alternates that may be set forth on the Bid Form. The Contract will be awarded (unless all bids are rejected), under normal circumstances, to the lowest responsible bidder. The Owner reserves the right, however, to award the Contract in its best interest and therefore may select a bidder other than the lowest if such is considered to be advantageous to the Owner.

The Owner reserves the right to disqualify bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder.

### 13. WITHDRAWAL OF BIDS

Bids may be withdrawn on written or telegraphed requests received from bidders prior to the time fixed for the opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

### 14. CONTRACTOR'S LICENSES

- A. The bidder shall obtain a Contractor's License under the provisions of the Contractor's Licensing Law (1976 Code) Volume 14, Chapter 11, Section 40-11-10 through 40-11-340 as amended. Specialty Contractor's Licenses can be obtained for the various building trades and information regarding these licenses can be obtained from the South Carolina Licensing Board for Contractors. It shall be the bidder's responsibility to provide appropriate licensing to perform the work described in the Contract Documents.
- B. If a Contractor has any employees earning income in South Carolina who are legal residents of another state, he also becomes a withholding agent and must withhold South Carolina Income Taxes from the earnings of the non-resident employees on the basis of tables furnished by the South Carolina Tax Commission. If a Contractor subcontracts with other non-resident Contractors, he must withhold two percent (2%) of each and every payment made to the subcontractor if the total amount of the subcontract exceeds \$10,000 or can be expected to exceed that amount. The subcontractor may obtain in the same relief as a Contractor by posting bond, per stipulations of this Act.
- C. Any Owner hiring or contracting or having a Contract with any non-resident Contractor, where such contract exceeds \$10,000 or can be expected to exceed that amount, shall be required by law to withhold two percent (2%) of each and every payment made after January 1, 1959, to such non-resident individuals and partnerships, and foreign corporations as well. A person or business entity which hires or contracts with a non-resident to perform temporary work in this state is not required to withhold two percent (2%) of the contract if the non-resident is registered to pay taxes in this state and gives an affidavit stating such person hiring or contracting with the non-resident. For additional information, contact the State of South Carolina Department of Revenue and Taxation.

15. CONTRACTS

- A. The Owner will take bids for the work described in these Bid Documents and will enter into a direct construction agreement with the successful bidder. At or before delivery of signed agreement, Bidder shall deliver to Owner the policies of insurance or certificates.
- B. The Bidder shall deliver the required bonds to the Owner, prior to signing of the contract. The bonds shall be dated on or before the date of the contract. The contract shall be dated on or before the date of the Notice To Proceed.
- C. The contracts described by these Contract Documents are as listed below:
  - 1) Single Prime

16. CLEANLINESS

A particularly high standard of cleanliness will be rigidly enforced. Contractors will be required to perform daily clean-up and failure to do so will result in the work being performed by other forces on the following day and back charged to the offending Contractor. The Construction Manager will issue a written notice of 48 hours before the contractor's forces are supplemented.

17. WORK BY OTHER CONTRACTORS

By submission of this bid, bidder acknowledges that he has read and is totally familiar with the scope of other Contractor's work. All work not performed or supplied under this contract will be identified under other Scopes of Work or Owner Furnished Products of these specifications.

18. EXISTING UTILITIES

The Contractor shall be responsible for the protection of underground and overhead utilities in his work area which are shown on the Drawings and/or which can be detected by a visual inspection of the job site. The Contractor is cautioned, however, that there may exist unknown underground utilities neither visible nor shown on the Drawings. The Contractor will take all reasonable precautions necessary to detect and preserve the service which these utilities provide. Should additional work be caused to the Contractor by the presence of such unknown underground utilities, the cost borne by the Contractor as a result of same shall be reimbursed by the Owner through the use of a negotiated Change Order. Should any utility interruptions occur, the Contractor shall immediately restore these same utilities to prevent further damages or Owner inconveniences.

19. EXCESS EXCAVATED MATERIALS

All excess or unsuitable excavated material generated by the grading process shall be removed from the site as directed by the Construction Manager. The Contractor shall allow for stockpiling of topsoil as indicated in the Contract Documents and shall coordinate said topsoil stockpile location with the Construction Manager.

20. PROHIBITION AGAINST GRATUITIES, ETC.

The Contractor's attention is directed to Section 8-13-420 of the South Carolina Code of Laws, 1976 as amended regarding the prohibition against gratuities and kickbacks, etc.

SECTION 00 21 13.1 – SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

21. PRE-BID CONSTRUCTION SCHEDULE

Notice to Proceed: **June 3, 2024**  
Substantial Completion: **July 26, 2024**

**The Contractor will be required to perform the work within the allocated time as outlined in the Specifications. The Contractor will be required to furnish a more detailed construction schedule after award of Contract.**

22. BONDS

A Performance and Payment Bond, will be required in the amount of one hundred percent (100%) of the Contract amount. Cost of bonds shall be included in the bid.

23. ACCESS TO PROJECT

The Contractor will not be permitted to occupy the site of the Work or allowed on the property of the Owner until insurance and bond requirements have been accepted and approved and the written Notice to Proceed has been issued.

END OF SECTION

PART 1 - GENERAL

1.1 Related Documents

- 1.1.1 Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.

1.2 Products Lists

- 1.2.1 Within the bidding period for non-specified manufacturers of items specified by reference standards, electronically submit to Architect/Engineer one (1) copies of complete list of major products, which are proposed for installation.
- 1.2.2 Tabulate products by specifications' section number and title.
- 1.2.3 For products only by reference standards, list for each product:
  - A. Name and address of manufacturer
  - B. Trade name
  - C. Model or catalog designation
  - D. Manufacturer's data:
    - 1) Reference standards
    - 2) Performance test data

1.3 Contractor's Options

- 1.3.1 For products specified only by reference standard, select product meeting that standard by any manufacturer.
- 1.3.2 For products specified by naming several products or manufacturers, select any one of the products and manufacturers named which complies with the specifications.
- 1.3.3 For products specified by naming several products or manufacturers and stating "or equivalent", "or equal," or "or approved equal" submit a request as for substitutions, for any product or manufacturer which is not specifically named.

1.4 Substitutions

- 1.4.1 Contractor's Base Bid shall be in strict accordance with the drawings and project manual. Contractor has the option of requesting substitutions during the bidding period by submitting completed substitution requests a minimum of **ten (10) days prior to Bid Date**.
  - A. After end of that period, requests will be considered only in case of product unavailability or other conditions beyond the control of the Contractor.
- 1.4.2 Submit separate requests for each substitution. Support each request with the following:
  - A. Complete data substantiating compliance of proposed substitution with requirements stated in contract documents:



## SECTION 00 26 10 – SUBMITTAL OF SUBSTITUTIONS

- 1) Product identification, including the manufacturer's name and address.
- 2) Manufacturer's literature; identify:
  - a. Product description
  - b. Reference standards
  - c. Performance and test data
- 3) Samples, as applicable.
- 4) Name and address of similar projects on which product has been used, and date of each installation.

- B. Itemized comparison of the proposed substitution with product specified; list significant variations.
- C. Data relating to changes in construction schedule.
- D. Any effect of substitution on separate contracts.
- E. List of changes required in other work or products.
- F. Designation of required license fees or royalties.
- G. Designation of availability of maintenance services, sources of replacement materials.

### 1.4.3 Substitutions will not be considered for acceptance when:

- A. They are indicated or implied on shop drawings or product data submittals without formal request from Contractor.
- B. Acceptance will require substantial revision of contract documents.
- C. In the judgment of Architect/Engineer, do not include adequate information necessary for a complete evaluation.
- D. If requested after contract award directly by a trade Contractor, sub-contractor or supplier.

### 1.4.4 Substitute products shall not be ordered or installed without written acceptance of Architect/Engineer.

### 1.4.5 Architect/Engineer will determine acceptability of proposed substitutions.

## 1.5 Contractor's Representation

### 1.5.1 In making formal request for substitution, Contractor represents the following:

- A. He has investigated the proposed product and has determined that it is equivalent to or superior in all respects to that specified.
- B. He will provide same warranties or bonds for substitution as for product specified.
- C. He will coordinate installation of accepted substitution into the work, and make such changes as may be required for the work to be complete in all respects.

SECTION 00 26 10 – SUBMITTAL OF SUBSTITUTIONS

D. He waives claims for additional costs caused by substitution, which may subsequently become apparent.

1.6 Architect/Engineer Duties

1.6.1 Review Contractor's request for substitutions with reasonable promptness.

1.6.2 Notification to Contractor shall be in accordance with contract documents.

1.7 Substitution Request Form

1.7.1 See Section 00 43 25 for Substitution Request Form.

END OF SECTION



SOLICITATION RFB# 23-016  
OAK GROVE ACADEMY – RENVOATIONS

BIDDER NAME: \_\_\_\_\_

BIDDER PHONE: \_\_\_\_\_

BIDDER EMAIL: \_\_\_\_\_

---

FORT MILL SCHOOL DISTRICT  
2233 DEERFIELD DR.  
FORT MILL, SC 29715

**SINGLE PRIME CONTRACT**

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All Parties:

Having carefully examined the Drawings and Specifications for the above noted project(s), as well as the premises and conditions affecting the work, the undersigned proposes to furnish all materials, labor, equipment, and services called for by them for a lump sum consideration of:

BASE BID: \$ \_\_\_\_\_ (NUMERICAL AMOUNT HERE)

\_\_\_\_\_ (WRITTEN DOLLARS HERE)

The above stated bid is based on the above-mentioned Drawings, Specifications, Pre-Bid Schedule and any Addenda issued subsequent to the basic Drawings and Specifications. (List all Addenda with dates of any issued. If no additional Addenda are issued, write the word "NONE".)

Addendum Number

Date

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

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

If any of the following Alternates are accepted, the above stated sum (base bid amount) will be altered by the amount(s) indicated below.

- a. If no Alternates are indicated, enter the term "NOT APPLICABLE" after the dollar (\$) sign.
- b. If Alternates are indicated, strike through completely either "add" or "deduct" in order to leave exposed the proper change to the base bid amount and indicate the amount of the change in numbers after the dollar (\$) sign.

- c. If Alternates are indicated, but there is no change to the base bid amount, enter the term "NO CHARGE" after the dollar (\$) sign.

**Alternate No. 1: N/A**

Base Bid: N/A

Alternate: N/A.

**ADD and/or DEDUCT \$ \_\_\_\_\_**

**UNIT PRICES**

Enter the requested unit prices below. The amount listed will be used for contract deductions in cases of credits and contract increases in cases of work scope additions. The amount listed should be fully inclusive of labor, material, equipment, taxes, insurance, overhead, profit, etc.

- 1. N/A
  - a. N/A

**ADD and/or DEDUCT \$ \_\_\_\_\_**

If notified of the acceptance of this bid or any Alternate within one hundred twenty (120) days after the date fixed for the opening of the bid, the undersigned agrees to execute and deliver the specified Contract and Contractor's Bond within ten (10) days. The undersigned agrees, if awarded the Contract within one hundred twenty (120) days from the fixed date for opening of the bids, to faithfully and properly complete the whole work within the specified time, consistent with the best interest of the Owner, the safety of the public and in accordance with first-class workmanship.

The undersigned agrees that the Owner may retain the sum of money specified as "Liquidated Damaged" as indicated within the Contract Documents, from the amount of compensation to be paid the undersigned for each calendar day that work remains uncompleted and unaccepted after the maximum duration of time for the work to be completed. This amount is agreed upon as the proper measure of liquidated damages, which the Owner sustains per day by failure of the undersigned to complete the work in the stipulated time and is not to be construed in any sense as a penalty.

**Attached hereto is a Bid Bond, which shall not be less than five percent (5%) of the principal's bid, made payable to the Owner.**

The undersigned agrees, if awarded the Contract, to comply with all provisions regarding commencement, prosecution, completion and acceptance of the work as described in the above-mentioned Specifications, "Bid Form", Construction Contract and Performance Bond. If the undersigned fails to perform according to these documents, the Bid Bond shall be paid as liquidated damages for such failure; otherwise, the Bid Bond accompanying this proposal shall be returned to the undersigned.

**A Performance and Payment Bond, executed on AIA Document A312, will be required in the amount of one hundred percent (100%) of the Contract amount. Cost of bonds shall be included in the bid.**

It is agreed that the undersigned has completed and/or will comply with all requirements concerning licensing and with all other local, state, and national laws and that no legal requirement has been or will be violated in making or accepting this proposal, in awarding the Contract to him and/or in the performance of the Work required there under.

By submission of this bid, the undersigned declares that the person or persons signing this proposal is/are authorized to sign the proposal on behalf of the firm listed and to fully bind the firm listed to all the conditions and provisions thereof. Furthermore, each person signing on behalf of any bidder certifies, under penalty of perjury that, to the best of its knowledge and belief, each bidder is not on the list created pursuant to Section 11-57-310 of the South Carolina Code of Laws.

Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
(Name of Firm)

\_\_\_\_\_  
(S.C. Contractor's License)

\_\_\_\_\_  
(Address)

By \_\_\_\_\_  
(Title)

Minority Owned/Operated Contractor/Business? Yes \_\_\_ No \_\_\_ Certificate Number \_\_\_\_\_

**\*\*\* Be sure to include this page in your proposal \*\*\***

**Bid Bond**

**CONTRACTOR:**

(Name, legal status and address)

<< >>< >  
<< >>

**SURETY:**

(Name, legal status and principal place of business)

<< >>< >  
<< >>

**OWNER:**

(Name, legal status and address)

<< >>< >  
<< >>

**BOND AMOUNT:** \$ << >>

**PROJECT:**

(Name, location or address, and Project number, if any)

<< >>  
<< >>  
<< >>

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

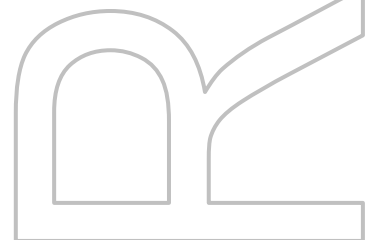
When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.



**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



**ELECTRONIC COPYING** of any portion of this AIA® Document to another electronic file is prohibited and constitutes a violation of copyright laws as set forth in the footer of this document.

Signed and sealed this « » day of « », « »

(Witness)

(Witness)

« »

(Contractor as Principal)

(Seal)

« »

(Title)

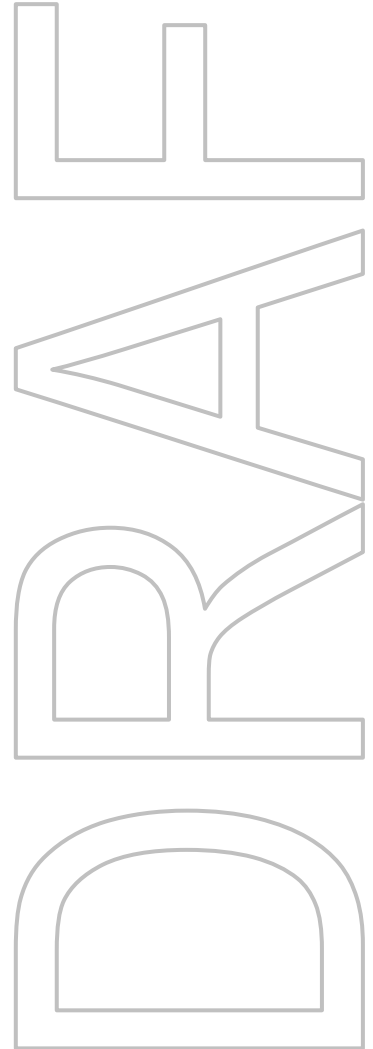
« »

(Surety)

(Seal)

« »

(Title)







**SUBSTITUTION REQUEST FORM**

TO: **LMG**

PROJECT: **Oak Grove Academy - Renovations**

We hereby submit for your consideration the following product instead of the specified item for the above project:

<u>Drawing</u>	<u>Spec. Sect. No.</u>	<u>Paragraph</u>	<u>Specified Item</u>
_____	_____	_____	_____

Proposed Substitution:

Attach complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiating data to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance.

Fill in blanks below:

A. Does the substitution affect dimensions shown on the Drawings?

Yes \_\_\_ No \_\_\_

If yes, clearly indicate the changes:

B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? Yes \_\_\_ No \_\_\_

C. What effect does substitution have on other Contracts or other Trades?

D. What effect does substitution have on construction schedule?

E. Manufacturer's warranties of the proposed and specified items are:

Same \_\_\_\_\_ Different \_\_\_\_\_(Explain on attachment.)

F. Reason for request:



PART 1 - GENERAL

1.1 Form of Agreement

- A. The Owner will take bids for the work described in these Bid Documents and will enter into a direct construction agreement with the lowest responsive and responsible bidder. The form of agreement between the Owner and Contractor is included in these contract documents. This contract will be required to be executed prior to the commencement of work.
- B. The successful bidder will be required to furnish a Performance & Indemnity Bond and a Payment Bond (enclosed herein) in the amount of one hundred percent (100%) of the Contract Amount.
- C. The Contractor will not be permitted to occupy the site of the Work or allowed on the property of the Owner until insurance and bond requirements have been accepted and approved and the written Notice to Proceed has been issued.

1.2 General Conditions

- A. The General Conditions that will be utilized are included as part of these contract documents.

1.3 Contractor Certification Form

- A. SC DHEC Contractor Certification Form is hereby made part of the Contract Documents. This form is required to be signed by any Contractor(s) likely to be performing land disturbing activity prior to site access.

END OF SECTION

# DRAFT AIA® Document A132® - 2019

## Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition

**AGREEMENT** made as of the « » day of « » in the year « »  
(In words, indicate day, month, and year.)

**BETWEEN** the Owner:  
(Name, legal status, address, and other information)

« Fort Mill School District »« »  
« 2233 Deerfield Drive »  
« Fort Mill, SC 29715 »

and the Contractor:  
(Name, legal status, address, and other information)

« »« »  
« »  
« »  
« »

for the following Project:  
(Name, location, and detailed description)

« Oak Grove Academy - Renovations »  
« 1346 AO Jones Blvd. »  
« Fort Mill, SC 29715 »

The Construction Manager:  
(Name, legal status, address, and other information)

« LMG »« »  
« 1800 Saluda Rd. »  
« Rock Hill, SC 29730 »  
« »

The Architect:  
(Name, legal status, address, and other information)

« LS3P Associates »« »  
« 701 Lady St # A »  
« Columbia, SC 29201 »  
« »

The Owner and Contractor agree as follows.

**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Documents A232™-2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition; B132™-2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™-2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser. AIA Document A232™-2019 is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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**TABLE OF ARTICLES**

- 1 THE CONTRACT DOCUMENTS**
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- 3 DATE OF COMMENCEMENT AND DATES OF SUBSTANTIAL COMPLETION**
- 4 CONTRACT SUM**
- 5 PAYMENTS**
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- 8 MISCELLANEOUS PROVISIONS**
- 9 ENUMERATION OF CONTRACT DOCUMENTS**

**EXHIBIT A INSURANCE AND BONDS**

**EXHIBIT B DETERMINATION OF THE COST OF THE WORK**

**ARTICLE 1 THE CONTRACT DOCUMENTS**

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 9.

**ARTICLE 2 THE WORK OF THIS CONTRACT**

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

**ARTICLE 3 DATE OF COMMENCEMENT AND DATES OF SUBSTANTIAL COMPLETION**

**§ 3.1** The date of commencement of the Work shall be:  
*(Check one of the following boxes.)*

The date of this Agreement.

A date set forth in a notice to proceed issued by the Owner.

Established as follows:  
*(Insert a date or a means to determine the date of commencement of the Work.)*

Upon receipt of the Notice to Proceed unless otherwise approved by the Owner. »

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

**§ 3.2** The Contract Time shall be measured from the date of commencement of the Work.

**§ 3.3 Substantial Completion of the Project or Portions Thereof**

**§ 3.3.1** Subject to adjustments of the Contract Time as provided in the Contract Documents, the date of Substantial Completion of the Work of all of the Contractors for the Project will be:

*(Insert the date of Substantial Completion of the Work of all Contractors for the Project.)*

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work of all of the Contractors for the Project are to be completed prior to Substantial Completion of the entire Work of all of the Contractors for the Project, the Contractors shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date
N/A	

§ 3.4 When the Work of this Contract, or any Portion Thereof, is Substantially Complete

§ 3.4.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall substantially complete the entire Work of this Contract:

(Check one of the following boxes and complete the necessary information.)

Not later than « » ( « » ) calendar days from the date of commencement of the Work.

By the following date: « »

§ 3.4.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work of this Contract are to be substantially complete prior to when the entire Work of this Contract shall be substantially complete, the Contractor shall substantially complete such portions by the following dates:

Portion of Work	Date to be substantially complete

§ 3.4.3 If the Contractor fails to substantially complete the Work of this Contract, or portions thereof, as provided in this Section 3.4, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor’s performance of the Contract. The Contract Sum shall be one of the following:

(Check the appropriate box.)

Stipulated Sum, in accordance with Section 4.2 below

Cost of the Work plus the Contractor’s Fee, in accordance with Section 4.3 below

Cost of the Work plus the Contractor’s Fee with a Guaranteed Maximum Price, in accordance with Section 4.4 below

(Based on the selection above, complete Section 4.2, 4.3 or 4.4 below.)

§ 4.2 Stipulated Sum

§ 4.2.1 The Contract Sum shall be « » (\$ « » ), subject to additions and deductions as provided in the Contract Documents.

§ 4.2.2 Alternates

§ 4.2.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.

(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 4.2.3 Allowances, if any, included in the Contract Sum:  
(Identify each allowance.)

Item	Price
General Contingency Allowance	\$

§ 4.2.4 Unit prices, if any:  
(Identify the item and state the unit price, and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)
TBD		

§ 4.5 Liquidated damages, if any:  
(Insert terms and conditions for liquidated damages, if any, to be assessed in accordance with Section 3.4.)

« \$500.00 per day »

**ARTICLE 5 PAYMENTS**

**§ 5.1 Progress Payments**

§ 5.1.1 Based upon Applications for Payment submitted to the Construction Manager by the Contractor, and Certificates for Payment issued by the Construction Manager and Architect, the Owner shall make progress payments on account of the Contract Sum, to the Contractor, as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

« »

§ 5.1.3 Provided that an Application for Payment is received by the Construction Manager not later than the « 25th » day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the « 25th » day of the « following » month.  
(Federal, state or local laws may require payment within a certain period of time.)

**§ 5.1.4 Progress Payments Where the Contract Sum is Based on a Stipulated Sum**

§ 5.1.4.1 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Construction Manager and Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.4.2 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.4.3 In accordance with AIA Document A232™-2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.4.3.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

- § 5.1.4.3.2 The amount of each progress payment shall then be reduced by:
- .1 The aggregate of any amounts previously paid by the Owner;
  - .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A232–2019;
  - .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
  - .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A232–2019; and
  - .5 Retainage withheld pursuant to Section 5.1.7.

### § 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to when the Work of this Contract is substantially complete, the Owner may withhold the following amount, as retainage, from the payment otherwise due:  
*(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)*

« 10% »

### § 5.2 Final Payment

#### § 5.2.1 Final Payment Where the Contract Sum is Based on a Stipulated Sum

§ 5.2.1.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A232–2019, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment or Project Certificate for Payment has been issued by the Architect.

§ 5.2.1.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the final Certificate for Payment or Project Certificate for Payment, or as follows:

« Final payment to the Contractor shall be made upon completion of all scopes of work, punchlist phase, acceptance by all Authority Having Jurisdiction, and following turnover of all required Closeout Documentation. »

## ARTICLE 6 DISPUTE RESOLUTION

### § 6.1 Initial Decision Maker

The Architect will serve as Initial Decision Maker pursuant to Article 15 of AIA Document A232–2019, unless the parties appoint below another individual, not a party to this Agreement, to serve as Initial Decision Maker.

*(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)*

« Mr. Joe Romenick »  
« Assistant Superintendent, Operations »  
« Fort Mill School District »

### § 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A232–2019, the method of binding dispute resolution shall be as follows:

*(Check the appropriate box.)*

- [  ] Arbitration pursuant to Article 15 of AIA Document A232–2019.
- [  ] Litigation in a court of competent jurisdiction.
- [  ] Other: *(Specify)*



« Mutual Agreement »

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

**ARTICLE 7 TERMINATION OR SUSPENSION**

**§ 7.1 Where the Contract Sum is a Stipulated Sum**

§ 7.1.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A232–2019.

§ 7.1.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A232–2019, then the Owner shall pay the Contractor a termination fee as follows:

*(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)*

« Payment of all materials purchased or used in scope of work and all labor performed within scope of work. All materials purchased but not installed shall be turned over to the Owner prior to payment. »

§ 7.1.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A232–2019.

**ARTICLE 8 MISCELLANEOUS PROVISIONS**

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A232–2019 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

*(Name, address, email address, and other information)*

« Mr. Joe Romenick »  
« Assistant Superintendent, Operations »  
« Fort Mill School District »  
« romenickj@fortmillschools.org »  
« (803) 984-8980 »

§ 8.3 The Contractor’s representative:

*(Name, address, email address, and other information)*

« »  
« »  
« »  
« »  
« »  
« »

§ 8.4 Neither the Owner’s nor the Contractor’s representative shall be changed without ten days’ prior notice to the other party.

**§ 8.5 Insurance and Bonds**

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A132™–2019, Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A232–2019, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

« N/A »

## ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition
- .2 AIA Document A132™–2019, Exhibit A, Insurance and Bonds Exhibit
- .3 AIA Document A232™–2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition
- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:  
(Insert the date of the E203-2013 incorporated into this Agreement.)

« N/A »

- .5 Drawings

Number	Title	Date

- .6 Specifications

Section	Title	Date	Pages

- .7 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

- .8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

AIA Document A132™–2019, Exhibit B, Determination of the Cost of the Work

AIA Document E235™–2019, Sustainable Projects Exhibit, Construction Manager as Adviser Edition, dated as indicated below:  
(Insert the date of the E235-2019 incorporated into this Agreement.)

« »

The Sustainability Plan:

Title	Date	Pages

Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

- .9 Other documents, if any, listed below:  
*(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A232–2019 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor’s bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)*

« »

This Agreement is entered into as of the day and year first written above.

OWNER (Signature)

« Mr. Joe Romenick »  
 « Assistant Superintendent, Operations »« »  
 (Printed name and title)

CONTRACTOR (Signature)

« »« »  
 (Printed name and title)



# DRAFT AIA® Document A232® - 2019

## *General Conditions of the Contract for Construction, Construction Manager as Adviser Edition*

### **for the following PROJECT:**

*(Name, and location or address)*

« Oak Grove Academy - Renovations »  
« 1346 AO Jones Blvd. »  
« Fort Mill, SC 29715 »

### **THE CONSTRUCTION MANAGER:**

*(Name, legal status, and address)*

« LMG »« »  
« 1800 Saluda Rd. »  
« Rock Hill, SC 29730 »

### **THE OWNER:**

*(Name, legal status, and address)*

« Fort Mill School District »« »  
« 2233 Deerfield Drive »  
« Fort Mill, SC 29715 »

### **THE ARCHITECT:**

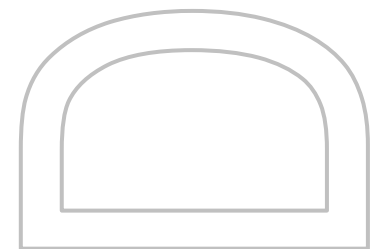
*(Name, legal status, and address)*

« LS3P Associates »« »  
« 701 Lady St # A »  
« Columbia, SC 29201 »

**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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## ARTICLE 1 GENERAL PROVISIONS

### § 1.1 Basic Definitions

**§ 1.1.1 The Contract Documents.** The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of addenda relating to bidding or proposal requirements.

**§ 1.1.2 The Contract.** The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and the Construction Manager or the Construction Manager's consultants, (3) between the Owner and the Architect or the Architect's consultants, (4) between the Contractor and the Construction Manager or the Construction Manager's consultants, (5) between the Owner and a Subcontractor or Sub-subcontractor (6) between the Construction Manager and the Architect, or (7) between any persons or entities other than the Owner and Contractor. The Construction Manager and Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of their duties. In the event of a conflict or inconsistencies between parts of the Contract Documents other than a conflict or inconsistency relating to the quantity or quality of the Work, the following order of precedence shall control: (1) the Agreement, with any Modifications; (2) these General Conditions; (3) the exhibits and attachments to the Agreement; (4) the Specifications; (5) the Drawings; and (6) any other Contract Documents in the order that is most reasonable under the circumstances. Where there is a conflict or inconsistency between figures given on drawings and scaled measurements, the figures shall govern; no measurements should be taken by scale as working dimensions except on large-scale drawing not dimensioned in detail. Where there is a conflict between large-scale drawings and small-scale drawings, the larger scale shall govern.

**§ 1.1.3 The Work.** The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

**§ 1.1.4 The Project.** The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by other Contractors, and by the Owner's own forces and Separate Contractors.

**§ 1.1.5 Contractors.** Contractors are persons or entities, other than the Contractor or Separate Contractors, who perform Work under contracts with the Owner that are administered by the Architect and Construction Manager.

**§ 1.1.6 Separate Contractors.** Separate Contractors are persons or entities who perform construction under separate contracts with the Owner not administered by the Architect and Construction Manager.

**§ 1.1.7 The Drawings.** The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

**§ 1.1.8 The Specifications.** The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

**§ 1.1.9 Instruments of Service.** Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's

consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

**§ 1.1.10 Initial Decision Maker.** The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

## **§ 1.2 Correlation and Intent of the Contract Documents**

**§ 1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. If there is an inconsistency in the Contract Documents, the Contractor shall provide the better quality or greater quantity of work or comply with the more stringent requirements.

**§ 1.2.1.1** The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

**§ 1.2.2** Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

**§ 1.2.3** Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

**§ 1.2.4** Contractor shall evaluate the conditions under which the Work is to be performed, including without limitation, (1) the location, condition, layout, and nature of the Project site and surrounding areas, (2) generally prevailing weather conditions, and (3) availability and cost of labor, materials, and equipment. The Owner assumes no responsibility or liability for the physical condition or safety of the project site, or any improvements located thereon. The Owner and Contractor agree that there shall not be any adjustment in either the Contract Sum or the Contract Time due in whole or in part to the Contractor's failure to comply with requirements of this paragraph. By executing the Contract, the Contractor represents that he has reviewed all Contract Documents, including architectural, structural, mechanical, plumbing, and electrical divisions of the Plans and Specifications, the cost of all materials and equipment shown in the Contract Documents have been included in the Contract Sum, and that all costs for materials and labor associated with the installation of such equipment have been included in the Contract Sum.

**§ 1.2.5** Contractor shall make a thorough examination of the site and study all Drawings and Specifications and all conditions relating to the erection of the Work. If any materials or labor evidently necessary for the proper and complete execution of the Work, which are not specifically mentioned although reasonably inferred therefrom, shall be included in the Work. Anything called for in the Specifications and not shown on the Drawings or shown on the Drawings and called for in the Specifications shall be included in the Contractor's Work, the same as if included in both. In the event of doubt arising as to the true intent and meaning of the Drawings or Specifications, the Contractor shall report it at once to the Architect in writing. The Architect shall furnish with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the Work. All such drawings and instructions shall be consistent with the Contract Documents, true developments thereof and reasonably inferable therefrom. The Work shall be executed in conformity therewith and the Contractor shall do no Work without proper drawings and instructions. If the Contractor proceeds contrary to the above instructions, all such labor and material costs shall be provided at the Contractor's sole expense.

## **§ 1.3 Capitalization**

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

## § 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as “all” and “any” and articles such as “the” and “an,” but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

## § 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect’s consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect’s or Architect’s consultants’ reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect’s consultants.

## § 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

## § 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form.

## § 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in writing, shall be at the using or relying party’s sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

## ARTICLE 2 OWNER

### § 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner has designated Leitner Management Group to represent the Owner with respect to all matters requiring the Owner’s approval or authorization. Except as otherwise provided in Section 4.2.1, the Construction Manager and the Architect do not have such authority. The term “Owner” means the Owner or the Owner’s authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic’s lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner’s interest therein.

### § 2.2 Evidence of the Owner’s Financial Arrangements

§ 2.2.1 Prior to commencement of the Work, and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner’s obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such



evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

**§ 2.2.2** Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

**§ 2.2.3** After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

**§ 2.2.4** Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

### **§ 2.3 Information and Services Required of the Owner**

**§ 2.3.1** Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Unless otherwise provided under the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit.

**§ 2.3.2** The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

**§ 2.3.3** The Owner shall retain a construction manager adviser lawfully practicing construction management in the jurisdiction where the Project is located. That person or entity is identified as the Construction Manager in the Agreement and is referred to throughout the Contract Documents as if singular in number.

**§ 2.3.4** If the employment of the Construction Manager or Architect terminates, the Owner shall employ a successor construction manager or architect to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Construction Manager or Architect, respectively.

**§ 2.3.5** The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

**§ 2.3.6** The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

**§ 2.3.7** Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.3.8 The Owner shall forward all communications to the Contractor through the Construction Manager. Other communication shall be made as set forth in Section 4.2.6.

§ 2.3.9 The Contractor is responsible for obtaining and providing all Drawings and Specifications for the Project for its own use and all Subcontractors' use. Drawings and Specifications are provided in digital format only by the Owner. No hard copies of the Drawings and Specifications will be provided. Any paper copies required by the Contractor shall be furnished at the Contractor's expense.

#### § 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

#### § 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to review by the Construction Manager and prior approval of the Architect, and the Construction Manager or Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Construction Manager's and Architect's and their respective consultants' additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

#### § 2.6 EXTENT OF OWNER'S RIGHTS

§ 2.6.1 The rights stated in this Article 2 and elsewhere in the Contract Documents are cumulative and not in limitation of any rights of the Owner (1) granted in the Contract Documents, (2) at law, or (3) in equity.

§ 2.6.2 In no event shall the Owner or Architect/Engineer have control over, charge of, or any responsibility for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, notwithstanding any of the rights and authority granted the Owner in the Contract Documents.

### ARTICLE 3 CONTRACTOR

#### § 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Construction Manager or Architect in their administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

#### § 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal

observations with requirements of the Contract Documents. Contractor shall evaluate the conditions under which the Work is to be performed, including without limitation, (1) the location, condition, layout, and nature of the project site and surrounding areas, (2) generally prevailing weather conditions, and (3) availability and cost of labor, materials, and equipment. The Owner assumes no responsibility or liability for the physical condition or safety of the project site of any improvements located thereon. By executing the Contract, the Contractor represents that he has reviewed all Contract Documents, including architectural, structural, mechanical, plumbing, and electrical divisions of the Plans and Specifications, the cost of all materials and equipment shown in the Contract Documents have been included in the Contract Sum, and that all costs for the materials and labor associated with the installation of such equipment have been included in the Contract Sum.

The Contractor and each Subcontractor shall be responsible for verification of all measurements in accordance with the Contract Documents at the Project site before ordering any materials or performing any Work. No extra charge or compensation shall be allowed due to difference between actual dimensions and dimensions indicated in the Contract Documents. Any such discrepancy in dimension which may be found shall be submitted to the Architect for his consideration before the Contractor proceeds with the Work in the affected areas.

Contractor agrees that notwithstanding any other provision of the Contract, it shall not be entitled to any increase in the Contract Sum or the Contract Time with respect to any condition which was or could have been discovered by the Contractor as result of the investigation, evaluation, and information described in this Section 3.2.1.

**§ 3.2.2** Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.5, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Construction Manager and Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information submitted to the Construction Manager in such form as the Construction Manager and Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. Should any error or inconsistency appear in the Contract Documents, the Contractor, before proceeding with the Work, must identify the same in writing to the Architect for proper adjustment and in no case proceed with the Work until sufficient direction is given by the Architect; should Contractor proceed without sufficient direction from the Architect, Contractor shall be fully responsible for any and all damages and consequences resulting from such error or inconsistency.

**§ 3.2.3** All of the Work shall be executed in strict compliance with all applicable laws, statutes, ordinances, codes, rules, regulations, and lawful orders of public authorities, including without limitation, the latest edition of the Southern Carolina School Facilities Planning and Construction Guide, and shall be in compliance with all national codes, rules, regulations, and standards applicable to the Project.

**§ 3.2.4** If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents.

**§ 3.2.5** Drawings and Specifications show specified structural, architectural, mechanical, and electrical entities, diagrams and devices for each item. The mention of an acceptable or approved product does not necessarily imply that their particular "standard" product is totally adaptable to the details shown. Therefore, the cost of deviations, extensions, or adjustments required for the low Bidder's product must be included in the Contractor's bid. No additional cost will be considered.

### **§ 3.3 Supervision and Construction Procedures**

**§ 3.3.1** The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner, the Construction Manager, and the Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. The Construction Manager shall review the proposed alternative for sequencing, constructability, and coordination impacts on the other Contractors. Unless the Architect or the Construction Manager objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

**§ 3.3.2** The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

**§ 3.3.3** The Contractor shall be responsible for inspection of portions of the Project already performed to determine that such portions are in proper condition to receive subsequent Work.

**§ 3.3.4** The Work shall be of the highest quality, in every respect, as usually recognized in the building industry. Poor or inferior workmanship (as determined by the Architect, Owner, or inspecting authorities) is to be removed and replaced to conform to the highest quality standards of the trades concerned, or otherwise corrected.

**§ 3.3.5** Contractor shall layout the Work and be responsible for all lines, levels, and measurements of all Work executed under this Contract.

**§ 3.3.6** Contractor, Subcontractors, and other on-site trades shall cooperate and coordinate their Work to expedite the progress of the Project. All Subcontractors shall review and refer to the Drawings and Specifications of other trades involved with their particular Work before proceeding. Any Work involved which conflicts with another trade and had not been brought to the attention of the Architect prior to installation shall be removed at no additional cost to the Owner.

### **§ 3.4 Labor and Materials**

**§ 3.4.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

**§ 3.4.2** Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect, in consultation with the Construction Manager, and in accordance with a Change Order or Construction Change Directive.

**§ 3.4.3** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them. The Architect and Owner reserve the right to require the Contractor to remove from the Project any personnel whose actions are detrimental and disruptive to the Project.

### **§ 3.5 Warranty**

**§ 3.5.1** The Contractor warrants to the Owner, Construction Manager, and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The

Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Construction Manager or Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. All warranties from subcontractors, suppliers, and manufacturers shall be assigned to the Owner or have the Owner named as an additional obligee on the warranty.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

### § 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work or portions thereof provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

### § 3.7 Permits, Fees, Notices, and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit. The Contractor shall secure and pay for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 **Concealed or Unknown Conditions.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner, Construction Manager, and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect and Construction Manager will promptly investigate such conditions and, if the Architect, in consultation with the Construction Manager, determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect, in consultation with the Construction Manager, determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner, Construction Manager, and Contractor, stating the reasons. If the Owner or Contractor disputes the Architect's determination or recommendation, either party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner, Construction Manager, and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

### § 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents:

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.8.4 The amount due to the Contractor for any allowance item shall be based upon certified copies of invoices from suppliers and subcontractors. Marked-up for overhead and profit and premiums for insurance and bonds are not allowed to be added to items that will be deducted from allowance.

### § 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect, through the Construction Manager, of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor, stating whether the Owner, the Construction Manager, or the Architect (1) has reasonable objection to the proposed superintendent or (2) require additional time for review. Failure of the Construction Manager to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner, Construction Manager, or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent or other project team supervisory members without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.9.4 The Contractor's superintendent shall maintain a written daily log of the progresses of the work. This log shall be kept at the job site, made available for inspection upon request by the Architect or Owner, and emailed daily or copies mailed to the Architect and Owner upon accumulating three (3) days of reports. The reports shall contain as a minimum: date, day, low & high temperatures, record of precipitation, quantity of Contractor and Subcontractor personnel on site, general description of Work activities performed, list of items needed from Contractor and from the Architect (that are currently schedule sensitive), any other comments that pertain to job progress and quality, and a record of verbal instruction/interpretations given to the Contractor.

§ 3.9.5 The Contractor's superintendent shall be capable of and shall have full authority to act on behalf of the Contractor for the following: (1) supervision of tradesmen and Subcontractors, (2) reading and interpreting the Contract Documents, (3) orderly coordination of the Work with the Architect in the daily execution of the Work, (4) laying out the Work, (5) representing the Contractor with the Owner and Architect in the daily execution of the Work, and (6) controlling and establishing good quality in the completed Work. The Contractor's superintendent shall be the supervisor of the Contractor's labor force. Contractor's superintendent shall attend the regularly scheduled progress meetings onsite and keep informed of all schedule requirements, safety hazards, and general job conditions. Contractor's superintendent shall plan and pursue the Work under its supervision in a professional and expeditious manner. The Contractor shall not replace or remove the superintendent without the prior written approval of the Owner.

§ 3.9.6 In the event that the Contractor's superintendent or the superintendents of the Contractor's major Subcontractors fail to perform their functions in keeping with the standards commonly observed in the construction industry or fail to cooperate and coordinate the Contractor's Work in conformance with the Contract Documents, then the Owner shall have the right to require the superintendent's removal from the Project. The Contractor agrees that, upon receipt of written notice, the Contractor shall remove the superintendent or require such major Subcontractor to remove the superintendent from the Project within one (1) week and provide a suitable replacement in accordance with the procedure defined in Paragraph 3.9.2.

### **§ 3.10 Contractor's Construction and Submittal Schedules**

**§ 3.10.1** The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information, and the Construction Manager's use in developing the Project schedule, a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. The Contractor shall cooperate with the Construction Manager in scheduling and performing the Contractor's Work to avoid conflict with, and as to cause no delay in, the work or activities of other Contractors, or the construction or operations of the Owner's own forces or Separate Contractors.

**§ 3.10.1.1** This schedule shall indicate the dates for the starting and completion of various stages of construction and shall be revised monthly as required by the conditions of the work. This schedule shall be broken down into work items as required for proper review.

**§ 3.10.1.2** The Contractor shall prepare a time scaled Critical Path Method ("CPM") schedule and shall update this schedule monthly. Copies of the original schedule and all updates shall be provided to the Architect and Owner. A copy shall be maintained at the job site office. Additionally, a two-week look ahead or similar schedule shall be used, maintained, and distributed at each weekly OAC meeting.

**§ 3.10.2** The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Construction Manager's and Architect's approval. The Architect and Construction Manager's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Construction Manager and Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

**§ 3.10.3** The Contractor shall participate with other Contractors, the Construction Manager, and the Owner in reviewing and coordinating all schedules for incorporation into the Project schedule that is prepared by the Construction Manager. The Contractor shall make revisions to the construction schedule and submittal schedule as deemed necessary by the Construction Manager to conform to the Project schedule.

**§ 3.10.4** The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner, Construction Manager, and Architect, and incorporated into the approved Project schedule.

**§ 3.10.5** The Contractor agrees to maintain the schedule by having in its employment someone thoroughly trained and experienced in compiling and construction schedule, and in issuing periodic updates and reports as required. If the Contractor does not have a qualified person employed, the Contractor is required to provide an outside vendor capable of performing this function. The approved schedule shall be updated monthly and submitted along with the monthly payment application. It shall indicate actual start dates for activities and actual completion dates. It should also provide a progress by percent complete for stated activities not completed at the time of update. If the schedule indicates progress is not planned, then the Contractor shall provide a written narrative summary of revisions causing delay in the plan, and an explanation of corrective actions required to bring the Work back to the original planned schedule. Failure to provide such management effort could cause a delay in payment until such information is available.

**§ 3.10.6** If the Contractor fails, in the opinion of the Architect or the Owner, to maintain progress of the Work as provided in the schedule, the Contractor agrees that, at the request of the Architect or the Owner, the Contractor will increase crew size, work overtime, add shift work, and/or work weekends at no extra cost to the Owner in order to achieve and maintain progress of the Work in keeping with the Construction Schedule.

**§ 3.10.7** Each Contractor shall award all subcontracts, purchase materials, arrange for deliveries, furnish sufficient forces and equipment, and work such hours as necessary to ensure execution of the Work in conformity with the schedule.

**§ 3.10.8** If the Contractor falls behind the Schedule and is not entitled to a time extension, upon request of the Architect or the Owner, the Contractor shall submit within forty-eight (48) hours a plan for bringing the progress of the Work into conformity with the schedule. This plan shall include a commitment for immediate implementation, unless otherwise approved by the Architect or the Owner, and must include a time commitment acceptable to the Architect and the Owner for bringing the progress of the Work into conformity with the schedule. If the Contractor fails to provide an acceptable plan within the time required, then the Architect or the Owner may prepare and furnish such a plan, and the Contractor agrees to implement the measures set forth in such plan prepared and furnished by the Architect and/or the Owner.

**§ 3.10.9** If other measures will not be sufficient to bring the progress of the Work into conformity with the schedule, then the Contractor's plans and implementation thereof shall include increasing the number of shifts, increasing the number of days of work and/or instituting or increasing overtime, all at the Contractor's expense.

**§ 3.10.10** If a Contractor fails or refuses to implement such measures to bring the progress of the Work into conformity with the schedule, the Agreement may be terminated by the Owner for cause.

**§ 3.10.11** The Contractor agrees that if the Owner determines, in its sole discretion, that the contractor failed or refused to implement such measures as will bring the progress of the Work into conformity with the schedule, then the Owner may contract with others or use the Owner's own forces to perform the Work to bring the progress into conformity with the Construction Schedule. The Contractor agrees that the Owner will be entitled to a set off for the cost thereof including, but not limited to, actual costs, legal fees, and additional overhead costs, which will be charged against the Contract Sum due the Contractor.

**§ 3.10.12** If the Work is delayed due to any cause entitling the Contractor to an extension of time under the provisions of the Contract, the Owner shall have the right in lieu of extending the Contract Time, to direct the Contractor to increase the number of shifts and/or days of work, to institute or increase overtime operations, or to take other measures to make up the lost time because of such delay. The Owner shall pay the Contractor only premium time differential over standard wage rates resulting from compliance with the directive to accelerate.

**§ 3.10.13** The Contractor agrees that except for delays caused by acts of intentional interference as provided in paragraph 8.3.3 herein, the Owner or Architect shall not, in any event, be liable to the Contractor for the costs or expenses of delays of any kind whatsoever, and the Contractor shall be fully responsible for making up lost time for all delays except to the extent that the Contractor is entitled to an extension of the Contract Time. Nothing in this clause shall be construed to release the Contractor from the obligation to perform at his own expense all overtime necessary to main progress of the work in conformity with the schedule where delays have occurred for which no extension of the Contract Time is allowed.

### **§ 3.11 Documents and Samples at the Site**

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Construction Manager, Architect, and Owner, and delivered to the Construction Manager for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

### **§ 3.12 Shop Drawings, Product Data, and Samples**

**§ 3.12.1** Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

**§ 3.12.2** Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

**§ 3.12.3** Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.



**§ 3.12.4** Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect and Construction Manager is subject to the limitations of Sections 4.2.10 through 4.2.12.

Informational submittals upon which the Construction Manager and Architect are not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Construction Manager or Architect without action.

**§ 3.12.5** The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Construction Manager, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the Project submittal schedule approved by the Construction Manager and Architect or, in the absence of an approved Project submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of other Contractors, Separate Contractors, or the Owner's own forces. The Contractor shall cooperate with the Construction Manager in the coordination of the Contractor's Shop Drawings, Product Data, Samples, and similar submittals with related documents submitted by other Contractors.

**§ 3.12.6** By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner, Construction Manager, and Architect, that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

**§ 3.12.7** The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been reviewed and approved by the Architect.

**§ 3.12.8** The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Construction Manager and Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

**§ 3.12.9** The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Construction Manager and Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

**§ 3.12.10** The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

**§ 3.12.10.1** If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner, the Architect, and the Construction Manager shall be entitled to rely upon the adequacy and accuracy and completeness of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other

appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Construction Manager shall review submittals for sequencing, constructability, and coordination impacts on other Contractors.

**§ 3.12.10.2** If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Construction Manager and Architect at the time and in the form specified by the Architect or Owner.

### **§ 3.13 Use of Site**

**§ 3.13.1** The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment. The Contractor shall use its best efforts to conduct all activities so as not to cause damage, disturbance, or disruption to surrounding property or to those that own, have an interest in, visit, or utilize such surrounding property.

**§ 3.13.2** The Contractor shall coordinate the Contractor's operations with, and secure the approval of, the Construction Manager before using any portion of the site.

### **§ 3.14 Cutting and Patching**

**§ 3.14.1** The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

**§ 3.14.2** The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner, Separate Contractors, or of other Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner, Separate Contractors, or by other Contractors except with written consent of the Construction Manager, Owner, and such other Contractors or Separate Contractors. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Separate Contractors, other Contractors, or the Owner, its consent to cutting or otherwise altering the Work.

**§ 3.14.3** The Contractor shall repair and/or replace, at no expense to the Owner, any sections of existing roads, drives, streets, sidewalks, curbs, utilities, buildings, and other structures damaged by reason of Work performed under this Contract or incidental thereto, whether by his own forces or by his Subcontractors or by his materials suppliers.

**§ 3.14.4** Utility services to existing facilities shall not be interrupted unless absolutely necessary. Interruptions shall be of minimum duration and shall be scheduled to cause the least possible inconvenience. In all cases, the Owner shall be notified well in advance of anticipated interruption of utilities.

**§ 3.14.5** The Contractor is responsible for the protection of his Work until final acceptance.

**§ 3.14.6** All penetrations made by the Contractor through walls, ceilings, and/or floors shall be sealed by each Contractor to meet the requires of all building codes, fire codes, and all other laws, rules, regulations, codes, ordinances, and orders applicable to this Project.

**§ 3.14.7** All sleeves or embeds set in concrete, masonry, or other work will be furnished and installed by the Contactor in a timely manner so as not to delay the concrete, masonry, or other Work. Should the Contractor requiring the sleeves fail to provide them in a timely manner he will be required to bear the cost of cutting and patching to install the sleeves.

**§ 3.14.8** Any part of finish damaged during installation or prior to final acceptance of the Work shall be repaired so as to be unnoticeable and to be equal in quality, appearance, serviceability, and other respects to an undamaged item. Where this cannot be fully accomplished, the damaged item or part will be replaced. After installation, all exposed surfaces and parts of an item shall be cleaned in a manner that will not damage the finish or any of the pars of the item and the finish job left in first-class condition, free of all visit defects.

§ 3.14.9 The Contractor shall take precautions so as not to damage existing construction and if damage occurs, Contractor will be responsible for restoring the existing construction to a condition equal to that found prior to the damage.

### § 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner, or Construction Manager with the Owner's approval, may do so and the Owner shall be entitled to reimbursement from the Contractor.

### § 3.16 Access to Work

The Contractor shall provide the Owner, Construction Manager, and Architect with access to the Work in preparation and progress wherever located.

### § 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner, Construction Manager, and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner, Architect, or Construction Manager. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect through the Construction Manager.

### § 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Construction Manager, Architect, Construction Manager's and Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or - relating to (1) Contractor's performance or non-performance of the Work, (2) Contractor's failure to comply with any provision of the Contract Documents, or (3) Contractor's failure to comply with any applicable laws, rules, ordinances, or orders of jurisdictions having authority over the Project, but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

## ARTICLE 4 ARCHITECT AND CONSTRUCTION MANAGER

### § 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 The Construction Manager is the person or entity retained by the Owner pursuant to Section 2.3.3 and identified as such in the Agreement.

§ 4.1.3 Duties, responsibilities, and limitations of authority of the Construction Manager and Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Construction Manager, Architect, and Contractor. Consent shall not be unreasonably withheld.

## § 4.2 Administration of the Contract

§ 4.2.1 The Construction Manager and Architect will provide administration of the Contract as described in the Contract Documents and will be the Owner's representatives during construction until the date the Architect issues the final Certificate for Payment. The Construction Manager and Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect will keep the Owner and the Construction Manager reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner and Construction Manager known deviations from the Contract Documents and defects and deficiencies observed in the Work.

§ 4.2.3 The Construction Manager shall provide one or more representatives who shall be in attendance at the Project site whenever the Work is being performed. The Construction Manager will determine in general if the Work observed is being performed in accordance with the Contract Documents, will keep the Owner and Architect reasonably informed of the progress of the Work, and will promptly report to the Owner and Architect known deviations from the Contract Documents and the most recent Project schedule, and defects and deficiencies observed in the Work.

§ 4.2.4 The Construction Manager will schedule and coordinate the activities of the Contractor and other Contractors in accordance with the latest approved Project schedule.

§ 4.2.5 The Construction Manager, except to the extent required by Section 4.2.4, and Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, and neither will be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. Neither the Construction Manager nor the Architect will have control over or charge of, or be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or of any other persons or entities performing portions of the Work.

§ 4.2.6 **Communications.** The Owner shall communicate with the Contractor and the Construction Manager's consultants through the Construction Manager about matters arising out of or relating to the Contract Documents. The Owner and Construction Manager shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Construction Manager otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with other Contractors shall be through the Construction Manager. Communications by and with the Owner's own forces and Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.7 The Construction Manager and Architect will review and certify all Applications for Payment by the Contractor, in accordance with the provisions of Article 9.

§ 4.2.8 The Architect and Construction Manager have authority to reject Work that does not conform to the Contract Documents, and will notify each other about the rejection. Whenever the Construction Manager considers it necessary or advisable, the Construction Manager will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, upon written authorization of the Owner, whether or not the Work is fabricated, installed or completed. The foregoing authority of the Construction Manager will be subject to the provisions of Sections 4.2.18 through 4.2.20 inclusive, with respect to interpretations and decisions of the Architect. However, neither the Architect's nor the Construction Manager's authority to act under this Section 4.2.8 nor a decision made by either of them in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect or the Construction Manager to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons performing any of the Work.

§ 4.2.9 Utilizing the submittal schedule provided by the Contractor, the Construction Manager shall prepare, and revise as necessary, a Project submittal schedule incorporating information from other Contractors, the Owner, Owner's consultants, Owner's Separate Contractors and vendors, governmental agencies, and participants in the Project under the management of the Construction Manager. The Project submittal schedule and any revisions shall be submitted to the Architect for approval.

§ 4.2.10 The Construction Manager will receive and promptly review for conformance with the submittal requirements of the Contract Documents, all submittals from the Contractor such as Shop Drawings, Product Data, and Samples. Where there are other Contractors, the Construction Manager will also check and coordinate the information contained within each submittal received from the Contractor and other Contractors, and transmit to the Architect those recommended for approval. By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Construction Manager represents to the Owner and Architect that the Construction Manager has reviewed and recommended them for approval. The Construction Manager's actions will be taken in accordance with the Project submittal schedule approved by the Architect or, in the absence of an approved Project submittal schedule, with reasonable promptness while allowing sufficient time to permit adequate review by the Architect.

§ 4.2.11 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Upon the Architect's completed review, the Architect shall transmit its submittal review to the Construction Manager.

§ 4.2.12 Review of the Contractor's submittals by the Construction Manager and Architect is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Construction Manager and Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Construction Manager and Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.13 The Construction Manager will prepare Change Orders and Construction Change Directives.

§ 4.2.14 The Construction Manager and the Architect will take appropriate action on Change Orders or Construction Change Directives in accordance with Article 7, and the Architect will have authority to order minor changes in the Work as provided in Section 7.4. The Architect, in consultation with the Construction Manager, will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.15 Utilizing the documents provided by the Contractor, the Construction Manager will maintain at the site for the Owner one copy of all Contract Documents, approved Shop Drawings, Product Data, Samples, and similar required submittals, in good order and marked currently to record all changes and selections made during construction. These will be available to the Architect and the Contractor, and will be delivered to the Owner upon completion of the Project.

§ 4.2.16 The Construction Manager will assist the Architect in conducting inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion in conjunction with the Architect pursuant to Section 9.8; and receive and forward to the Owner written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10. The Construction Manager will forward to the Architect a final Application and Certificate for Payment or final Project Application and Project Certificate for Payment upon the Contractor's compliance with the requirements of the Contract Documents.

§ 4.2.17 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Construction Manager of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.18 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of the Construction Manager, Owner, or Contractor through the Construction Manager. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.19 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions so rendered in good faith.

§ 4.2.20 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.21 The Construction Manager will receive and review requests for information from the Contractor, and forward each request for information to the Architect, with the Construction Manager's recommendation. The Architect will review and respond in writing, through the Construction Manager, to requests for information about the Contract Documents. The Construction Manager's recommendation and the Architect's response to each request will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

## ARTICLE 5 SUBCONTRACTORS

### § 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include other Contractors or Separate Contractors or the subcontractors of other Contractors or Separate Contractors.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

### § 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Construction Manager, for review by the Owner, Construction Manager and Architect, of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor whether the Owner, the Construction Manager or the Architect (1) has reasonable objection to any such proposed person or entity or, (2) requires additional time for review. Failure of the Construction Manager to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner, Construction Manager or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner, Construction Manager or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner, Construction Manager or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner, Construction Manager or Architect makes reasonable objection to such substitution.

### § 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, that the Contractor, by these Contract Documents, assumes toward the Owner, Construction Manager and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner, Construction Manager and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

### § 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor Contractor or other entity. If the Owner assigns the subcontract to a successor Contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor Contractor's obligations under the subcontract.

## ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

### § 6.1 Owner's Right to Perform Construction with Own Forces and to Award Other Contracts

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When the Owner performs construction or operations with the Owner's own forces or Separate Contractors, the Owner shall provide for coordination of such forces and Separate Contractors with the Work of the Contractor, who shall cooperate with them.

§ 6.1.3 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.1.4 If the Contractor notifies the Owner in writing that a Separate Contractor on this Project is failing to cooperate or coordinate its work with the Work under the Contract, the Architect will promptly investigate the matter and if the Architect finds the allegation to be true, it shall advise the Owner who shall have the right to take such measures as the Owner may deem appropriate.

§ 6.1.5 The Contractor agrees that the Owner or Architect shall not, however, be liable for any costs incurred by the Contractor by reason of any Separate Contractor's failure to coordinate or cooperate, of any Separate Contractor's failure to perform its obligations in connection with the Project, or any Separate Contractor's failure to comply with directives of the Owner or Architect. The Contractor acknowledges and understands that the Owner does not guarantee that other Separate Contractors will perform their obligations to coordinate their work on the Project with that of the Contractor.

§ 6.1.6 The Contractor shall take all measures necessary for the protection of Work placed or installed by any other contractor either previously or during the performance of this Contract. In the event the Contractor, its employees, any of its Subcontractors or anyone for which Contractor may be held liable causes damage to Work placed or installed by a Separate Contractor, then the Owner shall have the right to reduce the Contract Sum by an amount equal to the cost of repairing such damage. In the event the Architect or Owner determined that another contractor, its employees or any of its subcontractors caused damage to Work installed or placed by the Contractor, then the contractor causing the damage shall be responsible for the cost of any repairs.

§ 6.1.7 The Contractor shall be responsible for providing protection for the Work until final acceptance. If damage to the Contractor's Work by other contractors to their subcontractors cannot be established, then the Contractor is responsible for repairing the Work. Any dispute between the Contractor and another contractor as to which of them, their employees, or their subcontractors, caused the damage in question shall be resolved by the Architect.

## § 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner's own forces, Separate Contractors, Construction Manager and other Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner's own forces, Separate Contractors or other Contractors, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Construction Manager and Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor or other Contractors that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Construction Manager and the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's or other Contractors' completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractors or other Contractors that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs, including costs that are payable to a Separate Contractors or to other Contractors, because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of delays, improperly timed activities, damage to the Work or defective construction by the Owner's own forces, Separate Contractors, or other Contractors.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction, or to property of the Owner, Separate Contractors, or other Contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner, Separate Contractors, and other Contractors shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

## § 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, other Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Construction Manager, with notice to the Architect, will allocate the cost among those responsible.



## ARTICLE 7 CHANGES IN THE WORK

### § 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Construction Manager, Architect and Contractor. A Construction Change Directive requires agreement by the Owner, Construction Manager and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

### § 7.2 Change Orders

A Change Order is a written instrument prepared by the Construction Manager and signed by the Owner, Construction Manager, Architect, and Contractor, stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

An executed Change Order shall constitute the full and final determination of any and all revisions to the Contract Sum, the Contract Time, and any and all other adjustments to the Contractor's compensation or time for performance under the Contract Documents with respect to the Work identified in such Change Order.

### § 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Construction Manager and signed by the Owner, Construction Manager and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Construction Manager shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Construction Manager may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Construction Manager and Architect;

- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Construction Manager of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Construction Manager and Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Construction Manager and Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Construction Manager and Architect determine to be reasonably justified. The interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Construction Manager and Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Construction Manager shall prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.3.11 The amount of overhead and profit combined for items not deducted from an allowance, included in the total cost to the Owner, shall not exceed the following schedule:

- 1) For a Contractor, for any Work performed by its own forces, ten percent (10%) of the costs of the changed Work.
- 2) For a Contractor, for Work performed by its Subcontractor, seven percent (7%) of the amount due the Subcontractor.
- 3) For each Subcontractor included, for any Work performed by the Subcontractor's own forces, ten percent (10%) of the costs of the changed Work.
- 4) Cost to which overhead and profit is to be applied shall be determined in accordance with subparagraph 7.3.4.

#### § 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Construction Manager and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Construction Manager that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

## ARTICLE 8 TIME

### § 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

### § 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

### § 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner, Architect, Construction Manager, or an employee of any of them, or of the Owner’s own forces, Separate Contractors, or other Contractors; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor’s control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts and the Architect, based on the recommendation of the Construction Manager, determines justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 The Contract Time may be extended by Change Order to compensate for additional Work that may be ordered by Owner, provided such Work is such nature as to materially affect date of completion.

§ 8.3.4 If delay damages are allowed for any reason the damages shall be limited to a pro-rata portion of the Contractor’s average monthly field overhead costs. Under no circumstances shall the Contractor be entitled to delay damages for weather delays or any force majeure or other events described in Section 8.3.1.

§ 8.3.5 It is agreed that time is of the essence for each and every portion of this Contract, and where under the Contract additional time is allowed for the completion of any Work, the new time limit fixed by such extension shall be of the essence of this Contract.

### § 8.4 Liquidated Damages

§ 8.4.1 It is mutually understood and agreed by and between parties of this contract, in execution of same, that time is of essence of the contract and that the Owner will suffer significant damage, hardship, and loss if the Work is not substantially completed within the Contract Time. Both parties also recognize the delays, difficulties, and expense involved in proving, in a legal proceeding, the actual losses suffered by the Owner if the Work is not completed on time. It shall be each Contractor’s responsibility to keep himself advised of the job progress and the effects upon his work. Accordingly, the Contractor agrees, in the event that Contractor fails to substantially complete work to be performed under this contract by the Substantial Completion date, including any extension of time granted under Section 15.1.6, that as liquidated damages for delay (but not as a penalty), the Contractor shall pay to the Owner \$500.00 per calendar day per scheduled activity that is incomplete for the first ten (10) days and \$1,500.00 per day per scheduled activity that remains incomplete thereafter, because of delay in completing the Work and for liquidated

damages, such as Owner's increased overhead and cost of additional architectural and sub-consultant supervision and not as penalty.

§ 8.4.2 The Owner shall have the right to deduct liquidated damages from money in its hands otherwise due, or to become due, to Contactor or to sue for and recover compensation for damages for nonperformance of this Contract at time stipulated herein.

## ARTICLE 9 PAYMENTS AND COMPLETION

### § 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

### § 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, and if the schedule of values is not already expressly identified as an exhibit to the Contract, the Contractor shall submit a schedule of values to the Construction Manager, before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Construction Manager and the Architect. This schedule, unless objected to by the Construction Manager or Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. The Construction Manager shall forward to the Architect the Contractor's schedule of values. Any changes to the schedule of values shall be submitted to the Construction Manager and supported by such data to substantiate its accuracy as the Construction Manager and the Architect may require, and unless objected to by the Construction Manager or the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

### § 9.3 Applications for Payment

§ 9.3.1 At least fifteen days before the date established for each progress payment, the Contractor shall submit to the Construction Manager an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner, Construction Manager or Architect require, such as copies of requisitions, and releases of waivers of lien from Subcontractors and suppliers of all tiers, and shall reflect retainage if provided for in the Contract Documents. Each subsequent Application for Payment shall include an affidavit from the Contractor stating that all previous progress payments received on account of the Work have been applied to discharge, in full, all of the Contractor's obligations reflected in prior Applications for Payment.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Construction Manager and Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.1.3 When the Work is fifty percent (50%) complete and provided that the Contractor is on or ahead of the schedule as determined by the Owner and Architect, and the Work is satisfactory and in the absence of other good and sufficient reasons, the Contractor may request in writing, that the retention be reduced or eliminated. Together with the written request of retainage reduction, the Contractor shall include written Consent of Surety to such retainage reduction. The Owner has sole discretion in deciding whether, to what extent, and for which payments to honor the Contractor's request for any reduction for retainage pursuant to this section, and in any event, the full amount of retainage may be reinstated if the manner and progress of the Work does not remain satisfactory to the Owner and Architect.

**§ 9.3.2** Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

**§ 9.3.3** The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials and equipment relating to the Work.

#### **§ 9.4 Certificates for Payment**

**§ 9.4.1** Where there is only one Contractor, the Construction Manager will, within seven days after the Construction Manager's receipt of the Contractor's Application for Payment, review the Application, certify the amount the Construction Manager determines is due the Contractor, and forward the Contractor's Application and Certificate for Payment to the Architect. Within seven days after the Architect receives the Contractor's Application for Payment from the Construction Manager, the Architect will either (1) issue to the Owner a Certificate for Payment, in the full amount of the Application for Payment, with a copy to the Construction Manager; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Construction Manager and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Construction Manager and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. The Construction Manager will promptly forward to the Contractor the Architect's notice of withholding certification.

**§ 9.4.2** Where there is more than one Contractor performing portions of the Project, the Construction Manager will, within seven days after the Construction Manager receives all of the Contractors' Applications for Payment: (1) review the Applications and certify the amount the Construction Manager determines is due each of the Contractors; (2) prepare a Summary of Contractors' Applications for Payment by combining information from each Contractor's application with information from similar applications for progress payments from the other Contractors; (3) prepare a Project Application and Certificate for Payment; (4) certify the amount the Construction Manager determines is due all Contractors; and (5) forward the Summary of Contractors' Applications for Payment and Project Application and Certificate for Payment to the Architect.

**§ 9.4.2.1** Within seven days after the Architect receives the Project Application and Project Certificate for Payment and the Summary of Contractors' Applications for Payment from the Construction Manager, the Architect will either (1) issue to the Owner a Project Certificate for Payment, with a copy to the Construction Manager; or (2) issue to the Owner a Project Certificate for Payment for such amount as the Architect determines is properly due, and notify the Construction Manager and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Project Application for Payment, and notify the Construction Manager and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. The Construction Manager will promptly forward the Architect's notice of withholding certification to the Contractors.

**§ 9.4.3** The Construction Manager's certification of an Application for Payment or, in the case of more than one Contractor, a Project Application and Certificate for Payment, shall be based upon the Construction Manager's evaluation of the Work and the data in the Application or Applications for Payment. The Construction Manager's certification will constitute a representation that, to the best of the Construction Manager's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is, or Contractors are, entitled to payment in the amount certified.

**§ 9.4.4** The Architect's issuance of a Certificate for Payment or, in the case of more than one Contractor, Project Application and Certificate for Payment, shall be based upon the Architect's evaluation of the Work, the recommendation of the Construction Manager, and data in the Application for Payment or Project Application for Payment. The Architect's certification will constitute a representation that, to the best of the Architect's knowledge, information, and belief, the Work

has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is, or Contractors are, entitled to payment in the amount certified.

**§ 9.4.5** The representations made pursuant to Sections 9.4.3 and 9.4.4 are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Construction Manager or Architect.

**§ 9.4.6** The issuance of a Certificate for Payment or a Project Certificate for Payment will not be a representation that the Construction Manager or Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

### **§ 9.5 Decisions to Withhold Certification**

**§ 9.5.1** The Construction Manager or Architect may withhold a Certificate for Payment or Project Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Construction Manager's or Architect's opinion the representations to the Owner required by Section 9.4.3 and 9.4.4 cannot be made. If the Construction Manager or Architect is unable to certify payment in the amount of the Application, the Construction Manager will notify the Contractor and Owner as provided in Section 9.4.1 and 9.4.2. If the Contractor, Construction Manager and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment or a Project Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Construction Manager or Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment or Project Certificate for Payment previously issued, to such extent as may be necessary in the Construction Manager's or Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including without limitation, loss resulting from the acts and omissions described in Section 3.3.2 or because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers 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 a Separate Contractor or other Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

**§ 9.5.2** When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

**§ 9.5.3** When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

**§ 9.5.4** If certification for payment is withheld under Section 9.5.1, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Construction Manager, and both will reflect such payment on the next Certificate for Payment.

**§ 9.5.5** Notwithstanding any other provision of the Contract Documents, the Owner may at any time before or after final completion of the Project withhold and offset against sums otherwise due and owing to Contractor an amount equal to any sum that the Contractor owes the Owner (including, without limitation, insurance proceeds, liquidated or other damages resulting from Contractor's acts or omissions, and any reimbursements owed by the Contractor to the Owner).

## **§ 9.6 Progress Payments**

**§ 9.6.1** If no payment or certification has been withheld under Section 9.5.1, then after the Architect has issued a valid Certificate for Payment or Project Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Construction Manager and Architect.

**§ 9.6.2** The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

**§ 9.6.3** The Construction Manager will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Owner, Construction Manager and Architect on account of portions of the Work done by such Subcontractor.

**§ 9.6.4** Upon request from the Owner, the Contractor shall provide written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner, Construction Manager nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

**§ 9.6.5** The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

**§ 9.6.6** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

**§ 9.6.7** Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

**§ 9.6.8** Provided the Owner has materially fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner as well as its partners, shareholders, members, managers, and financing sources from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. Should any lien or other claim impairing title to the property or to funds be asserted, Contractor shall be obligated immediately to discharge by bond or otherwise, at its sole expense and without right of reimbursement, such lien or claim such that it is no longer of public record or in the chain of title to the Project.

## **§ 9.7 Failure of Payment**

If the Construction Manager and Architect do not issue a Certificate for Payment or a Project Certificate for Payment, through no fault of the Contractor, within fourteen days after the Construction Manager's receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Construction Manager and Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner, Construction Manager and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

## **§ 9.8 Substantial Completion**

**§ 9.8.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its

intended use. In no event shall the Work or any portion thereof be considered substantially complete until any necessary governmental approvals of the Work have been obtained.

**§ 9.8.2** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify the Construction Manager, and the Contractor and Construction Manager shall jointly prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. 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.

**§ 9.8.3** Upon receipt of the list, the Architect, assisted by the Construction Manager, will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect, assisted by the Construction Manager, to determine Substantial Completion.

**§ 9.8.4** When the Architect, assisted by the Construction Manager, determines that the Work of all of the Contractors, or designated portion thereof, is substantially complete, the Construction Manager will prepare, and the Construction Manager and Architect shall execute, a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

**§ 9.8.5** The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

### **§ 9.9 Partial Occupancy or Use**

**§ 9.9.1** The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor and Construction Manager shall jointly prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect after consultation with the Construction Manager.

**§ 9.9.2** Immediately prior to such partial occupancy or use, the Owner, Construction Manager, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

**§ 9.9.3** Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

### **§ 9.10 Final Completion and Final Payment**

**§ 9.10.1** Upon completion of the Work, the Contractor shall forward to the Construction Manager a notice that the Work is ready for final inspection and acceptance, and shall also forward to the Construction Manager a final Contractor's Application for Payment. Upon receipt, the Construction Manager shall perform an inspection to confirm the completion of Work of the Contractor. The Construction Manager shall make recommendations to the Architect



when the Work of all of the Contractors is ready for final inspection, and shall then forward the Contractors' notices and Application for Payment or Project Application for Payment, to the Architect, who will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Construction Manager and Architect will promptly issue a final Certificate for Payment or Project Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Construction Manager's and Architect's final Certificate for Payment or Project Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

**§ 9.10.2** Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect through the Construction Manager (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) 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, (4) consent of surety, if any, to final payment (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor of any tier refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance 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 the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

**§ 9.10.3** If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Construction Manager and Architect so confirm, the Owner shall, upon application by the Contractor and certification by the Construction Manager and Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect through the Construction Manager prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

**§ 9.10.4** The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

**§ 9.10.5** Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## **ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY**

### **§ 10.1 Safety Precautions and Programs**

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall submit the Contractor's safety program to the Construction Manager for review and coordination with the safety programs of other Contractors. The Construction Manager's responsibilities for review and coordination of safety programs shall not extend to direct control over or charge of the acts or omissions of the Contractors, Subcontractors, agents or employees of the Contractors or Subcontractors, or any other persons performing portions of the Work and not directly employed by the Construction Manager.

## § 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor;
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction; and
- .4 construction or operations by the Owner, Separate Contractors, or other Contractors.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner, Construction Manager or Architect or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner, Construction Manager and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

### § 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

## § 10.3 Hazardous Materials

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner, Construction Manager and Architect of the condition.

**§ 10.3.2** Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor, Construction Manager and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor, the Construction Manager and the Architect will promptly reply to the Owner in writing stating whether or not any of them has reasonable objection to the persons or entities proposed by the Owner. If the Contractor, Construction Manager or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor, the Construction Manager and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

**§ 10.3.3** To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Construction Manager, Architect, their consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

**§ 10.3.4** The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

**§ 10.3.5** The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

**§ 10.3.6** If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

**§ 10.3.7** In addition to all other obligations under this Section 10.3, Contractor agrees to fully comply with any and all federal, regulatory agency, state or local laws, rules, ordinances, orders and regulations concerning the transport, storage, and handling of any hazardous substance or materials required under the Contract Documents and to notify the Architect and Owner three (3) days prior to delivery of any hazardous or harmful substance or materials to the Project. The Contractor also agrees to provide the Architect and Owner, MSDS Sheets for the purposes of information, written storage, handling and health instructions and precautions from the manufacturer at the time of the notification of delivery. The Contractor will use only competent, knowledgeable workmen trained in the proper handling and storage of these materials and agrees to provide at this expense all safety devices and barriers for his workmen and others as recommended by the manufacturer or that may be deemed necessary by an appropriate governing agency and/or the Architect. The Contractor will not under any circumstance dispose of any hazardous substances or containers on the Owner's property or facilities. Methods of disposal of hazardous materials or containers must be in a manner as prescribed by law. The Contractor assumes total liability and responsibility for the handling, storage, and disposal of these hazardous materials and indemnifies the Owner and Architect of and from all liability claims and demands for bodily injury and property damage arising out of the use of the hazardous materials by this Contractor and its agents.

**§ 10.3.8** Asbestos containing materials or products of any and all types are not to be installed or used on this Project. Contractor shall certify in writing at the completion of the Project that is has not installed or used asbestos containing materials on this Project.

§ 10.3.9 The Contractor shall not allow the use of lead materials in public water applications. Lead free solder, flux, and pipe must be used in public drinking water and wastewater applications. Lead free solder and flux are defined as containing less than 0.2% lead, while valves, pipes, and appurtenances must contain less than 8.0% lead.

#### § 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

### ARTICLE 11 INSURANCE AND BONDS

#### § 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Construction Manager and Construction Manager's consultants, and the Architect and Architect's consultants, shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice directly to the Owner, and separately to the Construction Manager, of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

#### § 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 **Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform both the Contractor and the Construction Manager, separately and in writing, prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 **Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property

insurance required by the Contract Documents, the Owner shall provide notice directly to the Contractor, and separately to the Construction Manager, of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

### **§ 11.3 Waivers of Subrogation**

**§ 11.3.1** The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Construction Manager and Construction Manager's consultants; (3) the Architect and Architect's consultants; (4) other Contractors and any of their subcontractors, sub-subcontractors, agents, and employees; and (5) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Construction Manager, Construction Manager's consultants, Architect, Architect's consultants, other Contractors, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

**§ 11.3.2** If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

### **§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance**

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor, Architect, and Construction Manager for loss of use of the Owner's property, due to fire or other hazards however caused.

### **§ 11.5 Adjustment and Settlement of Insured Loss**

**§ 11.5.1** A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Construction Manager, Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Construction Manager, Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

**§ 11.5.2** Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the

proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

## **ARTICLE 12 UNCOVERING AND CORRECTION OF WORK**

### **§ 12.1 Uncovering of Work**

**§ 12.1.1** If a portion of the Work is covered contrary to the Construction Manager's or Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by either, be uncovered for their examination and be replaced at the Contractor's expense without change in the Contract Time.

**§ 12.1.2** If a portion of the Work has been covered that the Construction Manager or Architect has not specifically requested to examine prior to its being covered, the Construction Manager or 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, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

### **§ 12.2 Correction of Work**

#### **§ 12.2.1 Before Substantial Completion**

The Contractor shall promptly correct Work rejected by the Construction Manager or Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion, and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Construction Manager's and Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

#### **§ 12.2.2 After Substantial Completion**

**§ 12.2.2.1** In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof, or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, Construction Manager or Architect, the Owner may correct it in accordance with Section 2.5.

**§ 12.2.2.2** The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

**§ 12.2.2.3** The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

**§ 12.2.3** The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

**§ 12.2.4** The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner, Separate Contractors, or other Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

**§ 12.2.5** Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be

sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

### **§ 12.3 Acceptance of Nonconforming Work**

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

## **ARTICLE 13 MISCELLANEOUS PROVISIONS**

### **§ 13.1 Governing Law**

The Contract shall be governed by the law of the place where the Project is located excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

### **§ 13.2 Successors and Assigns**

**§ 13.2.1** The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

**§ 13.2.2** The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

### **§ 13.3 Rights and Remedies**

**§ 13.3.1** Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

**§ 13.3.2** No action or failure to act by the Owner, Construction Manager, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

### **§ 13.4 Tests and Inspections**

**§ 13.4.1** Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Construction Manager and Architect timely notice of when and where tests and inspections are to be made so that the Construction Manager and Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

**§ 13.4.2** If the Construction Manager, Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Construction Manager and Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Construction Manager and Architect of when and where tests and inspections are to be made so that the Construction Manager and Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

**§ 13.4.3** If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Construction Manager's and Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Construction Manager for transmittal to the Architect.

§ 13.4.5 If the Construction Manager or Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Construction Manager or Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

### § 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

### § 13.6 Employment Policies

§ 13.6.1 The Contractor shall maintain policies of employment to provide equal opportunity for employment by all qualified people. The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color sex, national origin, or age. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, national origin, or age. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or others forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting for the policies of non-discrimination. The Contractor and all Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color sex, national origin, or age.

§ 13.6.2 Contractor hereby certifies that it ensures compliance with the South Carolina Illegal Immigration Reform Act and will register and participate in a status verification system for all employees. The term "employee" as used herein means any person who is hired to perform work within the State of South Carolina. As used herein, "status verification system" means (a) the E-Verify employment status verification system, or any successor electronic verification system replacing the E-Verify Program, that is operated by the United States Department of Homeland Security, United States Citizenship and Immigration Services, and the Social Security Administration, or (b) verification that every employee of the Contractor possesses a valid Southern Carolina driver's license, or identification card, from another state whose qualification requires are as strict as those of South Carolina. Contractor also hereby certifies that any Subcontractor or Sub-subcontractor with the requisite number of employees and performing services for a covered contractor likewise complies with the above requirements.

§ 13.6.3 Non-resident Contractors' attention is directed to Title 12, Chapter 9, Code of Laws of South Carolina 1976, as amended concerning withholding tax on non-resident employees, contractors, and subcontractors.

§ 13.6.4 Contractors' attention is directed to Title 29, Chapter 7, Code of Laws of South Carolina 1976, as amended concerning laborers' liens.

## ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

### § 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;



- .3 Because the Construction Manager has not certified or the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner, Construction Manager and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees, or any other persons performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner, Construction Manager and Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

#### § 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, after consultation with the Construction Manager, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Construction Manager's and Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall, upon application, be certified by the Initial Decision Maker after consultation with the Construction Manager, and this obligation for payment shall survive termination of the Contract.

#### § 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and the Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include not profit. No adjustment shall be made to the extent:

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of this Contract.

#### § 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor only the following: (i) for Work properly executed; and (ii) costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

### ARTICLE 15 CLAIMS AND DISPUTES

#### § 15.1 Claims

§ 15.1.1 **Definition.** A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

#### § 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law.

#### § 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Construction Manager and Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

#### § 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, or any dispute, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

**§ 15.1.5 Claims for Additional Cost.** If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

**§ 15.1.6 Claims for Additional Time**

**§ 15.1.6.1** If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given, provided that that Contractor shall, within seven (7) days of the occurrence of the event for which Contractor requests additional time, notify the Architect and Owner in writing of any such Claim. Notice of the extent of the Claim with supporting data shall be delivered within thirty (30) days of such occurrence. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

**§ 15.1.6.2** If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

**§ 15.1.7 Waiver of Claims for Consequential Damages.** The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

**§ 15.2 Initial Decision**

**§ 15.2.1** Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

**§ 15.2.2** The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

**§ 15.2.3** In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

**§ 15.2.4** If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished,

or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

**§ 15.2.5** The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties, the Construction Manager, and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

**§ 15.2.6** Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

**§ 15.2.6.1** Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days of receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

**§ 15.2.7** In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

**§ 15.2.8** If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

### **§ 15.3 Mediation**

**§ 15.3.1** Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

**§ 15.3.2** The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

**§ 15.3.3** Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

**§ 15.3.4** The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

### **§ 15.4 Arbitration**

**§ 15.4.1** If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party

filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

**§ 15.4.4 Consolidation or Joinder**

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

# DRAFT AIA® Document A312® - 2010

## Performance Bond

**CONTRACTOR:**

(Name, legal status and address)

« »  
« »

**SURETY:**

(Name, legal status and principal place of business)

« »  
« »

**OWNER:**

(Name, legal status and address)

« »  
« »

**CONSTRUCTION CONTRACT**

Date: « »

Amount: \$ « »

Description:  
(Name and location)

« »  
« »

**BOND**

Date:

(Not earlier than Construction Contract Date)

« »

Amount: \$ « »

Modifications to this Bond:  None  See Section 16

**CONTRACTOR AS PRINCIPAL**

Company: (Corporate Seal)

Signature:

Name and « »

Title:

(Any additional signatures appear on the last page of this Performance Bond.)

**SURETY**

Company: (Corporate Seal)

Signature:

Name and « »

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

**AGENT or BROKER:**

« »  
« »  
« »

**OWNER'S REPRESENTATIVE:**

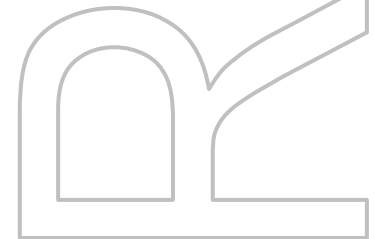
(Architect, Engineer or other party:)

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**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



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§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### § 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.




§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

<< >>

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

<b>CONTRACTOR AS PRINCIPAL</b>		<b>SURETY</b>	
Company: _____	(Corporate Seal)	Company: _____	(Corporate Seal)
Signature: _____		Signature: _____	
Name and Title: << >><< >>		Name and Title: << >><< >>	
Address: << >>		Address: << >>	



# DRAFT AIA® Document A312® - 2010

## Payment Bond

**CONTRACTOR:**

(Name, legal status and address)

« »« »  
« »

**SURETY:**

(Name, legal status and principal place of business)

« »« »  
« »

**OWNER:**

(Name, legal status and address)

« »« »  
« »

**CONSTRUCTION CONTRACT**

Date: « »

Amount: \$ « »

Description:

(Name and location)

« »  
« »

**BOND**

Date:

(Not earlier than Construction Contract Date)

« »

Amount: \$ « »

Modifications to this Bond:  None  See Section 18

**CONTRACTOR AS PRINCIPAL**

Company: (Corporate Seal)

**SURETY**

Company: (Corporate Seal)

Signature:

Name and « »« »

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

Signature:

Name and « »« »

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

**AGENT or BROKER:**

« »  
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**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

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**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



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§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

## § 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

<< >>

*(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)*

**CONTRACTOR AS PRINCIPAL**

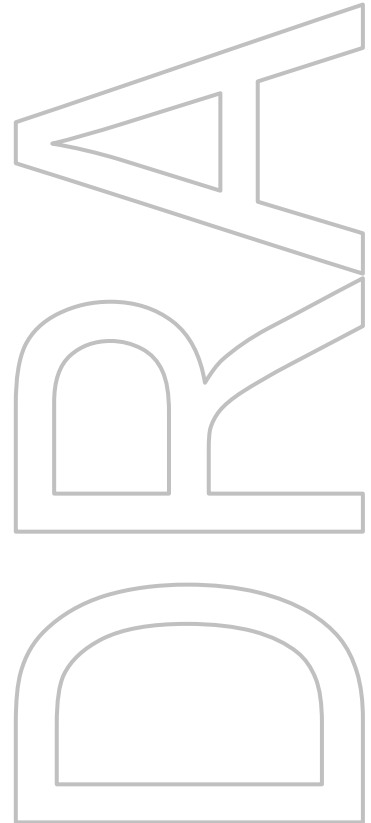
Company: \_\_\_\_\_ (Corporate Seal)

**SURETY**

Company: \_\_\_\_\_ (Corporate Seal)

Signature: \_\_\_\_\_  
Name and Title: << >><< >>  
Address: << >>

Signature: \_\_\_\_\_  
Name and Title: << >><< >>  
Address: << >>



**SCDHEC National Pollutant Discharge Elimination System  
Co-Permittee Agreement**

**Project**

**Oak Grove Academy - Renovations  
SCDHEC PN#**

All contractors and subcontractors of the Owner/Operator whose activities at the construction site may impact storm water discharges or controls at the construction site along the duration of the construction project, shall sign a copy of the certification statement given below:

"I certify by my signature below that: a) for sites that disturb 10 or more acres, I participated in a pre-construction conference onsite or, when allowed, offsite with the individual who is responsible for the operational control of the Storm Water Pollution Prevention Plan (SWPPP); and b) I accept the terms and conditions of SWPPP as required by the general National Pollutant Discharge Elimination System (NPDES permit number SCR100000) issued to the Owner/Operator of the construction activity for which I have been contracted to perform construction related professional services. Further, by my signature below, I understand that I am becoming a Co-permittee with the Owner/Operator and other contractors that have become Co-permittees to the general NPDES permit issued to the Owner/Operator of the facility for which I have been contracted to perform professional construction services. As a Co-permittee, I understand that I, and my company, as the case may be, am legally accountable to the SC Department of Health and Environmental Control (DHEC), under the authorities of the CWA and the SC Pollution Control Act, to ensure compliance with the terms and conditions of the SWPPP. I also understand that DHEC enforcement actions may be taken against any specific Co-permittee or combination of Co-permittees if the terms and conditions of the SWPPP are not met. Therefore, having understood the above information, I am signing this certification and am receiving Co-permittee status to the aforementioned general NPDES permit."

---

Signed \_\_\_\_\_ Date \_\_\_\_\_

---

Title \_\_\_\_\_

---

Company Name \_\_\_\_\_

---

Company Address \_\_\_\_\_

---

Company Phone # \_\_\_\_\_

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The scope of work includes the demo, disposal, and construction of the renovations at existing Oak Grove Academy (1346 AO Jones Blvd., Fort Mill, SC 29715). Scope shall include demo and renovations of (2) existing classrooms into new office spaces as indicated within the contract documents.

1.02 RELATED WORK

- A. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.

1.03 SAFETY COMPLIANCE

- A. In addition to any detailed requirements of these specifications, the contractor shall meet the requirements of federal and state standards referenced in applicable publications, whichever is more restrictive. Matters of interpretation of these standards shall be submitted by the contractor to the respective administrative agency for resolution before starting work.

1.04 PRECAUTION AND SAFETY

- A. Accident Prevention and Safety: Comply with all applicable laws, ordinances, rules, regulations, and orders of governing authorities having jurisdiction for the safety of persons and property to protect them from damage, injury or loss. Erect and maintain, as required by conditions and progress of the work, all necessary safeguards for safety and protection, including fences, railings, barricades, lighting, posting of danger signs and other warnings against hazards. Where prevention of construction accidents is not regulated by code or ordinances, comply with 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.

1.05 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install, and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations."
  - 1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
  - 2. Store combustible materials in containers in fire-safe locations.
  - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access route for fighting fires. Prohibit smoking in hazardous fire exposure areas.

## SECTION 01 11 00 – SUMMARY OF WORK

4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- B. Permanent Fire Protection: At the earliest feasible date in each area of the Project, complete installation of the permanent fire protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
- C. Barricades, Warning Signs, and Lights: Comply with standards and code requirements of erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- D. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
  1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- E. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways, and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

### 1.06 COORDINATION OF WORK SEQUENCE

- A. Coordinate work for the various sections of the Specifications to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. Verify characteristics that elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connection to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work which 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 TIME OF COMPLETION AND LIQUIDATED DAMAGES

- A. The contract performance period shall be as follows:



**Notice to Proceed: June 3, 2024**  
**Substantial Completion: July 26, 2024**

- B. Should the contractor fail to have all work completed within the time specified, the contractor shall be required to provide a rental cooler / freezer boxes and/or accessed Liquidated Damages in the amount of five hundred dollars (\$500.00) per calendar day until Substantial Completion is achieved. The Owner reserves the right to implement the additional financial cost shall be the

1.08 CONSTRUCTION PROGRESS SCHEDULE:

- A. Contractor shall provide a detailed bar chart (CPM Method) of his work clearly showing how his schedule integrates with the durations provided by other subcontractors and the total construction duration. This bar chart schedule must identify project critical path including all links between activities.
- B. Construction project schedule shall be updated and provided to the Construction Manager monthly.
- C. **In no event shall any Contractor work less than five (5) days per week. If a normal workday (Monday through Friday) is lost due to weather, it is expected that the Contractor work Saturday and/or Sunday to make up the lost day(s).**

1.09 REQUEST FOR EXTENSION DUE TO DELAYS:

- A. It is understood that the Owner, Construction Manager or Architect/Engineer shall not, in any event, be liable to the Contractor for delays of any kind whatsoever and the Contractor shall be fully responsible for making up lost time of all delays except to the extent that extensions of time are granted. If completion of the work is delayed by any act of neglect of the Owner, or by the Construction Manager or the acts of the Construction Manager or Architect/Engineer, by strikes or by other exceptional conditions over which the Contractor has no reasonable control, the time of completion shall upon receipt of the Contractor's written request, be extended by such period as the Construction Manager may consider reasonable. No extension shall be allowed unless a claim is presented in writing to the Construction Manager within seven (7) days after the commencement of such delay. In case of continued cause of delay, only one claim is necessary. Nothing in this clause shall be construed to release the Contractor from the obligation to perform at his own expense all overtime necessary to maintain the Contract completion date where delays have occurred which are not excused. If the Contractor, delayed by any acts of the Owner, Construction Manager, Architect/Engineer, is granted an extension of time by the Construction Manager, the Contractor shall comply with the extended schedule with no additional compensation from the Owner.

SECTION 01 11 00 – SUMMARY OF WORK

- B. Delays due to weather/precipitation. The following table shows the number of days, on average, per month, that it rained .1" or more in York County, SC, over a fifteen-year period.

January	6 days	July	6 days
February	6 days	August	6 days
March	6 days	September	5 days
April	6 days	October	4 days
May	6 days	November	5 days
June	5 days	December	6 days

- C. For the Contractor to claim an extension due to weather, there must have been at least .1" of precipitation that day or from a previous day, a critical path activity must have been affected and the Contractor and Construction Manager must agree that the day was unworkable. Critical Path activities are determined based on the updated monthly schedule provided by the Contractor for the month in question. If the Contractor fails to provide an updated schedule for the month that an extension is being requested, then the previous month's schedule shall be used. All days must be documented on a daily basis and agreed upon by the Construction Manager. The difference between the total actual unworkable days due to precipitation and the above days will be granted (if in excess). This extension must be formally requested once a month (with transmittal of Pay Application) for the extension to be granted. If a formal request is not made at the said time, the opportunity for extension request will not be granted.
- D. Per 1.0.1.C above, normal workdays lost due to weather shall be made up on the following Saturday and/or Sunday, as necessary, to complete the five (5) day work week requirement. If an extension request is made for lost day(s) and the Contractor failed to work the following Saturday and/or Sunday, weather permitting, to meet the 5 day requirement, the request will be reduced by the number of Saturdays and Sundays that should have been worked to complete the 5 day work week requirement.

1.10 TEMPORARY FACILITIES:

- A. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented, and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material. Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
- B. **Contractor use of the existing restrooms within the building is not permitted.**

1.11 FINAL INSPECTION AND PUNCH LIST:

- A. The contract has an established contract completion date. In order to avoid the assessment of liquidated damages, the contractor shall request in writing to the Architect/Engineer a final inspection on or prior to the established completion date. The contractor shall certify that all construction/installation is complete and has

been checked out and is operating as designed. The Architect/Engineer shall notify the Owner in writing that the job is ready for inspection.

- B. The Architect/Engineer, Construction Manager, contractor, and all sub-contractors associated with the construction/installation of the building equipment shall be present during the final inspection to demonstrate the proper operations of the equipment. Removal/replacement of necessary covers for inspection shall be conducted by the contractor.
- C. At the time of inspection, should the architect/engineer and Owner's Representatives determine that the construction/installation is less than 100% complete to the extent that a re-inspection will be required, the inspection will cease and a charge of five hundred dollars (*\$500.00*) will be assessed by the Owner against the Contractor, for costs associated with re-inspection requirements and for delays incurred as a result of failure to complete the punch list.

1.12 FINAL PUNCH LIST ITEMS:

- A. The contractor and sub-contractors shall have thirty (30) calendar days from the date of final inspection to complete the repair of any and all items listed on the final punch list.
- B. If the contractor or his sub-contractor fails to complete all items on the final inspection punch list within the allocated twenty one calendar days, liquidated damages in the amount specified by the contract will be assessed retroactive to the contract completion date and will continue until all items on the punch list are completed. (Only exception shall be by recommendation of the Architect/Engineer and/or Construction Manager, and approval by the Owner, that lack of completion was due to circumstances beyond the control of the contractor.)

END OF SECTION

PART 1 GENERAL

1.01 DESCRIPTION

- A. Work Included: This section applies to situations in which the Contractor or his representatives including, but necessarily limited to, suppliers, subcontractors, employees and field engineers, enter upon the Owner's property.
- B. Related Work: Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.

1.02 QUALITY ASSURANCE

- A. Promptly upon the award of the Contract, notify all pertinent personnel regarding requirements of this Section.
- B. Require that all personnel who will enter upon the Owner's property certify their awareness of and familiarity with the requirements of this section.

1.03 SUBMITTALS

- A. Maintain an accurate record of the names and identification of all visitors entering upon the Owner's property in connection with the work of this contract, including times of entering and times of leaving, and submit a copy of the record to the Owner weekly.

1.04 TRANSPORTATION FACILITIES

- A. Truck and equipment access: (1) To avoid traffic conflict with vehicles of the Owner's employees and customers, and to avoid over-loading of street and driveways elsewhere on the Owner's property, limit the access of trucks and equipment to the designated "Contractor's Entrance". (2) Provide adequate protection for curbs and sidewalks over which trucks and equipment pass to reach the job site.
- B. Contractor's vehicles: (1) Require contractor's vehicles, vehicles belonging to employees of the contractor, and all other vehicles entering the Owner's property in performance of the work the contract, to use only the designated Access Route. (2) Do not permit such vehicles to park on any street or other area of the Owner's property except in the area to be designated.

1.05 SECURITY

- A. Restrict the access of all persons entering upon the Owner's property in connection with the work to the Contractor's Entrance and to the actual site of the work.
- B. No persons/personnel will be allowed on site without the following background checks: South Carolina Criminal Check, North Carolina Criminal Check, Sex Offender check, Social Security Number check. This information is to be provided to the Construction Manager/Owner five (5) days prior to the scheduled access for each person. It will be the Owner's decision on acceptability of all personnel. Each person/all personnel must wear a badge with name, photograph, and company name. The cost of all background checks and badges are to be the responsibility of the general contractor.

## SECTION 01 14 00 – WORK RESTRICTIONS

### 1.06 CONTRACTOR USE OF PREMISES

- A. Confine operations at site to area permitted by Owner and Contract Documents.
- B. Do not unreasonably encumber site with materials or equipment.
- C. Do not load structure with weight that will endanger structure.
- D. Assume full responsibility for protection and safekeeping of products stored on premises.
- E. Move any stored products, which interfere with operations of Owner.

### 1.07 OWNER OCCUPANCY

- A. The Contractor shall schedule his operations for completion of portions of the Work, and coordinate work sequence relating to the existing and new buildings for the Owner's final occupancy upon Completion of the entire Work.
- B. The Contractor agrees to permit the Owner to use and occupy a portion or unit of the project before 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;

### 1.09 CONTRACTOR CONDUCT

- A. The use of tobacco products on district property is prohibited.
- B. The possession and/or use of drugs and alcohol on district property are prohibited.
- C. No improper language or fraternization by Contractor's employees with student and staff are prohibited.
- D. All contract personnel shall be required to wear long pants and sleeved shirts at all times while on Owner's property.

END OF SECTION

PART 1 GENERAL

1.01 WORK INCLUDED

- A. To provide adequate budget and bonding to cover items not precisely determined by Owner prior to advertising for bids, allow within the proposed contract amount the sums described below.

1.02 RELATED WORK DESCRIBED ELSEWHERE

- A. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda, and General Conditions.

1.03 ESTABLISHED METHODS

- A. When a cash allowance is set for certain items or materials, it is understood that any savings under such allowance shall accrue to the Owner and if the material purchased costs more than the Allowance, such additional cost shall be borne by the Owner.

1.04 UNDESCRIBED ALLOWANCES

- A. Allowances and provisions not further described in these specifications will be specified and bid at a later date.
- B. Allowance shall include purchase and installation, delivery cost to the job, unloading, sales tax and overhead & profit to the General Contractor.
- C. After receipt of bids, as above mentioned, the successful subcontract shall become part of the scope of work of the general contractor at no additional cost to the Owner, except for the stipulated cash allowance as adjusted.
- D. This method established to allow general contractor to control scheduling of subcontractor so as to meet established completion date.

1.05 OWNER PURCHASED ITEMS

- A. The responsibilities of the Contractor vary from item to item. Overall, the Contractor is responsible for coordination and scheduling of all items to be installed. On certain specific items he is responsible for installation and protection of the finished product. On others, he is responsible for coordination of all rough-in. For items purchased by the Owner and installed by the successful bidder that require electrical, mechanical, and plumbing connections, the Contractor is responsible for coordinating the necessary provisions.
- B. The Owner is responsible for furnishing the agreed upon items in a timely fashion. The names of all successful bidders shall be provided to the contractor. The Contractor and successful bidders shall be responsible for scheduling and delivery of all Owner furnished items.

SECTION 01 21 13 – CASH ALLOWANCES

PART 2 PRODUCTS

2.01 SINGLE PRIME CONTRACT

**1. General Contingency \$25,000**

NOTE: The unused portion of all allowances, including overhead and profit, will be credited back to the owner through a deductive change order.

PART 3 EXECUTION

3.01 PROCEDURE

- A. After receipt of bids, as above mentioned, the successful subcontractor shall become part of the scope of work of general contractor at no additional cost to the Owner, except for the stipulated cash allowance as adjusted.
- B. Mark up of Allowance items (equipment, rental, labor, subcontracts or other) will not be allowed by the Contractor at the time of Allowance use. This includes the assignment of contracts or change requests (change conditions) whether initiated by the Owner, Contractor or any other party. The Contractor should include markup of the Allowance with the lump sum bid.**
- C. This method is established to allow contractors to control scheduling of subcontractors in order to meet established completion date.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements for unit prices.

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions.

1.03 GENERAL DESCRIPTION

- A. A unit price is an amount proposed by Bidders and stated on the Bid Form as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the estimated quantities or Work required by the Contract Documents are increased or decreased beyond those included in the Allowances.
- B. The unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the kinds called for.
- C. Refer to individual Specification Sections for construction activities requiring the establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections and as listed on the Bid Form.
  - 1. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves the use of established unit prices, and to have this Work measured by an independent surveyor acceptable to the Contractor at the Owner's expense.

1.04 MEASUREMENT OF QUANTITIES

- A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification sections shall govern.
- B. Take all measurements and compute quantities. Measurements and quantities will be verified by Architect, Construction Manager and third party surveyor/inspection firm.

1.05 PAYMENT

- A. Payment for work governed by Unit Prices will be made on the basis of the actual measurements and quantities of work accepted by the Architect or Construction Manager multiplied by the Unit Price.
- B. Payments will be deducted from Allowances described in this Section, Cash Allowances or identified on the Bid Form that are to be included in the Contractor's bid.

1.06 SCHEDULE OF UNIT PRICES

- A. **N/A**

END OF SECTION



PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. **Alternate No. 1:**

Base Bid: N/A

Alternate: N/A

Alternate: Provide all necessary material and labor to evacuate / reclaim refrigerant and demo / replace existing refrigerant lines and insulation to all HVAC equipment. Existing refrigerant shall be recovered within canisters provided by the Owner and copper refrigerant line material removed and turned over to the Owner following demolition.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. NO EXTRA WORK SHALL BE PERFORMED WITHOUT FIRST RECEIVING WRITTEN APPROVAL FROM THE CONSTRUCTION MANAGER.
- B. Work included: Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as are described in written Change Orders signed by the Owner and the Architect and issued after execution of the Contract, in accordance with provisions of this Section.
- C. Related Work: Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.
- D. **Mark up of Allowance items (equipment, rental, labor, subcontracts or other) will not be allowed by the Contractor at the time of Allowance use. This includes the assignment of contracts or change requests (change conditions) whether initiated by the Owner, Contractor or any other party. The Contractor should include markup of the Allowance with the lump sum bid.**
- E. Change Orders using the "Time and Material" method may be used in order to expedite the construction process. If used, the contractor will be required to issue certified payroll and all pertinent invoicing. These items shall be agreed to during the pre-construction meeting or prior to initiating work.

1.2 QUALITY ASSURANCE

- A. Include within the Contractor's quality assurance program such measures as are needed to assure familiarity of the Contractor's staff and employees with these procedures for processing Change Order data.

1.3 SUBMITTALS

- A. Make submittals directly to the Construction Manager at the address shown on the Project Directory in the Project Manual.
- B. Submit the number of copies called for under the various items listed in this Section along with appropriate back-up materials.

1.4 PROCESSING CHANGES INITIATED BY THE OWNER

- A. Should the Owner contemplate making a change in the Work or a change in the Contract Time of Completion, the Construction Manager and/or Architect will issue a Proposal Request to the Contractor.
  - 1. Proposal Requests will be dated and will be numbered in sequence.
  - 2. The Proposal Requests will describe the contemplated change, and will carry one of the following instructions to the Contractor:
    - a. Make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion.
    - b. Make the described change in the Work and provide for a credit or cost to be determined in accordance with the General Conditions.

## SECTION 01 26 53 – PROPOSAL REQUESTS

- c. Promptly advise the Construction Manager as to the credit or cost proposed for the described change. This will not be an authorization to proceed with the change.
  - B. If the Contractor has been directed by the Construction Manager and/or Architect through issuance of a Construction Change Directive to make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion, but the Contractor wishes to make a claim for one or both of such changes, the Contractor shall proceed with the change and shall notify the Construction Manager as provided for under the General Conditions.
    1. If Contractor fails to comply with initiating work within seven (7) calendar days of formal directive, the Contractor's forces will be supplemented, and all incurred costs will be back charged to Contractor. Schedule impacts as a result of the supplementation of work forces will be assessed to the Contractor as set forth in Section 01 11 00 Summary of Work Part 1.07.B.
  - C. If the Contractor has been directed by the Construction Manager and/or Architect through issuance of a Construction Change Directive to make the described change subject to later determination of cost or credit in accordance with the General Conditions, the Contractor shall:
    1. Take such measures as needed to make the change;
    2. Consult with the Construction Manager and reach agreement on the most appropriate method for determining credit or cost for the change.
  - D. If the Contractor has been directed by the Construction Manager or Architect to promptly advise him as to credit or cost proposed for the described change, the Contractor shall:
    1. Analyze the described change and its impact on costs and time;
    2. Secure the required information and forward it to the Construction Manager for review;
    3. Meet with the Construction Manager and/or Architect as required to explain costs, and when appropriate, to determine other acceptable ways to achieve the desired objective;
    4. Alert pertinent personnel and subcontractors as to the impending change and, to the maximum extent possible, avoid such work as would increase the Owner's cost for making the change, advising the Construction Manager in writing when avoidance no longer is practicable.

### 1.6 PROCESSING CHANGES INITIATED BY THE CONTRACTOR

- A. Make written reply to the Construction Manager in response to each Proposal Request.
  1. State proposed change in the Contract Sum, if any.
  2. State proposed change in the Contract Time of Completion, if any.
  3. Clearly describe other changes in the Work required by the proposed change, or desirable therewith, if any.

4. Include full backup data such as, subcontractor's letter of proposal or similar information.
  5. Submit this response in a single copy.
- B. When cost or credit for the change has been agreed upon by the Owner and the Contractor, or the Owner has directed that cost or credit be determined in accordance with provisions of the General Conditions, the Construction Manager will issue written notification to bill against the General Contingency Allowance or the Construction Manager will issue a "Change Order" to the Contractor.

1.8 PROCESSING CHANGE ORDERS

- A. Change Orders will be dated and will be numbered in sequence.
- B. The Change Order will describe the change or changes, will refer to the Proposal Request(s) involved, and will be signed by the Owner and the Architect.
- C. The Architect will issue one copy of each Change Order to the Construction Manager for the remaining execution of all parties.
  1. The Contractor shall promptly sign and return to the Construction Manager.
  2. The Construction Manager will then forward to the Architect for his signature.
  3. The Architect will sign and then forward to the Owner for his signature.
  4. The Owner will sign and return to the Construction Manager who will then forward fully executed copies to the Contractor, Architect, and the Office of School Facilities.
- D. Should the Contractor disagree with the stipulated change in Contract Sum or change in Contract Time of Completion, or both:
  1. The Contractor promptly shall submit a copy of the Change Order, unsigned by him, to the Architect with copy to the Construction Manager with a letter signed by the Contractor, stating his disagreement.
  2. The Contractor's disagreement with the Change Order shall not in any way relieve the Contractor of his responsibility to proceed with the change as ordered under pertinent provisions of the Contract Documents.
- E.
  1. Maximum allowable "mark-up" percentages for contractors and sub-contractors **AFTER ALL ALLOWANCES ARE EXHAUSTED** shall be 10% for self-performed work and 7% on sub-contract work.
- F. Cost of Change Work Sheet
  1. See Cost of Change Worksheet included in this Section. This worksheet is to be used as part of any and all Proposal Requests.

**COST OF CHANGE WORKSHEET**

Project: **Oak Grove Academy – Renovations**

Package/Contractor: \_\_\_\_\_

Proposal Request # \_\_\_\_\_

Associated RFI(s): \_\_\_\_\_

Description of Work (from Proposal Request form):

- 1. Material Cost (Include Itemized Breakdown): \$ \_\_\_\_\_
- 2. Equipment Cost (Include Itemized Bill): \$ \_\_\_\_\_
- 3. Sales Tax: \$ \_\_\_\_\_
- 4. Overhead & Profit (10%):  
(NOT to be added to items deducted from allowance) \$ \_\_\_\_\_
- 5. SUBTOTAL 1: \$ \_\_\_\_\_
- 6. Labor Costs (Include Itemized Breakdown): \$ \_\_\_\_\_
- 7. Labor Burden: \$ \_\_\_\_\_
- 8. Overhead & Profit (10%):  
(NOT to be added to items deducted from allowance) \$ \_\_\_\_\_
- 9. SUBTOTAL 2: \$ \_\_\_\_\_
- 10. Subcontract Cost (Include Itemized Breakdown): \$ \_\_\_\_\_
- 11. Overhead & Profit (7%):  
(NOT to be added to items deducted from allowance) \$ \_\_\_\_\_
- 12. SUBTOTAL 3: \$ \_\_\_\_\_
- 13. TOTAL: \$ \_\_\_\_\_
- 14. Insurance/Bond Expense:  
(NOT to be added to items deducted from allowance) \$ \_\_\_\_\_
- 15. GRAND TOTAL: \$ \_\_\_\_\_

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide a detailed breakdown of the agreed Contract Sum showing values allocated to each of the various parts of the Work, as specified herein and in other provisions of the Contract Documents.
- B. Related Work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda, and General Conditions.
  - 2. Schedule of Values is required to be compatible with the continuation sheet and accompanying applications for payment, as described in Section 01 29 76.

1.2 QUALITY ASSURANCE

- A. Use required means to assure arithmetical accuracy of the sums described.
- B. When so required by the Construction Manager and/or Architect, provide copies of the subcontractor's Schedule of Values or other data acceptable to the Construction Manager and/or Architect, substantiating the sums described.

1.3 SUBMITTALS

- A. Format and Content: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values. Contractor to follow **AIA Documents AIA G732 and G703** formatting for Schedule of Values and Progress Payments.
  - 1. Identification: Include the following Project identification on the Schedule of Values:
    - a. Project name and location.
    - b. Name of the Architect.
    - c. Project number.
    - d. Contractor's name and address.
    - e. Date of submittal.
  - 2. Provide a breakdown of the Contract Sum in sufficient detail (Labor & Material) to facilitate continued evaluation of Applications for Payment and progress reports. Break principal subcontract amounts down into several line items.
  - 3. Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.
  - 4. For each part of the Work where an Application for Payment may include materials or equipment, purchased, or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
  - 5. Margins of Cost: Show line items for indirect costs, and margins on actual costs, only to the extent that such items will be listed individually in Applications for Payment. Each item shall be complete including its total cost and proportionate share of general overhead and profit margin.

SECTION 01 29 73 – SCHEDULE OF VALUES

6. Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values.
  7. Schedule Updating: Update the Schedule of Values when Change Orders result in a change in the Contract Sum.
  8. The schedule of values shall include the following line items.
    - a. Retainage – Shall be withheld at 10% of the total project contract value.
    - b. O&M Manuals – One percent **(2.5%)** of the total contract value shall be listed for O&M manuals. This item cannot be billed until all O&M's required have been turned in and accepted by the A/E.
    - c. Owner Training – One percent **(2.5%)** of the total contract value shall be listed for Owner training. This item cannot be billed until all training has been completed.
    - d. Punchlist – Five percent **(5%)** of the total contract value shall be listed for work related to the A/E punchlist. This item can be billed in full or in part after the contractor has returned all of the A/E's final punchlist report with the status of each item indicated. The Owner reserves the right to withhold full or part payment based upon the effort of the contractor to complete punchlist items in a timely manner.
- B. Prior to first application for payment, submit a proposed schedule of values to the Construction Manager for review.
1. Meet with the Construction Manager and determine additional data, if any required to be submitted.
  2. Secure the Construction Manager's approval of the schedule of values prior to submitting first application for payment. **NO APPLICATIONS FOR PAYMENT WILL BE PROCESSED PRIOR TO APPROVAL OF THE SCHEDULE OF VALUES.**
  3. AIA Form G732 shall be submitted with all columns and spaces completed as per direction of the Construction Manager.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Comply with procedures described in this Section when applying for progress payments and final payment under the Contract.
- B. Related Work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda, and General Conditions.
  - 2. The Contract Sum and the schedule for payments are described in the Agreement Form.
  - 3. Payments upon Substantial Completion and Completion of the Work are described in the AIA Contract and in Division I of these Specifications.
  - 4. The Construction Manager's and Architect's approval of applications for progress payment and final payment may be contingent upon the Construction Manager's and Architect's approval of status of Closeout and Project Record Documents.

1.2 QUALITY ASSURANCE

- A. Prior to approval of payment application number one, secure the Construction Manager's approval of the project schedule and Schedule of Values required to be submitted under Section 01 29 73 of these Specifications.
- B. During progress of the Work, modify the schedule of values as approved by the Construction Manager to reflect changes in the Contract Sum due to Change Orders or other modifications of the Contract.
- C. Base requests for payment on the approved Schedule of Values.

1.3 SUBMITTALS

- A. Informal Submittal: Unless otherwise directed by the Construction Manager:
  - 1. Make an informal submittal of request for payment by filling in pertinent portions of AIA Document G732, "Application and Certificate for Payment", plus continuation sheet or sheets.
  - 2. Make this preliminary submittal of request for payment as agreed with the Construction Manager, initialing all copies.
- B. Formal Submittal: Unless otherwise directed by the Construction Manager:
  - 1. Make formal submittal of request for payment by filling in the agreed date on AIA Document G732, "Application and Certificate for Payment", plus continuation sheet or sheets.
  - 2. Sign and notarize the Application and Certificate for Payment.
  - 3. Submit the original of the Application and Certificate for Payment of the entire Application including all continuation sheet or sheets, to the Construction Manager. Copy shall bear original signatures and original notarizations.



SECTION 01 29 76 – PROGRESS PAYMENT PROCEDURES

4. Submit Partial Release of Liens for ALL sub-contractors and material suppliers that have an interest in the current or any past Applications for Payment.
5. The Construction Manager will compare the formal submittal with the approved informal submittal and, when approved, will sign the Application and Certificate for Payment, and will distribute.
6. Requests for Payment against any change order will not be honored until the change order is signed by all appropriate parties.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: To enable orderly review during progress of the Work, and to provide for systematic discussion of problems and to coordinate all phases of the Project toward completion in accordance with the Contract Documents, the Construction Manager will conduct project meetings throughout the construction period.
- B. Related Work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda, and General Conditions.
  - 2. The Contractor's relations with his subcontractors and materials suppliers are the Contractor's responsibility and normally are not part of project meeting content.
  - 3. This Section specifies administrative and procedural requirements for project meetings including, but not limited to:
    - a. Pre-construction conferences.
    - b. Progress meetings.
    - c. Coordination meetings.
    - d. Pre-installation conferences.

1.2 QUALITY ASSURANCE

- A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings. Any change in personnel by a Contractor will be forwarded in writing to the Construction Manager prior to the change.

1.3 SUBMITTALS

- A. Agenda Items: To the maximum extent practical, advise the Construction Manager at least 24 hours in advance of project meetings regarding items to be added to the agenda.
- B. Minutes:
  - 1. The Construction Manager will compile minutes of each project meeting, and will furnish one copy to the Prime Contractors, Architect, and required copies to the Owner.
  - 2. Recipients of copies may make and distribute such other copies as they wish.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

3.1 MEETING SCHEDULE

- A. Except as noted for Pre-construction Meeting, formal job site meetings with onsite job superintendents will be held weekly.

## SECTION 01 31 19 – PROJECT MEETINGS

- B. Except as noted for Pre-construction Meeting, formal project meetings with attendance of each Contractor's office Project Manager will be held monthly.
- C. Coordinate as necessary to establish mutually acceptable schedule for meetings.

### 3.2 MEETING LOCATION

- A. The Construction Manager will establish the meeting location. To the maximum extent practicable, meetings will be held at the job site.

### 3.3 PRE-CONSTRUCTION MEETING

- A. Pre-construction Meeting will be scheduled to be held within 15 working days after the Owner has issued the Notice to Proceed.
  - 1. Provide attendance by authorized representatives of the Contractor.
  - 2. The Construction Manager will advise other interested parties, including the Owner, and request their attendance, as necessary.
- B. Minimum Agenda: Data will be distributed and discussed on at least the following items:
  - 1. Organizational arrangement of Contractor's forces and personnel, subcontractors, material suppliers, the Construction Manager, and the Architect.
  - 2. Channels and procedures for communication.
  - 3. Construction schedule, including sequence of critical work.
  - 4. Contract Documents, including distribution of required copies of original Documents and revisions.
  - 5. Processing of Shop Drawings and other data submitted to the Construction Manager for transmittal to Architect for review.
  - 6. Processing of Bulletins, field decisions, Change Orders, and Payment Applications.
  - 7. Rules and regulations governing performance of the Work.
  - 8. Procedures for safety and first aid, security, quality control, housekeeping, and related matters.
  - 9. Preparation of record drawings.
  - 10. Use of the premises.
  - 11. Office, work, and storage areas.
  - 12. Equipment deliveries and priorities.
  - 13. Working hours.
  - 14. Request for Information format.
  - 15. Notification of Defective and Non-Conforming Work format.

16. Rejection of Work format.

### 3.4 PROJECT MEETINGS

#### A. Attendance:

1. To the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout the progress of the Work.
2. Conduct progress meetings at the Project site at regularly scheduled intervals. Notify the Owner and Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.
3. Attendees: In addition to representatives of the Owner and Architect, each subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at the meetings by persons familiar with the Project and authorized to conclude matters relating to progress.

#### B. Minimum Agenda:

1. Review, revise as necessary, and approve minutes of previous meetings.
2. Review progress of the Work since last meeting, including status of submittals for approval. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so.
3. Identify problems which impede planned progress.
4. Develop corrective measures and procedures to regain planned schedule.
5. Complete other current business.
6. Update as-built documents as required.
7. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.
8. Review the present and future needs of each entity present, including such items as:
  - a. Interface requirements.
  - b. Time.
  - c. Sequences.
  - d. Deliveries
  - e. Off-site fabrication problems.
  - f. Access.
  - g. Site utilization.
  - h. Temporary facilities and services.
  - i. Hours of work.
  - j. Hazards and risks.
  - k. Cleaning and site conditions.
  - l. Quality and work standards.

SECTION 01 31 19 – PROJECT MEETINGS

- m. Change Orders.
- n. Documentation of information for payment requests.

C. Revisions to minutes:

1. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
2. Persons challenging published minutes shall respond to the original distribution email with the challenge and include all original recipients of the particular set of minutes.
3. Challenge to minutes shall be discussed and settled at the next regularly scheduled meeting.

D. Reporting: No later than 5 days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

END OF SECTION

PART 1 - GENERAL

1.0.1 WORK INCLUDED

- A. To assure adequate planning and execution of the Work so that the Work is completed within the number of calendar days allowed in the Contract, and to assist the Architect in evaluating progress of the Work, prepare and maintain the schedules and reports described in this Section.
- B. It should be noted by all Contractors and material suppliers the extremely critical nature of this project and time being allowed for its completion.
- C. **In no event shall any Contractor work less than five (5) days per week. If a normal work day (Monday through Friday) is lost due to weather, it is expected that the Contractor work Saturday and/or Sunday to make up the lost day(s).**

1.0.2 RELATED WORK

- A. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda, and General Conditions.
- B. Construction period shall be as identified in the Agreement Form.

1.0.3 DEFINITIONS

- A. "Day", as used throughout the Contract unless otherwise stated, means calendar day.
- B. "Contractor" means General Contractor, if the project is bid as Single Prime, or Building and Finishes Contractor, if the project is bid as Multi-Prime, except in Part 1.0.1 above which applies to ALL Contractors.

1.0.4 QUALITY ASSURANCE

- A. The Contractor shall employ a ~~third-party~~ scheduler who is thoroughly trained and experienced in compiling construction schedules, and in preparing and issuing periodic updates and reports as required.
- B. Perform data preparation, analysis, charting and updating in accordance with standards approved by the Architect.

1.0.5 SUBMITTALS

- A. Comply with pertinent provisions of Section 01 33 00, Submittal Procedures.
- B. Construction schedule: Within Ten (10) calendar days after each Prime Contractor has received the Owner's Notice to Proceed, each Prime Contractor shall provide the Construction Manager with sufficient information on his plan for completing all work under this Contract. The Building and Finishes Contractor shall provide a detailed bar chart (CPM Method) of his work clearly showing how his schedule integrates with the durations provided by other Prime Contractors and the total construction duration. This bar chart schedule must include subcontract awards, material purchase dates and delivery dates, manpower levels broken down by trades and plant and equipment to be used. All interface activities and tasks which

## SECTION 01 32 16 – CONSTRUCTION PROGRESS SCHEDULE

must be completed by other trades prior to proceeding with the work must be shown on the bar chart schedule. Submit a draft copy of the construction schedule for review by Construction Manager and all Prime Contractors. After approval by the Construction Manager, submit one (1) 30"x42" size prints and electronic copies of the approved baseline construction schedule for distribution to all Prime Contractors.

- C. Periodic revisions and reports: Submit updated copies of the construction schedule updated along with the monthly payment request, at the scheduled Monthly Meeting.

### PART 2 - PRODUCTS

#### 2.0.1 CONSTRUCTION ANALYSIS

- A. Graphically show by bar-chart the order and interdependence of all activities necessary to complete the work, and the sequence in which each activity is to be accomplished, as planned by the Contractor and his project field superintendent in coordination with all subcontractors.
- B. The Construction Schedule shall be cost loaded and contain the following columns at a minimum: original durations, remaining durations, start and finish dates, early start and finish dates, total float, percent complete, budgeted total cost, earned value, logic and target bars in the Gantt bar chart view.

### PART 3 - EXECUTION

#### 3.0.1 CONSTRUCTION SCHEDULE

- A. Ten (10) days after receipt of Notice to Proceed, complete the construction analysis in preliminary form, meet with the Construction Manager, review contents of the proposed construction schedule, and make all revisions agreed upon.
- B. The information on the Contractor's plan of action for performing the work under this Contract shall be based on the allotted construction duration for this work. The Construction Schedule shall indicate the key points of interface between the work under this contract and the other work of the project and the major project milestones. Sequencing and coordinating of miscellaneous activities will be discussed and agreed upon in the weekly meetings. It is agreed and understood that the schedule dates shown in the Construction Schedule for the indicated interface points and project milestones may change during the course of the Contract and such changes, in and of themselves, will not entitle the Contractor to any additional compensation or be deemed to constitute an extension of time or to constitute a change under the Agreement Form.
- C. Every effort will be made to make progress on the work as expeditiously as possible and if critical path activities can be improved during the course of the work, the Construction Schedule shall be revised to reflect improved dates on all work activities.
- D. All Contractors shall award all subcontracts, purchase materials, arrange for deliveries, furnish sufficient forces, plant and equipment and work such hours as necessary to insure execution of the work in conformity with the project duration.
- E. In the event of material procurement delays, the Contractor shall immediately notify the Construction Manager. However, it will be assumed that the Contractor has checked material deliveries as specified prior the Bid, as submission of a Bid for work will be assumed to be an agreement to the time frame allocated for that work as noted per the total project duration.

## SECTION 01 32 16 – CONSTRUCTION PROGRESS SCHEDULE

- F. If the any Contractor falls behind the Construction Schedule, or current approved revision of the Construction Schedule, and is not entitled to any time extension as determined by the Construction Manager, he shall, upon request of the Construction Manager, submit within forty-eight (48) hours his plan for bringing his work back up to schedule. This plan shall include a commitment for immediate implementation, unless otherwise approved by the Construction Manager, and must include a time commitment, acceptable to the Construction Manager, for bringing the work up to schedule. If the Contractor fails to provide an acceptable plan within the requested time, he will be given a mandatory plan by the Construction Manager.
- G. The Contractor's plan shall illustrate his proposed methods for bringing his work back up to schedule, whether by a normal 40 hour work week, or by working 24 hours a day if necessary. If other measures will not be sufficient to make up the lag, the Contractor's plans and implementation thereof shall include increasing the number of shifts, days of work and/or instituting or increasing overtime, all at his own expense.
- H. If a Contractor fails or refuses to implement such measures as will bring his work back up to conformity with the approved Schedule, his right to proceed with any or all portions of the Contract requirements may be terminated pursuant to the Agreement Form.

### 3.0.2 PERIODIC REVISIONS AND REPORTS

- A. The approved construction schedule shall be updated monthly and submitted along with each monthly payment application.
  - 1. Indicate "actual" progress in percent completion for each activity.
  - 2. Provide written narrative summary of revisions causing delay in the program, and an explanation of corrective actions taken or proposed.

### 3.0.3 TWO WEEK LOOK-AHEAD SCHEDULES

- A. The Contractor shall provide a two week look-ahead schedule at each and every weekly progress meeting. This schedule should detail all ongoing activities by that Contractor as well as any activity expected to start/resume within two weeks of the progress meeting date. The purpose of this schedule is to provide a tool to coordinate the activities of all Contractors and Subcontractors and is intended to be much more detailed than the overall construction schedule.

### 3.0.4 REVISIONS

- A. Periodic schedule review and revision meetings will be held with the Contractors who will be expected to provide input to the scheduling activities. The latest approved revision of the Construction Schedule shall be part of the Contract Documents and shall be complied with by the Contractor at no extra cost to the Owner. Activity duration periods shown on the Construction Schedule will not be reduced without the approval of the Contractor nor will they be increased without the approval of the Construction Manager.

### 3.0.5 REQUEST FOR EXTENSION DUE TO DELAYS

- A. It is understood that the Owner, Construction Manager, or Architect/Engineer shall not, in any event, be liable to the Contractor for delays of any kind whatsoever and the Contractor shall be fully responsible for making up lost time of all delays except to the extent that extensions of time are granted. If completion of the work is delayed by any act of neglect of the Owner, or by the Construction Manager or the acts of



SECTION 01 32 16 – CONSTRUCTION PROGRESS SCHEDULE

the Construction Manager or Architect/Engineer, by strikes or by other exceptional conditions over which the Contractor has no reasonable control, the time of completion shall upon receipt of the Contractor's written request, be extended by such period as the Construction Manager may consider reasonable. No extension shall be allowed unless a claim is presented in writing to the Construction Manager within seven (7) days after the commencement of such delay. In case of continued cause of delay, only one claim is necessary. Nothing in this clause shall be construed to release the Contractor from the obligation to perform at his own expense all overtime necessary to maintain the Contract completion date where delays have occurred which are not excused. If the Contractor, delayed by any acts of the Owner, Construction Manager, Architect/Engineer, is granted an extension of time by the Construction Manager, the Contractor shall comply with the extended schedule with no additional compensation from the Owner.

- B. Delays due to weather/precipitation. The following table shows the number of days, on average, per month, that it rained .1" or more in York County, SC, over a fifteen-year period.

January	6 days	July	6 days
February	6 days	August	6 days
March	6 days	September	5 days
April	6 days	October	4 days
May	6 days	November	5 days
June	5 days	December	6 days

- C. For the Contractor to claim an extension due to weather, there must have been at least .1" of precipitation that day or from a previous day, a critical path activity must have been affected and the Contractor and Construction Manager must agree that the day was unworkable. Critical Path activities are determined based on the updated monthly schedule provided by the Contractor for the month in question. If the Contractor fails to provide an updated schedule for the month that an extension is being requested, then the previous month's schedule shall be used. All days must be documented on a daily basis and agreed upon by the Construction Manager. The difference between the total actual unworkable days due to precipitation and the above days will be granted (if in excess). This extension must be formally requested once a month (with transmittal of Pay Application) for the extension to be granted. If a formal request is not made at the said time, the opportunity for extension request will not be granted.
- D. Per 1.0.1.C above, normal work days lost due to weather shall be made up on the following Saturday and/or Sunday, as necessary, to complete the five (5) day work week requirement. If an extension request is made for lost day(s) and the Contractor failed to work the following Saturday and/or Sunday, weather permitting, to meet the 5 day requirement, the request will be reduced by the number of Saturdays and Sundays that should have been worked to complete the 5 day work week requirement.

END OF SECTION

PART 1 GENERAL

- A. The Contractor shall submit for review by the Architect/Engineer, Shop Drawings and schedules required by the Specifications, or that may be requested by the Architect/Engineer, and no work shall be fabricated by the Contractor, except at his own risk, until such review has been completed.
- B. The Contractor shall be provided with access to Procore by the Construction Manager. All submittals shall be electronically uploaded to the software for review by the Design Team. Should the Contractor require assistance with functionality of the management software, please notify the Construction Manager for additional assistance.

1.1 FORM OF SUBMISSION MATERIALS

A. SHOP DRAWING SCHEDULE

- 1. Immediately after date of Notice to Proceed, each Contractor shall submit to the Construction Manager a Shop Drawing Submittal Schedule, which shall include the following minimum information (**This should be provided at the Pre- Construction Meeting**):
  - a. List all items to be submitted for review referenced to the specific specifications section.
  - b. Name of subcontractor if applicable.
  - c. Supplier and date of purchase order.
  - d. Total fabrication and delivery time from time submittals are returned to the Contractor.
  - e. Scheduled delivery date.

(NOTE): No applications for payment will be processed unless the above listed information has been submitted.

B. SHOP DRAWINGS

- 1. Scale and Measurements: Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- 2. Types of submittals required:
  - a. Submit Shop Drawings electronically in Procore.
  - b. Submit electronic copy of all supporting documentation including manufacturer's data, installation requirements, dimensional information, and any other required information to determine if a product meets the intent of the specification.
- 3. Review comments from the Architect will be made and distributed to the Contractor.

C. MANUFACTURER'S LITERATURE

- 1. Where contents of submitted literature from manufacturers include data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.

## SECTION 01 33 00 – SUBMITTAL PROCEDURES

### D. SAMPLES

1. Provide Sample or Samples identical to the precise article proposed to be provided. Identify as described under "Identification of Submittals" below.
2. Number of Samples required:
  - a. Unless otherwise specified, submit samples in the quantity which is required to be returned, plus three which will be retained by the Architect and Construction Manager.
  - b. By prearrangement in specific cases, a single sample may be submitted for review and, when approved, be installed in the Work at a location agreed upon by the Architect.

### E. COLORS AND PATTERNS

1. Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to the Architect for selection.

## 1.2 SUBMISSION PROCEDURE

### A. GROUPING OF SUBMITTALS

1. Unless otherwise specified, make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.
  - a. Partial submittals will be rejected as not complying with the provisions of the Contract.
  - b. The Contractor may be held liable for delays so occasioned.
2. Provide a separate transmittal and drawing number for each item to be reviewed.

### B. CHECKING SUBMITTALS PRIOR TO SUBMISSION

1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
3. The drawings submitted shall be marked with the name of the project, numbered consecutively and bear the signed and dated stamp of the approval of that Contractor as evidence that the drawings have been checked by the Contractor. Any drawings submitted without this stamp of approval will not be considered and will be returned to the Contractor for re-submission. If the shop drawings show variation from the requirements of the Contract because of standard shop practice or with reasons, the Contractor shall make specific mention of such variations in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise, that Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though such shop drawings have been approved.

## C. DELIVERY AND TIMING OF SUBMITTALS

1. All submittals shall be uploaded to Procore for review. The Construction Manager is responsible for initial review before forwarding to the Architect/Engineer for review based upon their relative position in the Construction Schedule, or as follows:
  - a. Prior to Mobilizing On-Site
    1. Bonds
    2. Insurance Certificate
  - b. Following Notice to Proceed; **NOTE TIME FRAMES INVOLVED**
    1. Shop Drawing Submittal Schedule (within 10 days)
    2. Schedule of Values (within 10 days)
    3. Superintendent's Resume (within 10 days)
    4. Detailed Construction Schedule (within 10 days) updated monthly
    5. Subcontractor Listing (within 10 days) updated monthly
    6. All Shop Drawings/Submittals (within 90 days) unless otherwise approved.
2. **If the time frames above are not adhered to, the Contractor will be subject to a penalty of \$100 per day per item until all submittals are complete. The penalty is in addition to the Schedule of Values line item requirement referenced in 1.3.A.8 of Section 01 29 73.**
3. Shop drawing submittals shall be made far enough in advance, based on the approved Construction Schedule, to meet all installation dates as scheduled. This will require that sufficient lead time be allowed to address an adequate review period, securing necessary approvals, possible revisions and re-submittals, placing orders and securing delivery dates.
4. In scheduling, allow at least ten (10) working days for review by the Architect following his receipt of the submittal.

## D. ARCHITECT'S REVIEW

1. Review by the Architect does not relieve the Contractor from responsibility for errors which may exist in the submitted data.
2. The review of Shop Drawings will be general and shall not be construed as:
  - a. Permitting any departure from the Contract Requirements.
  - b. Relieving the Contractor of the responsibility for any error in details, dimensions or otherwise that may exist.
  - c. Approving departures from additional details or instruction previously furnished by the Architect/Engineer.
3. Revisions:
  - a. Make revisions required by the Architect.
  - b. If the Contractor considers any required revisions to be a change, he shall notify the Construction Manager and/or Architect as provided for in Specification Section 01 26 53.
  - c. Make only those revisions directed or approved by the Architect.

SECTION 01 33 00 – SUBMITTAL PROCEDURES

4. If a drawing, as submitted, indicates a departure from the Contract requirements which the Architect/Engineer finds to be in the interest of the Owner and to be minor as not to involve a change in the Contract Price or time for performance, the Architect/Engineer may approve the drawing.

E. FINAL DISTRIBUTION OF SUBMITTALS

1. Final distribution of submittals will be performed via Procore and available electronically throughout the duration of the project. Each Contractor shall be responsible for the distribution of the Shop Drawings and schedules within his own organization and to his subcontractors.

END OF SECTION

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**DIGITAL DATA LETTER OF AGREEMENT**

An Agreement between LS3P ASSOCIATES LTD. (the "Architect") and \_\_\_ (the "Licensee," either Original or Third Party, as the case may be) for Licensing of Digital Data

**Architect:** LS3P ASSOCIATES LTD.  
701-A Lady Street,  
Columbia, SC 29201

**Licensee:**  
Original \_\_\_  
3<sup>rd</sup> Party \_\_\_

Contact: Jimmy Wilhide

**Project No.:** 2201-240267  
**Project Name:** Fort Mill School District – Oak Grove Academy  
**Location:** Fort Mill, SC  
**Date:**

The Architect will provide the following Digital Data, dated as of the particular transmission, to the Licensee **for information purposes only:**

Sheet XXX (.dwg format)  
Sheet XXX (.dwg format)  
Sheet XXX (.dwg format)  
Sheet XXX (.dwg format)

Revit MODEL (Revit 20XX)

Digital Data was prepared using the following:

**Software:** Revit (.rvt)                      **Version:**

**Digital Data to be delivered via the following media:** Newforma Website posting

Licensee shall pay the Architect a service fee of \$0.00 and other good and valuable consideration.

**TERMS AND CONDITIONS**

1. The Architect and its consultants make no representation as to the compatibility of the Digital Data with any hardware or software. The Licensee shall notify the Architect within five (5) business days of any problems associated with accessing and/or using the Digital Data.
2. The Licensee acknowledges and agrees that the Digital Data may change or degrade during the transmission process. The Licensee acknowledges and agrees that the Architect and its consultants may remove all indications of ownership from the Digital Data prior to transmission.
3. All Digital Data shall be considered the property of the Architect and/or its consultants and shall not be used for other Projects, for additions to this Project without the prior written permission of the Architect and/or its consultants. Digital Data shall not be re-transmitted by the Original Licensee to a Third-Party Licensee without prior execution of an agreement identical to this Agreement between the Architect, the Original Licensee, and the Third-

Party Licensee. Under no circumstances shall the transmission of the Digital Data be considered a sale of goods or a sale of copyrights.

**4. THE ARCHITECT AND THE ARCHITECT'S CONSULTANTS HEREBY EXPRESSLY DISCLAIM ANY AND ALL WARRANTIES, BOTH EXPRESS AND IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AS WELL AS ANY WARRANTY OF ACCURACY, COMPLETENESS, AND/OR PERMANENCE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.** Addenda information and/or revisions made to the most current Digital Data after any date of transmission have not been incorporated into the transmitted Digital Data. In the event of a conflict between the Architect's printed instruments of service (2D Documents) whether sealed or unsealed) and the Digital Data (3D Model), the printed instruments of service shall govern. The Licensee acknowledges and agrees that the duty to determine the existence of any and all conflicts between the Digital Data and any other information upon which the Licensee relies rests solely upon the Licensee. The Digital Data shall not be considered Contract Documents or Construction Documents as defined by any General Conditions of Contract for Construction. The Digital Data is being provided for information only and on a strictly "AS IS" basis.

5. Licensee agree the extent of its reliance on any Digital Data shall be limited to the uses identified in this Agreement.

6. Licensee may use and rely upon the Digital Data only for programming, site analysis, design review, 3D coordination of structural, mechanical, plumbing, and electrical systems, and preconstruction activities.

7. The Level of Development (LOD) describes the minimum dimensional, spatial, quantitative, qualitative, and other data included in the Digital Data to support the uses and reliance included in this Agreement. The LOD of the Digital Data transmitted is LOD 200. LOD 200 is defined as model and model elements that are generically and graphically represented within the Digital Data with approximate quantity of major components, size, shape, location, and orientation.

8. If Licensee discovers or becomes aware of any discrepancies, inconsistencies, errors, or omissions in any Digital Data transmitted, they shall promptly report the discrepancy, inconsistency, error, or omission in writing to the Architect. Licensee shall not use any discrepancy, inconsistency, error, or omission in the Digital Data as the basis of a claim.

9. Any reliance on the Digital Data not in accordance with this Agreement shall be at the sole risk of the Licensee.

10. The use and/or provision of the Digital Data prepared by the Architect and/or its consultants shall not in any way reduce or obviate the Licensee's duty to check and coordinate dimensions, details, and quantities of materials as required to facilitate construction of the Project in a complete and quality manner consistent with the applicable standards of care. Confirmation of existing conditions is the sole responsibility of the Licensee.

11. The Licensee agrees to the extent permitted by applicable law, to indemnify, hold harmless, and release the Architect and/or its consultants, their officers, shareholders, employees, and sub-consultants from any and all injuries, claims, demands, expenses, suits, liabilities, losses, damages, costs, disputes, other matters in question, third party claims, pass-through claims, subrogated claims, and/or claim expenses related to the Digital Data, including but not limited to, attorneys' fees, expert witness fees, and court costs arising out of or in any way related to or connected with any negligent act and/or omission in the generation, provision, and/or use of the Digital Data by the Licensee and/or any of its subcontractors, suppliers, and/or consultants and waive any and all rights to such claims and causes of action.

12. The Licensee waives damages against the Architect for any and all injuries, claims, losses, expenses, damages, disputes, other matters in question, and/or claim expenses arising out of or relating to this Agreement and/or generation, provision, and/or use of the Digital Data, including, but not limited to, consequential damages and reasonable attorneys' fees and defense costs.



13. The Architect’s and/or the Architect’s consultants’ liability to the Licensee and/or any of its subcontractors, suppliers, and/or consultants for any and all injuries, claims, losses, expenses, damages, disputes, other matters in question, third party claims, pass-through claims, subrogated claims, and/or claim expenses arising out of or relating to this Agreement and/or the Digital Data, including, but not limited to, reasonable attorneys’ fees and defense costs, regardless of the nature of the claim or damage, shall not exceed, either individually or in the aggregate, the total amount of \$1,000.00. Such causes include, but are not limited to, the Architect’s and/or the Architect’s consultants’ negligence, errors, omissions, strict liability, breach of contract, and/or breach of warranty.

14. To the best of the Architect’s knowledge, information and belief, there are no licensing or copyright fees due to others based on the transmission of the Digital Data, but to the extent that such unknown fees do exist, the Licensee agrees to pay the required fees and hold the Architect and/or its consultants harmless from any associated costs or penalties.

15. Upon execution of this Agreement, the Architect grants to the Licensee a non-exclusive, non-transferable (except as set forth herein), limited license to use the Digital Data solely and exclusively for informational purposes on the identified Project only, provided that the Licensee substantially performs its obligations under this Agreement.

16. Any purchase order number provided by the Licensee is for the Licensee’s accounting purposes only. The Licensee acknowledges and agrees that purchase order terms and conditions are null, void, and inapplicable to this Agreement.

17. This Agreement constitutes the entire agreement between the parties relative to the Digital Data and shall be governed by the laws of the State of South Carolina without regard to principles of conflicts of law.

**AUTHORIZED ACCEPTANCE**

by Architect:  
LS3P ASSOCIATES LTD.

by Original Licensee:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

by Third Party Licensee:

\_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Date

**WE SO CONSENT:**

by Owner:  
\_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Date

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
  - 2. Requirements for Contractor to provide quality-control services required by Architect, Owner, Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.
- C. See Divisions 2 through 33 Sections for specific test and inspection requirements.

## 1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect or Construction Manager.
- C. Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
- D. Laboratory Mockups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
- E. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- F. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- G. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- H. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- I. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
  - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.

## SECTION 01 40 00 QUALITY REQUIREMENTS

- K. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

### 1.3 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Construction Manager for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Construction Manager for a decision before proceeding.

### 1.4 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  - 1. Specification Section number and title.
  - 2. Description of test and inspection.
  - 3. Identification of applicable standards.
  - 4. Identification of test and inspection methods.
  - 5. Number of tests and inspections required.
  - 6. Time schedule or time span for tests and inspections.
  - 7. Entity responsible for performing tests and inspections.
  - 8. Requirements for obtaining samples.
  - 9. Unique characteristics of each quality-control service.
- C. Reports: Prepare and submit certified written reports that include the following:
  - 1. Date of issue.
  - 2. Project title and number.
  - 3. Name, address, and telephone number of testing agency.
  - 4. Dates and locations of samples and tests or inspections.
  - 5. Names of individuals making tests and inspections.
  - 6. Description of the Work and test and inspection method.
  - 7. Identification of product and Specification Section.
  - 8. Complete test or inspection data.
  - 9. Test and inspection results and an interpretation of test results.
  - 10. Ambient conditions at time of sample taking and testing and inspecting.
  - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  - 12. Name and signature of laboratory inspector.
  - 13. Recommendations on retesting and reinspectings.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

## 1.5 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
  - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- G. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- H. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
  - 1. Contractor responsibilities include the following:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
    - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
    - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
    - f. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.
  - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Construction Manager, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

## SECTION 01 40 00 QUALITY REQUIREMENTS

1. Build mockups in location and of size indicated or, if not indicated, as directed by Construction Manager.
2. Notify Construction Manager seven days in advance of dates and times when mockups will be constructed.
3. Demonstrate the proposed range of aesthetic effects and workmanship.
4. Obtain Architect's and Construction Manager's approval of mockups before starting work, fabrication, or construction.
5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
6. Demolish and remove mockups when directed, unless otherwise indicated.

### 1.6 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
  1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
  2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect, Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  1. Notify Construction Manager and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.

## SECTION 01 40 00 QUALITY REQUIREMENTS

4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
5. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
  1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field-curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
  1. Schedule times for tests, inspections, obtaining samples, and similar activities.
  2. Do not install finishes until required inspection of concealed construction is completed and work approved.
    - a. Coordinate in-wall and above-ceiling inspection by authorities having jurisdiction and observation by Architect.
- H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 30 days of date established for the Notice to Proceed.
  1. Distribution: Distribute schedule to Construction Manager.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
  1. Date test or inspection was conducted.
  2. Description of the Work tested or inspected.
  3. Date test or inspection results were transmitted to Architect.
  4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's and Construction Manager's reference during normal working hours.

#### 3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  1. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

PART 1 GENERAL

- A. The following requirements of Regulatory Agencies having an interest in this project are hereby made a part of this Contract.
- B. The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of State, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this sub-chapter. In addition, the most recent edition of the South Carolina School Facilities Planning and Construction Guide, as prepared and made available by the South Carolina State Department of Education – Office of School Facilities (OSF), shall be considered an applicable code for this project.
- C. South Carolina Sales Tax: All applicable South Carolina sales tax shall be to the account of the Contractor.
- D. Use of chemicals: All chemicals used during the project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.
- E. Safety and Health Regulations: The Contractor shall comply with the Department of Labor and Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL-91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL91-54).
- F. Inspection by Agencies: The representatives of the South Carolina State Department of Education – Office of School Facilities (OSF), South Carolina Department of Health and Environmental Control, York County and Department of Highways and Public Transportation shall have access to the work wherever it is, in preparation or in progress, and the Contractor shall provide proper facilities for such access and inspection.
- G. Withholding for Non-Residents shall comply with the following:
  - 1. Attention of non-resident contractors is invited to Part Two, Act No. 855, Acts of the General Assembly of South Carolina 1958.
  - 2. If a non-resident contractor is the successful bidder on this project, he shall be required to post surety bond, or deposit cash or securities with the South Carolina Tax Commission in compliance with the Act. Proof of such coverage shall be filed with the Engineer before work is started.
  - 3. If the Contractor fails to comply with the regulations of the South Carolina Tax Commission, two percent (2%) of each and every payment made to the Contractor shall be retained by the Owner to satisfy such requirements.
- H. The Owner shall provide and maintain competent and adequate observation of construction as required by 40 CFR 35.2214.

END OF SECTION.



PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: This section establishes requirements pertaining to the securement and payment for licenses, building permits, rights-of-way, etc. necessary for the construction of the project.
- B. Work not included: The Owner will obtain and provide to the Contractor, as required, copies of:
  - 1. Encroachment permits, State Highway Department.
  - 2. Encroachment permits, Public Utility.
  - 3. Easements obtained to cross private property.
  - 4. S.C. Department of Health and Environmental Control Permit to Construct.
- C. Related Work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.
- D. The term "Contractor" used in this section refers to the General Contractor if this is a Single Prime Contract or the Building and Finishes Contractor if this is a Multi-Prime Contract. Refer to the Instructions to Bidders for more information.

1.2 SUBMITTALS

- A. Submit to the Engineer satisfactory evidence that all necessary licenses, building permits, etc. have been secured prior to commencing the work.

PART 2 – PRODUCTS (Not used)

PART 3 - EXECUTION

3.1 BUSINESS LICENSE

- A. Determine licenses necessary to perform the work at project location.
- B. Obtain all necessary licenses at no additional cost to the Owner.

3.2 BUILDING PERMITS

- A. Contractor shall secure all building permits, if required, whether of temporary or permanent nature.

3.3 RIGHTS-OF-WAYS, UTILITY LINES

- A. Owner will provide necessary right-of-way or easements for construction of utility lines, whether on privately or publicly owned property.

3.4 NPDES PERMIT FOR CONSTRUCTION ACTIVITY

- A. The Contractor shall be responsible for filing a "Notice of Intent" with the South Carolina Department of Health and Environmental Control (SCDHEC) for a National Pollutant Discharge Elimination System (NPDES) Permit under 40 CFR Part 122.

SECTION 01 41 26 – PERMITS

- B. Permit application must be filed forty eight (48) hours prior to commencing construction activity.
- C. The Contractor shall use Best Management Practices (BMP) to control sediment runoff from construction areas.
- D. The Owner will be responsible for performing all weekly and monthly Storm Water Pollution Prevention Programs (SWPPP) inspections, and for transmitting these inspections to the Construction Manager within 1 day of such inspection.
- E. The Contractor shall be responsible for obtaining a "Notice of Termination" with the South Carolina Department of Health and Environmental Control (SCDHEC) or the local authority having jurisdiction.

3.5 LAND

- A. The necessary land for construction of the project will be provided by the Owner.

END OF SECTION

## PART 1 - GENERAL

## 1.1 DESCRIPTION

- A. Throughout the Project Documents, reference is made to specifications and standards issued by nationally recognized professional and/or trade organizations.
1. Unless otherwise specifically stated, all manufacturer's catalogs, specifications, instructions or other information or literature that are referred to in the specifications shall be considered as the latest edition and/or revision of such publication that is in effect on the date of the Invitation or Advertisement for Bids.
  2. When standard specifications such as the American Society for Testing and Materials, Federal specifications, Department of Commerce (Commercial Standards), American Institute of Steel Construction, or other well-known public or trade associations, are cited as a standard to govern materials and/or workmanship, such specifications or portions thereof as referred to shall be equally as binding and have the full force and effect as though it were copied into these specifications. Such standards as are mentioned are generally recognized by and available to the trades concerned. The Program Manager will, however, upon request of a bidder or Contractor, furnish for inspection a copy of any standard specifications mentioned or direct the bidder or Contractor to an easily available copy. Unless otherwise specifically stated, the standard specifications referred to shall be considered as the latest edition and/or revision of such specifications that is in effect on the date of the Advertisement for Bids. In case of any conflicts between standard specifications and the written portion of the Specifications, the specifications as actually written herein will govern.
  3. The referenced standards are generally identified by abbreviating the name of the organization following with the specification/standard number.
  4. Unless specifically indicated otherwise, all references to standards refer to the latest edition available at the time of bidding.

## 1.2 ABBREVIATIONS

- A. Wherever the following abbreviations are used in these Project Documents, they are to be construed the same as the respective expressions represented:

AASHO	American Association of State Highway Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AGA	American Gas Association
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ALS	American Lumber Standards
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
ARI	Air Conditioning and Refrigeration Institute
ARMA	Asphalt Roofing Manufacturers Association
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers

SECTION 01 42 00 – REFERENCES

ASPE	American Society of Plumbing Engineers
ASTM	American Society for Testing Materials
AWI	Architectural Woodwork Institute
AWWA	American Water Works Association
AWPA	American Wood Preservers Association
AWS	American Welding Society
BIA	Brick Institute of America
CE	Corps of Engineers
CISPI	Cast Iron Soil Pipe Institute
CRSI	Concrete Reinforcing Steel Institute
CTI	Ceramic Tile Institute of America
DOT	Department of Transportation
EPA	Environmental Protection Agency
FSS	Federal Specifications and Standards, General Services Administration
GA	Gypsum Association
IEEE	Institute of Electrical and Electronics Engineers
MBMA	Metal Building Manufacturer's Association
MCAA	Mechanical Contractors Association of America
MFMA	Marble Flooring Manufacturers Association
MIA	Marble Institute of America
ML/SFA	Metal Lath/Steel Framing Association
NAAMM	National Association of Architectural Metal Manufacturers
NAPA	National Asphalt Pavement Association
NBHA	National Builders Hardware Association
NCMA	National Concrete Masonry Association
NEC	National Electric Code (Now NFPA)
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NPCA	National Paint and Coating Association
NRCA	National Roofing Contractors Association
NTMA	National Terrazzo and Mosaic Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Pre-stressed Concrete Institute
SDI	Steel Deck Institute
S.D.I.	Steel Door Institute
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPIB	Southern Pine Inspection Bureau
SSPC	Steel Structures Painting Council
TCA	Tile Council of America, Inc.
UL	Underwriters Laboratories, Inc.

END OF SECTION

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Quality control of products and workmanship.
- B. Manufacturer's instructions.
- C. Manufacturer's certificates and field services.
- D. Mockups.

1.2 RELATED REQUIREMENTS

- A. Section 01 33 00 Submittal Procedures: Submittal of manufacturer's instructions.
- B. Section 01 45 23 Testing and Inspection Services
- C. Individual specification Section: Mockups required.

1.3 DESCRIPTION

- A. Maintain quality control over supervision, subcontractors, suppliers, manufacturers, products, services, workmanship, and site conditions to produce Work in accordance with Contract Documents.

1.4 WORKMANSHIP

- A. Comply with industry standards of the region except when more restrictive tolerances or specified requirements indicate more rigid standards or precise workmanship.
- B. Provide suitably qualified personnel to produce Work of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration and racking.
- D. Provide finishes to match approved samples.

1.5 MANUFACTURER'S INSTRUCTIONS

- A. Require compliance with instructions in full detail, including each step in sequence.
- B. Should instructions conflict with Contract Documents, request clarification from Construction Manager before proceeding.

1.6 MANUFACTURER'S CERTIFICATES

- A. When required in individual specification sections, submit manufacturer's certificate, in duplicate, certifying that products meet or exceed specified requirements, executed by responsible officer.

1.7 MANUFACTURER'S FIELD SERVICES

- A. When required in individual specification sections, have manufacturer provide qualified representative to observe field conditions, conditions of surfaces and installation, quality of

## SECTION 01 43 00 – QUALITY ASSURANCE

workmanship, start-up of equipment and test, adjust, and balance of equipment, as applicable, and make written report of observations and recommendations to Construction Manager.

### 1.8 MOCKUPS

- A. Assemble and erect complete, with specified attachment and anchorage devices, flashings, seals and finishes.
- B. Remove mockup and clear area approved by Construction Manager.

END OF SECTION

PART 1 - GENERAL

Bidders and Contractors are instructed that the Owner has engaged the services of an inspection firm to perform various inspections. It shall be the responsibility of the contractor requiring the inspections or testing to adequately schedule and coordinate the timing of the inspections or tests.

1.1 DESCRIPTION

1.1.1 Work included:

1. Schedule inspections and testing, complete, as described in this section and elsewhere in pertinent sections of the project manual.
2. Provide construction of small scale sample of work as may be described in pertinent section of the project manual.
3. Remove and replace defective work.

1.1.2 Related work:

1. Requirements for testing may be described in various Sections of these Specifications, the General Conditions, and the International Building Code.
2. Where no inspections or testing requirements are described, but the Owner decides that an inspection or test is required, the Owner may require such inspections or tests to be performed under current pertinent standards. Payment for such inspections and/or testing will be made under the terms of the agreement with the Inspection or Testing Agent.

1.2 QUALITY ASSURANCE

- 1.2.1 Provide coordination of inspections and testing with the Owner's designated Inspections agent or testing laboratory.
- 1.2.2 Testing, when required, will be in accordance with all pertinent codes and regulations and with selected standards of the American Society for Testing and Materials.
- 1.2.3 Construct sample construction to the workmanship which can be expected for the final installation of the proposed product.

1.3 SUBMITTALS

- 1.3.1 Upon completion and/or inspections, the Inspecting Agent shall promptly distribute copies of inspection reports to the Construction Manager, the Architect, The Contractor, to governmental agencies requiring submission of such reports, and to such other persons as directed by the Construction Manager.

PART 2 - PRODUCTS

2.1 PAYMENT FOR TESTING

- 2.1.1 The Owner shall pay for all code required special inspections and testing services required within the Specifications, and shall cover all testing and inspecting required by governmental agencies having jurisdiction.

## SECTION 01 45 23 – TESTING AND INSPECTING SERVICES

- 2.1.2 When initial inspections or tests required by the Code or the Architect\Engineer indicate non-compliance with the Code or the Contract Documents, subsequent re-inspections occasioned by the non-compliance shall be performed by the Owner's inspections agent or testing laboratory and the costs thereof shall be paid by the Contractor.
- 2.1.3 It shall be understood and agreed by all involved that the Inspections Agent and the Testing Laboratory is the Owner's agent and representative. By accepting the work of this job, the Inspections Agent and the Testing Laboratory agrees to represent the Owner alone. All reports shall be sent directly to the Owner, the Architect, the Engineer, and the Contractor. No reports will be sent to the Contractor alone.
- 2.1.4 Where inspections, tests, certificates, or approvals by authorities other than the Architect\Engineer are required for an item or material, the Contractor shall request that the Owner's Inspections Agent or Testing Agency perform and\or procure such certifications of approval and forward four copies of the results of the test certificates or approvals to the Construction Manager prior to proceeding with the work involved. Such laboratories and\or authorities as are employed for this purpose shall be competent, with a generally recognized reputation in the field concerned and shall be subject to approval by the Architect.

### 2.2 SPECIFIC TESTS AND INSPECTIONS

- 2.2.1 Special inspections and testing required by codes or ordinances, or by a plan approval authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Owner, unless otherwise provided in the Contract Documents.
- 2.2.2 Testing shall include, but not be necessarily limited to that described in detail in Part 3 of this Section.

### 2.3 CONTRACTOR'S CONVENIENCE TESTING

- 2.3.1 Inspecting and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

### 2.4 GENERAL MATERIALS

- 2.4.1 For sample construction use materials which are exact to those proposed for installation under this Contract.

## PART 3 - EXECUTION

### 3.1 COOPERATION WITH INSPECTION AGENCY AND TESTING LABORATORY

- 3.1.1 Representatives of the Inspection Agent and the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

### 3.2 TAKING SPECIMENS

- 3.2.1 All specimens and samples for inspection or testing, unless otherwise provided in the Contract Documents, shall be taken by the inspecting or testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

### 3.3 SPECIFIC TESTING AS REQUIRED IN TECHNICAL SPECIFICATIONS SECTIONS OF THE PROJECT MANUAL



SECTION 01 45 23 – TESTING AND INSPECTING SERVICES

3.3.1 Most required tests include, but are not necessarily limited to:

1. Visually inspect on-site and imported fill and backfill, making such tests and retests as are necessary to determine compliance with the Contract requirements and suitability for proposed purpose;
2. Make field density tests on samples from in-place material as required;
3. As pertinent, inspect and test the scarifying and re-compacting cleaned sub-grade; inspect the progress of excavating, filling and grading; make density tests at fills and backfills; and verify compliance with provisions of the Contract Documents and governmental agencies having jurisdiction;
4. Visually inspect earth work under building structure and make such tests as are necessary to determine suitability for the proposed purpose;
5. Make field density tests on samples from in-place material as required in area where trenches and/or footings are dug to ensure suitability for the proposed purpose;
6. Performing compressive strength testing of concrete as described in Division 03.
7. Performing required steel testing as required in Division 05.

3.3.2 Make and distribute necessary reports and certificates.

3.4 WAIVER OF INSPECTION AND/OR TESTING

3.4.1 Specified inspections and/or tests may be waived only by the specific approval of the Architect or Engineer, and such waivers will be expected to result in credit to the Owner equal to normal cost of such inspection and/or test.

END OF SECTION

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.

#### 1.2 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. Temporary utilities required include but are not limited to:
  - 1. Water service and distribution.
  - 2. Temporary electric power and light.
  - 3. Telephone and internet service.
  - 4. Storm and sanitary sewer.
- C. Temporary construction and support facilities required include but are not limited to:
  - 1. Temporary heat.
  - 2. Field offices and storage sheds.
  - 3. Temporary roads and paving.
  - 4. Sanitary facilities, including drinking water.
  - 5. Dewatering facilities and drains.
  - 6. Temporary enclosures.
  - 7. Temporary Project identification signs and bulletin boards.
  - 8. Waste disposal services.
  - 9. Rodent and pest control.
  - 10. Construction aids and miscellaneous services and facilities.
  - 11. Temporary Barricade Fencing
- D. Security and protection facilities required include but are not limited to:
  - 1. Temporary fire protection.
  - 2. Barricades, warning signs, lights.
  - 3. Sidewalk bridge or enclosure fence for the site.
  - 4. Environmental protection.

#### 1.3 SUBMITTALS

- A. Temporary Utilities: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
- B. Implementation and Termination Schedule: Submit a schedule indicating implementation and termination of each temporary utility within 15 days of the date established for commencement of the Work.

#### 1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations if authorities having jurisdiction, including but not limited to:
  - 1. Building Code requirements.
  - 2. Health and safety regulations.

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

3. Utility company regulations.
  4. Police, Fire Department, and Rescue Squad rules.
  5. Environmental protection regulations.
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities."
1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services," prepared jointly by AGC and ASC, for industry recommendations.
  2. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with National Electrical Code (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

### 1.5 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of the permanent service.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Provide new materials; if acceptable to the Construction Manager, undamaged, previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.
- B. Electrical Outlets; Provide properly configured NEMA polarized to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- C. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- D. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- E. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

- consumed.
- F. Temporary Offices: (not required)
  - G. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
  - H. First Aid Supplies: Comply with governing regulations.
  - I. Fire Extinguishers: Provide hand-carried, portable UL-rated, class “A” fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class “ABC” dry chemical extinguishers, or a combination or extinguishers of NFPA recommended classes for the exposures.
    - 1. Comply with NFPA 10 and 214 for classification, extinguishing agent and size required by location and class of fire exposure.
  - J. Security Fencing: Provide temporary 8’ high chain link security fencing with opaque mesh screen as indicated on drawings along construction limit lines.
  - K. High Speed Internet: ~~Contractor shall provide and pay for high speed internet for the duration of the project. High speed internet service shall be in the form of a portable ‘hotspot’ device capable of being used 24 hours a day, 7 days a week.~~

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.
- C. Temporary Facilities to be by the Contractor unless noted otherwise or needed by the respective subcontractors to commence, install or complete their required work.
- D. Once installed the cost of maintenance and monthly service charge for all utilities shall be paid by the Contractor.

#### 3.2 TEMPORARY UTILITY INSTALLATION

- A. Unless otherwise noted the Contractor shall be responsible for providing and maintaining all temporary utilities and support facilities.
- B. Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company’s recommendations.
  - 1. Arrange with the company and existing users for a time when service can

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

- be interrupted, where necessary, to make connections for temporary services.
  2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
  3. Temporary (construction) power and water may be obtained from the existing facilities, where possible; however, the Owner must be consulted and approve exact location(s) and details prior to the taps. The Owner reserves the right to revoke this “privilege” if it is being abused and require the contractor(s) to obtain these services from other (off-site) means.
  4. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Architect, and will not be accepted as a basis of claims for a Change Order.
- C. Water Service: Install temporary water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.
1. Sterilization: Sterilize temporary water piping prior to use.
  2. Temporary Water: All materials and labor associated with temporary water service shall be provided by the contractor and coordinated and approved by governing authorities. Provide a minimum of three (3) frost-proof hydrants for general use for the duration of the project. Tap fees associated with permanent water service will be paid for by the Owner.
- D. Temporary Electric Power Service: not required
- E. Temporary Lighting: not required
- F. Temporary Telephones: not required
- G. Sewers and Drainage: If sewers are available, providing temporary connections to remove effluent that can be discharged lawfully. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds and similar facilities. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off the site in a lawful manner.
1. Filter out excessive amounts of soil, construction debris, chemicals, oils and similar contaminants that might clog sewers or pollute waterways before discharge.
  2. Connect temporary sewers to the municipal system as directed by the sewer department officials.
  3. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.
- H. Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.
- ### 3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION
- A. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access.
1. Maintain temporary construction and support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.

- B. Provide incombustible construction for offices, shops and sheds located within the construction area, or within 30 feet of building lines. Comply with requirements of NFPA 241.
- C. Temporary Heat: not required
- D. Heating Facilities: not required
- E. Field Offices: ~~Provide insulated, weather tight temporary offices of sufficient size to accommodate required office personnel at the Project site. Keep the office clean and orderly for use for small progress meetings. Furnish and equip offices as required but most importantly, plan table shall have most up-to-date set of plans and specs which shall serve as the "control set."~~
- F. Storage and Fabrication Sheds: Install storage and fabricated sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on the site. Each contractor shall provide for their own storage requirements.
- G. Temporary Paving: Construct and maintain temporary roads and paving to adequately support the indicated loading and to withstand exposure to traffic during the construction period. Locate temporary paving for roads, storage areas and parking where the same permanent facilities will be located. Review proposed modifications to permanent paving with the Construction Manager.
  - 1. Paving: Comply with Division 32 Specifications for construction and maintenance of temporary paving.
  - 2. Coordinate temporary paving development with subgrade grading, compaction, installation and stabilization of subbase, and installation of base and finish courses of permanent paving.
  - 3. Install temporary paving to minimize the need to rework the installations and to result in permanent roads and paved areas that are without damage to deterioration when occupied by the Owner.
  - 4. Delay installation of the final course of permanent asphalt concrete paving until immediately before Substantial Completion. Coordinate with weather conditions to avoid unsatisfactory results.
  - 5. Extend temporary paving in and around the construction area as necessary to accommodate delivery and storage of materials, equipment usage, administration and supervision.
- H. Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
- I. Dewatering facilities and drains: For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division 32 sections. Where feasible, utilize the same facilities. Maintain the site, excavations and construction free of water.
- J. Temporary Enclosures: Provide temporary enclosure for protection of construction in progress and completed, from exposure, foul weather, other construction operations and

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

similar activities.

1. Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
  2. Install tarpaulins securely, with incombustible wood framing and other materials.
  3. Close openings through floor or roof deck and horizontal surfaces with load-bearing wood-framed construction.
- K. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered “tools and equipment” and not temporary facilities.
- L. Temporary Project Signs: Prepare project identification and other signs of the size indicated in Section 01 58 13. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative treated wood to steel. Do not permit installation of unauthorized signs.
1. Prepare additional signs as needed to provide directional information to construction personnel and visitors.
- M. Temporary Exterior Lighting: Install exterior yard and sign lights so that signs are visible when work is being performed.
- N. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner. The Building and Finishes Contractor shall provide a dumpster for the use of all contractors on the job. Each prime shall reimburse the general for the disposal cost associated with their debris.
- O. Rodent and Pest Control: Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be relatively free of pests and their residues at Substantial Completion. Perform control operations in a lawful manner using environmentally safe materials.

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer as requested by the Construction Manager.
- B. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 “Standard for Portable Fire Extinguishers,” and NFPA 241 “Standard for Safeguarding Construction, Alterations and Demolition Operations.”
1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
  2. Store combustible materials in containers in fire-safe locations.

## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access route for fighting fires. Prohibit smoking in hazardous fire exposure areas.
  4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- C. Permanent Fire Protection: At the earliest feasible date in each area of the Project, complete installation of the permanent fire protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
- D. Barricades, Warning Signs, and Lights: Comply with standards and code requirements of erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- E. Enclosure Fence: Prior to beginning construction, install an enclosure fence with lockable entrance gates. Locate where indicated, or enclose the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.
1. ~~Provide 8' high screened/mesh, chain-link fencing with posts set in a compacted mixture of gravel and earth.~~
- F. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- G. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways, and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

### 3.5 OPERATION, TERMINATION AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve results and to avoid possibility of damage.
  2. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Termination and Removal: Unless the Architect requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete, or if



## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves the right to take possession of Project identification signs.
2. Remove temporary paving that is not intended or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that does not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.
3. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
  - a. Replace air filters and clean inside of ductwork and housings.
  - b. Replace significantly worn parts and parts that have been subject to unusual operating conditions.
  - c. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
  - 1. Divisions 02 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

## 1.2 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from that required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

## 1.3 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
  - 1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
  - 2. Form: Tabulate information for each product under the following column headings:
    - a. Specification Section number and title.
    - b. Generic name used in the Contract Documents.
    - c. Proprietary name, model number, and similar designations.
    - d. Manufacturer's name and address.
    - e. Projected delivery date or time span of delivery period.
    - f. Identification of items that require early submittal approval for scheduled delivery date.
  - 3. Completed List: Within 60 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
  - 4. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

response, does not constitute a waiver of requirement to comply with the Contract Documents.

- B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Substitution Request Form: Use form provided by the Construction Manager / Architect.
  2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified material or product cannot be provided.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
    - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction, where available for type of material proposed.
    - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
    - j. Cost information, including a proposal of change, if any, in the Contract Sum.
    - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
    - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
  3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
    - a. Form of Acceptance: Change Order.
    - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor through Construction Manager of approval or rejection of proposed comparable product request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
    - a. Form of Approval: As specified in Division 1 Section "Submittal Procedure."

- b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.
- D. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedure." Show compliance with requirements.

#### 1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
  - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

#### 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:
  - 1. Store products to allow for inspection and measurement of quantity or counting of units.
  - 2. Store materials in a manner that will not endanger Project structure.
  - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
  - 4. Store cementitious products and materials on elevated platforms.
  - 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
  - 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  - 7. Protect stored products from damage and liquids from freezing.
- D. Material Moisture and Mold Control: Comply with recommendations contained in Associated General Contractors (AGC) document "Managing the Risk of Mold in the Construction of Buildings." Prepare and submit plan for protecting materials from water damage, including the following:
  - 1. Indicate delivery, checking and storage operations affected by water damage control efforts.
  - 2. Indicate procedures for protecting porous materials from water damage, and how damaged materials will be handled.
  - 3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet work has dried sufficiently to permit installation of related finish materials.
  - 4. Describe protocol for dealing with large and unexpected water intrusion into completed portions of building. Indicate procedures for investigation of cause and effects, and methods for dealing with both.

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

### 1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
  - 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  - 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
  - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
  - 3. Refer to Divisions 02 through 33 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Close-out Procedures."

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
  - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  - 4. Where products are accompanied by the term "as selected," Architect will make selection.
  - 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
  - 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
  - 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
  - 1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
  - 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
  - 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
  - 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
  - 5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies

- with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
  7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
  8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.
  9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
    - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
  10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
    - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
    - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 PRODUCT SUBSTITUTIONS

- A. Requests for substitution following award of contract must comply with requirements of this article and are restricted to those necessitated by the following circumstances:
  1. Specified product is no longer available for purchase.
  2. Specified product is not available within schedule requirements of project.
  3. Specified product is not compatible with other product approved for project.
  4. Specified warranty is not available.
- B. Timing: Architect will consider requests for substitution if received within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
- C. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied and so certified by Contractor. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  1. Requested substitution does not require extensive revisions to the Contract Documents.
  2. Requested substitution is consistent with the Contract Documents and will produce indicated results.
  3. Substitution request is fully documented and properly submitted.
  4. Requested substitution will not adversely affect Contractor's Construction Schedule.
  5. Requested substitution has received necessary approvals of authorities having jurisdiction.

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

6. Requested substitution is compatible with other portions of the Work.
7. Requested substitution has been coordinated with other portions of the Work.
8. Requested substitution provides specified warranty.
9. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

### 2.3 COMPARABLE PRODUCTS

- A. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  1. Evidence that the proposed product does not require extensive revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  3. Evidence that proposed product provides specified warranty.
  4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  5. Samples, if requested.

## PART 3 - EXECUTION (Not Used)

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work Included: Coordinate and, if required, install Owner Furnished Equipment as shown on the drawings, as specified herein, and as needed for a complete and proper installation.
  - 1. Owner Furnished/Contractor Installed (OF/CI) Equipment items and Owner Furnished/Owner Installed (OF/OI) Equipment items will be identified on the drawings or in the specifications.
  - 2. Connections and interface: All necessary connections and interface with new construction shall be the responsibility of the Building and Finishes Contractor. This includes but is not limited to mechanical, plumbing, and electrical connections, sealing and trim closures.

1.02 QUALITY ASSURANCE

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

1.03 SUBMITTALS

- A. Product Data: In accordance with the Contractor's project schedule, the Owner shall submit to the Contractor the following:
  - 1. Materials list of items proposed to be provided under this Section.
  - 2. Manufacturer's specifications, catalog cut sheets, installation and instructions.
  - 3. Shop drawings indicating assembly and construction interface details.

1.04 COORDINATION - FOR OF/CI EQUIPMENT

- A. Owner's Responsibilities:
  - 1. Arrange for and deliver Owner reviewed Shop Drawings, Product Data, and Samples to Contractor.
  - 2. Arrange and pay for Product delivery to site.
  - 3. On delivery, inspect Products jointly with Contractor.
  - 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
  - 5. Arrange for manufacturer's warranties, inspections, and service.
- B. Contractor's Responsibilities:
  - 1. Review Owner reviewed Shop Drawings, Product Data, and Samples.



## SECTION 01 65 00 - PRODUCT DELIVERY REQUIREMENTS

2. Receive and unload Products at site; inspect for completeness or damage, jointly with Owner.
3. Handle, store, install and finish Products.
4. Repair or replace items damaged after receipt.

### 1.05 COORDINATION FOR OF/OI EQUIPMENT

#### A. Owner's Responsibilities:

1. Arrange for and deliver Owner reviewed Shop Drawings, Product Data and Samples to Contractor.
2. Arrange and pay for Product delivery to site.
3. On delivery, inspect Products jointly with Contractor.
4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
5. Arrange and pay for Product installation at site.
6. Arrange for manufacturer's warranties, inspections, and service.

#### B. Contractor's Responsibilities:

1. Review Owner reviewed Shop Drawings, Product Data and Samples to become thoroughly familiar with the work. Establish work schedules and material deliveries.
2. Receive and unload Products at site, inspect for completeness or damage, jointly with Owner.
3. Coordinate work with Owner's installation Contractor. Provide temporary power, water, etc. to facilitate work.
4. Provide storage, if necessary, of products prior to installation.
5. Make final connections to permanent utility services, such as power, water, gas, sewer to allow for full functional use.
6. Protect all completed work.
7. Repair or replace items damaged after completion.
8. Coordination training sessions with Owner's personnel in the proper operation of the equipment.

## PART 2 - PRODUCTS

- 2.01 GENERAL: The following equipment will be furnished by the Owner. This general listing is for rough-in information and coordination. See the drawings for the location of the installation.

## SECTION 01 64 00 – OWNER FURNISHED PRODUCTS

### 2.02 EQUIPMENT

- A. Owner Furnished / Contractor Installed (OF/CI)
  - 1. Sanitary Napkin Disposal Units
  - 2. Paper Towel Dispensers
  - 3. Toilet Paper Dispensers
  - 4. Soap Dispensers
  - 5. Door Hardware
  
- B. Owner Furnished / Owner Installed (OF/OI)
  - 1. Carpet
  - 2. Data Cabling
  - 3. Fire Alarm System
  - 4. Residential Equipment (Refrigerators)

### 3.03 SURFACE CONDITIONS

- A. Examine the area and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

### 3.04 INSTALLATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
  
- B. For OF/CI equipment, install the work of this Section in strict accordance with the original design, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved, anchoring all components firmly into position for long life under hard use.
  
- C. For OF/CI and OF/OI equipment, upon completion of installation and hookup to utilities, put each operating component through at least five complete operating cycles, adjusting as needed to secure optimum operation level.
  
- D. Promptly remove from the job site all cartons and packing material associated with the work of this Section.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Protect products scheduled for use in the work by means including, but not necessarily limited to, those described in this Section.
- B. Related work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.
  - 2. Additional procedures also may be prescribed in other Sections of these specifications.

1.2 QUALITY ASSURANCE

- A. Include within the Contractor's quality assurance program such procedures as are required to assure full protection of work and materials.

1.3 MANUFACTURERS' RECOMMENDATIONS

- A. Except as otherwise approved by the Engineer, each contractor shall determine and comply with manufacturer's recommendations on product handling, storage and protection.

1.4 PRODUCT DELIVERY

- A. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
- B. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

1.5 PACKAGING

- A. Deliver products to the job site in their manufacturer's original container, with labels intact and legible.
  - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
  - 2. Promptly remove damaged material and unsuitable items from the job site and promptly replace with material meeting the specified requirements, at no additional cost to the Owner.
- B. The Engineer may reject as non-complying such material and products that do not bear identification satisfactory to the Engineer as to manufacturer, grade, quality and other pertinent information.

1.6 PROTECTION OF MATERIAL AND WORK

- A. General
  - 1. Carefully and properly protect all materials of every description, both before and after installation.

## SECTION 01 65 00 - PRODUCT DELIVERY REQUIREMENTS

2. Provide any enclosing or special protection from weather as deemed necessary by the Engineer at no additional cost to the Owner.

B. Partial payments under the Contract will not relieve the Contractor from responsibility.

1. When materials and work at the site which have been partially paid for are not adequately protected by the Contractor, such materials will be protected by the Owner at the expense of the Contractor and no further partial payment thereon will be made.

C. Maintain finished surfaces clean, unmarred, and suitably protected until accepted by the Owner.

### 1.7 STORAGE

A. Store all items of equipment, component parts, etc. in accordance with the manufacturers' recommendations or as may otherwise be necessary to prevent damage or deterioration of any sort.

### 1.8 REPAIRS AND REPLACEMENTS

A. In the event of damage, promptly make replacements and repairs to the approval of the Engineer and at no additional cost to the Owner.

B. Additional time required to secure replacements and to make repairs will not be considered by the Engineer to justify an extension in the contract time of completion.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.

1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. Construction layout.
  - 2. Field engineering and surveying.
  - 3. General installation of products.
  - 4. Moisture control.
  - 5. Progress cleaning.
  - 6. Starting and adjusting.
  - 7. Protection of installed construction.
  - 8. Correction of the Work.

1.3 SUBMITTALS

- A. Qualification Data: For land surveyor and contractors.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- D. Certified Surveys: Submit two copies signed by land surveyor.
- E. Licenses: Obtain all required licenses and permits necessary to complete the work as shown in the drawings and specifications, including local business licenses.
- ~~F. Final Topographical Survey: Submit 5 copies showing the site conditions and record survey data.~~

1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
  - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.

## SECTION 01 73 00 - EXECUTION

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents. Submit requests on Request for Information form provided in the Project Manual.

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Construction Manager promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  3. Inform installers of lines and levels to which they must comply.
  4. Check the location, level and plumb, of every major element as the Work progresses.
  5. Notify Construction Manager when deviations from required lines and levels exceed allowable tolerances.
  6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.

- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

### 3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
  - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Construction Manager before proceeding.
  - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
  - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
  - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
  - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- D. Final Property Survey: Prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
  - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
  - 4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

## SECTION 01 73 00 - EXECUTION

- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produces harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 MOISTURE CONTROL

- A. General: Coordinate requirements in Contractor's approved Material and Mold Control Plan as described in Division 01 Section "Product Requirements." Avoid trapping water in finished work. Document visible signs of mold that may appear during construction. Comply with recommendations contained in Associated General Contractors (AGC) document "Managing the Risk of Mold in the Construction of Buildings," including the following:
- B. Exposed Phase of Construction:
  - 1. Protect porous materials from water damage.
  - 2. Protect stored and installed material from flowing or standing water.
  - 3. Keep porous and organic materials from coming into prolonged contact with concrete.
  - 4. Remove standing water from decks.
  - 5. Keep deck openings covered or dammed.
  - 6. Use dunnage to create space between concrete decks and stored drywall.
- C. Partially Enclosed Phase of Construction:
  - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
  - 2. Keep interior spaces reasonably clean and protected from water damage.
  - 3. Periodically collect and remove waste containing cellulose or other organic matter.
  - 4. Discard or replace water-damaged material.
  - 5. Do not install material that is wet.
  - 6. Discard, replace or clean stored or installed material that begins to grow mold.
  - 7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.
- D. Controlled Phase of Construction
  - 1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
  - 2. Utilize permanent HVAC system to control humidity.



### 3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 Section "Quality Requirements."

### 3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

## SECTION 01 73 00 - EXECUTION

- B. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water.
  - 1. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for forty-eight hours are considered defective.
  - 2. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record daily readings over a forty-eight hour period. Indicate materials containing moisture levels higher than allowed. Report findings in writing to Architect.
  - 3. Remove such materials that are not completely restored to their manufactured moisture level within forty-eight hours.

### 3.10 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION

PART 1 - GENERAL

1.1 Description

- A. Work included: This Section establishes general requirements pertaining to cutting (including excavating), fitting and patching of the work required to:
  - 1. Make the several parts fit properly;
  - 2. Uncover work to provide for installing, inspection, both, of ill-timed work;
  - 3. Remove and replace work not conforming to requirements of the Contract Documents; and
  - 4. Remove and replace defective work.
- B. Related Work:
  - 1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.
  - 2. In addition to other requirements specified, upon the Construction Managers and/or Architect's request to uncover work to provide for inspection by the Construction Manager and/or Architect of covered work, and remove samples of installed materials for testing.
  - 3. Do not cut or alter work performed under separate contracts without the Construction Manager's and Architect's written permission.

1.2 QUALITY ASSURANCE

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

1.3 SUBMITTALS

- A. Request for Construction Manager's and/or Architect's consent:
  - 1. Prior to cutting which effects structural safety, submit written request to the Construction Manager and/or Architect for permission to proceed with cutting.
  - 2. Should conditions of the Work, or schedule indicate a required change of materials or methods for cutting and patching, so notify the Construction Manager and/or Architect and secure his written permission and the required Change Order prior to proceeding.
- B. Notices to the Construction Manager and/or Architect:
  - 1. Prior to cutting and patching performed pursuant to the Construction Manager's and/or Architect's instructions, submit cost estimate to the Construction Manager and Architect. Secure the Construction Manager's and the Architect's approval of cost estimates and type of reimbursement before proceeding with cutting and patching.
  - 2. Submit written notice to the Construction Manager and/or Architect designating the time the Work will be uncovered, to provide for the Construction Manager's and/or Architect's observation.

## SECTION 01 73 29 – CUTTING AND PATCHING

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. For replacement of items removed, use materials complying with pertinent Sections of these Specifications.

#### 2.2 PAYMENT FOR COSTS

- A. The Owner will reimburse the Contractor for cutting and patching performed pursuant to the written Change Order, after claim for such reimbursement is submitted by the Contractor and approved by the Construction Manager and Architect. Perform other cutting and patching needed to comply with the Contract Documents at no additional cost to the Owner.

### PART 3 - EXECUTION

#### 3.1 SURFACE CONDITIONS

- A. Inspection:
  - 1. Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, patching and backfilling.
  - 2. After uncovering the work, inspect conditions affecting installation of new work.
- B. Discrepancies:
  - 1. If uncovered conditions are not as anticipated, immediately notify the Construction Manager and/or Architect and secure needed directions.
  - 2. Do not proceed until unsatisfactory conditions are corrected.

#### 3.2 PREPARATION PRIOR TO CUTTING

- A. Provide required protection including, but not necessarily limited to, shoring, bracing and support to maintain structural integrity of the Work.
- B. Provide required fire protection including, but not necessarily limited to, fire blankets, fire extinguishing equipment, prior to consent from Construction Manager.

#### 3.3 PERFORMANCE

- A. Perform required excavating and backfilling as required under pertinent other Sections of these Specifications.
  - 1. Perform cutting and demolition by methods which will prevent damage to other portions of the Work and provide proper surfaces to receive installation of repair and new work.
  - 2. Perform fitting and adjusting of products to provide finished installation complying with the specified tolerances and finishes.
  - 3. All penetrations made by the Contractor through walls, ceilings, and/or floors shall be sealed by the Contractor to meet the requirements of all building codes, fire codes, applicable to this project.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

1.1.1 Work included: Throughout the construction period, maintain the buildings and site in a standard of cleanliness as described in this section.

1.1.2 Related work:

- A. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.
- B. In addition to standards described in this section, comply with requirements for cleaning as described in pertinent other sections of these Specifications.

1.2 QUALITY ASSURANCE

1.2.1 Conduct daily inspection and more often if necessary, to verify that requirements for cleanliness are being met.

1.2.2 In addition to the standards described in this section, comply with pertinent requirements of governmental agencies having jurisdiction.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

2.1.1 Provide required personnel, equipment and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY

2.2.1 Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING

3.1.1 General

- A. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage and providing required protection of materials.
- B. Do not allow accumulation of scrap, debris, waste material and other items not required for construction of this work.
- C. At least twice each month and more often if necessary, completely remove all scrap, debris and waste material from the job site. Provide adequate storage for all items waiting removal from the job site, observing requirements for fire protection and protection of the ecology.

## SECTION 01 74 00 – CLEANING AND WASTE MANAGEMENT

### 3.1.2 Site

- A. Daily, and more often if necessary, inspect the site and pick up all scrap, debris and waste material. Remove such items to the place designated for their storage.
- B. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Restack, tidy, or otherwise service arrangements to meet the requirements of subparagraph 3.1.1.A above.
- C. Maintain the site in a neat and orderly condition at all times.

### 3.2 FINAL CLEANING

- 3.2.1 "Clean," for the purpose of this Article, and except as may be specifically provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- 3.2.2 Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described in paragraph 3.1 above.
- 3.2.3 Schedule final cleaning as approved by the Construction Manager / Architect to enable the Owner to accept a completely clean work.

END OF SECTION

1.0 GENERAL

1.1 Deficiency Lists

- A. During the construction of the work, the Construction Manager and/or Architect/Engineer shall inspect the work for conformance to the Contract Documents.
- B. Should an inspection reveal work that is not in conformance with the Contract Documents, and if the nature of the non-conformance warrants, at the sole discretion of the Construction Manager and/or Architect/Engineer, a written list of deficiencies will be issued.
- C. The "deficiency list" as hereinafter called, shall stipulate the item or items of work that are in non-conformance and shall specify a reasonable time for the deficient work to be brought into conformance with the Contract Documents.
- D. Upon receipt of the deficiency list the Contractor shall by any and all means at his disposal, endeavor to correct the work within the time stipulated. The Contractor shall notify the Construction Manager in writing when the work has been corrected and request an inspection.
- E. If the inspection reveals the deficiency has been corrected, then the deficiency list shall be rescinded.
- F. During the period that the deficiency list is in effect, the Construction Manager may, at his option, not authorize the payment of progress billings until the deficiency list is rescinded or, in the opinion of the Construction Manager, the Contractor is making a good faith effort to correct the deficiency.

1.2 Punch Lists/Final Inspection

- A. When the Contractor determines that his work or portions of his work are sufficiently near completion to warrant a preliminary inspection, **he shall request in writing to the Construction Manager a preliminary inspection.**
- B. At a mutually agreed upon time, the Construction Manager, Architect/Engineer, and Contractor shall conduct a preliminary inspection of the work for completeness, conformance to the Contract Documents and compliance with applicable codes. Any items noted as incomplete shall be listed on a preliminary punch list on the Construction Manager's software, Procore. Contractors will have access to the up-to-date punchlist and are required to update items once resolved. If it is determined by the Architect and Construction Manager that the work is not complete or sufficiently near completion, then the Contractor shall prepare his own preliminary punch list, forward copies to the Construction Manager for review, and repeat Part A above.
- C. The Construction Manager shall establish a reasonable time period for the completion or correction of all items on the preliminary inspection punch list. All items on the preliminary punch list shall be completed **prior to inspection by State Agencies or Authorities Having Jurisdiction (AHJ).**
- D. Any incomplete or non-compliance items found during the State Agency or AHJ inspection shall be completed by the Contractor within seven (7) days of the inspection or earlier if required by the Construction Manager.

## SECTION 01 77 00 – CLOSE-OUT PROCEDURES

- E. Upon completion of the State Agency or AHJ inspection list, and if the completeness of the work allows, the Architect/Engineer shall issue a Certificate of Substantial Completion. Should the amount of incomplete work be such that a Certificate of Substantial Completion cannot be issued, the Contractor shall complete all remaining work and request in writing to the Construction Manager a subsequent inspection for Substantial Completion.
- F. Once a Certificate of Substantial Completion has been issued, a final inspection shall be held with the Owner, Architect/Engineer, Construction Manager and Contractor. Any items noted during the final inspection will be documented in a final inspection punch list and forwarded to the Contractor for completion. All final inspection punch list items shall be completed with fourteen (14) days of receipt of the final inspection punch list. Once all final punch list items are complete, the Architect/Engineer shall establish the date of final completion.

### 1.3 Project Close-Out

#### A. Final Close-Out and Payment

1. The Contractor may make Application for Final Payment after the Certificate of Substantial Completion has been issued. The following items must be submitted to the Construction Manager prior to processing of the Final Application for Payment:
  - a. Affidavit of Payment of Debts and Claims, (AIA-G706);
  - b. Consent of Surety, (AIA-G707);
  - c. Release of Liens, (AIA-G706A) from: Contractors, Sub-Contractors, and Material Suppliers;
  - d. Letter on company letterhead stating all temporary facilities, services, debris and surplus materials have been removed;
  - e. Final "Project Record Documents" as specified in Section 01 78 39, Project Record Documents;
  - f. Operations & Maintenance Manuals as specified in Section 01 78 39, Project Record Documents;
  - g. Final topographical survey as required by 01 73 00;
  - h. Guarantees, Warranties, and Bonds as specified in Section 01 78 39, Project Record Documents;
  - i. Spare parts and replacement items as required by the Specifications;
  - j. Letter on company letterhead stating no asbestos containing material has been installed in the project;
  - k. Executed Certificate of Substantial Completion (AIA G704);
  - l. Demonstration, testing and training of equipment is completed;
  - m. Completed final inspection punch list signed by the Contractor verifying that each item is complete.
2. **No final payment application will be processed for payment until final inspection and final acceptance.**
3. Close-out time encompasses a large amount of work during a short period of time. Therefore, the Contractor is encouraged to begin to submit close-out items as soon as possible so that the Contract may be completed, thus allowing the Architect/Engineer to recommend approval of the final payment to the Owner.



## SECTION 01 77 00 – CLOSE-OUT PROCEDURES

4. The Construction Manager may continue to withhold no less than 5% retainage from the Contractor until all outstanding close-out materials are submitted to the Construction Manager. It shall be at the discretion of the Construction Manager, upon consultation with the Architect, to reduce the amount of retainage on a project by project basis, upon a favorable review of the status of completion of the final punch list, the status of close-out submittals, and above all, the total amount listed on the Release of Liens submitted by the Contractor for all Sub-Contractors and Material Suppliers contracted with by the General Contractor. At no time shall the retainage be reduced to an amount less than the total of the Release of Liens submitted by the Contractor. Final payment may then be made once all remaining outstanding close-out requirements are met.
- 1.4 Responsibility
- A. It shall be the Contractor's responsibility to see that all requirements of this Section of the Specifications are executed and complete in a timely manner.
  - B. No provisions of this section of the Specifications shall in any way relieve the Contractor of completing his work on time and in accordance with the Project Schedule.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work included:

1. Throughout progress of the Work, maintain an accurate record of changes in the Contract Documents, as described in Paragraph 2.1 below. Upon completion of the Work, deliver the recorded changes to the Construction Manager.
2. Final record survey, performed by a Professional Land Surveyor, of installed underground materials and final grades.
3. To aid in the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the products incorporated into the Work, furnish and deliver the operation and maintenance manuals and data as described in this Section and in other pertinent sections of these Specifications.
4. Compile specified guarantees, warranties and bonds, as well as specified service and maintenance contracts. Co-execute submittals when so specified and review submittals to verify compliance with Contract Documents. Submit to Construction Manager for review and transmittal to Owner.

B. Related work:

1. Documents affecting work of this section include, but are not necessarily limited to, the contract documents, addenda and General Conditions.
2. Other requirements affecting Project Record Documents may appear in pertinent other Sections of these specifications.
3. Documents affecting the various warranties required:
  - a. General Warranty of Construction: General Conditions of the Contract.
  - b. Warranties, Guarantees, & Bonds Required for Specific Products: Each respective section of Specifications as listed in the Project Manual.
  - c. Provision for Duration of Warranties Guarantees, & Bonds: The respective section of specifications which specifies the product.

1.2 QUALITY ASSURANCE

- A. Delegate the responsibility for maintenance of Record Drawings to one person on the Contractor's staff as approved by the Architect/Engineer.
- B. In preparing operation and maintenance manuals and data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.
- C. In preparing warranties, guarantees, and bonds, utilize personnel familiar with the requirements of the specifications regarding each. A detailed analysis of each specification is to be performed to assure all specified warranties, guarantees, and bonds are accounted for and submitted.

## SECTION 01 78 39 – PROJECT RECORD DOCUMENTS

### D. Accuracy of records:

1. Accuracy of records shall be such that a future search for items shown on the Project Record Drawings may rely reasonably on the information provided under this Section of the Work.

## 1.3 SUBMITTALS

### A. Project Record Drawings

1. The Architect/Engineer's approval of the current status of Project Record Drawings may be a prerequisite to the Architect/Engineer's approval of requests for progress payment and request for final payment under the Contract.
2. Prior to submitting each request for progress payment, secure the Architect/Engineer's approval of the current status of the Project Record Drawings.
3. Prior to submitting request for final payment, submit the final Project Record Drawings to the Architect/Engineer and secure his approval.

### B. Operation and Maintenance Manuals

1. Comply with pertinent provisions of Section 01 33 00 Submittal Procedure.
2. Unless otherwise directed in other Sections, or in writing by the Construction Manager, submit **THREE** copies of the final Manual to the Construction Manager prior to indoctrination of operation and maintenance personnel.
3. Submittals of approved copies of operation and maintenance data will be a prerequisite for approval of final payment applications.

### C. Warranties, Guarantees and Bonds

1. Provide warranties, guarantees, and bonds as specified in Divisions 01-33.
2. Unless otherwise directed in other Sections, or in writing by the Construction Manager, submit two copies of each specified warranty, guarantee, and bond to the Construction Manager.
3. Submittals of approved copies of warranties, guarantees, and bonds will be a prerequisite for approval of final payment applications.

PART 2 - PRODUCTS

2.1 JOB SET RECORD DOCUMENTS

- A. Promptly following receipt of the Owner's Notice to Proceed, obtain and provide, at no charge to the Owner:
  - 1. One complete set of all Documents comprising the Contract, including Plans, Specification Manuals, and Shop Drawings.
  - 2. Field survey books for use in staking sewer work.
- B. Immediately upon receipt of the job set described in subparagraph 2.1.A.1 above, identify each of the Documents with the title, "RECORD DRAWINGS - JOB SET", and "RECORD SPECIFICATIONS - JOB SET".
- C. Preservation:
  - 1. Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Architect. Maintain the job set of Record Drawings completely protected from deterioration and from loss and damage until completion of the Work and transfer to the Construction Manager.
  - 2. In the event of loss of recorded data, use means necessary to again secure the data to the Architect/Engineer's approval.
    - a. Such means shall include, if necessary in the opinion of the Architect/Engineer, removal and replacement of concealing materials.
    - b. In such case, provide replacements to the standards originally required by the Contract Documents.
  - 3. Do not use the job set for any purpose except entry of new data and for review by the Architect.
  - 4. Maintain the job set at the site of Work that is designated by the Architect.
- D. Making entries on Job Set Drawings:
  - 1. Use erasable colored pencil, preferably red (not ink or indelible pencil) to delineate changes.
  - 2. Show by station number location of all fittings, manholes, valves, wye locations, etc.
  - 3. Reference all valves to above ground items deemed to be reasonably safe from being relocated and indicate such references on the drawings.
  - 4. Show location of electrical conduit, pull boxes, etc.
  - 5. Show all finish grades.

## SECTION 01 78 39 – PROJECT RECORD DOCUMENTS

6. Note related Change Orders, Supplemental Instructions, Requests for Information on plan sheets where applicable.
  7. Maintain one complete copy of the Project Manual, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show substantial variations in actual work performed in comparison with the text of the Specifications and modifications.
  8. Maintain one copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations.
- E. Submittal:
1. Submit "marked-up" set of drawings to the Construction Manager.
  2. Make any necessary additions as required by the Architect.
  3. Submit field survey books to the Construction Manager.
  4. Submit one complete set of Product Data (Shop Drawing) submittals. All submittals are to include approval stamp of Architect/Engineer.

## 2.2 OPERATION AND MAINTENANCE MANUALS

- A. INSTRUCTION MANUALS: Where Instruction Manuals are required to be submitted under other Sections of these Specifications, prepare in accordance with the provision of this Section.
1. Format:
    - a. Size: 8-1/2" x 11"
    - b. Paper: White bond, at least 20 lb. weight
    - c. Text: Neatly written or printed
    - d. Drawings: 11" in height, preferable; bind in with text; foldout acceptable; larger drawings acceptable but fold to fit within the Manual and provide a drawing pocket inside rear cover or bind in with text.
    - e. Flysheets: Separate each portion of the Manual with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
    - f. Binding: Use heavy-duty plastic or fiber
    - g. Measurements: Provide all measurements in U.S. standard units such as feet-and-inches, lbs, and cfm; where items may be expected to be measured within ten years in accordance with metric formula, provide additional measurements in the "International System of Units" (SI).

2. Provide front and back covers for each Manual, using durable material approved by the Architect, and clearly identified on or through the cover with at least the following information:

OPERATING AND MAINTENANCE INSTRUCTIONS

(name and address of work)  
(name of Contractor)  
(general subject of this manual)  
(approval signature of Construction Manager)  
(approval date)

3. Contents: Include at least the following:
  - a. Neatly typewritten index near the front of the Manual, giving immediate information as to location within the Manual of all emergency information regarding the installation.
  - b. Complete instructions regarding the installation and maintenance of all equipment involved including lubrication, disassembly, and reassembly.
  - c. Complete nomenclature of all parts of all equipment.
  - d. Complete nomenclature and part number of all other data pertinent to procurement procedures.
  - e. Copy of all guarantees and warranties issued.
  - f. Manufacturer's bulletins, cuts, and descriptive data, where pertinent, clearly indicating the precise items included in this installation and deleting, or otherwise clearly indicating, all manufacturer's data.
  - g. Such other data as required in pertinent Sections of these Specifications.
4. Complete the Manuals in strict accordance with the approved preliminary drafts and the Construction Manager's and Architect's review comments.
5. Any and all other items required by the specific specifications relating to the maintenance and operations of the various components of the work or any and all certificates and testing reports required by the specific specifications shall be incorporated into the maintenance manuals. Items of this nature shall include but are not limited to:
  - a. Test and balance reports of HVAC systems.
  - b. Test and certification reports of electrical systems such as fire alarm and life safety systems, communications systems, clock systems, etc.
  - c. Valve tag lists
  - d. Certification of sterilization of potable water systems.
- B. MAINTENANCE TRAINING: Each Subcontractor shall instruct the Owner in the proper care, maintenance and operation of all systems installed under his Contract. Provide a written letter stating that the Owner has been instructed and list the

## SECTION 01 78 39 – PROJECT RECORD DOCUMENTS

following:

1. Date, time and place of instruction
2. Parties present
3. Systems and items instructions were given on

### 2.3 WARRANTIES, GUARANTEES, AND BONDS

- A. All work under this Contract shall be guaranteed by the Contractor against defects in material or workmanship for a period of one year from the Date of Substantial Completion, as established in writing by the Architect/Engineer, unless a longer period is specified for a particular item of work in the specifications. In which case, the longer period shall be the Guarantee Period.
- B. Prior to the end of the Guarantee Period, the Owner may have the Architect/Engineer inspect the Work, and shall advise the Architect/Engineer of any known defects. The Architect/Engineer or the Owner shall notify the Contractor, in writing, of any defects found.
- C. The Contractor agrees to repair or replace all defects in material or workmanship within sixty (60) days of the date of the written notice from the Architect/Engineer or the Owner.
- D. The Contractor shall furnish the Owner with three (3) copies of a written one-year guarantee delivered with the close-out documents, on the Contractor's stationery with original signatures on each copy, signed and sealed the same as the Bid Form, stating:

“The undersigned guarantees all work furnished by     (Company Name)    , for a period of one (1) year from the date of Substantial Completion, and agrees to repair or replace defects within sixty (60) days upon notice of defects by the Owner.”
- E. Submit warranties, bonds, service and maintenance contracts as specified in respective sections of Specifications.
  1. Assemble warranties, bond and service and maintenance contracts, executed by each of respective manufacturers, suppliers, and subcontractors.
  2. Number of original signed copies required: Two each.
    - a. Format:
      - 1). Size 8-1/2 in. x 11 in., punch sheets for 3-ring binder.
      - 2). Fold larger sheets to fit into binders.
      - 3). Cover: Identify each packet with typed or printed title "GUARANTEES, WARRANTIES AND BONDS". List:
        - a). Title of Project
        - b). Name of Contractor

SECTION 01 78 39 – PROJECT RECORD DOCUMENTS

3. Binders: Commercial quality three-ring, with durable and cleanable plastic covers.
4. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
  - a. Product or work item.
  - b. Firm, with name of principal, address and telephone number.
  - c. Scope.
  - d. Date of beginning of warranty, bond or service and maintenance contract.
  - e. Duration of warranty, bond or service and maintenance contract.
  - f. Provide information for Owner's personnel:
    - 1). Proper procedure in case of failure.
    - 2). Instances which might affect validity of warranty or bond.
  - g. Contractor, name or responsible principal, address and telephone number.
- F. For equipment or component parts of equipment put into service during progress of construction:
  1. Submit documents within 10 days after inspection and acceptance.
  2. Note: Warranty periods for equipment started during construction will not start until substantial completion for the project, including all HVAC equipment such as split system heat pumps, dehumidification equipment, exhaust fans, air handlers, etc.
- G. Otherwise make submittals within ten days after Date of Substantial Completion, prior to final request for payment.
- H. For items of work, where acceptance is delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

END OF SECTION



## SECTION 024119 - SELECTIVE DEMOLITION

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. The Work of this Section Includes:

1. Demolition and removal of selected portions of exterior or interior of building or structure and site elements.
2. Removal and salvage of existing items for delivery to Owner and removal of existing items for reinstallation.

## B. Related Requirements:

1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
2. Section 015639 "Temporary Tree and Plant Protection" for temporary protection of existing trees and plants that are affected by selective demolition.
3. Section 017300 "Execution" for cutting and patching procedures.
4. Section 013516 "Alteration Project Procedures" for general protection and work procedures for alteration projects.
5. Section 330500 "Common Work Results for Utilities" for removal of site utility systems piping, equipment, and components.

## 1.2 REFERENCES

## A. Definitions

## B.

1. Remove: Detach items from existing construction and legally dispose of off-site unless indicated to be removed and salvaged or removed and reinstalled.
2. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and deliver to Owner as indicated.
3. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage; prepare for reuse; and reinstall where indicated.
4. Existing to Remain: Existing items of construction that are not to be removed.

## 1.3 ADMINISTRATIVE REQUIREMENTS

## A. MATERIALS OWNERSHIP

1. Unless otherwise indicated, demolition waste becomes property of Contractor.
2. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
3. Carefully salvage in a manner to prevent damage and promptly return to Owner.

## B. COORDINATION

1. Arrange selective demolition schedule so as not to interfere with Owner's operations.

## C. PREINSTALLATION MEETINGS

1. Pre-demolition Conference: Conduct conference at a location determined by the Owner.
  - a. Inspect and discuss condition of construction to be selectively demolished.
  - b. Review structural load limitations of existing structure.
  - c. Review and finalize selective demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
  - d. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
  - e. Review areas where existing construction is to remain and requires protection.
  - f. Review and finalize protection requirements.
  - g. Review procedures for noise control and dust control.
  - h. Review storage, protection, and accounting for items to be removed for salvage or reinstallation.

#### 1.4 ACTION SUBMITTALS

- A. Qualification Statements: For refrigerant recovery technician.
- B.
- C. Engineering Survey: Submit engineering survey of condition of building.
- D. Survey of Existing Conditions: Submit survey.
- E. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property[, **for environmental protection**] [, **for dust control**] [**and**] [, **for noise control**]. Indicate proposed locations and construction of barriers.
- F. Schedule of Selective Demolition Activities: Indicate the following:
  1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
  2. Temporary interruption of utility services. Indicate how long utility services will be interrupted.
  3. Coordination for shutoff, capping, and continuation of utility services.
  4. Use of elevator and stairs.
  5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- G. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed in accordance with EPA regulations. Include name and address of technician and date refrigerant was recovered.
- H. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- I. Pre-demolition Photographs or Videotapes: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Comply with Division 01. Submit before Work begins.
- J. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1. Comply with submittal requirements in Division 01.

- K. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.

#### 1.6 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.
- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI A10.6 and NFPA 241

#### 1.7 PROJECT CONDITIONS

- A. Owner may occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
1. Before selective demolition, Owner will remove those items listed in the documents and during the preconstruction meeting.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Owner. Owner will remove hazardous materials under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
1. Maintain fire-protection facilities in service during selective demolition operations.
- G.
- H. On-site sale of removed items or materials is not permitted.

## 1.8 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties. Notify warrantor before proceeding. Existing warranties include the following:
  - 1. **<Insert warranted system>**.
- B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate, and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.
- F. Survey of Existing Conditions: Record existing conditions by use of measured drawings and preconstruction photographs.
  - 1. Comply with requirements specified in Division 01.
  - 2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.
- G. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

## 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
2. Arrange to shut off indicated utilities with utility companies.
3. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
4. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.
  - a. Where entire wall is to be removed, existing services/systems may be removed with removal of the wall.

### 3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  1. Comply with requirements for access and protection specified in Division 01.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  4. Cover and protect furniture, furnishings, and equipment that have not been removed.
  5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 01.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
  1. Strengthen or add new supports when required during progress of selective demolition.

### 3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
  2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering, and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
5. Maintain adequate ventilation when using cutting torches.
6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
9. Dispose of demolished items and materials promptly.

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area as designated by Owner.
5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

### 3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Reinforce Concrete: Demolish in small sections. Cut concrete to a depth of at least 3/4 inch at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated for selective demolition. Neatly trim openings to dimensions indicated.
- B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals, using power-driven saw, then remove concrete between saw cuts.
- C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.
- D. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove.

- E. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum.
  - 1. Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.
- F. Roofing: Remove no more existing roofing than can be covered in one day by new roofing and so that building interior remains watertight and weathertight.
- G. Air-Conditioning Equipment: Remove equipment without releasing refrigerants.

### 3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  - 4. Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."
- B. Burning: Burning of demolished materials will be permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

### 3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

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## SECTION 061000 – ROUGH CARPENTRY

## PART 1 GENERAL

## 1.1 DESCRIPTION

- A. Related work specified elsewhere:
  - 1. Concrete formwork.
  - 2. Finish carpentry and millwork.
  - 3. Gypsum wallboard systems.
  - 4. Painting.

## 1.2 REFERENCE STANDARDS

- A. National Green Building Standard ICC 700

## 1.3 SUBMITTALS

- A. Preservative treated wood certification: Submit for information only. Submit certification by treating plant stating chemicals and process used, net amount of salts retained, and conformance with applicable standards.
- B. National Green Standard ICC 700 Submittals: Submit manufacturer's data indicating compliance with Chapter 6: Resource Efficiency.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Immediately upon delivery to job site, place materials in areas protected from weather.
- B. Store materials a minimum of 6" above ground on blocking and cover with protected waterproof covering, providing for adequate air circulation and ventilation.
- C. Do not store seasoned materials in wet or damp portions of building.
- D. Protect sheet materials from breaking corners and damaging surfaces.

## 1.5 QUALITY CRITERIA

- A. Applicable Standards: Grading rules and standards of the following associations apply to materials furnished under this section:
  - 1. Southern Pine Inspection Bureau (SPIB).
  - 2. National Forest Products Association (NFPA).
  - 3. West Coast Lumber Inspection Bureau (WCLB).
  - 4. Western Wood Products Association (WWPA).
  - 5. American Society for Testing and Materials (ASTM) as referenced.
- B. Plywood Grading Rules: Softwood plywood, Construction and Industrial; Product Standard PS-1-74.
- C. Grade Marks: Identify all lumber and plywood by official grade marks.
  - 1. Lumber: Grade stamp to contain symbol of grading agency, mill number or name, grade of lumber, species or species grouping or combination designation, rules under which graded, where applicable, and condition of seasoning at time of manufacture.
  - 2. Softwood Plywood: Appropriate grade trademark of the American Plywood Association indicating:
    - a. Type, grade, class, and identification index.
    - b. Inspection and testing agency mark.
- D. Preservative Treated Material: Meeting specified standards of the American Wood Preservers Association (AWPA) and American Wood Preservers Institute (AWPI) as indicated.

## 1.5 COORDINATION

- A. Coordinate the Work of this Section with other interfacing work in direct contact with the products listed herein. Consult with manufacturer for compatibility of materials specified in other sections that will be in contact with the products listed in this Section.

## PART 2 PRODUCTS

### 2.1 LUMBER

- A. Dimensions: Indicated lumber dimensions are nominal. Actual dimensions conform to industry standards established by the American Lumber Standards Committee and all the rules writing agencies.
- B. Moisture Content: 19% maximum at time of permanent closing in of building or structure, except as otherwise noted.
- C. Surfacing: Surface four sides (S4S).
- D. Framing Lumber:
  - 1. Studs:
    - a. Loadbearing and Exterior: #2 Spruce-Pine-Fir.
    - b. Non-loadbearing: Stud grade Spruce-Pine-Fir.
  - 2. Structural joist and planks: 2" to 4" thickness, 6" and wider: #2 Spruce-Pine-Fir or Western Lumber, except where spans exceed allowable as defined by National Forest Products Association, "Span Tables for Joist and Rafters", shall be as required by span. Maximum moisture content: 19%.
  - 3. Plates:
    - a. Wall Top and Bottom Plates: #3 Southern Pine

### 2.2 HARDWARE

- A. Provide nails, bolts, nuts, washers, screws, expansion bolts, clips, powder actuated fasteners and similar hardware necessary for complete installation of rough carpentry items. Provide G90 hot-dipped galvanized steel or Type 304 stainless steel for components for all non-pressure treated and fire-retardant treated lumber except nails shall be hot-dipped galvanized. Material and finish for use with pressure preservative treated components shall be G185 hot-dipped galvanized steel or Type 316L stainless steel.

## PART 3 EXECUTION

### 1.1 WORKMANSHIP

- A. Install wood framing and carpentry work cut square on bearings, closely fitted, accurately set to required lines and levels, and secured in place.
- B. Lay out the work to provide correct openings to receive work of other trades.

- C. Brush apply preservative treatment to cut ends of treated lumber. Materials shall be of same types as used for original treatment.

1.2 BLOCKING

- A. Install in continuous horizontal row in middle 1/3 of stud height and at all horizontal plywood joints.
- B. Wedge, align and anchor blocking with nails.
- C. Coordinate blocking with locations of finishing materials, fixtures, specialty items and trim.
- D. Wood Sheathing Joints: Verify that all exterior wood sheathing joints, both horizontal and vertical, have blocking behind joints and that sheathing is continuously fastened to the blocking for the entire perimeter of the sheathing panels.

END OF SECTION

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## SECTION 062023 – INTERIOR FINISH CARPENTRY

## PART 1 GENERAL

## 11 SUMMARY

## A. SECTION INCLUDES

1. Finish carpentry items.
2. Plastic Laminates

## 12 RELATED SECTIONS

- A. Section 061000 - Rough Carpentry: Support framing, grounds, and concealed blocking.
- B. Section 099123 - Interior Painting: Painting of finish carpentry items.

## 13 REFERENCE STANDARDS

American National Standards Institute (ANSI):

A208.1 Particleboard, Mat-Formed Wood.

American Plywood Association (APA):

PRP-108 Performance Standards and Policies for Structural-Use Panels,  
Form No. E445M, May 1991 Edition.

E30K ADA Design/Construction Guide - Residential & Commercial.

Architectural Woodwork Standards (AWS):

Architectural Woodwork Standards, Edition 1.

National Electrical Manufacturers Association (NEMA):

LD-3 High Pressure Decorative Laminates.

National Institute of Standards and Technology (NIST):

PS 1 U.S. Product Standard for Construction and Industrial Plywood.

PS 20 American Softwood Lumber Standards.

West Coast Lumber Inspection Bureau (WCLB):

Standard Grading Rules No. 17.

Western Wood Products Association (WWPA):

Western Lumber Grading Rules

## 14 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with plumbing rough-in, electrical rough-in, and installation of associated and adjacent components.
- B. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.

## 15 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data:
  1. Provide data on fire retardant treatment materials and application instructions.
    - a. Exception: Not required if no fire retardant material is used in the project.
- C. Shop Drawings: Detailed shop fabrication and installation drawings to Architect for review.
  1. Indicate wood species, materials, component profiles, joinery, hardware, finishes, accessories, connections, and relationship to adjacent Work.
  2. Properly note all fixed dimensions and variable dimensions as applicable.
  3. Indicate joints in exposed plastic laminate.

- D. Letter of Conformance: In compliance with requirements of, and in format included in, Section 01 33 00.

16 QUALITY ASSURANCE

- A. Fabricator/Installer Qualifications: Employ tradesmen experienced in fabrication and installation of finish carpentry to ensure strict compliance with approved design and approved recommendations of materials manufacturers.
- B. Perform finish carpentry work in compliance with recommendations of Millwork Sections of Architectural Woodwork Institute.
- C. Material Grade for Interior Woodwork: AWS "Custom Grade" as defined in following Sections of Quality Standards:
1. Lumber Grades: Section 3.
  2. Plywood and Particleboard Grades: Section 4.
  3. Standing and Running Trim: Section 6.
  4. Casework: Section 10.
  5. Closet and Storage Shelving: Section 6.
  6. Countertops: Section 11.
  7. Paneling: Section 4.

12 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-fabricated units to project site in original packages, containers or bundles bearing brand name and identification.
- B. Store finish carpentry items under cover, elevated above grade, and in a dry, well-ventilated area not exposed to heat or sunlight.
- C. Protect from moisture damage.
- D. Handle materials and products to prevent damage to edges, ends, or surfaces.

PART 2 PRODUCTS

21 FINISH CARPENTRY ITEMS

- A. Quality Grading and species in compliance with PS 20 and SPIB, or other agency having jurisdiction.
- B. Framing Lumber: No. 2 Dimension, Southern Pine.
1. Provide dressed lumber, S4S, unless otherwise indicated.
  2. Moisture Content and Wood Treatment: Specified in Section 06 10 00.
- C. Interior Woodwork for Stained Veneer Finish:
1. Face Veneers: "Grade A", "White Birch", rotary cut, stain finish.
  2. Plywood: "Grade I", "White Birch" solid stock.
- D. Interior Woodwork for Paint Finish:
1. Wood Species: "Grade I" Poplar, Ponderosa Pine, clear Maple or Birch.
  2. Plywood: "Custom Grade" Natural Birch.
- E. Solid Backing to Receive Wood Veneer Finish:
1. Up to 8-Inches Wide: Straight "Premium Grade" Poplar or Birch free of knots, warp, or twist.
  2. Over 8-Inches Wide: ANSI A208.2, medium density fiberboard (MDF), 40 to 50 pounds per cubic foot, 5,000 psi modulus of rupture, 450,000 psi

average modulus of elasticity.

3. Fire Rated: Masonite Corporation "X-Flame" or Willamette Industries, Inc. "Duraflake FR" fire-retardant particle board.

## 22 LUMBER SUBSTRATES

- A. Particleboard: ANSI 208.1, high density particleboard for shop applied plastic laminate substrate.

## 23 PLASTIC LAMINATES

- A. Surfaces; Countertops and Backsplashes Decorative Laminate; Basis-of-Design Manufacturer and Type: Wilsonart International; Div. of Premark International, Inc., solid color high pressure decorative laminate sheets conforming to following grades and thicknesses in compliance with NEMA LD-3.
  1. Surfaces:
    - a. Horizontal Wearing Surfaces: "HGS"; minimum 0.050-inch thick for shelves, countertop, splash, and apron face.
    - b. Vertical Exposed Surfaces: "VGS"; minimum 0.030-inch thick.
    - c. Edge Banding: 0.5 mm PVC to match face laminate.
    - d. Concealed Surfaces: "BKL"; minimum 0.020-inch thick backing sheet.
    - e. Semi-Exposed Surfaces (In View When Door and Drawers Open): "CLS"; minimum 0.020-inch thick in solid color selected by Architect.
    - f. Post-Forming: "HGP"; nominal 0.039-inch thick.
    - g. Backer: "BKL"; nominal 0.020-inch or thicker. Used on back of substrate to balance materials.
  2. Adhesive: As recommended by high pressure decorative laminate manufacturer for application to wood or particleboard.
  3. Colors: Refer to List of Finishes on Drawings for color selections and installation locations.
- B. Other Acceptable Manufacturers:
  1. Formica Corporation.
  2. Nevamar Corporation.
  3. Panolam Surface Systems Pionite.

## 24 FASTENERS:

- A. Adhesive for Purposes Other Than Laminate Installation: Suitable for the purpose; not containing formaldehyde or other volatile organic compounds.
- B. Fasteners: Of size and type to suit application; galvanized finish in concealed locations and stainless-steel finish in exposed locations.
- C. Fasteners: Of size and type to suit application; finish in exposed locations to match adjacent material finish unless detailed otherwise on drawings.
- D. Concealed Joint Fasteners: Threaded steel.

## 27 ACCESSORIES

- A. Primer: Alkyd primer sealer.

- B. Wood Filler: Solvent base, tinted to match surface finish color.

## 28 WOOD TREATMENT

- A. Factory-Treated Lumber: Comply with requirements of AWPA U1 - Use Category System for pressure impregnated wood treatments determined by use categories, expected service conditions, and specific applications.
- B. Provide identification on fire retardant treated material.
- C. Deliver fire retardant treated materials cut to required sizes. Minimize field cutting.

## 29 FABRICATION

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

## 210 SHOP FINISHING

- A. Sand work smooth and set exposed nails and screws.
- B. Apply wood filler in exposed nail and screw indentations.
- C. On items to receive transparent finishes, use wood filler that matches surrounding surfaces and is of type recommended for the applicable finish.
- D. Finish work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 5 - Finishing for grade specified and as follows:
- E. Back prime woodwork items to be field finished, prior to installation.

## PART 3 EXECUTION

### 31 EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

### 32 INSTALLATION

- A. Install custom fabrications in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade indicated.
- B. Set and secure materials and components in place, plumb and level.
- C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.

### 33 PREPARATION FOR SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
- B. Site Finishing: See Section 099123.
- C. Before installation, prime paint surfaces of items or assemblies to be in contact with cementitious materials.

## END OF SECTION



## SECTION 064116 - PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. Section Includes:

1. Plastic-laminate-clad architectural cabinets.
2. Cabinet hardware and accessories.
3. Wood furring, blocking, shims, and hanging strips for installing plastic-laminate-clad architectural cabinets that are not concealed within other construction.

## B. Related Requirements:

1. Section 061053 - Rough Carpentry: Support framing, grounds, and concealed blocking.
2. Section 062023 - Finish Carpentry: Plastic Laminate Materials
3. Section 099123 - Interior Painting: Field finishing of cabinet interior.
4. Section 123600 - Countertops.

## 1.2 REFERENCE STANDARDS

1. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards, U.S. Version 4.0 2021.
2. BHMA A156.9 - American National Standard for Cabinet Hardware 2015.
3. UL (DIR) - Online Certifications Directory Current Edition.

## 1.3 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to support loads imposed by installed and fully loaded cabinets.
- B. Hardware Coordination: Distribute copies of approved hardware schedule specified in Section 087100 "Door Hardware" to manufacturer of architectural cabinets; coordinate Shop Drawings and fabrication with hardware requirements.

## 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. See Section 01 3000 - Administrative Requirements for submittal procedures.
- C. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
  1. Scale of Drawings: 1-1/2 inch to 1 foot, minimum.
  2. Provide information as required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).
  3. Include certification program label.
- D. Samples: Submit actual samples of architectural cabinet construction, minimum 12 inches square, illustrating proposed cabinet substrate and finish.
  1. To be reviewed separately by Owner and Interior Designer at jobsite.

- E. Samples: Submit actual sample items of proposed pulls and hinges, demonstrating hardware design, quality, and finish.
  - 1. To be reviewed separately by Owner and Interior Designer at jobsite.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Certificates: For each type of product.
- C. Evaluation Reports: For fire-retardant-treated materials, from ICC-ES.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Installer Qualifications: Manufacturer of products.

#### 1.7 MOCK UP: CABINETRY

- A. Erect a full size mock-up of architectural wood work at project site for Architect's acceptance. If unacceptable, erect additional mock-ups until acceptable.
- B. Mock-up shall indicate the following:
  - 1. Workmanship.
  - 2. Finishes.
  - 3. Relationships to adjacent work.
- C. Do not begin woodwork production until each mock-up has been accepted by Architect.
- D. See Section 01 4000 - Quality Requirements for additional requirements.
- E. Locate where directed.
- F. Accepted, undamaged, mock-ups may remain as part of the Work.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver cabinets until painting and similar finish operations that might damage architectural cabinets have been completed in installation areas. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

#### 1.9 FIELD CONDITIONS

- A. Environmental Limitations without Humidity Control: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and

maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.

- B. Environmental Limitations with Humidity Control: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F and relative humidity between 25 and 55 percent during the remainder of the construction period.
- C. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

## PART 2 - PRODUCTS

### 2.1 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.
  - 1. Wood Moisture Content: 5 to 10 percent.
- B. Composite Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.
  - 1. Medium-Density Fiberboard (MDF): ANSI A208.2, Grade 130.
  - 2. Particleboard (Medium Density): ANSI A208.1, Grade M-2-Exterior Glue.
  - 3. Softwood Plywood: DOC PS 1, medium-density overlay.
  - 4. Thermally Fused Laminate (TFL) Panels: Particleboard or MDF finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.

### 2.2 PLASTIC-LAMINATE-CLAD COUNTERTOPS

- A. General Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades of plastic-laminate-clad countertops indicated for construction, finishes, installation, and other requirements.
- B. Grade: Custom.
- C. High-Pressure Decorative Laminate: NEMA LD 3, Grade HGS.
- D. Manufacturers: Subject to compliance with requirements, provide products indicated on Finish Legend or comparable products by one of the following:
  - 1. Formica Corporation
  - 2. Nevamar; a Panolam Industries International, Inc. brand
  - 3. Pionite; a Panolam Industries International, Inc. brand
  - 4. Wilsonart

- E. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
  - 1. As indicated by manufacturer's designations.
- F. Edge Treatment: 3.0-mmPVC edging.
- G. Core Material: Particleboard or MDF .
- H. Core Material at Sinks: Particleboard made with exterior glue or exterior-grade plywood.
- I. Core Thickness: 3/4 inch.
- J. Backer Sheet: Provide plastic-laminate backer sheet, NEMA LD 3, Grade BKL, on underside of countertop substrate.

### 2.3 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets except for items specified in Section 087100 "Door Hardware."
- B. Finish: All cabinet hardware shall be Brushed (Satin) Nickel; BHMA 619 (US 15), unless otherwise noted.
- C. Adjustable Shelf Standards and Supports: K & V "No. 255NP" Standards with "No. 256NP" or equal by Epcor or Blum. Supports to match or equal by Epcor or Blum; nickel plated finish.
- D. Hinges:
  - 1. Blum 71M2550 x 175L6600.22.
  - 2. Grass 1006 x G/FFAL 2.6.
  - 3. Lamp 430-C46/19 x 430P4A32.
- E. Drawer Guides: Blum Standard 230M or equal by Epcor or Stanley, epoxy coated, bottom mounted, minimum load rating as listed:
  - 1. Pencil drawers not more than 3 inches high and not more than 24 inches wide, provide 50 lb load capacity.
  - 2. General-purpose drawers more than 3 inches high, but not more than 6 inches high and not more than 24 inches wide, provide 75 lb load capacity.
  - 3. File drawers more than 6 inches high or more than 24 inches wide, provide 100 lb load capacity.
  - 4. Lateral file drawers more than 6 inches high and more than 24 inches but not more than 30 inches wide, provide 150 lb load capacity.
  - 5. Lateral file drawers more than 6 inches high and more than 30 inches wide, provide 200 lb load capacity.
  - 6. Computer keyboard tray, provide 75 lb load capacity.
- F. Drawer Pulls: Stanley Works "No. 4484" or equal by Epcor or Blum, US26D, 5/16-inch diameter wire pull, 4-inch centers.
- G. Catches and Locks: ALL cabinets doors and drawers will be lockable and keyed at the Owners direction.
  - 1. Magnetic Catch: K & V "No. 918 ALUM" or equal by Epcor or Stanley.
  - 2. Lock: K & V "No. 986"; nickel plated finish or equal by Epcor or Stanley.

- H. Cushion Stop: Rubber pad with leg for insertion in drilled hole or attached to metal mounting bracket. Provide at top and bottom of each cabinet door.
- I. Grommets for Cable Passage: **2-inch** OD, molded-plastic grommets and matching plastic caps with slot for wire passage.
  - 1. Color: Black.
- J. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with ANSI/BHMA A156.18 for ANSI/BHMA finish number indicated.
  - 1. Color: As indicated on Architect's Finish Legend.
- K. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in ANSI/BHMA A156.9.

## 2.4 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.
- B. Rough Hardware: Nails, spikes, screws, bolts, anchors, washers and other rough hardware necessary to assure proper assembly and anchorage.
  - 1. Finish: Galvanized finish for exterior and interior work exposed to moisture and high humidity and brite basic (uncoated) finish for interior work not exposed to moisture and high humidity.
- C. One-Part Mildew-Resistant Silicone Sealant: One-part silicone rubber; mildew and stain resistant; color selected by Architect.
  - 1. Dow Corning Corp. "786 Mildew-Resistant Silicone Sealant".
  - 2. General Electric Co. "SCS 1702 Silicone Sanitary Sealant".
  - 3. Tremco, Inc. "Tremsil 600".
- D. Metal Brackets: Richelieu, "Model No. 9910242930" heavy duty bracket with 1,000 lb. load capacity @ 3'-0" o.c., white color.
- E. Adhesive for Bonding Plastic Laminate: Contact cement.

## 2.5 FABRICATION

- A. Fabricate architectural cabinets to dimensions, profiles, and details indicated.
- B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
  - 1. Notify Architect seven days in advance of the dates and times architectural cabinet fabrication will be complete.
- C. Plastic Laminate Countertops and Panels and Casework:
  - 1. Apply plastic laminate finish in full uninterrupted sheets; hairline corners and joints.
  - 2. Locate counter butt joints at least 2 feet from sink cutouts.

3. Fasten splash to countertop 16-inches on center.
  4. Make cutouts for lavatories, plumbing fixtures, and toilet accessories using either templates or physical samples of items to be used.
- D. Shop - cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

#### 3.2 PROJECT CONDITIONS

- A. Field measurements: Take field measurements to ascertain exact woodwork sizes. Indicate exact dimensions on shop drawings.
- B. Install no interior woodwork until spaces are enclosed, dry and conditioned.
- C. Maintain temperature between 55 degrees F. and 80 degrees F. for 72 hours before beginning installation and afterwards until Date of Substantial Completion.
- D. Maintain interior relative humidity at the site between 25% and 55% before, during, and after installation.

#### 3.3 INSTALLATION

- A. Architectural Woodwork Standards Grade: Install cabinets to comply with quality standard grade of item to be installed.
- B. Assemble cabinets and complete fabrication at Project site to extent that it was not completed in the shop.
- C. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with wafer-head cabinet installation screws.
- D. Install cabinets level, plumb, and true in line to a tolerance of **1/8 inch in 96 inches** using concealed shims.
1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
  2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
  3. Fasten wall cabinets through back, near top and bottom, and at ends not more than **16 inches** o.c. with No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish.
  4. Install shelving and hanger rods level and plumb.
  5. Provide locks on all drawers and doors in all rooms.

6. Plastic Laminate Countertops: All countertops shall receive a 4-inch high, plastic laminate backsplash at all adjacent walls. All sinks within the countertops shall be located at centerline to the length of the cabinet unless specified otherwise by Owner. Ends of countertops at adjacent walls shall receive backsplash end caps that are set in full bed of sealant between top and splash.
7. On all casework, provide sealant as required to fill all cracks and voids between walls and finished casework/backsplash.

#### 3.4 ADJUSTING AND CLEANING

- A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean cabinets on exposed and semiexposed surfaces.

END OF SECTION

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## SECTION 072100 – BATT INSULATION

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Batt insulation in exterior wall and ceiling construction.
- B. Batt insulation for filling perimeter window and door shim spaces, crevices in exterior wall and roof, and other spaces as indicated on drawings.

## 1.2 RELATED REQUIREMENTS

- A. Section 092900 - Gypsum Board Assemblies: Exterior gypsum sheathing substrate for board insulation.

## 1.3 REFERENCE STANDARDS

- ASTM C552 - Standard Specification for Cellular Glass Thermal Insulation 2021a.
- ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

## 1.4 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Certificate: Certificate stating that installed products meet or exceed specified requirements.

## 1.5 EMISSIONS

- A. Emissions shall be in accordance with the emission levels of CDPH/EHLB Standard Method v1.1. Emission levels are determined by a laboratory accredited to ISO/IEC 17025 and the CDPH/EHLB Standard Method v1.1 is in its scope of accreditation.
- B. Insulation shall be certified by a third-party program accredited to ISO 17065, such as, but not limited to, UL GREENGUARD Gold Scientific Certifications Systems (GSCS) Indoor Advantage Gold Program.

## 1.6 FIELD CONDITIONS

- A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

## PART 2 PRODUCTS

## 2.3 BATT INSULATION MATERIALS

## A. MANUFACTURERS

- 1. Johns Manville; P.O. Box 5108; Denver, Colorado 80217-5108. Toll Free: 800- 654-3103. Tel 303-978-2434.
- 2. Approved Manufacturers:
  - a. CertainTeed Corporation
  - b. Owens Corning Corporation
  - c. Substitutions: See Section 016000 - Product Requirements.

## B. SOUND ATTENUATION BATTS

- 1. Unfaced, Rock-Wool-Fiber Blanket Insulation: ASTM C665, Type I (blankets without membrane facing).
- 2. Material: Inorganic fibers derived from basalt, with thermosetting resin binder.
- 3. Emissions: GREENGUARD Indoor Air Quality Certified for low chemical emissions.
- 4. Size: 6 inches thick, 16 inches wide, 48 inches long.

5. Surface burning characteristics – ASTM E84: Maximum flame spread: 0, Maximum smoke spread: 0
6. Combustion characteristics - ASTM E136 Noncombustible: Pass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
7. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
8. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
9. Formaldehyde Content: Zero.
10. Facing: Unfaced.

#### 24 ACCESSORIES

- A. Tape: Manufacturer's recommended self-adhering type, mesh reinforced, 2 inch wide.
- B. Insulating foam sealant.
- C. Insulation Fasteners: Appropriate for purpose intended.
- D. Adhesive: Type recommended by insulation manufacturer for application.

### PART 3 EXECUTION

#### 31 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

#### 32 BATT INSTALLATION

- A. Install insulation in accordance with manufacturer's instructions.
- B. Batts and Blankets: Grade 1 installation complying with ICC 700-2015 NGBS.
- C. Install in exterior wall, roof, and other spaces as indicated on drawings without gaps or voids. Do not compress insulation.
- D. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- E. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
- F. Snugly fit glass fiber batts and support on metal suspension system at all exterior soffit areas where occupiable space above occurs. Return insulation vertically at exterior wall lines.
- G. Coordinate work of this section with construction of air barrier seal, see Section 072700.

#### 33 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for additional requirements.

#### 34 PROTECTION

- A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION 072100

## SECTION 079213 - ELASTOMERIC JOINT SEALANTS

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Nonsag Gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.
- D. Owner-provided field quality control.

## 1.2 RELATED REQUIREMENTS

- A. Parking Structure Drawings and Specifications: Construction/control joint requirements at parking structure.
- B. Section 072500 - Weather Barriers: Sealants required in conjunction with air barriers and vapor retarders.
- C. Section 078400 - Firestopping: Firestopping sealants.
- D. Section 087100 - Door Hardware: Setting exterior door thresholds in sealant.
- E. Section 088000 - Glazing: Glazing sealants and accessories.
- F. Section 092116 - Gypsum Board Assemblies: Sealing acoustical and sound-rated walls and ceilings.

## 1.3 REFERENCE STANDARDS

- |            |   |
|------------|---|
| ASTM C661  | Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer 2015.                                |
| ASTM C794  | Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants 2018.   |
| ASTM C834  | Standard Specification for Latex Sealants 2017.   |
| ASTM C919  | Standard Practice for Use of Sealants in Acoustical Applications 2019.  |
| ASTM C920  | Standard Specification for Elastomeric Joint Sealants 2018.   |
| ASTM C1087 | Standard Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems 2016. |
| ASTM C1193 | Standard Guide for Use of Joint Sealants 2016.  |
| ASTM C1248 | Standard Test Method for Staining of Porous Substrate by Joint Sealants 2018.   |
| ASTM C1311 | Standard Specification for Solvent Release Sealants 2014.   |
| ASTM C1330 | Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid- Applied Sealants 2018.                                 |
| ASTM C1521 | Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints 2019 (Reapproved 2020).                           |
| ASTM D2240 | Standard Test Method for Rubber Property--Durometer Hardness 2015 (Reapproved 2021).  |
| SWRI (VAL) | SWR Institute Validated Products Directory Current Edition.   |

## 1.4 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
  - 2. List of backing materials approved for use with the specific product.
  - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.

4. Substrates the product should not be used on.
  1. SWRI Validation: Provide currently available sealant product validations as listed by SWRI (VAL) for specified sealants.
  - B. Sealant Schedule indicating locations of use.
  - C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
  - D. Certificate: Certificate stating that installed products meet or exceed specified requirements.
- 12 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
  - B. Installer Qualifications: Company specializing in performing the work of this section and with at least three years of documented experience.
  - C. Preconstruction Laboratory Testing: Arrange for sealant manufacturer(s) to test each combination of sealant, substrate, backing, and accessories.
    1. Adhesion Testing: In accordance with ASTM C794.
    2. Compatibility Testing: In accordance with ASTM C1087.
    3. Allow sufficient time for testing to avoid delaying the work.
    4. Deliver to manufacturer sufficient samples for testing.
    5. Report manufacturer's recommended corrective measures, if any, including primers or techniques not indicated in product data submittals.
    6. Testing is not required if sealant manufacturer provides data showing previous testing, not older than 24 months, that shows satisfactory adhesion, lack of staining, and compatibility.
  - D. Preinstallation Field Adhesion Test Plan: Include destructive field adhesion testing of one sample of each combination of sealant type and substrate, except interior acrylic latex sealants, and include the following for each tested sample.
    1. Identification of testing agency.
    2. Name(s) of sealant manufacturers' field representatives who will be observing
    3. Preinstallation Field Adhesion Test Log Form: Include the following data fields, with known information filled out.
      - a. Substrate: if more than one type of substrate is involved in a single joint, provide two entries on form, for testing each sealant substrate side separately.
      - b. Test date.
      - c. Location on project.
      - d. Sealant used.
      - e. Stated movement capability of sealant.
      - f. Test method used.
      - g. Date of installation of field sample to be tested.
      - h. Date of test.
      - i. Copy of test method documents.
      - j. Age of sealant upon date of testing.
      - k. Test results modeled after the sample form in the test method document.
      - l. Indicate use of photographic record of test.
  - E. Owner will employ an independent testing agency to perform the field quality control inspection and testing as referenced in PART 3 of this section and as follows, to prepare and submit the field quality control plan and log, and to provide recommendations of remedies in the case of failure.
    1. Contractor shall cooperate with testing agency and repair failures discovered and destructive test location damage.
  - F. Field Quality Control Plan:
    1. Visual inspection of entire length of sealant joints.
    2. Non-destructive field adhesion testing of sealant joints, except interior acrylic latex sealants.

- a. For each different sealant and substrate combination, allow for one test every 12 inches in the first 10 linear feet of joint and one test every 24 inches thereafter.
      - a. If any failures occur in the first 10 linear feet, continue testing at 12 inches intervals at no extra cost to Owner.
    2. Destructive field adhesion testing of sealant joints, except interior acrylic latex sealant.
      - a. For each different sealant and substrate combination, allow for one test every 100 feet in the first 1000 linear feet, and one test per 1000 linear feet thereafter, or once per floor on each elevation.
      - b. If any failures occur in the first 1000 linear feet, continue testing at frequency of one test per 500 linear feet at no extra cost to Owner.
    3. Field Quality Control Log Form: Show same data fields as on Preinstallation Field Adhesion Test Log, with known information filled out and lines for multiple tests per sealant/substrate combinations; include visual inspection and specified field testing; allow for possibility that more tests than minimum specified may be necessary.
  - B. Field Adhesion Test Procedures:
    1. Allow sealants to fully cure as recommended by manufacturer before testing.
    2. Have a copy of the test method document available during tests.
    3. Take photographs or make video records of each test, with joint identification provided in the photos/videos; for example, provide small erasable whiteboard positioned next to joint.
    4. Record the type of failure that occurred, other information required by test method, and the information required on the Field Quality Control Log.
    5. When performing destructive tests, also inspect the opened joint for proper installation characteristics recommended by manufacturer and report any deficiencies.
    6. Deliver the samples removed during destructive tests in separate sealed plastic bags, identified with project, location, test date, and test results, to Owner.
    7. If any combination of sealant type and substrate does not show evidence of minimum adhesion or shows cohesion failure before minimum adhesion, report results to Architect.
  - C. Non-Destructive Field Adhesion Test: Test for adhesion in accordance with ASTM C1521, using Nondestructive Spot Method.
  - D. Destructive Field Adhesion Test: Test for adhesion in accordance with ASTM C1521, using Destructive Tail Procedure.
    1. Sample: At least 18 inches long.
    2. Minimum Elongation Without Adhesive Failure: Consider the tail at rest, not under any elongation stress; multiply the stated movement capability of the sealant in percent by two; then multiply 1 inch by that percentage; if adhesion failure occurs before the "1 inch mark" is that distance from the substrate, the test has failed.
    3. If either adhesive or cohesive failure occurs prior to minimum elongation, take necessary measures to correct conditions and re-test; record each modification to products or installation procedures.
  - E. Field Adhesion Tests of Joints: Test for adhesion using most appropriate method in accordance with ASTM C1521, or other applicable method as recommended by manufacturer.
- 1.2 WARRANTY
- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
  - B. Correct defective work within a five-year period after Date of Substantial Completion.
  - C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

## PART 2 PRODUCTS

### 1.1 GENERAL

- A. Provide non-staining, non-corrosive elastic compound as required.
- B. Provide joint sealants at windows and differential materials.

- C. Sealants shall be paintable where used on painted surfaces and shall match the wall material on non-painted surfaces.

#### 1.1 EMISSIONS

- A. Adhesives and sealants located inside the waterproofing envelope shall be in accordance with one of the following, as applicable.
  - 1. The emission levels shall be in accordance with CDPH/EHLB Standard Method v1.1. Emission levels are determined by a laboratory accredited to ISO/IEC 17025 and the CDPH/EHLB Standard Method v1.1 is in its scope of accreditation. The product shall be certified by a third-party program accredited to ISO 17065, such as, but not limited to, those found in Appendix D.
  - 2. GreenSeal GS-36.
  - 3. SCAQMD Rule 1168 in accordance with Table 901.10(3) in the National Green Building Standards, excluding products that are sold in 16-ounce containers or less and are regulated by the California Air Resources Board (CARB) Consumer Products Regulations.

#### 1.2 MANUFACTURERS

- A. Security Sealant: Single-component, pick-resistant, moisture-curing, aliphatic, non-sag, polyurethane sealant for security, ASTM C920 Type S, Grade NS, Class 25, Use NT, T, M, A, G and O., Classification MCG-S-25-A-N, No. 81026; CFIA
- B. Provide products from the following manufacturer:
  - Master Builders Solutions
  - 889 Valley Park Drive
  - Shakopee, MN 55379 USA
  - [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us)
- B. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
  - 1. Basis of Design: Sika Masterseal CR 195
  - 2. Substitutions: Not allowed for this Product
- C. Self-Leveling Sealants: Pourable or self-leveling sealant that has sufficient flow to form a smooth, level surface when applied in a horizontal joint.
  - 1. Master Builders Solutions (BASF)
  - 2. Sika Corporation:
  - 3. Substitutions: Not Allowed for this Product

#### 1.3 JOINT SEALANT APPLICATIONS

- A. Scope:
  - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
    - a. Wall expansion and control joints.
    - b. Joints between door, window, and other frames and adjacent construction.
    - c. Joints between different exposed materials.
    - d. Openings below ledge angles in masonry.
    - e. Other joints indicated below.
  - 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
    - b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
      - 1) Exception: Such gaps and openings in gypsum board and plaster finished stud walls and suspended ceilings.
      - 2) Exception: Through-penetrations in sound-rated assemblies that are also fire-rated assemblies.
    - c. Other joints indicated below.
  - 3. Do not seal the following types of joints.

- a. Intentional weepholes in masonry.
  - b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
  - c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
  - d. Joints where installation of sealant is specified in another section.
  - e. Joints between suspended panel ceilings/grid and walls.
- B. Exterior Joints (General Purpose): Use non-sag paintable silicone sealant, unless otherwise indicated or noted below.
1. Masonry Joints: Use low-modulus silicone sealant in color to match adjacent masonry.
- C. Interior Joints (General Purpose): Use non-sag paintable acrylic emulsion latex sealant, unless otherwise indicated or noted below.
1. Wall and Ceiling Joints in Wet Areas: Non-sag polyurethane sealant for continuous liquid immersion.
  2. Joints between Fixtures in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; white.
  3. In Sound-Rated Assemblies: Acrylic emulsion latex sealant.
  4. Narrow Control Joints in Interior Concrete Slabs: Self-leveling epoxy sealant.
  5. Other Floor Joints: Self-leveling polyurethane "traffic-grade" sealant.
- D. Interior Wet Areas: Restrooms; fixtures in wet areas include plumbing fixtures and countertops.
- E. Sound-Rated Assemblies: Walls and ceilings identified as "STC-rated", "sound-rated", or "acoustical".
1. Basis of Design: Pecora; AC-20FTR
- 14 NONSAG JOINT SEALANTS
- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 50 percent, minimum.
  2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
  3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
  4. Color: To be selected by Architect from manufacturer's standard range.
- B. Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 25 percent, minimum.
  2. Color: To be selected by Architect from manufacturer's standard range.
- C. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
1. Color: White or as otherwise selected by Architect from manufacturer's standard range.
- D. Polyurethane Sealant for Continuous Water Immersion: ASTM C920, Grade NS, Uses M and A; single or multicomponent; explicitly approved by manufacturer for continuous water immersion; suitable for traffic exposure when recessed below traffic surface.
1. Movement Capability: Plus and minus 35 percent, minimum.
  2. Color: To be selected by Architect from manufacturer's standard range.
- E. Non-Sag "Traffic-Grade" Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; explicitly approved by manufacturer for continuous water immersion and

traffic without the necessity to recess sealant below traffic surface.

1. Movement Capability: Plus and minus 25percent, minimum.
  1. Hardness Range: 40 to 50, Shore A, when tested in accordance with ASTM C661.
  2. Color: To be selected by Architect from manufacturer's standard range.
- B. Tamper-Resistant Polyurethane Sealant: ASTM C920, Grade NS, Uses M, G, and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: (N/A).
  2. Hardness Range: 50 to 60, Shore A, when tested in accordance with ASTM C661.
  3. Color: To be selected by Architect from manufacturer's standard range.
- C. Epoxy Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Hardness Range: 65 to 75, Shore D, when tested in accordance with ASTM C661.
  2. Color: To be selected by Architect from manufacturer's standard range.
- D. Polysulfide Sealant: ASTM C920, Grade NS, Uses M and A; single component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: (N/A).
  2. Color: To be selected by Architect from manufacturer's standard range.
- E. Polysulfide Sealant for Continuous Water Immersion: Polysulfide; ASTM C920, Grade NS, Uses M and A; single component; explicitly approved by manufacturer for continuous water immersion; not expected to withstand traffic.
1. Movement Capability: (N/A).
  2. Color: To be selected by Architect from manufacturer's standard range.
- F. Acrylic-Urethane Sealant: ASTM C920, Grade NS, Uses M and A; single component; paintable; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 50 percent, minimum.
  2. Color: White.
- G. Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.
1. Color: To be selected by Architect from manufacturer's standard range.
  2. Manufacturers:
- H. Butyl Sealant: Solvent-based; ASTM C1311; single component, nonsag; not expected to withstand continuous water immersion or traffic.
1. Color: To be selected by Architect from manufacturer's standard range.
- I. Non-Curing Butyl Sealant: Solvent-based; ASTM C1311; single component, non-sag, non-skinning, non-hardening, non-bleeding; vapor-impermeable; intended for fully concealed applications.

## 12 SELF-LEVELING SEALANTS

- A. Self-Leveling Silicone Sealant: ASTM C920, Grade P, Uses M and A; single or multicomponent, explicitly approved by manufacturer for traffic exposure when recessed below traffic surface; not expected to withstand continuous water immersion.
1. Movement Capability: Plus 100 percent, minus 50 percent, minimum.
  2. Color: To be selected by Architect from manufacturer's standard range.
- B. Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; single or multi- component; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion.
1. Movement Capability: Plus and minus 25 percent, minimum.
  2. Color: To be selected by Architect from manufacturer's standard range.
- C. Self-Leveling Polyurethane Sealant for Continuous Water Immersion: Polyurethane; ASTM C920, Grade P, Uses M and A; explicitly approved by manufacturer for traffic exposure and continuous water immersion.
1. Movement Capability: Plus and minus 25 percent, minimum.



2. Color: To be selected by Architect from manufacturer's standard range.
  - A. Self-Leveling Silyl-Terminated Polyether/Polyurethane (STPE/STPU) Sealant: ASTM C920, Grade P, Uses M and A; single component; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion.
    1. Movement Capability: Plus and minus 35 percent.
    2. Color: To be selected by Architect from manufacturer's standard range.
  - B. Self-Leveling Polysulfide Sealant: ASTM C920, Grade P, Uses M and A; multicomponent; explicitly approved by manufacturer for traffic exposure and continuous water immersion.
    1. Movement Capability: Plus and minus 25 percent.
    2. Color: To be selected by Architect from manufacturer's standard range.
  - C. Rigid Self-Leveling Polyurethane Joint Filler: Two-part, low viscosity, fast setting; intended for cracks and control joints not subject to significant movement.
    1. Hardness Range: Greater than 100, Shore A, and 50 to 80, Shore D, when tested in accordance with ASTM C661.
  - D. Semi-Rigid Self-Leveling Epoxy Joint Filler: Epoxy or epoxy/polyurethane copolymer; intended for filling cracks and control joints not subject to significant movement; rigid enough to support concrete edges under traffic.
    1. Composition: Multi-component, 100 percent solids by weight.
    2. Durometer Hardness: Minimum of 85 for Type A or 35 for Type D, after seven days when tested in accordance with ASTM D2240.
    3. Color: To be selected by Architect from manufacturer's standard colors.
    4. Joint Width, Minimum: 1/8 inch.
  - E. Semi-Rigid Self-Leveling Polyurea Joint Filler: Two-component, 100 percent solids; intended for filling cracks and control joints not subject to significant movement; rigid enough to support concrete edges under traffic.
    1. Durometer Hardness, Type A: 75, minimum, after seven days when tested in accordance with ASTM D2240.
    2. Color: To be selected by Architect from manufacturer's standard colors.
- 12 ACCESSORIES
- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
    1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type B - Bi-Cellular Polyethylene.
    2. Type for Joints Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type B - Bi-Cellular Polyethylene.
    3. Closed Cell and Bi-Cellular: 25 to 33 percent larger in diameter than joint width.
      - a. Provide at exterior applications and all other applications subject to moisture or water intrusion.
  - B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
  - C. Masking Tape: Self-adhesive, nonabsorbent, non-staining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
  - D. Joint Cleaner: Non-corrosive and non-staining type, type recommended by sealant manufacturer; compatible with joint forming materials.
  - E. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

## PART 3 EXECUTION

### 1.1 EXAMINATION

- A. Verify Architect and Contractor approved Sealant Schedule. Refer to paragraph 1.04 Submittals for schedule submittal requirements.
- B. Verify that joints are ready to receive work.

- C. Verify that backing materials are compatible with sealants.
- A. Verify that backer rods are of the correct size.
- B. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
  - 1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
  - 2. Notify Architect of date and time that tests will be performed, at least seven days in advance.
  - 3. Arrange for sealant manufacturer's technical representative to be present during tests.
  - 4. Record each test on Preinstallation Adhesion Test Log as indicated.
  - 5. If any sample fails, review products and installation procedures, consult manufacturer, or take whatever other measures are necessary to ensure adhesion; re-test in a different location; if unable to obtain satisfactory adhesion, report to Architect.
  - 6. After completion of tests, remove remaining sample material and prepare joint for new sealant installation.

**12 PREPARATION**

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.
- E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in inconspicuous area to verify that it does not stain or discolor slab.

**13 INSTALLATION**

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Perform acoustical sealant application work in accordance with ASTM C919.
- D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- E. Install bond breaker backing tape where backer rod cannot be used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- H. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- I. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.

**14 FIELD QUALITY CONTROL**

- A. Owner will employ an independent testing agency to perform field quality control inspection and testing as specified in PART 1 under QUALITY ASSURANCE article.
- B. Non-Destructive Adhesion Testing: If there are any failures in first 100 linear feet, notify Architect immediately.
- C. Destructive Adhesion Testing: If there are any failures in first 1000 linear feet, notify Architect immediately.
- D. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

E. Repair destructive test location damage immediately after evaluation and recording of results.

**1.1** POST-OCCUPANCY

A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width, i.e. at low temperature in thermal cycle. Report failures immediately and repair.

END OF SECTION 079213

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## SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Non- Section 08 7100 - Door Hardware.
- B. Section 08 8000 - Glazing: Glass for doors and borrowed lites.
- C. Section 09 9113 - Exterior Painting: Field painting.
- D. Section 09 9123 - Interior Painting: Field painting.

## 1.2 SUMMARY

- A. Section includes:
  - 1. Non-fire-rated hollow metal doors and frames.
  - 2. Fire-rated hollow metal doors and frames.
  - 3. Thermally insulated hollow metal doors with frames.
  - 4. Sound-rated hollow metal doors and frames.
  - 5. Accessories, including glazing and louvers.

## 1.3 REFERENCES

## A. ABBREVIATIONS AND ACRONYMS

- 1. ANSI: American National Standards Institute.
- 2. ASCE: American Society of Civil Engineers.
- 3. HMMA: Hollow Metal Manufacturers Association.
- 4. NAAMM: National Association of Architectural Metal Manufacturers.
- 5. NFPA: National Fire Protection Association.
- 6. SDI: Steel Door Institute.
- 7. UL: Underwriters Laboratories.

## B. REFERENCE STANDARDS

- 1. ADA Standards Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.
- 2. ANSI/SDI A250.8 Specifications for Standard Steel Doors and Frames (SDI-100) 2017.
- 3. ANSI/SDI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames 2020.
- 4. ASTM C143/C143M Standard Test Method for Slump of Hydraulic-Cement Concrete 2020.
- 5. ASTM C476 Standard Specification for Grout for Masonry 2020.
- 6. ASTM E413 Classification for Rating Sound Insulation 2016.
- 7. ICC A117.1 Accessible and Usable Buildings and Facilities 2017.
- 8. NAAMM HMMA 860 Guide Specifications for Hollow Metal Doors and Frames 2018.
- 9. NAAMM HMMA 861 Guide Specifications for Commercial Hollow Metal Doors and Frames 2014.
- 10. NFPA 80 Standard for Fire Doors and Other Opening Protectives 2019.
- 11. NFPA 105 Standard for Smoke Door Assemblies and Other Opening Protectives 2019.
- 12. NFPA 252 Standard Methods of Fire Tests of Door Assemblies 2017.

13. SDI 117 Manufacturing Tolerances for Standard Steel Doors and Frames 2013.
14. UL 10B Standard for Fire Tests of Door Assemblies Current Edition
15. UL 10C Standard for Positive Pressure Fire Tests of Door Assemblies Current Edition,
16. UL 1784 Standard for Air Leakage Tests of Door Assemblies, Current Edition.

#### 1.4 COORDINATION

- A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.
- B. Coordinate requirements for installation of door hardware, and access control and security systems.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  1. Include construction details, material descriptions, core descriptions, fire-resistance ratings, and finishes.
- B. Shop Drawings: Include the following:
  1. Elevations of each door type.
  2. Details of doors, including vertical- and horizontal-edge details and metal thicknesses.
  3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
  4. Locations of reinforcement and preparations for hardware.
  5. Conditions of each opening related to:
    - a. Electrical raceway and preparation for access control systems and security systems.
    - b. Anchorages, joints, field splices, and connections.
    - c. All related accessories.
    - d. Moldings, removable stops, and glazing.
- C. Product Schedule: For hollow-metal doors and frames, prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final door hardware schedule.
  1. Refer to Section 087100 "Door Hardware" for final door hardware schedule.

#### 1.6 CLOSEOUT SUBMITTALS

- A. Record Documents: For fire-rated doors, list of door numbers and applicable room name and number to which door accesses.

#### 1.7 QUALITY ASSURANCE

- A. Steel Door and Frame Standard: Comply with ANSI A 250.8, unless more stringent requirements are indicated.

- B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 252 and 257.
1. Test Pressure: Test at atmospheric pressure.
  2. Oversize Fire-Rated Door Assemblies: For units exceeding sizes of tested assemblies, provide certification by a testing agency acceptable to authorities having jurisdiction that doors comply with standard construction requirements for tested and labeled fire-rated door assemblies except for size.
  3. Temperature-Rise Rating: For 1-1/2 HR doors at Stairway Enclosures, provide doors that have a temperature-rise rating of 450 deg F maximum in 30 minutes of fire exposure.
- C. Fire door assemblies shall also meet the requirements for a smoke- and draft-control door assembly tested in accordance with UL 1784 with an artificial bottom seal installed across the full width of the bottom of the door assembly. The air leakage rate of the door assembly shall not exceed 3.0 cfm per square foot of door opening at 0.10 inch of water for both the ambient temperature and elevated temperature tests. Louvers shall be prohibited.
- D. Rated Door Inspector Qualifications: Inspector for field quality control inspections of fire-rated door assemblies shall meet the qualifications set forth in NFPA 80, section 5.2.3.1 and the following:
1. Door and Hardware Institute Fire and Egress Door Assembly Inspector (FDAI) certification.
- E. Egress Door Inspector Qualifications: Inspector for field quality control inspections of egress door assemblies shall meet the qualifications set forth in NFPA 101, Section 7.2.1.15.4 and the following:
1. Door and Hardware Institute Fire and Egress Door Assembly Inspector (FDAI) certification.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow-metal doors and frames palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
1. Provide additional protection to prevent damage to factory-finished units.
- B. Deliver welded frames with one removable spreader bar across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow-metal doors and frames upright (vertically) under cover at Project site with head up. Place on minimum 4-inch-high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. **Hollow Metal Doors will be Owner Provided – General Contractor Installed.**

## 2.2 PERFORMANCE REQUIREMENTS

- A. Cold-Rolled Steel Sheets: Commercial quality (CS) carbon steel, complying with ASTM A1008, Type B, minimum 16 gauge face sheets for interior doors and 16 gauge face sheets for exterior doors.
- B. Frames: ASTM A1008, commercial quality cold-rolled steel; 16 gauge for interior and 16 gauge for exterior frame locations and frames for acoustical doors.
- C. Reinforcements: Internally reinforce doors and frames:
  - 1. Hinges: 10 gauge.
  - 2. Locks, Closers, Push Plates, Pulls, Surface-Applied Hardware: 14 gauge.
  - 3. Kickplates: 18 gauge.
  - 4. Mortar Guards over Lock Strikes and Hinge Reinforcements: 26 gauge.
- D. Finish:
  - 1. Exterior; Galvanized: ASTM A653, minimum A60 coating. Bonderize to receive paint finish specified in Section 09 90 00.
  - 2. Interior; Shop Applied Primer Paint: Manufacturer's standard baked-on rust-inhibitive gray or red primer paint to receive paint finish specified in Section 09 90 00.
  - 3. Color: Selected by Architect.
  - 4. Glazing: Specified in Section 08 81 00.
- E. Glazing Bead Stops: 20 gauge sheet steel; mitered corners; of same quality and finish as frames. No snap glazing stops will be permitted.
  - 1. Provide nonremovable galvanized stops on outside of exterior doors and on secure side of interior doors for glass, louvers, and other panels in doors.
  - 2. Provide screw applied removable glazing beads on inside of glass, louvers, and other panels in doors.
  - 3. Predrill and precut all glazing stops for windows.
  - 4. Attach at 1'-0" o.c. maximum.
- F. Removable Mullions: Keyed Mullions to be of same material as frame, and capable of being removed without damage to adjacent surfaces.
- G. Louvers: Stationary sightproof for interior doors where indicated, constructed of inverted V-shaped or Y-shaped blades formed of 24 gauge cold rolled steel set into 22 gauge steel frame.
- H. Provide the EPT (Electric Power Transfer) raceway option on doors to receive access control as well as doors to be prepared for future access control. EPT raceway to be provided by others.

## 2.3 HOLLOW METAL DOORS

- A. General: Construct exterior/interior doors to the following designs and gauges:
  - 1. Exterior Doors: Zinc-Iron Alloy-Coated galvanized steel (A40) (A60) or Zinc-Coated Galvanized steel (G90) that conforms to ASTM A653/A653M:
    - a. Thickness:
      - 1) 16 gauge



- b. Provide flush top/closed top channel for exterior swing-out doors to eliminate moisture penetration. Galvannealed steel top caps are permitted.
2. Interior Doors: Cold-rolled steel, ASTM A 1008/A 1008M:
  - a. Thickness:
    - 1) 18 gauge
3. Door Thickness: 1-3/4 inches
4. Vertical edge seams: Provide doors with continuous vertical mechanical inter-locking joints at lock and hinge edges. Finish edges as follows:
  - a. Visible Interlocked Edge: Continuous vertical mechanical interlocking joints with visible edge seams.
5. Bevel hinge and lock door edges 1/8 inch (3 mm) in 2 inches (50 mm). Square edges on hinge and/or lock stiles are acceptable.
6. Reinforce top and bottom of doors with galvannealed 16 gauge minimum, welded to both panels.
7. Fire Rating: Supply door units bearing Labels for fire ratings indicated in Door Schedule for the locations indicated.
8. Core Adhesion System – Basis of design - Moisture Cure Polyurethane Hot Melt:
  - a. Adhesives are to cure completely, meaning once set, they cannot be re-melted and will not soften or freeze and lose adhesion.
  - b. Adhesive system will have an enhanced resistance to flame spread in its cured state designed to pass UL 10C, Positive Pressure Fire Tests of Door Assemblies.
  - c. Bonded assemblies will withstand prolonged exposure from -35°F(-37°C) to 200°F (93°C) temperatures without exhibiting any signs of bond failure.
  - d. Cured adhesive film will remain flexible to allow for differences in thermal expansion and contraction of various substrates without sacrificing bond performance.
9. Core Material
  - a. Treadcore Polystyrene
10. Glass moldings and stops:
  - a. Fabricate from 18 gauge minimum steel:
  - b. Install trim into the door as a four-sided welded assembly with mitered, reinforced and welded corners.
  - c. Trim: identical on both sides of the door.
  - d. Labeled and non-labeled doors: use the same trim to match esthetics.
  - e. Channeling requirements:
    - 1) Cutouts larger than 36” in height require 18 gauge perimeter channelings in the cutout of the door prior to installation of the lite kit or louver.
11. Hardware Reinforcements:
  - a. Doors shall be mortised and adequately reinforced per the manufacturers guidelines for all hardware. Required mortise hardware reinforcements shall be drilled and tapped at the factory. Surface applied hardware shall be field drilled by hardware installer.
  - b. Hinge reinforcements for full mortise hinges: minimum 7 gauge with an extra long, high frequency top hinge reinforcement as a standard feature.
  - c. Lock reinforcements : minimum 16 gauge.
  - d. Closer reinforcements: minimum 14 gauge steel.
  - e. Projection welded hinge and lock reinforcements to the edge of the door.
  - f. Provided adequate reinforcements for other hardware as required.

## 2.4 HOLLOW METAL DOOR FRAMES

- A. Construct hollow-metal door frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
1. Exterior Frames: Zinc-Iron Alloy-Coated galvanized steel (A40) (A60) or Zinc-Coated Galvanized steel (G90) that conforms to ASTM A 653/A653M:
    - a. Thickness:
      - 1) 14 gauge.
  2. Interior Frames in Masonry: Zinc-Iron Alloy-Coated galvanized steel (A40) (A60) or Zinc-Coated Galvanized steel (G90) that conforms to ASTM A 653/A653M:
    - a. Thickness:
      - 1) 16 gauge.
  3. Interior KD Drywall Frames (Slip-On construction): cold rolled steel, ASTM A 1008/A 1008M.
    - a. Thickness:
      - 1) 16 gauge.

## 2.5 HOLLOW METAL FRAMING SYSTEMS

- A. Hollow Metal Framing Systems:
1. Basis of Design: Mesker S-Series, M-Series.
  2. Components: Construct architectural stick frame assemblies of standard frame components, fabricated as specified.
    - a. Exterior Frame Material: Zinc-Iron Alloy-Coated galvanized steel (A40) (A60) or Zinc-Coated Galvanized steel (G90) that conforms to ASTM A 653/A653M, 14 gauge galvanized steel.
    - b. Interior Frames in Masonry: Zinc-Iron Alloy-Coated galvanized steel (A40) (A60) or Zinc-Coated Galvanized steel (G90) that conforms to ASTM A 653/A653M, 16 gauge galvanized steel.
    - c. Interior Frames in stud wall construction: 16 gauge cold rolled steel, ASTM A 1008/A 1008M steel.
    - d. Include galvanized components and internal reinforcements with galvanized frames.
  3. Frame component requirements:
    - a. Prepare required sticks at door openings and frame assemblies for hardware as specified in Section 087100.
    - b. Fabricate frame assemblies from three basic components:
      - 1) Open Sections (perimeter members) identical in configuration to standard frames.
      - 2) Closed sections (intermediate members) with identical jamb depth, face dimensions, and stops as open sections.
      - 3) Sill sections: To be flush with both faces of adjacent vertical members. Cut individual components to length and notched to assure square joints and corners.

- c. Externally welded face joints at meeting mullions or between mullions and other frame members on the face surfaces only. Grind and finish face joints smooth.
  - d. Fabricate frame assemblies for shipment to the jobsite completely welded.
    - 1) Field joints permissible only when the size of the total assembly exceeds shipping limitations.
    - 2) Fabricate oversized frames in sections designated for splicing in the field.
  - e. Pierced and dimpled glazing beads for use with manufacturers' standard fasteners.
  - f. Provide necessary anchors for jambs, heads, and sills of assemblies.
  - g. Verify field dimensions as required. Do not begin fabrication until these dimensions have been verified and approved.
4. Accessories:
- a. Glazing Bead: Formed steel sheet; screw-attached.
  - b. Steel Panels:
    - 1) 1/2-inch – 1 inch thick and manufactured from 18 gauge or 16 gauge thick non-galvannealed or galvannealed steel faces with a polystyrene core.
    - 2) 1-3/4 inches thick and manufactured from 18 gauge or 16 gauge thick non-galvannealed or galvannealed steel faces with a steel stiffened core for fire rated openings.
5. Fire Rating: Provide factory assembled welded units bearing Labels for fire ratings indicated on the Drawings.

## 2.6 FRAME ANCHORS

### A. Jamb Anchors:

1. Type: Anchors of minimum size and type required by applicable door and frame standard, and suitable for performance level indicated.
2. Quantity: Minimum of three anchors per jamb, with one additional anchor for frames with no floor anchor. Provide one additional anchor for each **24 inches** of frame height above **7 feet**.
3. Postinstalled Expansion Anchor: Minimum **3/8-inch**- diameter bolts with expansion shields or inserts, with manufacturer's standard pipe spacer.

### B. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor.

### C. Floor Anchors for Concrete Slabs with Underlayment: Adjustable-type anchors with extension clips, allowing not less than **2-inch** height adjustment. Terminate bottom of frames at top of underlayment.

### D. Material: ASTM A879/A879M, Commercial Steel (CS), **04Z** coating designation; mill phosphatized.

1. For anchors built into exterior walls, steel sheet complying with ASTM A1008/A1008M or ASTM A1011/A1011M; hot-dip galvanized according to ASTM A153/A153M, Class B.

## 2.7 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A1011/A1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Metallic-Coated Steel Sheet: ASTM A653/A653M, Commercial Steel (CS), Type B.
- D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A153/A153M.
- E. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.
- F. Mineral-Fiber Insulation: ASTM C665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E136 for combustion characteristics.
- G. Glazing: Comply with requirements in Section 088000 "Glazing."

## 2.8 FRAME FABRICATION

- A. Form frames of 16 gauge pressed sheet steel sections for interior locations and 16 gauge galvanized A60 pressed sheet steel sections for exterior locations of full profile weld unit construction to indicated sizes, profiles and details. Miter corners and full profile weld. Grind exposed welds smooth and invisible.
  - 1. Transom Bars, Mullions, Sidelite and Borrowed Lite Frames: Same material as door frames, joints welded and ground smooth. Fabricate in largest size sections allowed by shipping and installation restrictions. Field joints allowed only as indicated in approved shop drawings.
- B. Prepare door frames to receive specified finish hardware. Weld reinforcing plates to inner surface of frames for all hardware locations. Drill and tap for mortise hardware; use templates or physical samples for each item of hardware. Reinforce only for surface-applied hardware.
- C. Drill door frames for silencers. Refer to approved finish hardware schedule for frames requiring silencers and quantity per frame.
- D. Floor Anchors: Minimum 14 gauge thickness; securely welded inside each jamb, with two holes provided at each jamb for floor anchorage.
- E. Jamb Anchors:
  - 1. Masonry Walls: Adjustable, flat, galvanized A60 corrugated or perforated T-shaped or stirrup-and-strap or wire type anchors; minimum 16 gauge steel or 0.156-inch diameter steel wire. Stirrup strap minimum 2-inches by 10-inches in size.
    - a. '-6" High: 3 anchors.
    - b. '-6" to 8 Feet High: 4 anchors.
    - c. Frames Over 8 Feet High: One anchor per every 2 feet of frame height.

2. Stud Partitions: Minimum 16 gauge thickness steel anchors of suitable design securely welded inside each jamb.
    - a. '6" High: 4 anchors.
    - b. '6" to 8 Feet High: 5 anchors.
    - c. Frames Over 8 Feet High: 5 anchors plus one additional for each 2 feet over 8 feet.
  3. In-Place Masonry or Concrete: 3/8-inch countersunk, flat head, stove bolts in expansion shields, spaced 6-inches maximum from top and bottom of frame and at 2 feet on center maximum between.
- F. Spot or tack weld removable spreaders to bottom of each door jamb to hold frames in true alignment during handling and installation.
- G. After fabrication, thoroughly clean and phosphatize frames. Apply one shop coat of manufacturer's standard rust-inhibitive primer paint to inside and outside frame surfaces.

## 2.9 DOOR FABRICATION

- A. Stretcher leveled, internally stiffened, fully welded flush seamless construction, fabricated to indicated sizes and 1-3/4 inch thickness.
1. Face Sheets:
    - a. Standard Interior Hollow Metal Doors: SDI 100, Grade II, Model Two, 16 gauge.
    - b. Fire-Rated Composite Metal Doors: SDI 100, Grade II, Model Two, mineral fiberboard core, 16 gauge. Fabricate fire-rated doors to obtain rating without astragals.
    - c. Exterior Insulated Composite Metal Doors: SDI 100, Grade III, Model Two, foamed-in-place polyurethane composition core, 16 gauge galvanized A60. Thermal resistance, R11.1 minimum.
    - d. Stile and Rail Hollow Metal Doors: SDI 100, Grade III, Model Three, minimum 14 gauge, louvered style with center rail.
      - 1) Edge Bevel: Vertical edges beveled 1/8-inch in 2-inches; double-acting doors rounded on 2-1/8 inch radius.
      - 2) Astragals: Overlapping, 12 gauge material.
      - 3) Internal Stiffeners: 18 gauge.
  2. Screens and Protective Grille: 16 x 14 aluminum wire mesh in removable, rewirable extruded aluminum frame with McNichols Co. 3/4 "#13F" flattened expanded diamond mesh metal protective grille with rust-inhibitive paint finish.
- B. Offset channel framing at hardware locations. Space full height internal stiffeners not more than 6-inches on centers and weld to both face sheets not more than 5-inches on centers. Weld hardware reinforcements into position. Weld face sheets to continuous perimeter channel framing and grind welds smooth and invisible.
- C. Prepare doors to receive specified finish hardware. Provide reinforcements in specified gauges for each item of hardware.
- D. Provide continuous recessed 16 gauge channel closures on top and bottom of all doors extending full width of doors.
1. Exterior doors to have an additional flush closing channel at top edges and, where required for attachment of weatherstripping, flush closure at bottom edges.
  2. Provide openings in bottom closure of exterior doors to permit escape of entrapped moisture.

- E. Labeled Doors: Furnish doors and frames with UL label as indicated.
1. Provide internal foamed-in-place polyurethane insulation required in doors.
  2. Refer to Drawings for doors and frames requiring UL fire-resistive ratings.
- F. Thoroughly clean doors prior to applying shop primer paint. Fill seams with metal filler and remove excess materials; grind and polish exposed welds. Remove oil, grease, dirt and dust and apply shop primer paint to dry film thickness of 1.0 to 1.5 mils.
- G. Size doors to provide clearances as follows:
1. Head and Jambs: 1/8-inch.
  2. Sills without Thresholds: 3/8-inch above finished floor.
  3. Sills with Thresholds: 3/8-inch above top of threshold.
  4. Between Pairs of Doors: 1/8-inch.
  5. Transom Panels Without Transom Bars: 1/8-inch.
- H. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum **3/4 inch** beyond edge of door on which astragal is mounted or as required to comply with published listing of qualified testing agency.
- I. Hollow-Metal Frames: Fabricate in one piece except where handling and shipping limitations require multiple sections. Where frames are fabricated in sections, provide alignment plates or angles at each joint, fabricated of metal of same or greater thickness as frames.
1. Sidelite and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by welding.
  2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
  3. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
    - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
    - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
- J. Hardware Preparation: Factory prepare hollow-metal doors and frames to receive templated mortised hardware, and electrical wiring; include cutouts, reinforcement, mortising, drilling, and tapping according to ANSI/SDI A250.6, the Door Hardware Schedule, and templates.
1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
  2. Frames to receive electrified hardware shall have factory installed conduit stubs from the device/transfer. Specified frame cables in 087100 shall be preinstalled in the frame prior to deliver to the project site. Additional cable shall be uniformly spooled, polybagged, and nested in the head of the frame. All conduit connections shall be made watertight.
  3. Doors to receive electrified hardware shall have factory installed cables. The cables are specified in 087100. Deliver the hollow metal doors to be project site with these cables installed.
  4. Frames installed in masonry frames shall have their hardware reinforcements protected against slurry penetration and sealed. Hardware reinforcements shall be foamed to ensure proper screw fastening for surface applied hardware which includes weatherstripping

- K. Glazed Lites: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints.
1. Provide stops and moldings flush with face of door, and with square stops unless otherwise indicated.
  2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
  3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames. Provide loose stops and moldings on inside of hollow-metal doors and frames.
  4. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.
  5. Provide stops for installation with countersunk flat- or oval-head machine screws spaced uniformly not more than **9 inches** o.c. and not more than **2 inches** o.c. from each corner.

## 2.10 STEEL FINISHES

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
1. Shop Primer: Exposed door and frame surfaces to be cleaned and treated then coated with rust inhibitive primer. Water-based primer and color paint finishes to be free of Hazardous Air Pollutants (HAPS) and Volatile Organic Compounds (VOCs). Paint to comply with ANSI A250.3 and A250.10.

## 2.11 LOUVERS

- A. Provide louvers for interior doors, where indicated, which comply with SDI 111, with blades or baffles formed of **0.020-inch**- thick, cold-rolled steel sheet set into **0.032-inch**- thick steel frame.
1. Sightproof Louver: Stationary louvers constructed with inverted-V or inverted-Y blades.
  2. Lightproof Louver: Stationary louvers constructed with baffles to prevent light from passing from one side to the other.
  3. Fire-Rated Automatic Louvers: Louvers constructed with movable blades closed by actuating fusible link, and listed and labeled for use in fire-rated door assemblies of type and fire-resistance rating indicated by same qualified testing and inspecting agency that established fire-resistance rating of door assembly.
- B. Form corners of moldings with hairline joints. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory prior to setting the frame. Shipping spreaders shall not be used as setting spreaders. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces. Touch up factory-applied finishes where spreaders are removed.
- B. Drill and tap doors and frames to receive non-templated, mortised, and surface-mounted door hardware.

### 3.2 INSTALLATION

- A. Install hollow-metal doors and frames plumb, rigid, properly aligned, and securely fastened in place. Comply with approved Shop Drawings and with manufacturer's written instructions.
- B. Hollow-Metal Frames: Comply with ANSI/SDI A250.11.
1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces without damage to completed Work.
    - a. Where frames are fabricated in sections, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces. Touch-up finishes.
    - b. Install frames with removable stops located on secure side of opening.
  2. Fire-Rated Openings: Install frames according to NFPA 80.
  3. Floor Anchors: Secure with postinstalled expansion anchors.
    - a. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
  4. Solidly pack mineral-fiber insulation inside frames.
  5. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout or mortar.
  6. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
  7. Installation Tolerances: Adjust hollow-metal frames to the following tolerances:
    - a. Squareness: Plus or minus **1/16 inch**, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
    - b. Alignment: Plus or minus **1/16 inch**, measured at jambs on a horizontal line parallel to plane of wall.
    - c. Twist: Plus or minus **1/16 inch**, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
    - d. Plumbness: Plus or minus **1/16 inch**, measured at jambs at floor.
- C. Hollow-Metal Doors: Fit and adjust hollow-metal doors accurately in frames, within clearances specified below.
1. Non-Fire-Rated Steel Doors: Comply with ANSI/SDI A250.8.
  2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
  3. Smoke-Control Doors: Install doors according to NFPA 105.
- D. Glazing: Comply with installation requirements in Section 088000 "Glazing" and with hollow-metal manufacturer's written instructions.

### 3.3 FIELD QUALITY CONTROL

- A. Inspection Agency: Owner will engage a qualified inspector to perform inspections and to furnish reports to Architect.
- B. Inspections:



1. Fire-Rated Door Inspections: Inspect each fire-rated door according to NFPA 80, Section 5.2.
  2. Egress Door Inspections: Inspect each door equipped with panic hardware, each door equipped with fire exit hardware, each door located in an exit enclosure, each electrically controlled egress door, and each door equipped with special locking arrangements according to NFPA 101, Section 7.2.1.15.
- C. Repair or remove and replace installations where inspections indicate that they do not comply with specified requirements.
- D. Reinspect repaired or replaced installations to determine if replaced or repaired door assembly installations comply with specified requirements.
- E. Prepare and submit separate inspection report for each fire-rated door assembly indicating compliance with each item listed in NFPA 80 and NFPA 101.

#### 3.4 REPAIR

- A. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
- B. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.
- C. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION

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**Section 087100 - DOOR HARDWARE****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Hardware for hollow metal doors.
- B. Lock cylinders for doors with balance of hardware specified in other sections.

**1.02 RELATED REQUIREMENTS**

- A. Section 081113 Hollow Metal Doors and Frames.
- B. Section 087100 Door Hardware

**1.03 REFERENCE STANDARDS**

- A. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate the manufacture, fabrication, and installation of products that door hardware is installed on.
- B. Sequence installation to ensure facility services connections are achieved in an orderly and expeditious manner.

**1.05 SUBMITTALS**

- A. See Section 013300 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.
- C. Shop Drawings - Door Hardware Schedule: A detailed listing that includes each item of hardware to be installed on each door.
  - 1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
  - 2. Comply with DHI (H&S) using door numbering scheme and hardware set numbers as indicated in Contract Documents.
    - a. Submit in vertical format.
  - 3. Include complete description for each door listed.
  - 4. Include manufacturers and product names, and catalog numbers; include functions, types, styles, sizes, and finishes of each item.
- D. Shop Drawings - Electrified Door Hardware: Include diagrams for power, signal, and control wiring for electrified door hardware that include details of interface with building safety and security systems. Provide elevations and diagrams for each electrified door opening as follows:
  - 1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
  - 2. Elevations: Include front and back elevations of each door opening showing electrified devices with connections installed and an operations narrative describing how opening operates from either side at any given time.
  - 3. Diagrams: Include point-to-point wiring diagrams that show each device in door opening system with related colored wire connections to each device.

- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- F. Manufacturer's qualification statement.
- G. Installer's qualification statement.
- H. Supplier's qualification statement.
- I. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- J. Keying Schedule:
  - 1. Submit three (3) copies of Keying Schedule in compliance with requirements established during Keying Requirements Meeting unless otherwise indicated.
- K. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- L. Project Record Documents: Record actual locations of concealed equipment, services, and conduit.
- M. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
  - 1. See Section 016000 - Product Requirements, for additional provisions.

#### 1.06 QUALITY ASSURANCE

- A. Standards for Fire-Rated Doors: Maintain one copy of each referenced standard on site, for use by Architect and Contractor.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified for commercial door hardware with at least three years of documented experience.
- D. Supplier Qualifications: Company with certified Architectural Hardware Consultant (AHC) to assist in work of this section.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually; label and identify each package with door opening code to match door hardware schedule.

#### 1.08 WARRANTY

- A. See Section 017700 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide manufacturer warranty against defects in material and workmanship for period indicated, from Date of Substantial Completion. Complete forms in Owner's name and register with manufacturer.
  - 1. Closers: Thirty-Five years, minimum.
  - 2. Exit Devices: Five years, minimum.
  - 3. Locksets and Cylinders: Ten years, minimum.

### PART 2 PRODUCTS

#### 2.01 GENERAL REQUIREMENTS

- A. Door Hardware will be **OWNER PROVIDED, GC INSTALLED.**
- B. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
- C. Provide individual items of single type, of same model, and by same manufacturer.

- D. Locks: Provide a lock for each door, unless it is indicated that lock is not required.
1. Lock Function: Provide lock and latch function numbers and descriptions of manufacturer's Series. As indicated in hardware sets.
  2. Trim: Provide lever handle or pull trim on outside of each lock, unless otherwise indicated.
  3. Strikes:
    - a. Finish: To match lock or latch.
    - b. Curved-Lip Strikes: Provide as standard, with extended lip to protect frame, unless otherwise indicated.
    - c. Center Strike At Pairs of Doors: 7/8 inch (22.2 mm) lip unless otherwise indicated.
- E. Closers:
1. Provide door closer on each exterior door, unless otherwise indicated.
  2. Provide door closer on each fire-rated and smoke-rated door.
  3. Spring hinges are not an acceptable self-closing device, unless otherwise indicated.
- F. Overhead Stops and Holders (Door Checks):
1. Provide stop for every swinging door, unless otherwise indicated.
  2. Overhead Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop, unless otherwise indicated.
  3. Overhead stop is not required if a floor or wall stop has been specified for the door.
- G. Drip Guards: Provide at head of outswinging exterior doors unless protected by roof or canopy directly overhead.
- H. Thresholds:
1. Exterior Applications: Provide at each exterior door, unless otherwise indicated.
- I. Smoke and Draft Control Seals:
1. Provide gasketing for smoke and draft control doors (Indicated as "S" on Drawings) that complies with local codes, requirements of assemblies tested in accordance with UL 1784.
- J. Weatherstripping and Gasketing:
1. Provide weatherstripping on each exterior door at head, jambs, and meeting stiles of door pairs, unless otherwise indicated.
  2. Provide door bottom sweep on each exterior door, unless otherwise indicated.
  3. Provide sound-rated gasketing and automatic door bottom on doors indicated as "Sound-Rated", "Acoustical", or with "Sound Transmission Class (STC) rating".
- K. Electrically Operated and/or Controlled Hardware: Provide necessary power supplies, power transfer hinges, relays, and interfaces as required for proper operation; provide wiring between hardware and control components and to building power connection in compliance with NFPA 70.
- L. See Section 281000 for additional access control system requirements.
- M. Fasteners:
1. Provide fasteners of proper type, size, quantity, and finish that comply with commercially recognized standards for proposed applications.
    - a. Aluminum fasteners are not permitted.
    - b. Provide phillips flat-head screws with heads finished to match door surface hardware unless otherwise indicated.
  2. Provide machine screws for attachment to reinforced hollow metal and aluminum frames.

- a. Self-drilling (Tek) type screws are not permitted.
3. Provide stainless steel machine screws and lead expansion shields for concrete and masonry substrates.
4. Provide wall grip inserts for hollow wall construction.
5. Fire-Resistance-Rated Applications: Comply with NFPA 80.
  - a. Provide wood or machine screws for hinges mortised to doors or frames, strike plates to frames, and closers to doors and frames.
  - b. Provide steel through bolts for attachment of surface mounted closers, hinges, or exit devices to door panels unless proper door blocking is provided.

## 2.02 PERFORMANCE REQUIREMENTS

- A. Provide door hardware products that comply with the following requirements:
  1. Applicable provisions of federal, state, and local codes.
  2. Accessibility: ADA Standards and ICC A117.1.
  3. Fire-Resistance-Rated Doors: NFPA 80, listed and labeled by qualified testing agency for fire protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
  4. Hardware on Fire-Resistance-Rated Doors: Listed and classified by UL (DIR) or testing firm acceptable to authorities having jurisdiction as suitable for application indicated.
  5. Hardware for Smoke and Draft Control Doors (Indicated as "S" on Drawings): Provide door hardware that complies with local codes, and requirements of assemblies tested in accordance with UL 1784.
  6. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
  7. Hardware Preparation for Wood Doors with Wood or Steel Frames: BHMA A156.115W.
  8. Products Requiring Electrical Connection: Listed and classified by UL (DIR) as suitable for the purpose specified.

## 2.03 MISCELLANEOUS ITEMS

- A. Manufacturers:
  1. Trimco: [www.trimcohardware.com/#sle](http://www.trimcohardware.com/#sle).
- B. Properties:
  1. Silencers: Provide at equal locations on door frame to mute sound of door's impact upon closing.
    - a. Single Door: Provide three on strike jamb of frame.
    - b. Pair of Doors: Provide two on head of frame, one for each door at latch side.
    - c. Material: Rubber, gray color.
- C. Products:
  1. Silencers.

## 2.04 FINISHES

- A. Finishes: Provide door hardware of same finish, unless otherwise indicated.
  1. Finish: 630; satin stainless steel, with stainless steel 3000 series base material (former US equivalent 32D), 652; satin chromium plated over nickel, with steel base material (former US equivalent 26D), and 689; aluminum painted, with any base material (former US equivalent US28); BHMA A156.18.

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**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that doors and frames are ready to receive this work; labeled, fire-rated doors and frames are properly installed, and dimensions are as indicated on shop drawings.
- B. For existing doors and frames, verify condition and types of hardware to be replaced as applicable.
- C. Correct all defects prior to proceeding with installation.
- D. Verify that electric power is available to power operated devices and of correct characteristics.

**3.02 INSTALLATION**

- A. Install hardware in accordance with manufacturer's instructions and applicable codes.
- B. Install hardware using the manufacturer's fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.
- C. Install hardware on fire-rated doors and frames in accordance with applicable codes and NFPA 80.
- D. Install hardware for smoke and draft control doors in accordance with NFPA 105.
- E. Use templates provided by hardware item manufacturer.
- F. Do not install surface mounted items until application of finishes to substrate are fully completed.
- G. Wash down masonry walls and complete painting or staining of doors and frames.
- H. Complete finish flooring prior to installation of thresholds.
- I. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list, unless noted otherwise in Door Hardware Schedule or on drawings.
  - 1. For Steel Doors and Frames: Install in compliance with DHI (LOCS) recommendations.
  - 2. For Steel Doors and Frames: See Section 081113.
  - 3. For Aluminum-Framed Storefront Doors and Frames: See Section 084113.
  - 4. For Wood Doors: Install in compliance with DHI WDHS.3 recommendations.
  - 5. Flush Wood Doors: See Section 081416.
  - 6. Mounting heights in compliance with ADA Standards:
    - a. Locksets: 40-5/16 inch (1024 mm).
    - b. Push Plates/Pull Bars: 42 inch (1067 mm).
    - c. Deadlocks (Deadbolts): 48 inch (1219 mm).
    - d. Exit Devices: 40-5/16 inch (1024 mm).
- J. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal, anchor thresholds with stainless steel countersunk screws.
- K. Include in installation for existing doors and frames any necessary field modification and field preparation of doors and frames for new hardware. Provide necessary fillers, reinforcements, and fasteners for mounting new hardware and to cover existing door and frame preparations.

**3.03 FIELD QUALITY CONTROL**

- A. Perform field inspection and testing under provisions of Section 014500 - Quality Requirements.

## 3.04 ADJUSTING

- A. Adjust work under provisions of Section 017000 - Execution and Closeout Requirements.
- B. Adjust hardware for smooth operation.
- C. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

## 3.05 PROTECTION

- A. Protect finished Work under provisions of Section 017000 - Execution and Closeout Requirements.
- B. Do not permit adjacent work to damage hardware or finish.

## 3.06 HARDWARE SETS

- A. *TO BE DETERMINED*

END OF SECTION



## SECTION 088000 - GLAZING

## PART 1 GENERAL

## 11 SECTION INCLUDES

- A. Insulating glass units.
- B. Glazing units.
- C. Glazing compounds.

## 12 RELATED REQUIREMENTS

- A. Section 081113 - Hollow Metal Doors and Frames: Glazed lites in doors and borrowed lites.
- B. Section 081416 - Flush Wood Doors: Glazed lites in doors.

## 13 REFERENCE STANDARDS

- 16 CFR 1201 - Safety Standard for Architectural Glazing Materials Current Edition.
- ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test 2015 (Reaffirmed 2020).

## 14 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by each of the affected installers.

## 12 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data on Insulating Glass Unit and Glazing Unit Glazing Types: Provide technical data to include, but not be limited to, structural, physical, and environmental characteristics, and size limitations.
- C. National Green Building Standard: Submit data required by National Green Building Standard ICC 700.
- D. Samples: Submit two samples 12 by 12 inch in size of each glazing type.
- E. Certificate: Certificate stating that installed products meet or exceed specified requirements.
- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

## 13 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.
- C. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

- D. Heat Soak Testing: Provide heat soak testing for all fully tempered monolithic glass per EN-14179.
- 14 MOCK-UPS
- A. See Section 014000 - Quality Requirements for additional requirements.
  - B. Provide on-site glazing mock-up with the specified glazing components.
  - C. Locate where directed.
  - D. Mock-ups may remain as part of the Work.
- 15 FIELD CONDITIONS
- A. Do not install glazing when ambient temperature is less than 40 degrees F.
  - B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.
- 16 WARRANTY
- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
  - B. Insulating Glass Units: Provide a ten (10) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to replace failed units.
  - C. Heat Soaked Tempered Glass: Provide a five (5) year manufacturer warranty to include coverage for spontaneous breakage of fully tempered glass caused by nickel sulfide (NiS) inclusions.

## PART 2 PRODUCTS

- 21 MANUFACTURERS
- A. Float Glass Manufacturers:
    - 1. AGC Glass Company North America, Inc
    - 2. Cardinal Glass Industries
    - 3. Guardian Industries Corp
    - 4. Pilkington North America Inc
    - 5. Vitro Architectural Glass (formerly PPG Glass
- 22 GLASS MATERIALS
- A. Float Glass: Provide float glass-based glazing unless otherwise indicated.
    - 1. Kind HS - Heat-Strengthened Type: Complies with ASTM C1048.
    - 2. Kind FT - Fully Tempered Type: Complies with ASTM C1048.
    - 3. Heat-Soak Testing (HST): Provide HST of fully tempered glass used on canopy, point- supported, spider wall, high-risk, sloping overhead, horizontal overhead, free-standing glass protective barrier, or other demanding applications of project, to reduce risks of spontaneous breakage due to nickel sulfide (NiS) induced fractures in accordance with industry established testing requirements.
- 24 GLAZING UNITS
- A. Monolithic Interior Vision Glazing:
    - 1. Applications: Interior glazing unless otherwise indicated.
    - 2. Glass Type: Heat-strengthened float glass. Fully temper where indicated on drawings and required by prevailing building code.
    - 3. Tint: Clear.
    - 4. Thickness: 1/4-inch, nominal.

5. Glazing Method: Dry glazing method, gasket glazing.

25 ACCESSORIES

- A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot of glazing or minimum 4 inch by width of glazing rabbet space minus 1/16 inch by height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness; ASTM C864 Option II. Minimum 3-inch-long by one half the height of the glazing stop by thickness to suit application, self-adhesive on one face.
- C. Glazing Splines: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; color black.

26 SOURCE QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for additional requirements.

PART 3 EXECUTION

31 VERIFICATION OF CONDITIONS

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- C. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

32 PREPARATION

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

33 INSTALLATION, GENERAL

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.
- D. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.

- E. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.
  - F. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following: weld splatter, fire-safing, plastering, mortar droppings, etc.
- 34 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)
- A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.
  - B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.
  - C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
  - D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.
- 35 CLEANING
- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
  - B. Remove nonpermanent labels immediately after glazing installation is complete.
  - C. Clean glass and adjacent surfaces after sealants are fully cured.
  - D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.
- 36 PROTECTION
- A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.
  - B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION

## SECTION 092116 - GYPSUM BOARD ASSEMBLIES

## PART 1 GENERAL

## 11 SECTION INCLUDES

- A. Metal stud wall framing.
- B. Metal channel ceiling framing.
- C. Resilient sound isolation clips.
- D. Acoustic insulation.
- E. Gypsum sheathing.
- F. Gypsum wallboard.
- G. Joint treatment and accessories.
- H. Acoustic (sound-dampening) wall and ceiling board.

## 12 RELATED REQUIREMENTS

- A. Section 054000 - Cold-Formed Metal Framing: Structural steel stud framing.
- B. Section 061000 - Rough Carpentry: Building framing and sheathing.
- C. Section 061000 - Rough Carpentry: Wood blocking product and execution requirements.
- D. Section 072500 - Weather Barriers: Water-resistive barrier over sheathing.
- E. Section 078400 - Firestopping: Top-of-wall assemblies at fire-resistance-rated walls.
- F. Section 079200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

## 13 REFERENCE STANDARDS

- AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members 2016, with Supplement (2018).
- ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc- Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.
- ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017.
- ASTM C645 - Standard Specification for Nonstructural Steel Framing Members 2018.
- ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2017.
- ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products 2020.
- ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2020.
- ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness 2018.

- ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2020.
- ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.
- ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing 2017.
- ASTM C1178/C1178M - Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel 2018.
- ASTM C1278/C1278M - Standard Specification for Fiber-Reinforced Gypsum Panel 2017.
- ASTM C1280 - Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing 2018.
- ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.
- ASTM C1658/C1658M - Standard Specification for Glass Mat Gypsum Panels 2019, with Editorial Revision (2020).
- ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber 2016.
- ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.
- ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).
- ASTM E413 - Classification for Rating Sound Insulation 2016.
- GA-600 - Fire Resistance and Sound Control Design Manual, 22nd edition 2018.
- ICC-ES AC38 - Acceptance Criteria for Water-Resistive Barriers 2016, with Editorial Revision (2019).

#### 14 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate special details associated with fireproofing.
- C. Certificate: Certificate stating that installed products meet or exceed specified requirements.

#### 12 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum five years of documented experience.

### PART 2 PRODUCTS

#### 21 METAL FRAMING MATERIALS

- A. Manufacturers - Metal Framing, Connectors, and Accessories:
  1. Clark Dietrich Building Systems LLC

2. Marino Ware
  3. Phillips Manufacturing Co
  4. Substitutions: See Section 016000 - Product Requirements.
- B. Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
1. Studs: C-shaped with knurled or embossed faces.
  2. Runners: U shaped, sized to match studs.
  3. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch.
  4. Resilient Furring Channels: Single leg configuration; 1/2 inch channel depth.
    - a. Products:
      - 1) Same manufacturer as other framing materials.
  5. Resilient Sound Isolation Clips: Steel resilient clips with molded rubber isolators, attaches to framing; improves noise isolation performance of wall and floor-ceiling assemblies.
    - a. Products:
      - 1) Clark Dietrich; Sound Clip (CDSC)
      - 2) PAC International, Inc; RSIC-1
      - 3) Substitutions: See Section 016000 - Product Requirements.
- C. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws, and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
  2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot-dipped galvanized coating.
  3. Provide components UL-listed for use in UL-listed fire-resistance-rated head of partition joint systems indicated on drawings
  4. X Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-resistance rating of the wall assembly.
    - a. Products:
      - 1) Clark Dietrich
      - 2) FireTrak Corporation; Posi Klip
      - 3) Metal-Lite, Inc; The System
      - 4) Super Stud Building Products, Inc
      - 5) Substitutions: See Section 016000 - Product Requirements.
  5. Provide top track preassembled with connection devices spaced to fit stud spacing indicated on drawings; minimum track length of 12 feet.
- A. Deflection and Firestop Track: Intumescent strip factory-applied to track flanges expands when exposed to heat or flames to provide a perimeter joint seal.  
Products:  
Clark Dietrich  
Substitutions: See Section 016000 - Product Requirements.
- B. Preformed Top Track Firestop Seal:
1. Provide components UL-listed for use in UL-listed fire-resistance-rated head of partition joint systems indicated on drawings.

2. Products:
  - 1) Hilti, Inc; Top Track Seal CFS TTS
  - 2) Specified Technologies Inc; SpeedFlex TTG Track TopGasket
  - 3) Substitutions: See Section 016000 - Product Requirements.
- C. Non-structural Framing Accessories:
  1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
  2. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
- D. Grid Suspension Systems: Steel grid system of main tees and support bars connected to structure using hanging wire.

## 22 GYPSUM WALL BOARD

- A. Basis-of-Design: Gold Bond Building Products, LLC provided by National Gypsum Company. Regular Prefinished Board: Gold Bond® 1/2" Durasan® Prefinished Gypsum Board.
  1. Panel Covering: Vinyl
  2. Accessories:
    - a. Trim: Matching Trim, Snap-On.
    - b. Trim: Matching Trim, One Piece (vinyl).
    - c. Clips: Edge Grip Clips.
    - d. Adhesive: Ready Mix Joint Compound.
- B. Other Acceptable Manufacturers: Subject to compliance with all requirements of this specification, provide named products and systems or comparable products and systems by one of following:
  1. American Gypsum Company
  2. Georgia-Pacific Gypsum
  3. US Gypsum
  4. Substitutions: See Section 016000 - Product Requirements.
- C. Board Materials
  1. Gypsum Board:
    - a. Prefinished Gypsum Board: Gypsum core wall panel surfaced on front and long edges with vinyl and complying with ASTM C 1396 (Gold Bond® 1/2" Durasan® Prefinished Gypsum Board).
    - b. Thickness: 1/2 in.
    - c. Width: 4 ft.
    - d. Length: 8 ft. through 14 ft.
    - e. Edges: Beveled.
  2. Panel Covering:
    - a. Vinyl Film: Vinyl film without backing.
    - b. Thickness: 0.004 in. and 0.006 in.



- c. Pattern:
- d. Color:
- 3. Accessories:
  - a. Trim: Galvanized steel retainer and matching vinyl snap-on facing.
  - b. Outside Corner: 1-5/8 in. by 1-5/8 in. face.
  - c. Interior (Batten): 1 in. face.
  - d. Trim: Extruded vinyl with vinyl facing to match panel covering.
  - e. Clips: Stamped and formed steel clip, Edge Grip Clips.
  - f. Screws: ASTM C 954 or ASTM C 1002 or both with threads, points, and finish as recommended by the manufacturer.
  - g. Adhesive: Drying type pre-mixed compound.
  - h. Adhesive: Setting type job mixed chemical-hardening compound.
  - i. Nails: Painted stainless steel with a shank dia. of 0.145 in. and diamond embossed head, Color Pins.

### PART 3 EXECUTION

#### 31 EXAMINATION

- A. Verify that project conditions are appropriate for work of this section to commence.

#### 32 SHAFT WALL INSTALLATION

- A. Shaft Wall Framing: Install in accordance with manufacturer's installation instructions.
  - 1. Fasten runners to structure with short leg to finished side, using appropriate power-driven fasteners at not more than 24 inches on center.
- B. Shaft Wall Liner: Cut panels to accurate dimensions and install sequentially between special friction studs.
  - 1. On walls over sixteen feet high, screw-attach studs to runners top and bottom.
  - 2. Seal perimeter of shaft wall and penetrations with firestopping sealant in accordance with wall fire rating.

#### 33 FRAMING INSTALLATION

- A. Metal Framing: Except at UltraSteel install in accordance with ASTM C 754 and manufacturer's instructions. At UltraSteel install in accordance with UL V450, UL V438 or UL U419 and manufacturer's instructions.
- B. Suspended Ceilings and Soffits: Space framing and furring members as indicated.
  - 1. Level ceiling system to a tolerance of 1/1200.
  - 2. Laterally brace entire suspension system.
  - 3. Install bracing as required at exterior locations to resist wind uplift.
- C. Studs: Space studs at 16 inches on center.
  - 1. Extend partition framing to structure where indicated and to ceiling in other locations.
  - 2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
  - 3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to

track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.

- D. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
- E. Standard Wall Furring: Install at concrete walls scheduled to receive gypsum board, per manufacturer's recommended orientation and spacing, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 24 inches on center.
- F. Acoustic Furring: Install resilient channels at maximum 24 inches on center. Locate joints over framing members.
- G. Furring for Fire-Resistance Ratings: Install as required for fire-resistance ratings indicated and to GA-600 requirements.

34 ACOUSTIC ACCESSORIES INSTALLATION

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
  - 1. Place one bead continuously on substrate before installation of perimeter framing members.
  - 2. Place continuous bead at perimeter of each layer of gypsum board.
  - 3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

35 BOARD INSTALLATION

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Nonrated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
  - 1. Exception: Tapered edges to receive joint treatment at right angles to framing.
- C. Double-Layer, Nonrated: Use gypsum board for first layer, placed parallel to framing or furring members, with ends and edges occurring over firm bearing. Use glass mat faced gypsum board at exterior walls and at other locations as indicated. Place second layer perpendicular to framing or furring members. Offset joints of second layer from joints of first layer.
- D. Exposed Gypsum Board in Interior Wet Areas: Seal joints, cut edges, and holes with water-resistant sealant.
- E. Exterior Sheathing: Comply with ASTM C1280. Install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
  - 1. Seal joints, cut edges, and holes with water-resistant sealant.
  - 2. Paper-Faced Sheathing: Immediately after installation, protect from weather by application of water-resistive barrier.
- F. Exterior Soffits: Install exterior soffit board perpendicular to framing, with staggered end joints over framing members or other solid backing.

1. Seal joints, cut edges, and holes with water-resistant sealant.
  - G. Installation on Metal Framing: Use screws for attachment of gypsum board except face layer of nonrated double-layer assemblies, which may be installed by means of adhesive lamination.
  - H. Moisture Protection: Treat cut edges and holes in moisture resistant gypsum board with sealant.
- 36 INSTALLATION OF TRIM AND ACCESSORIES
- A. Control Joints: (Note: If drawings do not indicate control joints spaced as required by manufacturer and as below, Contractor to notify Architect for spacing diagram prior to installation.) Place control joints consistent with lines of building spaces and as follows:
    1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
    2. At exterior soffits, not more than 30 feet apart in both directions.
  - B. Corner Beads: Install at external corners, using longest practical lengths.
  - C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.
- 37 JOINT TREATMENT
- A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting type joint compound.
  - B. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.
  - C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
    1. Level 5: Walls to receive vinyl wallcovering, and where indicated on drawings.
    2. Level 4: Walls and ceilings exposed to view and to receive flat or eggshell paint finish or wall coverings, unless otherwise indicated.
    3. Level 3: Mechanical closets, and where indicated on drawings.
    4. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
    5. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.
    6. Level 0: Temporary partitions.
    7. Level 0: Surfaces indicated to be finished in later stage of project.
  - D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
    1. Feather coats of joint compound so that camber is maximum 1/32 inch.
    2. Taping, filling, and sanding are not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.
  - B. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.
  - C. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.
- 38 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION 092116

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**SECTION 09 5123 - ACOUSTICAL TILE CEILINGS****PART 1 - GENERAL****1.1 SUMMARY****A. Section includes**

1. Acoustical panels and exposed suspension systems for interior ceilings.

**B. Related Requirements:**

1. Division 21 - Fire Suppression Sprinkler Systems: Sprinkler heads in ceiling system.
2. Division 23 - Air Outlets and Inlets: Air devices in ceiling.
3. Division 26 - Interior Lighting: Light fixtures in ceiling system.
4. Division 27 - Communications: Speakers in ceiling system.
5. Division 28 - Fire Detection and Alarm: Fire alarm components in ceiling system.

**C. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.****1.2 REFERENCES****A. Reference Standards**

1. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings 2017.
2. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels 2019.
3. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions 2020.
4. ASTM E1264 - Standard Classification for Acoustical Ceiling Products 2019.
5. ITS (DIR) - Directory of Listed Products current edition.
6. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth 2019.

**1.3 ADMINISTRATIVE REQUIREMENTS****A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.****B. Do not install acoustical units until after interior wet work is dry.****1.4 ACTION SUBMITTALS****A. Product Data: For each type of product.****B. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of sizes indicated below:**

1. Acoustical Panels: Set of 6-inch- square Samples of each type, color, pattern, and texture.
- C. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
1. Ceiling suspension-system members.
  2. Structural members to which suspension systems will be attached.
  3. Method of attaching hangers to building structure.
    - a. Furnish layouts for cast-in-place anchors, clips, and other ceiling attachment devices whose installation is specified in other Sections.
  4. Carrying channels or other supplemental support for hanger-wire attachment where conditions do not permit installation of hanger wires at required spacing.
  5. Size and location of initial access modules for acoustical panels.
  6. Items penetrating finished ceiling and ceiling-mounted items including Lighting fixtures, Diffusers, Grilles, Speakers, Sprinklers, Access panels, and Perimeter moldings.
  7. Show operation of hinged and sliding components covered by or adjacent to acoustical panels.
- D. Qualification Data: For testing agency.
- E. Product Test Reports: For each acoustical panel ceiling, for tests performed by manufacturer and witnessed by a qualified testing agency.
- F. Evaluation Reports: For each acoustical panel ceiling suspension system and anchor and fastener type, from ICC-ES.
- 1.5 CLOSEOUT SUBMITTALS
- A. Maintenance Data: For finishes to include in maintenance manuals.
- 1.6 DELIVERY, STORAGE, AND HANDLING
- A. Deliver materials to Project site in manufacturer's original, unopened containers with contents clearly identified.
- B. Store materials in clean, dry, fully enclosed location, and protect against damage by surface contamination, water, excessive moisture and direct sunlight. Leave in unopened containers until ready for installation.
- C. Handling:
1. Handle metal suspension system carefully to prevent warping, twisting, and bending of members. Remove and replace members having damaged or abraded paint finish.
  2. Handle acoustical ceiling panels carefully to prevent breaking corners and edges and to prevent soiling exposed surfaces.
- 1.7 FIELD CONDITIONS
- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is

complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. General: Verify with Interiors Finish Schedule on drawings.
- B. Acoustic Tiles/Panels:
  - 1. (Basis of Design) Armstrong World Industries, Inc.
  - 2. Acoustic Ceiling Products.
  - 3. CertainTeed Corporation: [www.certainteed.com](http://www.certainteed.com).
  - 4. USG Corporation.
- C. Suspension Systems:
  - 1. Same as for acoustical units.
- D. Limitations: Obtain each type of acoustical ceiling panel and its supporting suspension system from single source from single manufacturer.

### 2.2 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Flame-Spread Index: Class A according to ASTM E1264.
  - 2. Smoke-Developed Index: 50 or less.
- B. Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Indicate design designations from UL or from the listings of another qualified testing agency.

### 2.3 ACOUSTICAL PANELS

- A. Acoustical Panel Standard: Trade names of Armstrong World Industries, Inc. are named herein to establish quality and design standards for acoustical ceiling panels. Other acceptable manufacturers:
  - 1. CertainTeed. Corporation
  - 2. USG Interiors, Inc.
- B. ACT-1:
  - 1. Basis-of-Design: Armstrong World Industries, Inc.; "Ultima No. 1912".
  - 2. Classification: Provide panels as follows:
    - a. Type and Form: Type IV, Mineral fiber with acoustically transparent membrane.
  - 3. Thickness: 5/8 inch.
  - 4. Surface Texture: Fine Texture

5. Color: White
6. Size: 24 in x 24 in,
7. Edge Profile: Square Lay-in
8. Noise Reduction Coefficient (NRC) ASTM C 423 Classified 0.75
9. Ceiling Attenuation Class (CAC): ASTM C 1414; Classified 35
10. Light Reflectance (LR) White Panel: ASTM E 1477; 0.88
11. Recycle Content: Up to 87% total recycled content.
12. Material Ingredient Transparency: Health Product Declaration (HPD); Declare Label
13. Life Cycle Assessment: Third Party Certified Environmental Product Declaration (EPD)

## 2.4 METAL SUSPENSION SYSTEM

- A. Metal Suspension System: Trade names of Armstrong World Industries "Prelude XL" Exposed Tee Suspension System are named herein to establish quality and design standards for metal suspension systems. Other Acceptable Manufacturers:
1. USG Interiors Inc.
  2. CertainTeed Corporation.
  3. Chicago Metallic.
- B. Exposed Grid: ASTM C635, intermediate duty, components formed from roll formed cold rolled steel electrozinc coated or manufacturer's standard coating complying with ASTM C635; white; 2'-0" x 2'-0" module.
1. Nonrated System: "Prelude XL" Series
    - a. Main Tees: "Prelude 7300 Series".
    - b. Cross Tees: "Prelude XL 7342" Series.
      - 1) 1-1/2 inch web height and 15/16-inch exposed flange width.
      - 2) Double web design with rectangular bulb integral ends for splicing end-to-end.
    - c. Spline: "Prelude XL 7328" for 2-foot x 2-foot panels.
    - d. Other Acceptable Systems:
      - 1) USG Interiors "Donn DX" Series.
      - 2) Chicago Metallic "1200 System".
      - 3) CertainTeed Corporation "Classic Stab System".
- C. Edge Molding: Armstrong Molding "7874 Series"; minimum 0.020-inch thick steel; minimum 7/8-inch flange width; hemmed edge.
- D. Bullnosed Corner: Armstrong "7864" Bullnose Corner Cover.

## 2.5 ACCESSORIES

- A. Attachment Devices: Size for five times the design load indicated in ASTM C635/C635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.
1. Wire Hangers, Braces, and Ties: Provide wires as follows:
  2. Zinc-Coated, Carbon-Steel Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper.
  3. Stainless-Steel Wire: ASTM A580/A580M, Type 304, nonmagnetic.



- B. Size: Wire diameter sufficient for its stress at three times hanger design load (ASTM C635/C635M, Table 1, "Direct Hung") will be less than yield stress of wire, but not less than 0.106-inch- diameter wire.
1. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.
  2. Hold-Down Clips: Manufacturer's standard hold-down.

## 2.6 ACOUSTICAL SEALANT

- A. Acoustical Sealant: As specified in Section 079200 "Joint Sealants."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
- B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout shown on reflected ceiling plans.
- B. Layout openings for penetrations centered on the penetrating items.

### 3.3 INSTALLATION

- A. Install acoustical panel ceilings according to ASTM C636/C636M and manufacturer's written instructions.
1. Fire-Rated Assembly: Install fire-rated ceiling systems according to tested fire-rated design.
- B. Suspend ceiling hangers from building's structural members and as follows:
1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
  2. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
  3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system

- members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
  5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
  6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
  7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
  8. Do not attach hangers to steel deck tabs.
  9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
  10. Space hangers not more than 48 inches o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
  11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.
- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
  2. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends. Miter corners accurately and connect securely.
  3. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- E. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- F. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.
1. Arrange directionally patterned acoustical panels as follows:
    - a. As indicated on reflected ceiling plans.
  2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
  3. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
  4. For reveal-edged panels on suspension-system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension-system surfaces and panel faces flush with bottom face of runners.

5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
6. Install hold-down clips in areas indicated; space according to panel manufacturer's written instructions unless otherwise indicated.
  - a. Hold-Down Clips: Space 24 inches o.c. on all cross runners.
7. Protect lighting fixtures and air ducts according to requirements indicated for fire-resistance-rated assembly.

#### 3.4 ERECTION TOLERANCES

- A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8 inch in 12 feet, non-cumulative.
- B. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8 inch in 12 feet, non-cumulative.

#### 3.5 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
- B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

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## SECTION 099100 - PAINTING

## PART 1 GENERAL

## 11 SUMMARY

## A. Section Includes

1. Surface preparation.
2. Field application of paints.

## 12 REFERENCE STANDARDS

- |                        |   |
|------------------------|---|
| 40 CFR 59, Subpart D - | National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency current edition. |
| ASTM D16 -             | Standard Terminology for Paint, Related Coatings, Materials, and Applications 2019.   |
| ASTM D4258 -           | Standard Practice for Surface Cleaning Concrete for Coating 2005 (Reapproved 2017).   |
| ASTM D4442 -           | Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials 2020.                                    |
| MPI (APL) -            | Master Painters Institute Approved Products List; Master Painters and Decorators Association Current Edition.                           |
| MPI (APSM) -           | Master Painters Institute Architectural Painting Specification Manual Current Edition.  |
| SSPC V1 (PM1) -        | Good Painting Practice: Painting Manual, Volume 1 2016.   |
| SSPC V2 (PM2) -        | Systems and Specifications: Steel Structures Painting Manual, Volume 2 2015.  |

## 13 ADMINISTRATIVE REQUIREMENTS

- A. Scope: Finish interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated. Including the following:
1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
  2. Prime surfaces to receive wall coverings.
  3. Mechanical and Electrical:
    - a. In finished areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
    - b. In finished areas, paint shop-primed items.
    - c. Paint interior surfaces of air ducts and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.

- d. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.
- B. DO NOT Paint or finish the following items.
1. Items factory-finished unless otherwise indicated; materials and products having factory- applied primers are not considered factory finished.
  2. Items indicated to receive other finishes.
  3. Items indicated to remain unfinished.
  4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
  5. Stainless steel, anodized aluminum, bronze, terne coated stainless steel, and lead items.
  6. Marble, granite, slate, and other natural stones.
  7. Floors, unless specifically indicated.
  8. Ceramic and other tiles.
  9. Glass.
  10. Concrete masonry units in utility, mechanical, and electrical spaces, unless otherwise indicated.
  11. Acoustical materials, unless specifically indicated.
  12. Concealed pipes, ducts, and conduits.
  13. Exposed Ducts: Verify paint or finish requirement on exposed ducts in finished spaces with Architect.

#### 14 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: For each type of product. Include preparation requirements and application instructions.
  1. Include preparation requirements and application instructions.
  2. Indicate VOC content.
- C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.
  1. Submit Samples on rigid backing, 8 inches square.
  2. Apply coats on Samples in steps to show each coat required for system.
  3. Label each coat of each Sample.
  4. Label each Sample for location and application area.
- D. Product Schedule: Use same designations indicated on Drawings and in the Interior Painting Schedule to cross-reference paint systems specified in this Section. Include color designations.
- E. Closeout Submittals
  1. Coating Maintenance Manual: Upon completion of the Project, submit a coating maintenance manual.
  2. The manual shall include the following information:
  3. A coating finish schedule designating where each product/color/finish was used.

4. Mix formulas for each color used.
5. Product data pages.
6. Material Safety Data Sheets.
7. Care and cleaning instructions.
8. Touch-up procedures.
9. Color sample of each color and finish used.

#### 15 VOC CONTENT RESTRICTIONS

- A. Paints and coatings shall comply with Green Seal's GS-11 and meet the limits for VOC content.

#### 16 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
  1. Paint systems for all substrates to be tested and approved for adhesion quality prior to completion of painting work.
  2. Architect will select one surface to represent surfaces and conditions for application of each paint system.
    - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
    - b. Other Items: Architect will designate items or areas required.
  3. Final approval of color selections will be based on mockups.
    - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
  4. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  5. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 17 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

## 18 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- D. Minimum Application Temperatures for Latex Paints: 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

## 19 WARRANTY

- A. Installer's Warranty: Should the paint peel or show any other visible signs of non-bonding or non-adhesion to the surface, the Contractor shall be required to repaint the area in which the problem has occurred at no cost to the Owner.
  - 1. Installer's Warranty Duration: Two years from Substantial Completion.

## PART 2 PRODUCTS

## 21 MANUFACTURERS

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.
  - 1. If a single manufacturer cannot provide specified products, minor exceptions will be permitted provided approval by Architect is obtained using the specified procedures for substitutions.
- B. Paints:
  - 1. Base Manufacturer: Sherwin-Williams Company
  - 2. PPG Paints
  - 3. Benjamin Moore Paints
  - 4. Behr Paints
- C. Primer Sealers: Same manufacturer as topcoats.
- D. Substitutions: See Section 016000 - Product Requirements.

## 22 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready mixed, unless required to be a field-catalyzed paint.
  - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.



3. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.
  4. Supply each paint material in quantity required to complete entire project's work from a single production run.
  5. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
- B. Flammability: Comply with applicable code for surface burning characteristics.
- C. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
- D. Colors: To be selected from manufacturer's full range of available colors or as indicated on drawings.
1. Selection to be made by Architect after award of contract.
  2. Allow for minimum of three colors for each system, unless otherwise indicated, without additional cost to Owner.
  3. Extend colors to surface edges; colors may change at any edge as directed by Architect.
- 23 PAINT SYSTEMS – INTERIOR
- A. PAINT IN-01 - Ferrous Metals, Unprimed, Alkyd, 2 Coat:
1. One coat of alkyd primer; S-W Kem Kromik Universal Metal Primer (VOC Complying) B50 Series (minimum 3.2 mils dry).
  2. Gloss: One coat of alkyd enamel; S-W Industrial Enamel B54 Series (minimum 2.0 mils dry).
- B. PAINT IN-02 - Gypsum Board/Plaster, Latex, 3 Coat:
1. One coat of latex primer sealer; S-W Multi-Purpose Interior/Exterior Latex Primer/Sealer, B51-450 Series (4.0 mils wet, 1.44 mils dry per coat).
  2. At fiberglass mat gypsum board (mold resistant type) provide one coat high build surfacer/primer; S-W Builders Solution Interior Latex Primer/Surfacer (8.0 -10.0 mils wet per coat).
  3. Eggshell (Where scheduled on drawings.): Two coats of latex enamel; S-W ProMar 200 Zero VOC Latex Eg-Shel, B20 Series (4.0 mils wet, 1.7 mils dry per coat).
  4. Flat (Walls, where scheduled on drawings): Two coats of latex enamel; S-W ProMar 200 Zero VOC Latex Flat, B30 Series (4.0 mils wet, 1.4 mils dry per coat).
  5. Flat (Ceilings): Two coats of acrylic latex enamel; S-W ProMar 400 Zero VOC Interior Latex Flat, A30 Series (4.0 mils wet, 1.2 mils dry per coat).
- 24 ACCESSORY MATERIALS
- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

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**PART 3 EXECUTION****31 EXAMINATION**

- A. Do not begin application of paints and finishes until substrates have been properly prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- E. Test shop-applied primer for compatibility with subsequent cover materials.
- F. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
  - 1. Exterior Plaster and Stucco: 12 percent.
  - 2. Fiber Cement Siding: 12 percent.
  - 3. Masonry, Concrete, and Concrete Masonry Units: 12 percent.

**32 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Cover and protect storefront, door, window, and other openings.
- E. Seal surfaces that might cause bleed through or staining of topcoat.
- F. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- G. Concrete:
  - 1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
  - 2. Clean surfaces with pressurized water. Use pressure range of 1,500 to 4,000 psi at 6 to 12 inches. Allow to dry.
  - 3. Clean concrete according to ASTM D4258. Allow to dry.
  - 4. Prepare surface as recommended by topcoat manufacturer and according to SSPC-SP 13.
- H. Masonry:
  - 1. Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.

2. Prepare surface as recommended by topcoat manufacturer.
  3. Clean surfaces with pressurized water. Use pressure range of 600 to 1,500 psi at 6 to 12 inches. Allow to dry.
- I. Fiber Cement Siding: Remove dirt, dust, and other foreign matter with a stiff fiber brush. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
  - J. Exterior Gypsum Board: Fill minor defects with exterior filler compound. Spot prime defects after repair.
  - K. Exterior Plaster: Fill hairline cracks, small holes, and imperfections with exterior patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
  - L. Galvanized Surfaces:
    1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
    2. Prepare surface according to SSPC-SP 2.
  - M. Ferrous Metal:
    1. Solvent clean according to SSPC-SP 1.
    2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
    3. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.
  - N. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

### 33 APPLICATION

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply additional coats until complete hide is achieved.
- F. Sand metal surfaces lightly between coats to achieve required finish.
- G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

### 34 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field inspection.

### 35 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

### 36 PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION

## SECTION 102800 - TOILET ACCESSORIES

## PART 1 - GENERAL

## 1.1 SUBMITTALS

- A. General: In compliance with Section 013300 and as specified herein.
- B. Product Data:
  - 1. Complete schedule and brochures containing catalog cuts and technical data for each individual item.
  - 2. Mark out all nonapplicable data.
- C. Samples:
  - 1. Furnish samples of each item, when requested by Architect.
  - 2. Approved samples will be returned and may be incorporated into Project.
  - 3. Identify installed samples.
- D. Letter of Conformance; (FIO): In compliance with requirements of, and in format included in, Section 013300.

## 1.2 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver accessories to Project site until rooms are ready to receive them.
- B. Pack accessories individually in manner to protect accessory and its finish.

## PART 2 - PRODUCTS

## 1.1 ITEMS

- A. **Grab Bars** (Handicapped Compartments): 18-8, Type-304, 18-gauge stainless steel tubing with a satin-finish, slip-resistant surface. 1-1/4" outside diameter. Ends are heliarc welded to concealed mounting flanges. Clearance between the grab bar and wall is 1-1/2". Concealed Mounting Flanges - 18-8, Type-304, 11-gauge thick, stainless steel plate; end flanges 2" x 3-1/8" with holes for attachment to wall. Intermediate flanges 2-5/8" x 3-1/8" wide x 3-1/8" diameter; peened nonslip gripping surface.
  - 1. Sizes: 18 inches (vertical) at the side of the water closet, 36-inches (horizontal) on the wall at the rear of the water closet and 42-inches (horizontal) at the side of the water closet.
  - 2. Attachment: 1/4-inch diameter stainless steel thru-bolts with minimum 10 gauge stainless steel backup plate; except expansion bolts into grouted cell unit masonry where rear side of wall is exposed to finished public space.
  - 3. Clearance: 1-1/2 inch between wall and bar.
  - 4. Manufacturer and Model:
    - a. **GB18/36/42-1**: Securing Cosmos 811-S03 "SafeSupport" SR Grab Bar with self draining ends.
    - b. **GB18/36/42-2**: Bobrick B5806.99 (peened) Series.

- H. Mirrors, 18" x 36" - Single piece, roll-formed 3/4" x 3/4" angle-frame. Type 304 stainless steel angle with satin finish. Corners heliarc welded, ground and polished smooth. Beveled frame edge at mirror 1/4" glass mirror; warranted against silver spoilage for at least 15 years. Galvanized steel back. Secured to concealed wall hanger with theft-resistant mounting.
- 1 Bobrick B-290 1836 Series Mirror

#### 1.2 FABRICATION

- H. Provide steel anchor plates and anchor components for installation on building finishes.
- I. Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
- J. Back paint components with bituminous paint where contact is made with building finishes to prevent electrolysis.
- K. Hot-dip galvanize ferrous metal anchors and fastening devices.
- L. Shop assemble components and package complete with anchors and fittings.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Size rough openings for recessed accessories. Provide wood blocking and grounds necessary for proper anchorage.
- B. Furnish concealed anchor plates to be built into stud walls.
- C. Furnish proper location and size of opening required for partition mounted items to toilet compartment manufacturer.
- D. Furnish locations for grab bar concealed anchor plates to be built into walls.

#### 3.2 INSTALLATION

- A. Install accessories in compliance with manufacturer's recommendations, unless indicated otherwise.
- B. Install accessories true, plumb and level, to fit snug and tight against wall surface at heights indicated in Drawings.
1. Use concealed fasteners wherever possible.
2. Use tamper-proof bolts and screws for exposed fasteners.
- C. Provide key locked accessories keyed alike.
- D. Ceiling channel track for Clinic curtain is to be hung from building structure.

END OF SECTION