



**FY-26-27-001
WAREHOUSE
INTERIOR RENOVATIONS**

READING AREA COMMUNITY COLLEGE

PROJECT MANUAL

MGA Project #26-0014

JUNE 30, 2026



PROJECT MANUAL

FY-26-27-001
WAREHOUSE INTERIOR RENOVATIONS
RACC Campus
Reading, Berks County, Pennsylvania

owner
READING AREA COMMUNITY COLLEGE
10 South Second Street
Reading, Pennsylvania 19602

architect
MUHLENBERG GREENE ARCHITECTS, LTD.
1268 Penn Avenue
Wyomissing, Pennsylvania 19610
610-376-4927
Scott O. Graham, AIA, LEED AP+: ScottG@MG-Architects.com

MGA PROJECT NO. 26-0014

JUNE 30, 2026

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DOCUMENT 000080 - SEALS PAGE

1.1 DESIGN PROFESSIONALS OF RECORD

A. Architect: Muhlenberg Greene Architects, Ltd.

1. Scott O. Graham, AIA, LEED AP
2. Pennsylvania No. RA406024.
3. Responsible for Divisions 01-49 Sections except where indicated as prepared by other design professionals of record.



DOCUMENT 001116 - INVITATION TO BID

1.1 PROJECT INFORMATION

A. Notice to Bidders:

1. Qualified bidders are invited to submit bids for Project as described in this Document according to the Instructions to Bidders.
2. Not less than the minimum salaries and wages as set forth in the Contract Documents must be paid on this project.
3. Employees and applicants for employment shall not be discriminated against because of their race, age, color, religion, sex, national origin, or handicap.
4. The Contract is subject to the requirements for Affirmative Action to ensure Equal Employment Opportunity (Executive Order 11246).
5. Bidders must submit additional Qualifications information for both itself and, if awarded, major subcontractors as specified in the Contract Documents. Certain supplier/subcontractor information is required as part of the initial bid submission.
6. Any bid submission and subsequent contracts fall under the Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL").
7. This Request for Proposals is being offered exclusively through the PennBid platform which shall assess a fee based on the value of the bid. Only vendors AWARDED contracts are assessed a fee capped at 1/3% of awarded value for fixed fee contracts or 1/6% of contract value (+ tax) for term contracts. The minimum PennBid fee shall be \$100 and the maximum fee shall be \$5,000.

B. Project Identification: **FY-26-27-001 RACC WAREHOUSE RENOVATIONS**

1. MGA Project No. 26-0014.
2. Project Location: 10 South Second Street, Reading, PA 19602.

C. Owner: **Reading Area Community College**

1. Owner's Representative:
 - a. Dolores Peterson, Senior Vice President for Finance & Administrative Services/College Treasurer

D. Architect: Muhlenberg Greene Architects, Ltd. (also dba MG Architects, Ltd.)
1268 Penn Avenue
Wyomissing, PA 19610-2130

1. Architect of Record:
 - a. Scott O. Graham, AIA, LEED AP BD+C
610-376-4927
ScottG@MG-Architects.com

2. Project Manager:

- a. Bradley Blankenbiller, AIA, CSI
610-376-4927
BradB@MG-Architects.com

E. Project Description: The Work of Project includes, but is not limited to the following:

- 1. General Trades Construction Contract – General construction work is required for the renovation of a limited workshop area within the RACC Warehouse. The work shall include:
 - a. Demolition of existing interior finishes and wood framing.
 - b. Partial demolition of interior openings.
 - c. Installation of new metal framing, insulation and wall sheathing.
 - d. Installation of new doors and hardware.
 - e. Installation/modification of existing steel roof framing for new high volume, low speed (HLVS) ceiling fans.
 - f. Installation of new resilient wall base.
 - g. Provision and installation of new storage shelving.
 - h. Installation of new walk-in cooler and freezer.
- 2. Electric Construction: Electric construction work shall be provided to support the warehouse renovations including:
 - a. Demolition of existing lighting.
 - b. Modification to existing lighting, power and data infrastructure.
 - c. Construction of new lighting, power, controls and data infrastructure including new circuits from existing distribution panels.
 - d. Provision and installation of two (2) new HLVS ceiling fans.

F. Construction Contract: Bids will be received for the following Work under a Multiple Prime Contracts:

- 1. General Construction
- 2. Electrical Construction

1.2 DOCUMENTS

- A. All project documents, specifications, and details are available at no cost through the PennBid portal: <https://pennbid.bonfirehub.com/>.

1.3 BID SUBMITTAL AND OPENING

- A. Owner will receive bids until the bid time and date. Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner, and delivered as follows:
 - 1. Bid Date: **Wednesday, July 29, 2026**

2. Bid Time: **2:00 pm**

B. All bids shall be submitted via the PennBid portal.

1. **<https://pennbid.bonfirehub.com/>**

C. Bids results will be published on PennBid via the Public Announcement feature. Bid results will not be official until all information is reviewed, tabulated, and presented to the **Reading Area Community College Board of Directors.**

1.4 BID SECURITY

A. **Bid Security** shall be made **payable** to **Reading Area Community College**, in the amount of 10 percent (10%) of the Base Bid sum. Security shall be CERTIFIED CHECK, BANK CASHIERS CHECK or AIA A310 BID BOND issued by the Surety licensed to conduct business in the state in which the Project is being constructed. The Owner reserves the right to approve the sufficiency of the required bid security.

B. The successful bidder's Security will be retained until it has signed the Contract and furnished the required PAYMENT and PERFORMANCE BONDS. The Owner reserves the right to retain the Security of the next three (3) lowest bidders until the lowest Bidder enters into a Contract or until sixty (60) days after bid opening, unless delayed due to required approvals of another governmental agency, in which case bids shall be irrevocable for 120-day. All other Bid Security will be returned as soon as practical. If any Bidder refuses to enter into a Contract, the Owner will retain its Bid Security as liquidated damages, but not as a penalty.

C. Proof of the Bid Security is to be submitted via PennBid as part of the complete bid submission.

1.5 PREBID CONFERENCE

A. An **OPTIONAL** pre-bid conference for all bidders will be held at Project Site on **Monday, July 13, 2026, at 10:00 – 11:00 AM, location to be announced via PennBid.**

1. A primary focus of the conference is to review project requirements, ask questions, and permit Bidders' inspection of the existing conditions.

1.6 REQUESTS FOR INFORMATION / SUBSTITUTION

A. Requests for Substitution shall be submitted no later than **5:00 PM on Wednesday, July 22, 2026.**

1. Responses to Substitution requests shall be issued via Addendum no later than **3:00 PM on Friday, July 24, 2026.**

B. Requests for Information shall be submitted no later than **5:00 PM on Wednesday, July 22, 2026.**

1. Responses to RFI's shall be issued via Addendum no later than **3:00 PM on Friday, July 24, 2026.**

1.7 MODIFICATION AND WITHDRAWAL

- A. Refer to INSTRUCTIONS TO BIDDERS, item 1.12.

1.8 DISQUALIFICATION AND REJECTION OF BIDS

- A. Refer to INSTRUCTIONS TO BIDDERS, item 1.17.

1.9 AWARD

- A. Refer to INSTRUCTIONS TO BIDDERS, item 1.18.

1.10 EXECUTION OF CONTRACT:

- A. Refer to INSTRUCTIONS TO BIDDERS, item 1.19.

1.11 BIDDER'S QUALIFICATIONS

- A. Bidders must demonstrate a successful track record in the performance of like work and similar projects. Contractor's Qualifications Statement, AIA Document A305 and Qualified Contractor Certification Form, shall be submitted with the Bid Form.

- B. Bidder/ Contractor/ Manufacturer/ Installer Qualifications and Experience Requirements:

1. Special Qualifications: Specific experience and qualifications requirements are identified for the contractor fabricating and installing portions of the signage installations under the General Construction contract.

- a. REFER TO INSTRUCTIONS TO BIDDERS, item 1.22.

- C. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work. A Performance Bond, a separate Labor and Material Payment Bond, and Insurance in a form acceptable to Owner will be required of the successful Bidder. Refer to SUPPLEMENTARY INSTRUCTIONS TO BIDDERS, ITEM 1.8.

1. A business privilege license is required to perform work in the city of Reading, Pennsylvania. All bidders shall be required to obtain this license prior to commencing work. Time extensions for procurement of this license shall not be granted.

END OF DOCUMENT 001116

DOCUMENT 002113 - INSTRUCTIONS TO BIDDERS (PENNBID)

ARCHITECT:

**Muhlenberg Greene Architects, Ltd. (dba MG Architects)
1268 Penn Avenue
Wyomissing, PA 19610**

OWNER:

**Reading Area Community College (RACC)
10 South Second Street
Reading, PA 19602**

To be considered, Bids must be made in accordance with these Instructions to Bidders.

1.01 SECURING DOCUMENTS

- A. Bona fide Prime Contract Bidders may obtain a complete printed set of Drawings and Project Manual from the Architect. Printing fees shall apply and will be quoted to the bidder upon any request.
- B. Digital copies of the Contract Documents are available via the PennBid portal.

1.02 BID FORM

- A. In order to receive consideration, make all Bids in strict accord with the following:
 - 1. Submit required information upon the forms provided herein, properly executed and with all items filled out. Do not change the wording of the Bid Form, and do not add words to the wording of the Bid Form. Unauthorized conditions, limitations, or provisions attached to the Bid may be cause for rejection of the bid. Alterations by erasure or interlineation must be explained or noted in the Bid over the signature of the Bidder.
 - 2. Each Bid shall be submitted via PennBid and shall be completely uploaded on or before the day and hour set for receipt of Bids. PennBid's clock will determine prevailing time for receipt of Bids. It is the sole responsibility of the Bidder to see that his Bid is received on time. Owner will not be responsible for misdirected or late delivery of bids.
 - 3. Updates to the Bid Form may be issued up to and included in the issuance of the final Addendum document. Addenda shall be issued no later than TWO (2) business days prior to bid due date. Failure to submit bids on the latest bid form may result in incomplete bids and potential disqualification of the bid at the Owner's discretion.
 - 4. Bid financial information shall be submitted in the applicable form fields on the PennBid portal.

1.03 BID BONDS

- A. A bid bond, certified check, or cashier's check, in the amount of 10 percent of the proposed Contract Amount must accompany each Bid and submitted in a format compliant with PennBid's terms and conditions. The successful Bidder's security will be retained until he has signed the Contract and furnished the required Performance

Bond and Payment Bond, AIA A312. The Owner reserves the right to retain the security of the next two lowest bidders until the lowest Bidder enters into contract. If any Bidder refuses to enter into a Contract, the Owner will retain his bid bond.

1.04 OTHER BONDS

- A. Prior to signing the Contract, the Owner will require the selected Contractor to secure and post a Performance Bond and Payment Bond, Bonds shall be on AIA Form A312, or the form provided by Surety Company licensed to do business in the Commonwealth of Pennsylvania as per U.S. Department of the Treasury Department Circular 570, and naming as Obligee "**Reading Area Community College**", and attach Power of Attorney. Each Bond in the amount of 100 percent of the Contract Sum. Bonds shall be issued by Surety acceptable to the Owner. Include costs of bonds in proposed Contract Sum.
- B. The Contractor shall deliver said Bonds to the Owner not later than ten (10) days after issuance of the Intention to Award or Notice to Proceed and prior to executing the Agreement. Failure or neglecting to deliver said Bonds, as specified, shall be considered as having abandoned the Contract and the Bid Security will be retained as liquidated damages.

1.05 DEFINITIONS

- A. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. Bidding Requirements consist of the Advertisement for Bids, Instructions to Bidders, Substitution Request Form, Available Project Information, and Bid Forms with Supplements.
- B. Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, 2017 edition, or in other Contract Documents are applicable to the Bidding Documents.
- C. Addenda are written or graphic instruments issued by the Architect prior to receipt of Bids, which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- D. A Bid is a complete and properly signed proposal to do the work for the sums stipulated therein, submitted in accord with the Bidding Documents.
- E. The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.
- F. An Alternate is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- G. 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 of Work stipulated in the Contract Documents are increased or decreased.

- H. A Bidder is a person or entity who submits a Bid.
- I. Owner: The term "Owner" as used in the Bidding and Contract Documents refers to:
 - 1) **Reading Area Community College, 10 South 2nd Street, Reading, PA 19602.**
 - 2) For the purposes of this Contract, the Owner's Agent, if identified, may also act on behalf and with the authority of the Owner.
- J. Architect: The term "Architect" or "Architect" as used in the Bidding and Contract Documents refers to:
 - 1) **MG Architects, 1268 Penn Avenue, Wyomissing, Pennsylvania 19610**
- K. Contractor: The term "Prime Contractor" or "Contractor" as used in the Bidding and Contract Documents refer to the Contractor to whom an award is made to perform the Work and has entered into a direct contract agreement for construction activities with the Owner.
- L. Major Subcontractor: The term "Major Subcontractor" shall be any subcontract that exceeds **10% of the total prime contract value.**
- M. Interpretations, corrections, and changes of the Bidding Documents will be made by Addenda. Interpretations, corrections, and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.
- N. Official Addenda issued to Bidders during the Bid Period by the Architect/Engineer listing modifications or interpretations of the Bidding Documents shall become a part and take precedence over original Bidding Documents as though originally included therein, and shall be so honored by Bidders in preparing their Bids.
- O. Addenda will be issued via PennBid only. Any other communications with the Owner, its Agent, the Architect or Engineer, whether written or verbal, shall not be considered a part of the Contract Documents.
- P. All pre-bid RFI's and other questions/comments from the prime contractors will be received via PennBid portal and addressed by Architect via Addendum. Subcontractors and vendors are required to go through their corresponding prime contractor for their inquiries.
- Q. Each Bidder shall ascertain, prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

1.06 PREVAILING MINIMUM WAGES

- A. The included prevailing minimum wages as predetermined by the **Pennsylvania Department of Labor and Industry** shall be paid to workmen employed in the performance of this Contract. Wage rates are included in Section 012160. Application of these rates shall apply as required by the **Pennsylvania Prevailing Wage Act.**

1.07 EXAMINATION OF CONTRACT DOCUMENTS AND SITE OF WORK

- A. Before submitting a Bid, each Bidder shall carefully examine the Contract Drawings, read the specifications and other proposed Contract Documents, and visit the site of the Work. Each Bidder shall fully inform himself prior to bidding as to existing conditions and limitations under which the Work is to be performed, and he shall include in his Bid a sum to cover costs of items necessary to perform the Work as set forth in the proposed Contract Documents. No allowance will be made to any Bidder because of lack of such examination or knowledge. Submission of a Bid will be construed as conclusive evidence that the Bidder has made such an examination.
- B. Existing Conditions: It is required that all prime Contract Bidders visit the site to become familiar with existing conditions which affect the Work. Subcontract Bidders are encouraged to visit the site also.
 - 1. Bidders shall be given an opportunity to visit the site at the scheduled pre-bid conference.
- C. Pre-Bid Conference: An OPTIONAL pre-bid conference will be held as announced in the INVITATION TO BID.

1.08 QUESTIONS AND INTERPRETATION OF CONTRACT DOCUMENTS PRIOR TO BIDDING

- A. If any person contemplating submitting a Bid for construction of the Work is in doubt as to the true meaning of any part of the proposed Contract Documents, he shall be obligated to submit to the Architect a request for interpretation thereof before Bids will be opened, via the PennBid portal ONLY.
 - 1. The person submitting the request shall be responsible for its prompt delivery.
 - 2. Interpretation or correction of proposed Contract Documents will be made only by Addendum, and will be issued via PennBid only.
 - 3. Architect and Owner will not be responsible for any other explanations or interpretations of the proposed Contract Documents.
 - 4. Responses to questions shall be aggregated and issued to all Bidders of record as Addenda to the Drawings. Questions will not be answered individually on PennBid except to reference applicable Addenda or if the question is deemed administrative in nature and does not impact or require changes to the Contract Documents.
 - 5. If any item of Work is shown on the Drawings and not specified or mentioned in the Specifications and not shown on the Drawings, the matter should be brought to the attention of the Architect during bidding so an addendum can be issued correcting the omission. If such correction is not made, the Work in question shall be considered to be required as if it has been specified and shown on the Drawings.
- A. Submit Requests for Interpretation/Information by doing the following:
 - 1. Submit request via the PennBid portal.
 - 2. Submit questions prior to cutoff date specified in Invitation to Bid.

1.09 PRE-BID SUBSTITUTIONS:

- A. Bids shall be based on the products or manufacturers specified. This is not intended to eliminate competition from other manufacturers other than those specified. Any bidder who desires to substitute materials or equipment which he believes to be equal to those specified, must submit a written request for substitution to the Architect as specified in Section 016000 at least 7 days prior to the bid due date. Approved requests for substitution shall be posted via Addendum on the PennBid portal.

1.10 BASIS OF BID:

- A. The bidder must include any Alternates and Unit Cost items as may be shown on the BID FORM, failure to comply may be cause for rejection of Bid. If Alternates or Unit Prices involve no change in cost or are not applicable (N/A), Bidder shall indicate such on the BID FORM.
- B. No combination of Bids or assignments will be considered unless so noted in the bidding documents.
- C. Failure to acknowledge any addendum or any other item listed on the BID FORM may be cause for rejection of the bid.

1.11 RETURN OF BID SECURITY

- A. Bid security of the three low Bidders for each contract will be retained until contracts have been awarded and agreements signed. Unless a request for return of bid bond accompanies the Bid, bid bonds will be destroyed. Certified checks and cashier's checks of all but the three low Bidders for each contract will be returned within two weeks after Bids are opened. Certified checks and cashier's check of the low three Bidders for each contract will be returned within two weeks after agreements are signed.

1.12 WITHDRAWAL OR MODIFICATION OF BIDS

- A. Bids may be withdrawn or modified not later than one minute before the time established for opening of Bids, without forfeiture of bid security.
- B. A Bid may not be modified, withdrawn or canceled by the Bidder for sixty (60) days after the opening of the bids and each Bidder so agrees in submitting its Bid, unless the award of the Contract is delayed due to required approvals of other governmental agencies, in which case, Bids shall be irrevocable for one hundred twenty (120) days in compliance with Act 1978-317, approved November 26, 1978.
- C. A Bidder may request withdrawal of its Bid within two business days after the Bid opening time in accord with provided such request is compliant with all conditions set forth in Senate Bill No. 793 of the General Assembly of the Commonwealth of Pennsylvania approved January 23, 1974, and Pennsylvania Statute of 73 P.S. Section 1602. If the bid withdrawal request is granted, the Owner reserves all rights set forth in the bill.

1.13 PREPARATION OF BID

- A. Bid Form furnished by specification shall be used. Submit one completely executed copy and retain an original hard copy for records purposes.
- B. If the Bidder is a partnership, one unlimited partner shall personally initial each page of the Bid Form and shall sign the last page, having his signature witnessed by a duly licensed Notary Public.
- C. If the Bidder is a corporation, an officer who has authority to bind the corporation to a contract shall initial each page of the Bid Form and shall sign the last page, having his signature attested to by the secretary and treasurer of the corporation and the corporate seal affixed by his signature.
- D. Complete identity of the Bidder shall appear in the Bid Form. No Bid shall be made by an individual or partnership with an unregistered fictitious business style or by an unregistered foreign corporation.
- E. All blank spaces for Bid prices applicable to requested Prime Contract must be filled in. The use of the phrase "NO CHANGE or N/A" for any specific Alternate, or Unit Price shall be interpreted "no additional" or no change to the base bid amount. Bidders will not be permitted to modify or supplement that specific Bid. Further, the Owner reserves the right to consider these specific Bidder's Bids invalid, and reserves the right to award the contract upon any submittal or responsive and responsible Base Bid, Alternate, Unit Price, or combination thereof notwithstanding any irregularity or invalidity of other Alternate or Unit Price bids contained within that Bid. If anything other than a dollar amount is entered in a bid line item it shall be considered that the item of work is included in the bid at no additional add or deduct.
- A. Bidders may elect to submit bids for multiple prime contracts by meeting the following criteria:
 - 1. A complete bid application package must be received for each Prime Contract pursued by the Bidder.
 - 2. A Bidder may make no qualification of its bid based on award of any other Prime Contract.

1.14 SUBMISSION OF BIDS

- A. Bids shall be submitted via PennBid.
- B. All questions set forth on the BID FORM and its attachments shall be answered accurately. Bids shall be signed with name typed below signature. Where the Bidder is a corporation, Bids must be signed with the legal name of the corporation followed by the name of the State of incorporation and the legal signature of an officer authorized to bind the corporation to a contract. ALL UNSIGNED BIDS SHALL BE REJECTED.
- C. Cost proposals shall be submitted for all required sections of the Penn Bid submission.
- D. Original copies of all bid forms shall be maintained by the awarded Contractor(s) for the full Contract duration and be made available for inspection upon request.

1.15 SUPPLEMENTS TO BID FORMS

- A. The following "Supplements to Bid Forms" are required to be submitted concurrent with the Bid and are listed on the Bid Form:
 - 1. **Bid bonds shall be on AIA Form A310, or on the form provided by Surety Company**
 - 2. **Document 004519 - Non-Collusion Affidavit.**
 - 3. **Document 004512 - Contractor's Qualification Statement.**
 - 4. **Document 007400A – Qualified Contractor Certification Form.**
 - 5. **Document 007500 – Certification of Equal Employment Statement.**
 - 6. **Document 002114A - Subcontractors and Major Material Suppliers List**
- B. The following notification of apparent lowest responsive and qualified bidder and direction from the Architect, Qualified Contractor Certification Forms are required to be submitted by the Prime Contractors on behalf of all its major Subcontractors within fifteen (15) business days:
 - 1. A breakdown of approximate percentages of total contract value ascribed to each Major Subcontractor.
 - 2. See Document 007400A – Qualified Contractor Certification Form.
 - 3. The Owner or Architect may request Certification forms from additional Subcontractors at their discretion following initial review of the submitted Subcontractor Certification forms and breakdown.
- C. A copy of each Supplement is furnished for Bidder's use. Bidders shall submit completely executed supplements via PennBid and retain original copies of each. In the case of discrepancies, the Owner may decide which to honor.
- D. Contractor and Subcontractors shall be licensed and registered to perform work in Pennsylvania. Firms with out-of-state headquarters or corporations not incorporated in Pennsylvania must submit, with their bid, a copy of their registration to do business in the commonwealth as provided by the Department of the State.
- E. If the apparent low Bidder is found unacceptable, or forfeits his bid bond, the next lowest responsible Bidder shall be required to submit the subsequent "Supplements". The process shall continue in like manner until all requirements are met.
- F. Submissions are to be accompanied by a transmittal form on the Bidder's letterhead. Bidder shall list only those items being submitted at that time.

1.16 OPENING BIDS

- A. Bids will be received and advertised via PennBid following the Architect's and Owner's initial review.

1.17 DISQUALIFICATION AND REJECTION OF BIDS

- A. 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.

- B. The Owner reserves the right to reject bids, which are incomplete or deemed not responsive.
- C. The Owner and/or Architect reserves the right to discard Bids tendered by Contractors deemed Unqualified and/or Non-responsible as determined by the Architect after assessment of all submitted documentation and the Architect's professional judgement of Contractor's capability per the terms and requirements set forth in the Contract Documents.
 - 1. Should evidence of such disqualifying information pertaining to a Bidder become known following unsealing of the bids and establishment of Apparent Low Bidder, the Owner retains the right to discard the Bid and award the next lowest responsive bid.

1.18 AWARD OF CONTRACTS

- A. Award of Contract will be made if the Owner considers award to be in its best interests. Award will be made to the lowest responsive and Qualified and Responsible Bidder on the Base Bid or any combination of Base Bids and Alternates or any combination of Base Bids and Alternates for several contracts. Owner may also consider other factors which they feel have bearing on the Project. Owner reserves the right to waive any and all irregularities in a bid.
- B. Bidders may be required to submit duplicate sworn statements of their financial responsibility of recent date, technical qualifications and performance record before contracts can be awarded to them. In order that there may be no delay in the making of awards, bidders should be prepared to submit such statements within two calendar days of bid opening.
- C. No rights shall accrue to any person submitting a Bid or proposal until such bid has been accepted and contract awarded.
- D. Should apparent low bidder fail to meet the supplementary documentation requirements of the period following issuance of Intent to Award letter, the Owner reserves the right to disqualify the bidder and select the next lowest Qualified and Responsible Bidder.
- E. No Bidder shall be entitled to damages or other financial reimbursement if its bid is, in a manner consistent with these documents, disqualified or rejected during the bidding period up until when the contract is signed.
- F. Post Bid Information: The Owner shall not be obligated to provide any evidence of its Financial Capability.

1.19 EXECUTION OF CONTRACT

- A. A Contractor who is notified that he has been awarded the contract shall sign the Agreement within fourteen days after he receives such notification of award. At the signing, he shall furnish to the Owner, the Performance Bond, Labor and Material Bond, and Maintenance Bond required by Article 11, Section 11.4 of the Supplementary Conditions. If a Bidder fails to enter into the Contract or fails to furnish bonds within the fourteen calendar day period, he shall be liable to the Owner for the full amount of the Bid security as liquidated damage and not as a penalty for such failure.

- B. Owner and Contractor Agreement to be used is the **AIA Document A101, Standard Form of Agreement between Owner and Contractor – 2017 Edition** including all General and Supplemental Conditions as amended by the Owner.

1.20 CONSTRUCTION TIME

- A. The Contractor shall begin the Work on the date of commencement as defined in subparagraph 14.1 of the General Conditions or as identified in the Notice to Proceed issued by the Architect and carry the Work forward expeditiously to achieve Substantial Completion of the work in accordance with the project schedule developed for the project.
- B. The Contractor understands and agrees that TIME IS OF THE ESSENCE and that all schedule dates are minimum performance dates. Notwithstanding anything to the contrary contained in the Contract Documents, should the progress of the Project be ahead of scheduled dates, the Contractor agrees to coordinate and complete its Work in accordance with the actual Project progress and the actual pace of the Project without additional compensation. In said case, contractor waives any right to claim that it has been accelerated.
- C. Construction Activities at the site: All work must be coordinated with the College Administration.
- D. **Notice of Intent to Award (pending Board approval): No later than September 16, 2026.**
- E. **Notice to Proceed: No later than September 23, 2026.**
- F. **Preconstruction Meeting/Start of Construction: Tuesday, October 6, 2026.**
- G. **Substantial Completion: January 15, 2027.**

1.21 NON-COLLUSION AFFIDAVIT

- A. Each Bidder shall complete and submit the Non-Collusion Affidavit attached to the Bid Form, in accord with the following:
 - 1. Non-Collusion Affidavit is material to any contract awarded pursuant to this Bid. According to the Pennsylvania Anti-Bid-Rigging Act, 73 P.S. 1611 et seq., governmental agencies may require Non-Collusion Affidavits be submitted together with Bids.
 - 2. This Non-Collusion Affidavit must be executed by the member, officer or employee of the Bidder who makes the final decision on prices and the amount quoted in the Bid.
 - 3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of Bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Bidder with responsibilities for the preparation, approval or submission of the Bid.
 - 4. In the case of a Bid submitted by a joint venture, each party to the venture must be identified in the Bid Documents, and an Affidavit must be submitted separately on behalf of each party.
 - 5. Term "complementary bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of Bids higher than the Bid of another firm, any intentionally high or

non-competitive Bid, and any other form of Bid submitted for the purpose of giving a false appearance of competition.

6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the Bid.

1.22 NO-LIEN:

- A. This is property of a public Owner and, as such, may not be liened. For the protection of sub-contractors and the contractor's suppliers, a payment bond will be required.

1.23 GOVERNING LAWS AND REGULATIONS:

- A. The Bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances and codes, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and the following paragraphs B through L are deemed to be included in the Contract the same as though herein written in full.

- B. **FEDERAL OCCUPATIONAL SAFETY & HEALTH ACT OF 1970 (O.S.H.A.):**

1. The Contractor is required to promptly perform all reporting and recording as required by said Act.

- C. **PENNSYLVANIA ACT 287 - UTILITIES PROTECTION:**

1. The Contractor will be responsible for complying with Pennsylvania Act 287 of 1974, as amended, commonly known as the "CALL BEFORE YOU DIG ACT". Excavation or digging Contractors may learn the utilities and authority Owners by calling 1-800-242-1776 statewide prior to work. One call locates utility lines and the utilities are notified.

- D. **COMPLIANCE WITH HUMAN RELATIONS ACT:**

1. Refer to SUPPLEMENTARY CONDITIONS OF THE CONTRACT, item 27, paragraph 19.9.

- E. **PENNSYLVANIA PREVAILING WAGE REQUIREMENTS:**

1. Refer to SUPPLEMENTARY CONDITIONS OF THE CONTRACT, item 27, paragraph 19.7.

- F. **DISCRIMINATION PROHIBITED AND COMPLIANCE WITH ADA:**

1. Refer to SUPPLEMENTARY CONDITIONS OF THE CONTRACT, item 27, paragraph 19.8.

- H. **STANDARD OF QUALITY:**

1. Refer to SUPPLEMENTARY CONDITIONS OF THE CONTRACT, item 27, paragraph 19.12.

- I. **PROHIBITION OF CASH ALLOWANCES:**

1. Cash allowances are not to be included in the bid specification.

- K. **COMPETENT WORKMEN:**

1. Refer to SUPPLEMENTARY CONDITIONS OF THE CONTRACT, item 28, paragraph 19.14.

- L. FEDERAL STANDARDS AND REGULATIONS:
 - 1. Refer to SUPPLEMENTARY CONDITIONS OF THE CONTRACT, Item 32, "Article 23".

END OF DOCUMENT

SECTION 002113A – SUBCONTRACTORS AND MAJOR MATERIAL SUPPLIERS LIST

This form to be submitted as an attachment to the bid form by **Prime Contract Bidders**.

ARCHITECT:

Muhlenberg Greene Architects, Ltd.
1268 Penn Avenue
Wyomissing, PA 19610-2130

OWNER:

Reading Area Community College (RACC)
10 South Second Street
Reading, PA 19602

To be considered, Bids must be made in accordance with these Instructions to Bidders.

Project Name: FY-26-27-001 – Warehouse Renovations Date: _____

Owner: Reading Area Community College Project No: 26-0014

Prime Contractor: _____

Prime Contractor is to provide to the Architect and Owner the names and contact information of all proposed subcontractors and material suppliers whose subcontract values exceed 10% of the total Prime Contract value. Attach supplemental sheets as required.

1. Subcontract/Product Type(s): _____

Company Name: _____

Contact Information: _____

Project Manager/Sales Rep: _____

Direct Phone No.: _____

END OF SECTION 002113A

DOCUMENT 004113 - BIDDER ACKNOWLEDGEMENTS (PENNBID)

PROJECT IDENTIFICATION:

**FY-26-27-001 – WAREHOUSE INTERIOR RENOVATIONS
READING AREA COMMUNITY COLLEGE**

BID TO: Reading Area Community College
10 South 2nd Street
Reading, PA 19602
Via PennBid

BID FROM:

Contractor Name: _____ Date: _____ 20__

Contractor Address: _____
_____ Zip Code _____

Contact Name: _____ Email _____

Contact Direct Phone: _____ Fax: _____

PRIME CONTRACT (check one):

☐ GENERAL TRADES ☐ MECHANICAL ☐ ELECTRIC ☐ PLUMBING

(Complete a Separate Form for each Prime Contract you are Bidding if applicable)

1. The undersigned BIDDER agrees, if this Bid is accepted, to enter into an agreement with Owner, in the form included in Procurement Documents, to provide the Work as specified or indicated in Procurement Documents for Bid Price and within contract time indicated in this Bid and in accordance with the other terms and conditions of Procurement Documents.
2. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
 - a. Owner has the right to reject this Bid or any portion of it and to waive any informality or irregularity in any Bid received.
 - b. This Bid will remain subject to acceptance for 60 days after the day of Bid opening.
 - c. BIDDER has examined the totality of all Procurement Documents whether or not relating to work scope being bid.
 - d. BIDDER accepts provisions of Instructions and Supplementary Instructions to Bidders, including disposition of Bid Security, General Conditions, and Supplementary Conditions.
 - e. BIDDER has reviewed Prevailing Wage Determination, this Bid Form, and project Addenda.

- f. BIDDER certifies that Alternates on Bid Form include costs of coordination of related Work, modification or adjustment to adjacent Work, miscellaneous devices, accessory objects, and similar item incidental to or required for a complete installation.
- g. BIDDER, for price stated, will provide and pay for all labor, materials, equipment, tools, machinery, transportation, superintendence of construction, permits and licenses, and incidental work. Work will be placed in an expeditious and workmanlike manor, will be completed to satisfaction and acceptance of Owner and Architect, and will be completed in accordance with the Contract Documents.
- h. BIDDER will sign and submit the Agreement with bonds and other documents required by Bidding Requirements within 15 days after the date of Owner's Notice of Award.
- i. BIDDER has visited the site and become familiar with the general, local, and site conditions.
- j. BIDDER agrees to comply with and be bound by applicable federal, state, and local laws and regulations affecting the work.
- k. BIDDER agrees to produce criminal history records of all employees and all employees of subcontractors working under BIDDER according to ACT 34 of 1985 and ACT 151 of 1994.
- l. BIDDER is aware of the general nature of work to be performed by Owner and others at the Site that relates to Work indicated in Procurement Documents.
- m. BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports, and drawings identified in Procurement Documents, and additional examinations, investigations, explorations, tests, studies, and data.
- n. BIDDER does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of Procurement Documents.
- o. BIDDER agrees that: this Bid is genuine and not made in the interest of or on behalf of an undisclosed person, firm, or corporation, and is not submitted in conformity with an agreement or rules of a group, association, organization, or corporation; BIDDER has not directly or indirectly induced or solicited another Bidder to submit a false or sham Bid; BIDDER has not solicited or induced a person, firm, or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself an advantage over another BIDDER or over OWNER.
- p. BIDDER agrees that the Bid Security Form and Qualified Contractor Certification Form have been reviewed. Bid Bond or certified check had been drawn to the order of the Owner in the amount listed in the Advertisement for Bids.

- q. BIDDER has received following Addenda, receipt of which is hereby acknowledged and included in this Bid Form:

Date	Number	Date	Number
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. Omission of Owner requested price information is sufficient reason to reject submitted Bid.
4. Competency and responsibility of BIDDER is a consideration in the Award of the Contract.
5. BIDDER agrees to progress the Work in accordance with the predetermined schedule and to achieve Substantial Completion within Contract Time as defined by the Agreement.
6. BIDDER agrees that bid security will be forfeited as Liquidated Damages, not as a Penalty, if BIDDER fails to furnish the required bonds and insurance coverages within 10 days of receipt of written Notice of Award of Contract or fails to execute and deliver the Agreement for the Work within 10 days after receipt of it.
7. BIDDER agrees that the Owner will sustain extensive damage and serious loss as a result of the Contractor's failure to complete the Work within the time noted in the Invitation to Bid. Therefore, the Owner and BIDDER agree that in the event that the BIDDER fails to meet the schedule set forth in the Contract Documents, the Owner shall be entitled to retain or recover from the BIDDER, as liquidated damages and not as a penalty, as established in the Supplementary Conditions to the Contract, Section 8.3.5.
8. BIDDER agrees to procure Qualified Contractor Certification forms for each of its major Subcontractors and submit to Architect within fifteen (15) business days of being notified that they are the apparent low bidder, following requirements of the Qualified Contractor specification.

9. BIDDER agrees to type of business by placing an X on one of the following lines to identify whether it is trading under a Fictitious Name:

- 1. Individual: _____
- 2. Partnership: _____
- 3. Corporation: _____
- 4. Trading under a Fictitious Name: _____

10. **CONTRACTOR'S LICENSE**

The undersigned further states that it is a duly licensed Contractor, for the type of work proposed, in the City of Reading, Pennsylvania, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

11. **BID SUPPLEMENTS**

The following supplements are a part of this Bid Form and are attached hereto:

- A. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010 or equal).
- B. Section 004510 - Non-Collusion Affidavit
- C. Section 004520 - Contractor's Qualification Statement
- D. Section 007400A - Qualified Contractor Certification Form
- E. Section 007500 – Certification of Equal Employment Statement.
- F. Section 002114A - Subcontractors and Major Material Suppliers List

12. The undersigned hereby certifies that it has reviewed all bidding documents and is authorized to act on the behalf of BIDDER.

13. BIDDER acknowledges that, if awarded, it agrees to pay the fee assessed by PennBid based on the value of the bid awarded per the terms of PennBid, and as summarized in the Instructions to Bidders.

Contractor Authorized Representative: _____
printed name

Signature: _____

Title: _____

Date: _____ (SEAL)

END OF DOCUMENT

DOCUMENT 004300 - PROCUREMENT FORM SUPPLEMENTS AND CERTIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Identifies:

1. Various supplementary forms to be used during bidding period, forms to be submitted with Bid Form, and forms used during construction.
2. Various representations and certifications to be submitted as a means of substantiating that Bidder meets stipulated qualifications and has capability to complete the Work.

B. For Documents not provided in Project Manual, submit information on Bidder's letterhead.

1.2 QUALIFICATIONS

A. Information and submittals required by this Document are an integral part of the Bid Form and the bidding process.

1.3 FORMS SUBMITTED DURING THE BIDDING PERIOD

A. Submit Substitution Request Form prior to ten (10) calendar days before bid date if requesting a material substitution. Comply with other requirements specified elsewhere in Procurement Documents.

1.4 FORMS USED DURING THE BIDDING PERIOD AND CONSTRUCTION PERIOD

A. Use the following forms when preparing each Bid:

1. Wage Rate Determination, which follows Document 007346.
2. Qualified Contractor Certification Form, for major Subcontractors.

1.5 FORMS SUBMITTED WITH THE BID

A. Bidders shall submit the following forms with the Bid Form:

1. Bid Security Form.
2. Contractors Qualification Statement
3. Qualified Contractor Certification Form
4. Non-Collusion Affidavit.

B. Bids submitted without procurement supplement forms properly completed will be considered incomplete and non-responsive.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT

004510 AFFIDAVIT - INSTRUCTIONS FOR NON-COLLUSIVE AFFIDAVIT

1. This Non-Collusive Affidavit is material to any contract awarded pursuant to this bid. According to the Pennsylvania Antibid-Rigging Act, 73 P.S., 1611 et. seq., governmental agencies may require Non-Collusive Affidavits to be submitted together with bids.
2. This Non-Collusive Affidavit must be executed by the members, officer, or employee of the bidder who makes the final decision on prices and the amount quoted in the bid.
3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary of all other persons employed by or associated with the bidder with responsibilities for the preparation, approval or submission of this bid.
4. In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an Affidavit must be submitted separately on behalf of each party.
5. The term "complementary bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the bid.

NON-COLLUSIVE

A F F I D A V I T

**FY-26-27-01 - Reading Area Community College (RACC)
Warehouse Interior Renovations**

State of _____)
County of _____) SS

I state that I am _____ of
(Title)
_____ and that
(Name of my firm)

I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers.
I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

(1) The price(s) and amount of this bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.

(2) Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.

(3) No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.

(4) The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.

(5) _____, its affiliates,
(Name of my firm)

subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last three years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

A statement that a person or firm has been so convicted or found liable does not prohibit the Reading Area Community College from accepting a bid from or awarding a contract to such bidder but may be a ground for consideration by the Reading Area Community College on the question whether the College Administration should decline to award a contract to the bidder on the basis of lack of responsibility.

I state that _____ understands
(Name of my firm)

and acknowledges that the above representations are material and important and will be relied on by Reading Area Community College in awarding the contract for which this bid is submitted. I understand, and my firm understands, that any misstatement in this affidavit is and shall be treated as fraudulent concealment from Reading Area Community College of the true facts relating to the submission of bids for this contract.

By: _____
Signature

Title: _____

Firm

SWORN TO AND SUBSCRIBED BEFORE ME
THIS _____
DAY OF _____, 20____.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____.



AIA[®] Document A305[™] – 2020

Contractor's Qualification Statement

THE PARTIES SHOULD EXECUTE A SEPARATE CONFIDENTIALITY AGREEMENT IF THEY INTEND FOR ANY OF THE INFORMATION IN THIS A305-2020 TO BE HELD CONFIDENTIAL.

SUBMITTED BY:

(Organization name and address.)

SUBMITTED TO:

(Organization name and address.)

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

TYPE OF WORK TYPICALLY PERFORMED

(Indicate the type of work your organization typically performs, such as general contracting, construction manager as constructor services, HVAC contracting, electrical contracting, plumbing contracting, or other.)

THIS CONTRACTOR'S QUALIFICATION STATEMENT INCLUDES THE FOLLOWING:

(Check all that apply.)

- ☐ Exhibit A – General Information
- ☐ Exhibit B – Financial and Performance Information
- ☐ Exhibit C – Project-Specific Information
- ☐ Exhibit D – Past Project Experience
- ☐ Exhibit E – Past Project Experience (Continued)

CONTRACTOR CERTIFICATION

The undersigned certifies under oath that the information provided in this Contractor's Qualification Statement is true and sufficiently complete so as not to be misleading.

Organization's Authorized Representative Signature

Date

Printed Name and Title

NOTARY

State of:

County of:

Signed and sworn to before me this day of

Notary Signature

My commission expires:



AIA[®] Document A305[™] – 2020 Exhibit A

General Information

This Exhibit is part of the Contractor's Qualification Statement, submitted by
and dated the day of in the year
(In words, indicate day, month and year.)

§ A.1 ORGANIZATION

§ A.1.1 Name and Location

§ A.1.1.1 Identify the full legal name of your organization.

This document has important
legal consequences.

Consultation with an attorney is
encouraged with respect to its
completion or modification.

§ A.1.1.2 List all other names under which your organization currently does business and,
for each name, identify jurisdictions in which it is registered to do business under that
trade name.

§ A.1.1.3 List all prior names under which your organization has operated and, for each name, indicate the date range
and jurisdiction in which it was used.

§ A.1.1.4 Identify the address of your organization's principal place of business and list all office locations out of which
your organization conducts business. If your organization has multiple offices, you may attach an exhibit or refer to a
website.

§ A.1.2 Legal Status

§ A.1.2.1 Identify the legal status under which your organization does business, such as sole proprietorship, partnership,
corporation, limited liability corporation, joint venture, or other.

- .1 If your organization is a corporation, identify the state in which it is incorporated, the date of
incorporation, and its four highest-ranking corporate officers and their titles, as applicable.
- .2 If your organization is a partnership, identify its partners and its date of organization.
- .3 If your organization is individually owned, identify its owner and date of organization.
- .4 If the form of your organization is other than those listed above, describe it and identify its individual
leaders:

§ A.1.2.2 Does your organization own, in whole or in part, any other construction-related businesses? If so, identify and describe those businesses and specify percentage of ownership.

§ A.1.3 Other Information

§ A.1.3.1 How many years has your organization been in business?

§ A.1.3.2 How many full-time employees work for your organization?

§ A.1.3.3 List your North American Industry Classification System (NAICS) codes and titles. Specify which is your primary NAICS code.

§ A.1.3.4 Indicate whether your organization is certified as a governmentally recognized special business class, such as a minority business enterprise, woman business enterprise, service disabled veteran owned small business, woman owned small business, small business in a HUBZone, or a small disadvantaged business in the 8(a) Business Development Program. For each, identify the certifying authority and indicate jurisdictions to which such certification applies.

§ A.2 EXPERIENCE

§ A.2.1 Complete Exhibit D to describe up to four projects, either completed or in progress, that are representative of your organization's experience and capabilities.

§ A.2.2 State your organization's total dollar value of work currently under contract.

§ A.2.3 Of the amount stated in Section A.2.2, state the dollar value of work that remains to be completed:

§ A.2.4 State your organization's average annual dollar value of construction work performed during the last five years.

§ A.3 CAPABILITIES

§ A.3.1 List the categories of work that your organization typically self-performs.

§ A.3.2 Identify qualities, accreditations, services, skills, or personnel that you believe differentiate your organization from others.

§ A.3.3 Does your organization provide design collaboration or pre-construction services? If so, describe those services.

§ A.3.4 Does your organization use building information modeling (BIM)? If so, describe how your organization uses BIM and identify BIM software that your organization regularly uses.

§ A.3.5 Does your organization use a project management information system? If so, identify that system.

§ A.4 REFERENCES

§ A.4.1 Identify three client references:

(Insert name, organization, and contact information)

§ A.4.2 Identify three architect references:

(Insert name, organization, and contact information)

§ A.4.3 Identify one bank reference:

(Insert name, organization, and contact information)

§ A.4.4 Identify three subcontractor or other trade references:

(Insert name, organization, and contact information)

Sample



AIA[®] Document A305[™] – 2020 Exhibit B

Financial and Performance Information

This Exhibit is part of the Contractor's Qualification Statement, submitted by
and dated the day of in the year
(In words, indicate day, month and year.)

§ B.1 FINANCIAL

§ B.1.1 Federal tax identification number:

This document has important
legal consequences.

Consultation with an attorney is
encouraged with respect to its
completion or modification.

§ B.1.2 Attach financial statements for the last three years prepared in accordance with Generally Accepted Accounting Principles, including your organization's latest balance sheet and income statement. Also, indicate the name and contact information of the firm that prepared each financial statement.

§ B.1.3 Has your organization, its parent, or a subsidiary, affiliate, or other entity having common ownership or management, been the subject of any bankruptcy proceeding within the last ten years?

§ B.1.4 Identify your organization's preferred credit rating agency and identification information.

(Identify rating agency, such as Dun and Bradstreet or Equifax, and insert your organization's identification number or other method of searching your organization's credit rating with such agency.)

§ B.2 DISPUTES AND DISCIPLINARY ACTIONS

§ B.2.1 Are there any pending or outstanding judgments, arbitration proceedings, bond claims, or lawsuits against your organization, its parent, or a subsidiary, affiliate, or other entity having common ownership or management, or any of the individuals listed in Exhibit A, Section 1.2, in which the amount in dispute is more than \$75,000?

(If the answer is yes, provide an explanation.)

§ B.2.2 In the last five years, has your organization, its parent, or a subsidiary, affiliate, or other entity having common ownership or management:

(If the answer to any of the questions below is yes, provide an explanation.)

- .1 failed to complete work awarded to it?
- .2 been terminated for any reason except for an owners' convenience?
- .3 had any judgments, settlements, or awards pertaining to a construction project in which your organization was responsible for more than \$75,000?

- .4 filed any lawsuits or requested arbitration regarding a construction project?

§ B.2.3 In the last five years, has your organization, its parent, or a subsidiary, affiliate, or other entity having common ownership or management; or any of the individuals listed in Exhibit A Section 1.2:

(If the answer to any of the questions below is yes, provide an explanation.)

- .1 been convicted of, or indicted for, a business-related crime?
- .2 had any business or professional license subjected to disciplinary action?
- .3 been penalized or fined by a state or federal environmental agency?

Sample



AIA[®] Document A305[™] – 2020 Exhibit C

Project Specific Information

This Exhibit is part of the Contractor's Qualification Statement, submitted by
and dated the day of in the year
(In words, indicate day, month and year.)

PROJECT:

(Name and location or address.)

This document has important
legal consequences.

Consultation with an attorney is
encouraged with respect to its
completion or modification.

CONTRACTOR'S PROJECT OFFICE:

*(Identify the office out of which the contractor proposes to perform the work for the
Project.)*

TYPE OF WORK SOUGHT

*(Indicate the type of work you are seeking for this Project, such as general contracting, construction manager as
constructor, design-build, HVAC subcontracting, electrical subcontracting, plumbing subcontracting, etc.)*

CONFLICT OF INTEREST

Describe any conflict of interest your organization, its parent, or a subsidiary, affiliate, or other entity having common
ownership or management, or any of the individuals listed in Exhibit A Section 1.2, may have regarding this Project.

§ C.1 PERFORMANCE OF THE WORK

§ C.1.1 When was the Contractor's Project Office established?

§ C.1.2 How many full-time field and office staff are respectively employed at the Contractor's Project Office?

§ C.1.3 List the business license and contractor license or registration numbers for the Contractor's Project Office that
pertain to the Project.

§ C.1.4 Identify key personnel from your organization who will be meaningfully involved with work on this Project and
indicate (1) their position on the Project team, (2) their office location, (3) their expertise and experience, and (4)
projects similar to the Project on which they have worked.

§ C.1.5 Identify portions of work that you intend to self-perform on this Project.

§ C.1.6 To the extent known, list the subcontractors you intend to use for major portions of work on the Project.

§ C.2 EXPERIENCE RELATED TO THE PROJECT

§ C.2.1 Complete Exhibit D to describe up to four projects performed by the Contractor's Project Office, either completed or in progress, that are relevant to this Project, such as projects in a similar geographic area or of similar project type. If you have already completed Exhibit D, but want to provide further examples of projects that are relevant to this Project, you may complete Exhibit E.

§ C.2.2 State the total dollar value of work currently under contract at the Contractor's Project Office:

§ C.2.3 Of the amount stated in Section C.2.2, state the dollar value of work that remains to be completed:

§ C.2.4 State the average annual dollar value of construction work performed by the Contractor's Project Office during the last five years.

§ C.2.5 List the total number of projects the Contractor's Project Office has completed in the last five years and state the dollar value of the largest contract the Contractor's Project Office has completed during that time.

§ C.3 SAFETY PROGRAM AND RECORD

§ C.3.1 Does the Contractor's Project Office have a written safety program?

§ C.3.2 List all safety-related citations and penalties the Contractor's Project Office has received in the last three years.

§ C.3.3 Attach the Contractor's Project Office's OSHA 300a Summary of Work-Related Injuries and Illnesses form for the last three years.

§ C.3.4 Attach a copy of your insurance agent's verification letter for your organization's current workers' compensation experience modification rate and rates for the last three years.

§ C.4 INSURANCE

§ C.4.1 Attach current certificates of insurance for your commercial general liability policy, umbrella insurance policy, and professional liability insurance policy, if any. Identify deductibles or self-insured retentions for your commercial general liability policy.

§ C.4.2 If requested, will your organization be able to provide property insurance for the Project written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis?

§ C.4.3 Does your commercial general liability policy contain any exclusions or restrictions of coverage that are prohibited in AIA Document A101-2017, Exhibit A, Insurance A.3.2.2.3? If so, identify.

§ C.5 SURETY

§ C.5.1 If requested, will your organization be able to provide a performance and payment bond for this Project?

§ C.5.2 Surety company name:

§ C.5.3 Surety agent name and contact information:

§ C.5.4 Total bonding capacity:

§ C.5.5 Available bonding capacity as of the date of this qualification statement:

Sample



AIA[®] Document A305[™] – 2020 Exhibit D

Contractor's Past Project Experience

	1	2	3	4
PROJECT NAME				
PROJECT LOCATION				
PROJECT TYPE				
OWNER				
ARCHITECT				
CONTRACTOR'S PROJECT EXECUTIVE				
KEY PERSONNEL (include titles)				
PROJECT DETAILS	Contract Amount Completion Date % Self-Performed Work	Contract Amount Completion Date % Self-Performed Work	Contract Amount Completion Date % Self-Performed Work	Contract Amount Completion Date % Self-Performed Work
PROJECT DELIVERY METHOD	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:
SUSTAINABILITY CERTIFICATIONS				



AIA[®] Document A305[™] – 2020 Exhibit E

Contractor's Past Project Experience, Continued

	1	2	3	4
PROJECT NAME				
PROJECT LOCATION				
PROJECT TYPE				
OWNER				
ARCHITECT				
CONTRACTOR'S PROJECT EXECUTIVE				
KEY PERSONNEL (include titles)				
PROJECT DETAILS	Contract Amount Completion Date % Self-Performed Work	Contract Amount Completion Date % Self-Performed Work	Contract Amount Completion Date % Self-Performed Work	Contract Amount Completion Date % Self-Performed Work
PROJECT DELIVERY METHOD	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:	☐ Design-bid-build ☐ Design-build ☐ CM constructor ☐ CM advisor ☐ Other:
SUSTAINABILITY CERTIFICATIONS				

DOCUMENT 005200 - AGREEMENT FORM

PART 1 - GENERAL

1.1 AGREEMENT FORM

- A. Owner and Contractor Agreement to be used is the American Institute of Architects (AIA) Document A101, STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR - 2017 Edition, subsequently referred to as the Agreement, and as amended by the General and Supplementary Conditions of the Contract set forth in the Project Manual.
- B. The Agreement will be completed for signature by Owner and Contractor prior to initiating any Work.
- C. An Agreement will be completed for each project Prime Bid accepted by Owner.
- D. The Agreement is specifically made a part of the Contract Documents referenced with the same force and effect as though set forth here in full.
- E. A sample copy of AIA Document A101 follows this Document.

1.2 RELATED DOCUMENTS

- A. Document 006100 - Bonds.
- B. Document 007200 - General Conditions.
- C. Document 007300 – Supplementary Conditions of the Contract

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT



AIA[®]

Document A101[™] – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

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)

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

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

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

The Owner and Contractor agree as follows.

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

The parties should complete A101[™]-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement.

AIA Document A201[™]-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

Init.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

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 a Modification, 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 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.)

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

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

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

Init.

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User Notes:

(1296912456)

[] Not later than () calendar days from the date of commencement of the Work.

[] By the following date:

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

Portion of Work

Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, 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 (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

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

Item

Price

§ 4.2.2 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

§ 4.3 Allowances, if any, included in the Contract Sum:

(Identify each allowance.)

Item

Price

§ 4.4 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)

§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the 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 Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 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 Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 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.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 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.

§ 5.1.6.2 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 A201–2017;
- .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 A201–2017; 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 Substantial Completion of the Work, 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.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 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 A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

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

§ 5.3 Interest

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

(Insert rate of interest agreed upon, if any.)

%

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the 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.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- ☐ Arbitration pursuant to Section 15.4 of AIA Document A201–2017
- ☐ Litigation in a court of competent jurisdiction
- ☐ Other *(Specify)*

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 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A201–2017, 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.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 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)

§ 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 A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, 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 A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, 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.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .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.)

.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 E204™-2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 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 A201™-2017 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 entered into as of the day and year first written above.

OWNER (Signature)

(Printed name and title)

CONTRACTOR (Signature)

(Printed name and title)

Init.

DOCUMENT 006100 - BONDS

PART 1 - GENERAL

1.1 PERFORMANCE AND PAYMENT BOND

- A. Successful Bidder entering into an Agreement with Owner shall submit completed Performance Bond and Labor and Material Payment Bond on American Institute of Architects (AIA) Document A312, 2010 Edition, PERFORMANCE BOND AND PAYMENT BOND.
- B. Those documents are referenced with same force and affect as though set forth here in full.
- C. A sample copy of AIA Document A312 follows this Document.

1.2 RELATED DOCUMENTS

- A. Document 005200 - Agreement Form.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT



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)

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.

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:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

§ 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)

Signature: _____
Name and Title: _____
Address: _____

SURETY

Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, , hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with this certification at 12:41:02 on 03/08/2011 under Order No. 5973957653_1 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A312™ – 2010, Payment Bond, as published by the AIA in its software, other than changes shown in the attached final document by underscoring added text and striking over deleted text.

(Signed)

(Title)

(Dated)



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)

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.

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)

SURETY

Company: (Corporate Seal)

Signature: _____

Name and

Title:

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

Signature: _____

Name and

Title:

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

§ 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.)

CONTRACTOR AS PRINCIPAL

Company: _____
(Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

SURETY

Company: _____
(Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

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Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, , hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with this certification at 12:42:15 on 03/08/2011 under Order No. 5973957653_1 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A312™ – 2010, Performance Bond, as published by the AIA in its software, other than changes shown in the attached final document by underscoring added text and striking over deleted text.

(Signed)

(Title)

(Dated)

DOCUMENT 006200 - CERTIFICATES AND OTHER FORMS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes multiple forms required by Owner, Architect, Authorities Having Jurisdiction and other Agencies that are required for permitting, approvals, and construction administration activities.
- B. Submit certificates and other forms at appropriate times prior to, during, and post construction as coordinated by Construction Manager.

1.2 RELATED DOCUMENTS

- A. Document 006100 - Bonds.
- B. Document 007200 - General Conditions.

1.3 CERTIFICATES AND OTHER FORMS

- A. Submittal Cover Sheet: Use under provisions of Section 013300 "Submittal Procedures".
- B. Certificate of Insurance Form.
- C. Qualified Contractor Certification Form. Use under provisions of Section 007400 "Qualified Contractors."
- D. Schedule of Values Form (AIA G703 or equivalent).
- E. Stored Materials Form.
- F. Construction Schedule Form.
- G. Sales Tax Statement and Certification Form.
- H. Acord 25-S Form (Certificate of Liability Insurance).
- I. Contractor's Application for Payment Form; AIA G702 or equivalent.

1.4 CLARIFICATION AND MODIFICATION FORMS

- A. Substitution Request Form; used during construction.
- B. Request for Information Form.

1.5 CLOSEOUT FORMS

- A. Certificate of Compliance Form.
- B. Certificate of Substantial Completion Form.
- C. Certificate of Completion Form:
 - 1. Affidavit of Payment of Debts and Claims Form.
 - 2. Affidavit of Release of Liens Form.
 - 3. Consent of Surety to Final Payment Form.
 - 4. Acceptance of Certificate Form.
- D. Warranty Form.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT

DOCUMENT 007200 - GENERAL CONDITIONS

PART 1 - GENERAL

1.1 GENERAL CONDITIONS FORM

- A. General Conditions of this Contract to be used is American Institute of Architects (AIA) Document A201, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION - 2017 Edition, subsequently referred to as General Conditions.
- B. General Conditions are specifically made a part of Contract Documents with same force and effect as though set forth here in full.
- C. AIA Document A201-2017, as modified for this Project with additions and deletions identified, follows this Document.
- D. Specification Section 007300 titled "Supplementary Conditions of the Contract" covers all additions and deletions applicable to AIA Document A201.

1.2 DEFINITIONS

- A. General Conditions: Contents of AIA Document referenced in this Document 007200.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT



AIA[®]

Document A201[™] – 2017

General Conditions of the Contract for Construction

for the following PROJECT:
(Name and location or address)

THE OWNER:
(Name, legal status and address)

THE ARCHITECT:
(Name, legal status and address)

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

For guidance in modifying this document to include supplementary conditions, see AIA Document A503[™], Guide for Supplementary Conditions.

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1.1.1, 2.4, 3.9, 7, 8.2.2, 12.1, 12.2, 13.4.2, 14.3.1

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 a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 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 the Owner and by Separate Contractors.

§ 1.1.5 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.

§ 1.1.6 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.

§ 1.1.7 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.

§ 1.1.8 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.

§ 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.

§ 1.3 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. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 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

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forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, 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 shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does 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.

§ 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 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 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.

§ 2.3.5 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.

§ 2.3.6 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.

§ 2.4 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 prior approval of the Architect and the 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 Architect's 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.

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 Architect in the Architect's 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.

§ 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 2.3.4, 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 Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the 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.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 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, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 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 and 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. Unless the Architect 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 Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 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 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.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner 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 Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 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 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 Contractor shall secure and pay for the building permit as well as 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 and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect 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 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 and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that 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

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suspend any operations that would affect them and shall notify the Owner 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.

§ 3.9 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 of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect 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 or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 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 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.

§ 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 Architect's approval. The Architect'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 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 perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 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 Architect and Owner, and delivered to the Architect 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 is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is 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 Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner 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 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 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 Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

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§ 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 and the Architect shall be entitled to rely upon the adequacy and accuracy 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.

§ 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 Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

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.

§ 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 or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 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 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 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 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 or Architect. 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.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, 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 resulting from performance of the Work, 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), 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

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

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The 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. The 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.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not

have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor 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 Contractor 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 Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 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. Review of such submittals 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 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 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.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 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 Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

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

§ 4.2.12 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 rendered in good faith.

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

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests 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 a Separate Contractor or the subcontractors of a Separate Contractor.

§ 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 Owner 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 Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect 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 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 or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner 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 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 and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner 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

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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 and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. 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 separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 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.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate 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 or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify 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 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 Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor 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 a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 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 or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor 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, 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 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, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner 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

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect 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.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner 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 Architect 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 Architect 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 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 Architect 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 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 Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's 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 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 Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 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 Architect 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 Architect 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 or Architect, of an employee of either, or of a Separate Contractor; (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 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 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

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, the Contractor shall submit a schedule of values to the Architect 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 Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

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§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect 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 or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 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 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.

§ 9.3.2 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 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor 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 Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, 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 entitled to payment in the amount certified. The foregoing representations 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 Architect. However, the issuance of a Certificate for Payment will not be a representation that the 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 Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot

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be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The 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 previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, 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;
- .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 the Architect withholds certification for payment under Section 9.5.1.3, 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 Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a 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 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 Architect 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 Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request 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 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.

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§ 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 fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner 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. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after 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 Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner 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 that the Owner can occupy or utilize the Work for its intended use.

§ 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 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 Contractor's list, the Architect 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 Contractor's 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 to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare 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 shall 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.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, 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 receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's 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 Architect's final 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 (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 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 Architect so confirms, the Owner shall, upon application by the Contractor and certification by the 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 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.

§ 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; and
- .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.

§ 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 and 10.2.1.3 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 and 10.2.1.3. 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 or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either 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 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 and Substances

§ 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 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 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 and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor 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, Architect, 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 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.

§ 10.4 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, 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 to the Owner 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 the Contractor 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 to the Contractor 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.

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§ 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 Architect and Architect's consultants; and (3) 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 Architect, Architect's consultants, 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 and Architect 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 Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the 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 Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's 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 Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, 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 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 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 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 or Separate 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, 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 Architect timely notice of when and where tests and inspections are to be made so that the 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 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 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 Architect of when and where tests and inspections are to be made so that the 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 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 Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the 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.

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 Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, 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 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 or entities 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 and the 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, 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 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,

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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 be certified by the Initial Decision Maker, upon application, 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 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 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 the 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 for Work properly executed; 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, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 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 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, 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. 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

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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 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 after 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.

SECTION 007300 - SUPPLEMENTARY CONDITIONS OF THE CONTRACT

THE FOLLOWING SUPPLEMENTS MODIFY, CHANGE, DELETE FROM, OR ADD TO THE "**GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**", **AIA DOCUMENT A201-2017 edition**. WHERE ANY ARTICLE OF THE GENERAL CONDITIONS IS MODIFIED, OR ANY PARAGRAPH, SUBPARAGRAPH, OR CLAUSE THEREOF IS MODIFIED OR DELETED BY THESE SUPPLEMENTARY CONDITIONS, THE UNALTERED PROVISIONS OF THAT ARTICLE, PARAGRAPH, SUBPARAGRAPH, OR CLAUSE SHALL REMAIN IN EFFECT. IN THE EVENT OF ANY DISCREPANCY BETWEEN THE GENERAL CONDITIONS AND THESE SUPPLEMENTARY CONDITIONS, THESE SUPPLEMENTARY CONDITIONS SHALL CONTROL. NUMBERING INDICATED FOR NEW PARAGRAPHS, SUBPARAGRAPHS OR CLAUSES IS CONSECUTIVE TO THAT OF THE UNALTERED AIA DOCUMENT A201-2017.

THIS DOCUMENT SHALL APPLY TO ALL PRIME CONTRACTS

1.1 Change Subparagraph 1.1.1

Replace the last sentence with: "The Contract Documents shall include Bidding Requirements, including, but not limited to, advertisement or Invitation to Bid, Instructions to Bidders, bid period requests for information (RFI's), the Contractor's Bid, and Addenda or portions of the Addenda relating to any Bidding Documents."

1.2 Add the new Subparagraph "1.1.11, Miscellaneous Definitions" and following Subparagraphs:

1.1.11.1 The terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the Architect" and similar phrases. However, no implied meaning shall be interpreted to extend the Architects' responsibility into the Contractor's area of construction supervision.

1.1.11.2 The term "approved" where used in conjunction with the Architect's action on the Contractor's submittals applications and requests is limited to the responsibilities and duties of the Architect stated in General and Supplementary Conditions acting as the Agent of the Owner. Such approval shall not release the Contractor from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.

1.1.11.3 The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation and similar operations." It is acknowledged that Owner will supply certain materials, but Contractor shall be responsible for its delivery.

1.1.11.4 The term "install" is used to describe operations at the Project site including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimensions, finishing, curing, protecting, cleaning, and similar operations.

1.1.11.5 The term "provide" means to furnish and install complete in place, tested and approved.

1.1.11.6 The term "an installer" is an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

The term "experienced" when used with the term "installer" means having a minimum of five (5) previous projects similar in size and scope to this Project and familiar with the precautions required and has complied with requirements of the authority having jurisdiction."

1.1.11.7 The term "product" includes materials, systems and equipment.

1.1.11.8 The term "building code" and the term "code" refer to regulations of governmental agencies having jurisdiction.

1.1.11.9 The term "similar" means in its general sense, and not necessarily identical.

1.1.11.10 The terms “shown”, “indicated”, “detailed”, “noted”, “scheduled” and terms of similar import, refer to requirements contained in the Contract Documents.

1.1.11.11 Where reference to “the Contractor” is made in AIA General Conditions of the Contract for Construction, Supplementary General Conditions and Instructions to Bidders, it shall mean “each” Contractor, unless specified otherwise.

1.1.11.12 Acronyms may be utilized throughout the Contract Documents to assign work to specific prime contractors. In these cases, “GC” shall refer to the General Trades Contractor, “EC” shall refer to the Electrical Prime Contractor, and “PC” shall refer to the Plumbing Prime Contractor. “MC”, “HC”, “HVAC” shall all refer to the HVAC Prime Contractor. “RC” shall refer to the Roofing Prime Contractor when applicable to a given project.

1.3 Add the following Subparagraph 1.2.4:

“1.2.4 In the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

- A. The Agreement between Owner and Contractor, AIA Document A101-2017 edition.
- B. Addenda, with those of later date having precedence over those of an earlier date.
- C. The Supplementary Conditions of the Contract.
- D. The General Conditions of the Contract for Construction, AIA Document A201-2017 edition.
- E. Drawings and Specifications.
 - 1. In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.”
 - 2. In the case of a discrepancy between the Drawings and Specifications where quality or quantity is not clearly inferable, the Specifications shall govern.

1.4 Add new Subparagraph 1.2.5 as follows:

“1.2.5 Notations which apply to one of a number of similar situations, materials, or processes shall be deemed to apply to all except where indicated to the contrary. All manufactured material and equipment shall be installed and used in accordance with the manufacturer's instructions unless specifically otherwise directed in the Contract Documents.”

1.5 Add new Subparagraph 1.2.6 as follows:

“1.2.6 Contractor acknowledges that the plans and specifications are intended only to show the intent of the completed Project. Contractor represents that it is qualified to construct the Project as depicted in the Contract Documents and to determine its own means, methods, techniques, sequences and procedures. To the extent that means, methods, techniques, sequences and procedures are identified in the Contract Documents, Contractor is required to independently evaluate those means, methods, techniques, sequences and procedures for the purpose of determining whether the means, methods, techniques, sequences and procedures depicted in the Contract Documents are adequate to construct the Project. Contractor further represents that it has based its bid upon its own determination of the means, methods, techniques, sequences and procedures required to construct the Project.”

1.6 Move text of Paragraph 1.4 to Subparagraph 1.4.1. Retain “1.4 Interpretation” heading.

1.7 Add new Subparagraph 1.4.2 as follows:

“1.4.2 To the extent that the Contractor makes a representation in the conditions of the Contract, any such representation is a contractual obligation required to be performed and is a representation to the Owner and Architect upon which each of them are entitled to rely.

1.8 Delete last sentence of Paragraph 1.7.

1.9 Add new Subparagraph 1.7.1 as follows:

“1.7.1 The Architect will make available to the Contractor, upon request, Digital Data files of selected contract drawings for the Contractor’s purposes solely and exclusively to perform services or construction for the project. The Contractor shall request Digital Data files of specific drawings using the Electronic Media Release Form provided by the Architect. Upon receipt of the Release Form, Digital Data files of the requested drawings will be forwarded to the Contractor via a compact disc or through an “FTP type” website established for the project.

1.10 Add the following Subparagraph 1.7.2:

“1.7.2 In the event the Contractor requests and receives Digital Data or similar electronic files of project documents for use in the execution of the Work of this project, it is with the understanding that the Digital Data or electronic files provided are for informational purposes only and may not necessarily represent the final and/or complete design of the project and its systems. The Contractor shall not rely on the accuracy of the information provided but shall be responsible to verify all information and actual project conditions.

Neither the Owner nor Architect assumes responsibility for the information contained on the Digital Data or electronic files or the subsequent use of the information. The Owner and Architect caution any user of the Digital Data or electronic files that subsequent changes may have been made to the Project and/or Contract Documents which may not be reflected on the electronic files. Only final stamped drawings represent an accurate record of the Architects’ design.

To the fullest extent permitted by law, the Contractor shall indemnify and defend the Owner, Architect and their respective officers, directors, representatives, insurers, agents, employees and assigns from and against all claims, actions, damages, losses and costs arising from or related to the Contractor’s request for and use of Digital Data or electronic project document files, including, but not limited to, any errors, omissions, anomalies, or variances contained therein.”

1.11 Delete last sentence of Paragraph 1.8.

2.1 Replace Subparagraph 2.1.1 with the following:

“2.1.1 The bidder agrees and acknowledges that the Owner is a “contracting body” under the Public Works Contractor’s Bond Law of 1967, and the Work on the Project is public construction and not subject to the filing of Mechanics Liens, and further agrees to provide and specify in its subcontracts with Subcontractors and Suppliers for their acknowledgment that their sole remedy against the Owner exists only under the provisions of the Bond Law and in accordance with the Payment Bond and to indemnify and hold harmless the Owner from any claim under the Mechanics Law Lien, filed by its Subcontractors and Suppliers.”

2.2 Delete Paragraph 2.2 and associated subparagraphs 2.2.1, 2.2.2, 2.2.3, 2.2.4.

2.3 Replace Subparagraph 2.3.1 as follows:

“The Contractor, unless noted otherwise per the terms of this Project, shall secure and pay for all necessary approvals, assessments and permits for the scope of its work from the requisite Authorities Having Jurisdiction.”

2.4 Add the following Subparagraph 2.3.1.1”

“2.3.1.1 The Owner shall secure and pay for the general construction permit.”

2.5 Replace Subparagraph 2.3.5 with the following:

“2.3.5 The Owner shall not be responsible for furnishing surveys (unless required for the execution of the work and requested by the Contractor in writing) or other information as to the physical characteristics of legal limitations of or utility locations for the Project site, but shall furnish or cause to be furnished to the Contractor a legal description of the Project site, which shall not constitute one of the Contract documents. Contractor shall confirm the location of each utility, shall excavate and dispose of each on-site utility and shall cap each off-site utility as required by the Work and as may be included in the Specifications. The Contractor represents that it is familiar with the Project site and has received all information it needs concerning the condition of the Project site. The Contractor represents that it has inspected the location of the Work and has satisfied itself as to the condition thereof, including, without limitations, all structural, surface, and subsurface conditions. The Contractor shall exercise special care in executing subsurface work in proximity of known subsurface utilities, improvements, and easements.”

2.6 Add the following Subparagraph 2.3.5.1:

“2.3.5.1 The Owner will make available to the Contractor such soil borings tests and reports as it may have available, but in no event shall such information constitute any warranty or representation by the Owner as to the accuracy of such information.”

2.7 Change Subparagraph 2.3.6 as follows:

Replace the text “one” with “a digital copy in PDF format”

2.8 Change Paragraph 2.4 as follows:

In the first sentence after the words, “the Owner may” insert the following: “- in addition to all other remedies available at law or hereunder - “.

2.9 Add the following Subparagraph 2.4.1.1:

“2.4.1.1 This right shall be in addition to and not in restriction or derogation of the Owner's rights under Section 2.4 or Article 14 hereof. The Owner's right to stop the Work shall not relieve a Contractor of any of its responsibilities and obligations under or pursuant to the Contract Documents.”

2.10 Change Paragraph 2.5 as follows:

In the first sentence:

- Change “ten-day period” to read “five-day period.”
- Change the words, “...,without prejudice to other remedies the Owner may have, correct such deficiencies.” to read: “...,without prejudice to other remedies the Owner may have, *immediately* correct such default or neglect.”

Insert after the first sentence the following: “In such case an appropriate Change Order or Construction Change Directive shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses, attorney's fees and compensation for the Architect's and its respective consultants' additional services made necessary by such default, neglect or failure.”

3.1 Delete Subparagraph 3.2.1 and replace with the following:

“3.2.1 The Contractor warrants that it has carefully studied and reviewed the Contract Documents and has reported any errors, inconsistencies or omissions to the Architect. The Contractor hereby acknowledges and declares that to Contractor's knowledge the Contract Documents are full and complete, are sufficient to have enabled the Contractor to determine the cost of the Work and fulfill all of the Contractor's obligations under the Contract Documents. Contractor represents that it has the knowledge, skill and expertise to perform the work; that it understands that it must make reasonable inferences to determine portions of the work not shown in the Contract Documents that would be required for a proper and complete project, and it has included all costs for such inferences in its bid; and, that contractor is not relying on representations from the contract documents for the purpose of determining the means, methods, sequences or procedures of performing the work. The Contractor shall immediately report any error, inconsistency, or omission it encounters to the Architect for resolutions. If the Contractor performs any construction activity knowing or having reason to know that it involves an error, inconsistency or omission, the Contractor shall bear the cost of construction.”

3.2 Delete Subparagraph 3.2.3 and replace with the following:

“3.2.3 It shall be the obligation of the Contractor to review the Contract Documents to determine and to notify the Architect of any discrepancy with the building codes and regulations of which the Contractor has knowledge or should be reasonably able to determine. The Contractor shall not violate any zoning, setback or other locational requirements of applicable laws, codes and ordinances, or any recorded covenants of which the Contractor has knowledge. If the Contractor observes that portions of the Contract Documents are at variance with applicable laws, statutes, ordinances, building codes, rules or regulations, the Contractor shall notify the Owner and Architect in writing, and necessary changes shall be accomplished by appropriate Modification.”

3.3 Delete Subparagraph 3.2.4

3.4 Change Subparagraph 3.3.2 as follows:

In the second line after "agents and employees," insert "Suppliers and their agents and employees,"

3.5 Add the following Subparagraph 3.3.2.1:

“3.3.2.1 Contractors shall be responsible to protect their installed work until such work is turned over to and accepted by the Owner in writing. Any damage to such work shall be corrected by the Contractor initially responsible for the work, regardless of how the damage was sustained. The Architect, serving as Initial Decision Maker, shall make a determination of liability for the damage and assign financial liability for the corrections, including any equitable apportionment of costs.

“3.3.2.2 In the event that damage to the work is determined to be wholly or in part the fault of a Contractor other than the Contractor initially responsible for the work, the Architect shall notify all liability parties of his determination of liability and present Change Orders to match the cost of the repair work. In the case of disputed or absent Change Orders, the Owner reserves the right to deduct or withhold costs from any Contractor determined to be liable for the damaged work by the Architect. This shall not be considered a waiver or acceptance of responsibility by any Contractor, nor preclude any other rights thereof.”

3.6 Add the following Subparagraphs 3.3.4 through 3.3.11:

“3.3.4 The Contractor shall perform its Work in accordance with the Contract Documents and in a professional, businesslike and workmanlike manner. Among other things, at completion of the Work, the Contractor shall thoroughly clean the site and remove from the site all tools, equipment, obstructions and debris resulting from the Work.

3.3.5 The Contractor shall abide by all federal, state and local legal requirements applicable to this project, including requirements imposed by statute, regulation, code, ordinance, administrative rule

or by order of any court or administrative agency. This includes, but is not limited to, requirements governing health, safety, labor and environmental protection. Among other things, the Contractor shall submit an MSDS form (or other required form) and proper labeling to the Architect in advance of each chemical being used.

3.3.6 The Contractor's Work shall be at all times subject to the inspection and approval of the Owner or Architect. Any materials that in the opinion of the aforementioned parties do not comply with the Contract Documents will be rejected and shall be immediately removed from the site. Any workmanship that in the opinion of the aforementioned parties does not comply with the Contract Documents shall be stopped at once, and corrective measures shall be instituted at once.

3.3.7 For a Project with multiple prime contractors, all Contractors are responsible for the coordination and integration of their respective scopes of Work. The General Trades Contractor is responsible for making all coordination decisions not mutually agreed upon by affected Contractors. The Owner and its consultants or agents shall not be liable for any costs incurred by any Contractor due to failure of Contractors to coordinate and integrate their Work or due to any delays in the Work. If a Contractor causes damages or additional costs to another Contractor (including by causing delays, interferences, hindrances, loss of efficiencies or acceleration of Work), an adversely impacted Contractor will have a third-party beneficiary claim for legal action against the responsible Contractor. All Contractors acknowledge and accept the right of other Contractors to bring such third-party beneficiary claims, waive any privity of contract defense against such claims, and agree not to include the Owner, its professional consultants or agents, as parties in any such legal action.

3.3.8 Contractor shall not assign its duties under this Agreement without the express written approval of Owner."

3.3.9 After Award of Contract, any claims for additional costs associated with completion of the Work within the required Contract time frames will not be considered. Contractors must recognize that although their work might not require shift, overtime, or premium time work for completion within the stipulated time frame, it may be required in order to allow other Contractors to complete within the specified time. Failure to recognize the extra costs in his bid shall not relieve the Contractor from utilizing shift, overtime, or premium time work in performance of his Contract nor entitle him to additional compensation. Where installation work is part of the contract, all costs associated with meeting the time frames indicated in the construction schedules shall be included in the contract price.

3.3.10 If the Contractor fails to supervise his workmen or subcontractors, the Owner shall withhold monies sufficient to protect the Owner's interest.

3.3.11 No verbal agreement or conversation with any officer, agent or employee of the Owner or Architect, either before or after the execution of the contract, shall affect or modify the terms or obligations herein contained. Failure to comply with any or all of the above requirements will not relieve the contractor from the responsibility of properly estimating the difficulty or cost of successful completion of the work, nor from the responsibility for the faithful performance of the provisions of this contract."

3.7 Change Subparagraph 3.4.3 as follows:

Append the following: "The Contractor shall inform all workers on the Project of proper conduct expected of them by the Owner at all times. Fraternization between the workers and the adjacent building occupants (if present), obscene gestures, obscene pictorial, printed and/or written expressions and the use of profanity by the workers is forbidden."

3.8 Add the following Subparagraphs 3.4.4 through 3.4.11:

3.4.4 All persons employed by the Contractor to perform the Work shall be competent and first-class workmen and mechanics, who are duly skilled in their respective branches of labor.

3.4.5 Should the Owner object in writing to any personnel of Contractor or any Subcontractor, such personnel shall not perform services on the Project, and there shall be no change in the Contract Sum as a result of such objection.

3.4.6 The Contractor shall assign an on-site Superintendent for the project who shall not be replaced so long as the Superintendent remains in the Contractor's employment without written consent by the Owner, and who shall be replaced without any change in the Contract Sum if the Owner, in its discretion, so requires.

3.4.7 The Contractor in making or ordering material shipments shall not consign or have consigned materials, equipment or any other items in the name of the Owner. The Owner shall not be under any obligation to make payment for charges or deposits on shipments made by or to the Contractor but may, at its option, pay such charges in which case the Contractor shall reimburse the Owner for the amount of such payments plus a service charge of twenty-five percent (25%) of the amount so paid.

3.4.8 Contract Sum Not Adjusted for Rising Costs: The Bid (and hence the Contract Sum) for the Contract must be guaranteed for the duration of the Project and shall thereby have incorporated within it any or all escalation factors related to market conditions. Notwithstanding any other provision in the Contract Documents to the contrary, Contractor's Contract Sum is intended to include all increases in cost, foreseen or unforeseen, including, without limitation, increases in costs arising from supply shortages, unusual delay in deliveries, increases in market prices for materials, labor, taxes and/or other causes beyond the Owner's control, all of which are to be borne solely by the Contractor supplying the materials and/or labor to the Project. All loss and/or damage arising from any of the Work performed under this Agreement through unforeseen or unusual obstructions, difficulties or delays which may be encountered in the prosecution of same shall be borne solely by the Contractor prosecuting the Work."

3.4.9 The Contractor shall assure that his employees comply with the following:

- .1 The contractor is solely responsible for the safety of his employees and for assuring compliance with OSHA rules and regulations as stated in the project specifications.
- .2 Construction security means that the Contractor shall be responsible to protect and secure his own tools, equipment and materials. He is also responsible to protect the Owner's property and facilities which he occupies or uses.
- .3 Workers shall not operate audio devices in a manner that may be considered a disturbance to construction activity and/or surrounding neighborhood.
- .4 Dress in accordance with OSHA requirements.
 - a. Clothing shall not bear references to tobacco, drugs, alcoholic beverages, and/or profanity.
- .5 No use of building restrooms, once completed.
- .6 Stay out of building areas which are not a part of construction.
- .7 Do not use any facility, materials or equipment without specific permission.
- .8 Workers shall not possess or consume drugs, alcoholic beverages, and/or other controlled substances when on site.
- .9 Wear any required identification badge so that it is in clear view.
- .10 Workers shall not possess firearms or weapons on site.
- .11. Workers shall not interact with students unless such communication is explicitly required for performance of the Work.

3.4.10 The Contractor shall be responsible for enforcing the standards of conduct referenced in this Article 3.4.

3.4.11 The Owner shall have the right to have the Contractor remove from the site all workers in violation of the above stated standards of conduct.

3.9 Change Subparagraph 3.5.1 as follows:

- In the second line after "good quality and new" insert "and of recent manufacture."
- Change fourth sentence to read as follows:
"The Contractor's warranty excludes remedy for damage or defect caused by abuse, which is not the responsibility of the Contractor, modifications not executed by the Contractor, or improper or insufficient maintenance or improper operation which is not the responsibility of the Contractor, or normal wear and tear under normal usage."

3.10 Replace Subparagraph 3.5.2 with the following:

"3.5.2 All materials and workmanship shall be guaranteed for a minimum of one year from date of Substantial Completion for the entire Project, except where a longer period is specified in the Contract Documents. Each Contractor shall make good without cost to the Owner any defective portion of the work of which he is notified within one year of that date. Repair or replacement of such defects shall extend to other work damaged thereby. Owner's rights and remedies hereunder shall be in addition to any other rights and remedies which Owner may have pursuant to law or this contract. Owner shall be entitled to all other rights and remedies provided by this contract and by law, in addition to the Warranty rights and remedies set forth in this paragraph."

3.11 Move text of Paragraph 3.6 to new Subparagraph 3.6.1

3.12 Add the following Subparagraphs 3.6.2 through 3.6.5:

"3.6.2 The Contractor shall be aware that the Project Owner is a Pennsylvania tax exempt entity, and that Pennsylvania Sales and Use Tax must be paid for all materials and equipment with the exception of certain Building Machinery and Equipment (BME) as defined in applicable law (PA Act 45 of 1998). The Contractor is solely responsible to determine whether certain purchases within his Contract may be tax exempt for the Project Owner and whether the Owner may benefit from the Contractors reduction of said taxes in the calculation of his bid.

.1 Contractors are encouraged to take advantage of any sales tax exemptions for which the Owner is entitled in computing the bid amount.

.2 Contractors intending to purchase certain BME exempt from sales tax shall recognize that they must submit a Pennsylvania Department of Revenue Sales Tax Exemption Certificate (Form REV-1220) to their supplier(s) in accordance with applicable law, without benefit of the Owner's tax exemption number and/or Federal ID Number (EIN); the form should contain the statement, "Property or services qualify as building machinery and equipment, and will be transferred pursuant to a construction contract to (name of Owner)." The Owner will not provide their tax exemption and/or Federal ID Number (EIN) to any Contractor, subcontractor, material supplier or other entity in assisting in making tax-exempt purchases.

.3 Regardless of whether Contractor has taken advantage of certain BME sales tax exemptions in the calculation of his bid, the Contractor shall be required to submit a signed and notarized "Assignment of Rights Sales / Use Tax Refund" form, as hereafter specified, as well as assist the Owner in filing all of the Petitions for Refund with the Commonwealth's Board of Appeals for taxes paid on tax exempt purchases for the Project.

.4 Contractors shall submit to the Owner a letter identifying all materials purchased exempt of sales tax in their Contract, in order to assist the Owner in seeking any refund on tax exempt items.

3.6.3 Access to Accounting Records: The Contractor shall check all materials, equipment and labor entering into the Work and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement, and the system shall be satisfactory to the Owner. The Owner or its representative shall be afforded access to all the Contractor's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and such similar

data relating to this Contract, and the Contractor shall preserve all such records for a period of twelve (12) years (Statute of Repose period), or for such longer period as may be required by law, after final payment.

3.6.4 Assignment of Refund Rights: The Contractor hereby assigns and transfers to the Owner all his rights to sales and use tax which may be refunded as a result of a claim for refund for materials purchased in connection with this Contract, regardless of whether Contractor has taken advantage of certain non-taxable Building Machinery and Equipment (BME) in the calculation of his bid. The Contractor further agrees that it will not file a claim for refund for any sales or use tax which is subject to this assignment.

.1 Contractor further agrees that he will assist the Owner in the preparation and submission of petitions for refund pertaining to those taxes.

.2 Contractors shall be required to submit a signed and notarized "Assignments of Rights Sales / Use Tax Refund" form, within the time period specified for initial submittals in Section 011000. Sample form included following these General Conditions.

3.6.5 Contracts with Subcontracts: The Contractor agrees to include the "Access to Accounting Records" and "Assignments of Refund Rights" paragraphs, in full, in any contracts with subcontractors. "

3.13 Replace Subparagraph 3.7.1 with the following:

"3.7.1 The Owner or its Agents, shall secure and pay for the building permit. The Owner, at its discretion, may require the Contractor to retrieve approved building permits from the Permitting Authority, and pay for the balance of the permit fee. Any monies paid by the Contractor for the completed permit shall be immediately billable to the Owner without markup or surcharge and upon submission of the permit invoice/receipt.

3.7.1.1 The Contractor shall secure and pay for all other fees and licenses necessary for proper execution and completion of the Work of the Contract and legally required at the time bids are received or negotiations concluded.

3.7.1.2 The Owner shall directly procure third-party services for required inspections unless specifically assigned to the Contractor in the Project Manual."

3.14 Subparagraph 3.7.3 add "or having reason to know" after "knowing" in the first sentence.

3.15 Replace Subparagraph 3.7.4 as follows:

"3.7.4 Concealed or Unknown Conditions: If the Contractor encounters conditions at the site that are (1) 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 and the Architect before conditions are disturbed and in no event later than 7 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect 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 an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect 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 and Contractor in writing, stating the reasons. The Architect's initial determination shall not

be binding upon the Owner. If the Contractor disputes the Architect's determination or recommendation, the Contractor may proceed as provided in Article 15."

3.16 Replace Subparagraphs 3.9.1 through 3.9.3 with the following:

"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.

.1 The Contractor's Superintendent shall be employed full-time on the Project site during performance of all work under the Contractor's responsibility, including but not limited to, all work performed by Contractor's subcontractors.

.2 The Contractor's Superintendent shall be supervising / directing work, and not performing work.

.3 At any time, and without cause, the Owner and/or Architect may request that the Contractor assign a different superintendent to the Project than originally assigned. The assignment of a new superintendent shall be without additional cost to the Owner.

3.9.2 The Superintendent shall be satisfactory to the Owner, and the Contractor shall not replace the Superintendent without the prior written consent of the Owner, which consent shall not unreasonably be withheld.

3.9.3 The Contractor shall furnish a fully qualified and competent project superintendent subject to the approval of the Owner. At a minimum, the superintendent shall have at least ten (10) years' experience of progressive experience as a construction superintendent, five (5) years of which shall be with similar construction.

3.9.4 The proposed superintendent shall possess strong supervisory, project scheduling and management skills and excel in planning and directing complex projects. The proposed superintendent shall be able to analyze plans and specifications to determine that time frame, staffing requirements, and appropriate resources are available for various phases of construction; direct and coordinate all construction activities to maintain optimum efficiency of operations and effectively utilize human resources, machinery and equipment; establish work plans for each construction phase, assign duties, provide technical advice, prepare schedules, and set deadlines to ensure timely completion of work.

3.9.5 The Contractor shall submit the qualifications of the project superintendent to the Owner, and copy the Architect for approval in the form of a resume that shall include a list of major projects, certifications and affiliations. The written qualifications also include a detailed list of training seminars and evidence of certifications/credentials, etc. The Owner also reserves the right to conduct a personal interview of the prospective superintendent, in addition to the above requirements. The Contractor's superintendent shall have full authority to attend of project meetings and make all decisions representing the Contractor on a daily basis and direct work that is either their own or their subcontractors.

3.9.6 Under no circumstances shall work commence on the project site until the contractor's designated project superintendent has been approved by the Owner. If the Owner rejects the Contractor's project superintendent, the Contractor shall submit the name of an alternate superintendent for the Owner's consideration.

3.9.7 The approval of a contractor's project superintendent shall not, under any circumstances, be considered a waiver of the contractor's obligation to perform the work according to the terms of the contract documents."

3.17 Replace Subparagraph 3.10.1 as follows:

“3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner’s and Architect’s approval a Contractor’s construction schedule for their Work. In accordance with Section 013200 Contractor will submit schedule information to the Architect and be party to the sign off and approval process for the Project Schedule. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project schedule to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work. All schedule creation, format, and progress updating shall follow those conditions covered in the “Summary of Work” and “Construction Progress Documentation” specification sections.”

3.18 Replace Subparagraph 3.10.2 as follows:

“3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter update it as necessary to maintain a current submittal schedule and shall submit the schedule(s) for the Architect’s approval. The submittal schedule shall (1) be coordinated with the Contractor’s construction schedule, and (2) allow the Architect reasonable time to review submittals consistent with the time expressly set forth in the contract documents. If the Contractor fails to submit a 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.”

3.19 Subparagraph 3.10.3 at the end of the sentence, add “and in accordance with the time limits in the Contract Documents.”

3.20 Add the following Subparagraph 3.11.1:

“3.11.1 Throughout the progress of construction, each Contractor shall maintain in good order and marked currently a set of printed Record Drawings, Specifications, Addenda, Change Orders, Construction Change Directives, and other Modifications recording all field changes and selections made during construction, and which are not shown on the Contract Drawings. At the completion of the Project, the set of marked up documents shall be delivered to the Architect in good and legible condition. Changes made to such documents which will be required as Record Drawings shall be noted in a legible fashion using contrasting color markings on a clean set of drawings. Final payment shall not be authorized until completed Record Drawings are submitted to the Architect.”

3.21 Add the following Subparagraphs to Subparagraph 3.12.3:

“.1 All materials submitted as samples shall be properly labeled and delivered to the Architect’s office. Materials will be examined by the Architect and, if approved, will be signed, dated and delivered to the project site. Approved samples shall remain on the project site for use in checking the material or equipment incorporated in the work.

.2 In instances where materials will affect the color planning of the work, samples of the colors will be submitted for approval and selection by the Architect within the time period specified for Submittals in Section 0011000.

.3 Samples of materials which the Architect deems necessary to be tested shall be submitted in duplicate to approved testing laboratories. The Architect’s decision as to those materials requiring laboratory testing shall be final. The Contractor shall prepare and forward to testing laboratory all materials requiring testing, shall pay for all expenses involved in connection thereof and shall cause the testing laboratory to forward the results directly to the Architect.”

3.22 Append to Subparagraph 3.12.7 the following:

“Such work shall be in accordance with the reviewed submittals.”

3.23 Delete from Subparagraph 3.12.8 the following:

“The Work shall be in accordance with the approved submittals except that the”

3.24 Add the following Subparagraph 3.12.8.1:

“.1 The Contractor's obligations are not changed by an approval of any shop drawing or other submittal. If the contractor intends that a change to the Contract be made by any information in a shop drawing, he will affirmatively state that the shop drawing depicts a change in the work and will submit a written request for change order in sufficient time for the Architect to understand that a change order is being requested before the time the Architect's approval of the shop drawing is required. No notation, mark or other comment by the Architect on a submittal or in a response to a Request for Information shall constitute a change in the Contract. If the Contractor asserts that any notation, mark or comment by the Architect contained in a submittal or response to a Request for Information will change the Contract, the contractor will immediately follow the procedures set forth in paragraph 15.1 to request and pursue a change in the Contract.”

3.25 Add the following Subparagraph 3.13.1:

“**3.13.1** Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. Materials or equipment no longer required for the Work shall be promptly removed from the Project site. Protection of construction materials and equipment stored at the Project site from weather, theft, damage, or all other adversity is solely the responsibility of the Contractor, unless specifically noted otherwise by Owner.”

3.26 Add the following Subparagraph 3.13.2:

“**3.13.2** The Contractor shall be responsible for damages to roads, parking lots, lawns or other features of the grounds or adjacent to the Project site resulting from driving, hauling, storage of materials or other construction activities and shall repair any such damage to match the condition prevailing prior to such damage. The Contractor will be required to provide a bond for all Municipal and or State roads and bridges as deemed by the Owner.”

3.27 Add the following Subparagraph 3.16.1:

“**3.16.1** Representatives of governmental agencies shall have access at all reasonable times to inspect the Work, and the Contractor shall provide proper facilities for such access and inspection.”

3.28 Add the following Subparagraph 3.16.2:

“**3.16.2** Job conferences will be held while construction is in progress. Contractor's representative shall be in attendance. The Contractor shall cause a representative of all Sub-contractors designated by the Architect also to be in attendance. All such representatives shall have such authority as is necessary to bind their respective Principals. The schedule of conferences shall be determined by the Architect. At the job conferences all representatives shall be prepared to state the amount of their respective portion of work completed during the previous work period and what portion is scheduled to be undertaken during the upcoming work period. Contractor's reports shall reference the corresponding dates and anticipated work itemized on the reviewed comprehensive construction schedule. Problems of coordination and clarifications shall be reviewed and discussed at the conferences. Failure by the Contractor to provide such representation shall result in the Architect withholding monies from that Contractor's Monthly Application for Payment and/or withholding certification of the entire monthly application for payment.”

3.29 Replace Subparagraph 3.18.1 with the following:

“3.18.1 Subject to Section 3.18.1.1 below and to the fullest extent permitted by law, and to the extent claims, damages, losses, or expenses are not covered by insurance supplied by either the Owner, the Contractor, or the Subcontractors as required by Article 11 of this Contract, the Contractor shall indemnify, defend (at the Owner's request and through counsel reasonably acceptable to the Owner), and hold harmless the Owner, the Architect, the Architect's consultants, and the agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees and defense costs, arising out of or resulting from performance of the Work to the extent caused in whole or in part by the acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts or omissions they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Except as limited by Section 3.18.1.1, such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist. Subject to Section 3.18.1.1, the Contractor assumes, on behalf of the Owner and the Architect, the defense of any action at law or in equity brought against the indemnified parties by reason of claims for which indemnification is owed hereunder, and will pay on behalf of such parties, upon their demand, the portion of any judgment entered against them in such action for which indemnity is owed under this Section. In the event that any claim, loss, cost, expense, liability, damage, or injury arises, is made, asserted, or is threatened against the Owner for which the Contractor or its insurer does not admit coverage, or for which the Owner reasonably determines such coverage to be inadequate, the Owner shall have the right to withhold from any payments due or to become due to the Contractor an amount sufficient to protect the Owner from such claim, loss, cost, expense, liability, damage, or injury, including attorneys' fees and expenses reasonably necessary for the defense thereof.”

3.30 Add the following Subparagraph 3.18.1.1:

“3.18.1.1 Notwithstanding anything to the contrary in this Section 3.18.1, the Contractor's obligations to indemnify, defend, and hold harmless — including any obligation to pay defense costs or to satisfy any judgment — shall not apply to, and expressly exclude, any claim, damage, loss, or expense to the extent caused by the negligence, professional error or omission, or willful misconduct of the Architect, the Architect's consultants, or their respective officers, agents, or employees. Consistent with 68 P.S. § 491, in no event shall the Contractor be obligated to indemnify, defend, or hold harmless the Architect or the Architect's consultants against liability, damages, or costs (including defense costs) arising out of or resulting from (a) the preparation or approval of, or the failure to prepare or approve, maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, or (b) the giving of or failure to give directions or instructions where such giving or failure is the primary cause of the damage. The Contractor's duty to defend the Architect and the Architect's consultants, and to pay any judgment on their behalf, extends only to that portion of a claim or judgment for which indemnity is owed under this Section after application of the foregoing exclusion.”

3.31 Add the following Paragraphs and Subparagraphs 3.19 through 3.23:

3.19 Sanitary Provisions

3.19.1 The General Contractor shall provide and maintain sanitary provisions (temporary toilet facilities) as specified in Section 015000 (Temporary Facilities and Controls).

3.20 Temporary Utilities (Water, Electric, Heating and Ventilating)

3.20.1 Refer to Section 015000 (Temporary Facilities and Controls).

3.21 Maintaining Existing Systems

3.21.1 Refer to Section 015000 (Temporary Facilities and Controls).

3.22 Field Offices and Sheds

3.22.1 Refer to Section 015000 (Temporary Facilities and Controls).

3.23 Blasting

3.23.1 No blasting shall be performed on the Project Site.

4.1 Add the following Subparagraph 4.1.4:

"4.1.4 If the employment of the Architect is terminated, the Owner shall employ a successor architect whose status under the Contract Documents shall be that of the former Architect, respectively."

4.2 Change Subparagraph 4.2.3:

In the first sentence, replace the text "whenever the Work is being performed" with "at a frequency and duration per the terms of its agreement with the Owner."

4.3 Delete Subparagraph 4.2.4

4.4 Change Subparagraph 4.2.5:

In the first sentence, delete ", except to the extent required by Section 4.2.4,"

4.5 Add the following Subparagraph 4.2.15:

"4.2.15 For incidental items only, the Contractors agree to comply with field orders or instructions of the Architect, or additional detail drawings reasonably consistent with the Contract Documents, without claiming extra compensation or time extension."

5.1 Add the following Subparagraph 5.1.3:

"5.1.3 A Supplier is a person or entity who has a direct or indirect contract with the Contractor, Subcontractor or Sub-subcontractor to furnish materials or equipment for the Work. The term "Supplier" is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Supplier or an authorized representative of the Supplier."

5.2 Replace Paragraph 5.2 and its Subparagraphs with the following:

"5.2 Award of Subcontracts and Other Contracts for Portions of the Work

5.2.1 The Contractor shall furnish in writing to the Owner through the Architect (1) the name, trade, and subcontract amount for each subcontractor, (2) the names of all persons or entities proposed as manufacturers of the products identified in the specifications (including those who are to furnish materials or equipment fabricated to a special design) and, where applicable, (3) the name of the installing subcontractor, on "Material Source of Supply" form as included following these General Conditions and as provided by the Architect. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect, after due investigation, has reasonable objection to any such proposed person or entity or, (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply 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 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 or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. The Contract sum shall be unchanged as a result of any such substitutions.

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

5.2.5 The Contractor shall not contract with subcontractors for more than 85% of the Contractor's Work for this Project. A minimum of 15% of the Contractor's Work must be completed by the Contractor.

- .1 No less than 75% of a sub-contract must be completed by the sub-contractor's own employees;
- .2 If a sub-subcontract will exceed 25% of the subcontract, the potential sub-subcontractor shall be directly subcontracted by the Prime Contractor.

5.3 Replace Paragraph 5.3 and its Subparagraphs with the following:

5.3 Subcontractual Relations

5.3.1 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 responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner 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.

5.3.2 Contractor must include all provisions of this contract in its Subcontractor agreements binding its subcontractors to the same extent the Contractor is bound herein. In addition, Contractor must specifically insert (and not just incorporate) provisions requiring the Contractor's subcontractors to indemnify, hold harmless and defend the Owner, Architect, and their consultants, administrators, officers and employees to the same extent the Contractor is bound by the Contract.

5.3.3 Except as may be otherwise provided in these General Conditions, Sub-Contractors may make claims only against Contractor with whom the Sub-Contractor has entered into an agreement to perform work.

6.1 Replace Subparagraph 6.2.3 with the following:

“6.2.3 The Owner and Architect shall not be liable for losses, damages, costs or delays suffered by the Contractor arising from any action or omission of any other Contractor, including defective work, interference, failure to properly schedule and coordinate the Work or failure to diligently perform its scope of work. If a Contractor, its agents, servants, employees or sub-contractors, including the sub-contractor's agents, servants, or employees, cause damage to the property or Work of another Contractor, cause delay or interference to any other contractor/subcontractor or cause any other additional expense or damage, the Contractor/subcontractor shall make claims only against such other Contractor/subcontractors who was or were the cause of such expense or damage in whole or in part, and shall settle by agreement or, if unable to settle, by binding arbitration by filing such

unresolved claim with the American Arbitration Association pursuant to the Construction Industry Arbitration Rules then in effect. The Contractor agrees that such disputes will not delay the project. The Contractor acknowledges and agrees that neither the Owner nor the Architect shall be a party to such claim or dispute between the Contractor/subcontractors, even if the Owner or Architect were in part to blame for such damage. The Contractor also acknowledges and agrees that the rights of the Owner to withhold payment to the Contractor, or to demand compliance by the Contractor with the terms of the Owner's contract with the Contractor are rights of the Owner, and that the Owner is not required to take advantage of or act upon its rights for the benefit of the Contractor. In addition, failure of the Owner to take advantage of or act upon its rights under the contract shall not constitute active interference of the Owner. It is agreed that the intent of this subparagraph is to create a right of action for the benefit of the Contractor on the Project to the extent described hereinabove. The Contractor agrees that the right of action contained in this subparagraph is provided as valuable consideration to the Contractor, and the Contractor, acknowledges and agrees that claims against the Owner and Architect for damages resulting from other Contractors and/or his subcontractors, as described hereinabove, are hereby prohibited."

7.1 Add to Paragraph 7.2 the following:

"**4** No work shall be performed until Change Orders have been issued and signed as per Change Order requirements, a Construction Change Directive (CCD) has been issued by the Architect or in case of emergency as described in Article 10, subparagraph 10.6.1, in such case the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss."

7.2 Add the following Subparagraph 7.2.1:

"**7.2.1** The allowance for overhead and profit combined, included in the total cost to the Owner, shall be based on the schedule contained in Clauses 7.3.11.1 through 7.3.11.5."

7.3 Add the following Subparagraphs 7.2.2:

"**7.2.2** Methods used in determining adjustments to the Contract Sum may include those listed in Section 7.3.3. The Contractor represents that any change order agreed between the Owner and Contractor on this project will include all costs associated with the additional work described in the change order, including all costs of associated delay, acceleration, inefficiency and overhead, as well as costs of material, labor and supervision. To the extent that any request for change order or correspondence prior to the signed change order is contrary to this paragraph, such requests or correspondence shall have no effect.

.1 The Contractor represents that it has the skills, expertise and cost accounting programs and/or tools necessary to maintain a record of all costs associated with any change in the work and that it will maintain a complete record of all costs associated with a change at the time such costs are incurred. The Contractor will create a cost item in its cost recording system for each change for which it intends to request a change order. At the time the Contractor requests a change order, it will identify the cost reporting reference number and will provide all supporting documentation maintained by the Contractor for all labor and material costs, including certified payroll, invoices, record of equipment costs and costs for overhead, supervision and tools. The Contractor will update its cost system as necessary to capture all costs associated with a change in the work and will regularly update the Owner as costs are incurred for which it desires to be paid. Once a change order is issued for a change in the work, the contractor shall not be entitled to any other costs or damages, including but not limited to any costs for inefficiencies, delays, or other costs, that result from the change in the work. The Contractor will provide the information required of this provision in strict accordance with the change order provisions of this contract and acknowledges that the Owner and Architect have a right to rely on the Contractor's strict compliance, including compliance with time requirements such that the Owner and Architect have an opportunity to minimize the costs associated with the change request by timely submission of the information required under this paragraph. The intent and requirement of this paragraph is for the contractor to provide all facts, analysis and evidence of this claim as early as is practicable so that the Owner has the opportunity to minimize damages and fully evaluate the contractor's claim without incurring litigation costs. The Contractor shall not reserve

rights to damages or present claims for damages or evidence of damages at any arbitration or trial that were not presented to support its Change Order request and Notice of Claim documentation. It is material to this contract that the Owner and Architect be given an opportunity to review the totality of the evidence the Contractor intends to present in connection with any change order request at the time the change order request is being considered.

a. The failure of the Contractor to maintain and provide labor and cost accounting documentation in support of any claim shall constitute a waiver of any entitlement to costs not substantiated in compliance with the provision. Contractor shall be barred from introducing at any arbitration or trial upon any claim against the Owner any evidence of alleged damages that was not generated and maintained in compliance with this provision.

.2 Payment of a change order shall constitute accord and satisfaction of all claims in connection with the change or changes to the Contract addressed by the change order, and it is understood and agreed that a signed change order form shall be the complete and fully integrated agreement for all related costs and that there are no oral or written understandings, representations or agreements, directly or indirectly, connected with the Change Order that are not affirmatively stated on the signed Change Order form. The contractor's execution of a change order constitutes a representation that it will make no further claims for damages inconsistent with this paragraph.

.3 If additional time is required as part of a change, the cost impact where additional costs are permitted under a specific section of the contract documents shall be included in the Contractor's overhead and profit. There shall be no additional contract time if the change order states "0" days is added to the Contract."

7.4 Change clause 7.3.3.1 as follows:

Add at the end, "and with an allowance for overhead and profit in accordance with the schedule set forth in Subparagraph 7.3.11."

7.5 Change Subparagraph 7.3.4 as follows:

In the first sentence, delete the words "an amount for overhead and profit ... a reasonable amount." and substitute "an allowance for overhead and profit in accordance with the schedule set forth in Subparagraph 7.3.11."

7.6 Add the following Subparagraph 7.3.11:

"7.3.11 In Clause 7.3.3.1 and in Subparagraph 7.3.4, the allowance for overhead and profit combined, included in the total cost to the Owner, shall be based on the following schedule:

1. For the Contractor; for any Work performed by the Contractor's own forces, fifteen percent (15%).
 - a. Labor costs shall include the certified Base Prevailing Wage Rate (or the base wage rate if the Prevailing Wage Act is not applicable to the Project), plus actual fringe benefits per wage determination plus 25% for FICA, SUTA, FUTA, and Worker's Compensation. No costs beyond those listed will be considered. Total labor cost for the Contractor's employees shall be this cost plus a mark-up of 15% for overhead and profit. This mark-up includes all overhead, including supervisory personnel, estimators, staff, office time, etc.
 - b. Material, Supplies, and Equipment costs shall be the invoice cost, plus sales tax (if applicable), plus a mark-up of 10% for overhead and profit.
 - c. Bonds and Insurance costs shall be submitted without mark-up.
2. For the Contractor, for work performed by his Subcontractor or material supplier, five percent (5%) of the amount due to the Subcontractor.
 - a. Subcontractor Labor invoice for hourly wages and materials costs shall be in accordance with the definitions listed above.
3. For each Subcontractor or Sub-subcontractor involved, for any Work performed by that Contractor's own forces, fifteen percent (15%) of the cost.

4. For each Subcontractor, for Work performed by his Sub-subcontractors, five percent (5%) of the amount due the Sub-subcontractor.
5. Cost to which overhead and profit is to be applied shall be determined in accordance with Clauses 7.3.4.1 through 7.3.4.5."
6. Project Management Labor Hours:
 - a. Change Order Proposal, the Prime Contractor shall be entitled to Project Management labor hours no greater than ten percent (10%) of total direct labor hours calculated for the additional work, or the calculated labor hours eliminated when scope is reduced.
 - b. Project Management labor hours calculated as less than one (1) hour may be rounded upward to one (1) hour.
 - c. All such hours included in Change Orders shall remain subject to the Architect's review.
7. Supervisor and Foreman Hours:
 - a. For each Change Order Proposal, the Prime Contractor shall be entitled to aggregated Supervisor and/or Foreman labor hours no greater than ten percent (10%) of total direct labor hours calculated for the additional work. Prime Contractor shall also include not less than 10% of direct labor hours for Supervisor and/or Foreman labor hours when calculating labor hours eliminated due to a reduction in the Work.
 - b. Supervisor and/or labor hours calculated as less than one (1) hour may be rounded upward to one (1) hour.
 - c. All such hours included in Change Orders shall remain subject to the Architect's review.

7.7 Add the following Subparagraph 7.3.12:

"7.3.12 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and materials shall be itemized in the manner prescribed above; labor costs shall be actual costs (wages and benefits), not standardized billing rates and shall be limited to the items listed in .1 below. Where major cost items are subcontracts, they shall be itemized also. In no case will a change involving over \$500.00 be approved without such itemization."

1. Costs of Labor shall be subject to the limitations listed in 7.3.11.1(a) of the Supplemental Conditions of the Contract.

8.1 Change Subparagraph 8.1.3 as follows:

After "Architect" insert "and approved by the Owner."

8.2 Add the following Subparagraph 8.1.3.1:

"1 There is intended herein to be a differentiation between "Substantial Completion" and "Final Completion." Substantial Completion is as defined in Paragraph 9.8.1 Final Completion shall be when the Contract is fully performed, including all Punch List items, and all close-out documents and procedures submitted, completed and accepted by the Owner."

8.3 Add the following Subparagraph 8.2.1.1:

"8.2.1.1 Any preliminary schedule, if provided, is for information purposes only and constitutes a proposed sequence of events based on standard practices. Bidders shall not rely on dates or durations suggested by this schedule. The Contractors are responsible to provide the Architect a detailed Construction Schedule of their work within fifteen (15) business days after the date of written notice of Bid Award and a Construction Progress Schedule will be developed and updated periodically. The Architect shall be notified of all proposed changes to the Construction Schedule. All revisions to the Initial Construction Schedule that has been compiled by the Project Coordinator and agreed upon by all Prime Contractors, shall require approval by the Architect."

8.4 Add the following Subparagraph 8.2.4:

"8.2.4 Extraordinary Measures. In the event the Owner, after consultation with the Architect, determines that the performance of the Work has not progressed or reached the level of completion required by the Contract Documents and the Project construction schedule, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, but not limited to, working additional shifts or overtime; supplying additional manpower, equipment, and facilities; and other similar measures (referred to collectively as "Extraordinary Measures"). Such Extraordinary Measures shall continue until the progress of the Work complies with the stage of completion required by the Contract Documents. The Owner's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the Project construction schedule and failure to comply shall be considered as breach of the Contract Documents. The Contractor shall not, under any circumstances, be entitled to an adjustment in the Contract Sum in connection with Extraordinary Measures required by Owner under or pursuant to this Paragraph **8.2.4.**"

8.6 Add the following Subparagraph 8.2.5:

"8.2.5 If low temperatures make it impossible to continue operations safely by use of cold weather precautions, the Contractor shall cease work and notify the Architect, and Owner by letter. When work is resumed the Contractor shall notify, by letter, the Architect and Owner. Such stoppage shall not constitute an extension of the completion date."

8.7 Delete Subparagraph 8.3.1 in its entirety and replace with the following:

"8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner, Owner's own forces, Architect, or an employee of any of them, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

.1 No Change Order extending the Contract Time shall result in any increased payments to the Contractor for extended overhead, delay damages, "impact" damages, loss of efficiency, loss of productivity or any other similar form of loss, damage or compensation.

.2 No payment or compensation or claim for damages shall be made to the Contractor as compensation for damages for any delays or hindrances from any cause whatsoever in the progress of the work, notwithstanding whether such delays be avoidable or unavoidable. The Contractor's sole remedy for delays shall be an EXTENSION OF TIME ONLY, pursuant to, and only in accordance with this Paragraph 8.3, such extension to be a period equivalent to the time lost, day for day, by reason of any and all of the aforesaid causes, as determined by the Architect. In consideration for this grant of time extension, the Owner and/or Architect shall not be held responsible for any loss or damage, or increased costs sustained by the Contractor through any delays caused by the Owner or Architect or any other Contractor or on account of the aforesaid causes or any other cause of delay. In the event the Contractor shall choose to litigate this clause or issue and the Contractor is not the substantially prevailing party in said litigation, the Contractor shall reimburse the Owner and the Architect for their reasonable attorney's and expert witness fees and all other costs and expenses incurred by them in the litigation. "Substantially Prevailing" shall mean that the Contractor recovers an award that is at least 50.1% of the damages that the Contractor has alleged it is entitled to in the litigation."

8.8 Add the following Subparagraph 8.3.2.1:

"8.3.2.1 Requests for extension of Contract Completion Date shall be submitted in writing to the Owner and the Architect not more than seven days after the commencement of the delay, otherwise, it shall be waived. This request shall contain at a minimum the following information: 1) date of start of delay; 2) specific cause of delay; 3) effect of delay on construction progress; 4) date of termination of delay; 5) a schedule analysis reflecting the impact of the delay on critical path

activities; 6) statement of bonded surety concurring in request for extension of Contract Completion Date and the Agreement to extend coverage for the requested extension; 7) evidence of notification of this request having been given to all Contractors engaged on the project and their concurrence to such extension of time.”

8.9 Replace Subparagraph 8.3.3 with the following:

“8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents. To the extent that Contractor may be entitled to damages under other provisions of the contract documents for delay, interference, inefficiency or lost productivity, such damages shall be submitted in the Contractor’s request for Change Order or Notice of Claim to be included in an appropriately executed Change Order granting an extension of time for such delay. The legitimate right to such damages shall be verified by affidavit and submitted with appropriate backup information to support any such amount. Contractor acknowledges that it is not entitled to damages for delay in any amount other than the damages agreed to as part of the Change Order. To the extent that a Change Order cannot be agreed to, Contractor shall submit a claim in accordance with the provisions of Article 7. For any such claim that is submitted, Contractor acknowledges that it is not entitled to any amount greater than the verified amount submitted in its request for a Change Order.”

8.10 Add the following Subparagraph 8.3.4:

“8.3.4 Damage Claims for Delays Caused By Contractors, Subcontractors and Suppliers or any Employees thereof:

.1 The Owner is not responsible for delays caused by any Contractor and/or Subcontractor. The Owner is not responsible for problems caused by the failure of a Contractor to coordinate its work with other Contractors and/or Subcontractors. The Owner is not liable for any damages suffered by a Contractor arising from any Subcontractor’s delays and/or failure to coordinate its work. Contractor hereby waives and releases the Owner from any liability and damages caused by lack of coordination by the Contractor, or between or among the Subcontractors, including their suppliers.

.2 The Architect and the Owner and their representatives shall not be liable to a Contractor for any increased costs or damages for defective work, interference, or delays resulting from any conflict between or among the Subcontractors, and suppliers. Neither the Owner nor the Architect shall be a party to disputes or actions between or among the Contractor or his subcontractors and suppliers concerning such additional expense or damage.

.3 It is agreed by all parties that disputes or actions between the Contractor and his subcontractors concerning any additional expense or damage herein before mentioned shall not delay completion of the Work, which shall be continued by the parties pending final resolution of a claim including judicial proceedings.

.4 The Contractor hereby waives privity of contract defenses and agrees that subcontractors have the right to file claims in a binding arbitration with the American Arbitration Association pursuant to the Construction Industry Arbitration Rules then in effect against the Contractor in the event Contractor is alleged to have caused damages to subcontractors by reason of delay or lack of coordination. Neither the Owner nor the Architect shall be a party to such Arbitration.

.5 It is agreed by the parties to this Contract (the Owner as promisee and the Contractor as promisor) that the intent of this Section 8.3.4 is to benefit the other and is the mutual intents of the Owner and the Contractor that this Section 8.3.4 raises the Contractor to the status of third-party beneficiary only as to the terms and conditions of Section 8.3.4. The Contractor agrees that Section 8.3.4 is provided as a benefit to the Contractor and that the Contractor specifically excludes, releases, foregoes and waives any claims against the Owner or the Architect for extended overhead, delay damages, “impact” damages, loss of efficiency, loss of productivity, or any other similar form of loss, damage or compensation, or other damages related to any delays whatsoever or from any amendment to the Construction Schedule.”

9.1 Replace Paragraph 9.2 as follows:

"Within fifteen (15) days, the Contractor shall submit to the Architect on the form required by the Architect, a Detailed Cost Breakdown of scheduled value of all items of work entering into the Contract. This detailed breakdown will show quantities of the respective items and the allowance for labor, material and other costs entering into each item including line items to process submittals, schedule production and close-out documents as applicable. The detailed breakdown, when approved by the Architect, shall be used as a basis by the Contractor in preparing monthly estimates for payment and shall, as accurately as possible, reflect the true division of costs of the respective items entering into the Contract. Failure of the Contractor to submit Detailed Cost Breakdown by the date specified shall result in Architect's not approving Contractor's application for payment that month.

9.2 Replace Subparagraph 9.3.1 as follows:

"9.3.1 At least fifteen (15) days before the date established for each progress payment (as determined at the Initial Job Conference), the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, as required under Section 9.2, for completed portions of the Work. Such application shall be notarized and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers and shall reflect retainage provided for in Paragraph 9.3.1.3.

- a. Applications shall be submitted using Architects document management platform or by other means specified by Architect.
- b. Submittals of all Color Selectors/Samples, Shop Drawings, etc., shall be submitted to the Architect in a timely fashion to allow for a minimum of ten (10) days review without impact to the project schedule. Should any of these items remain outstanding, no further payments will be processed."

9.4 Add the following Subparagraph to Subparagraph 9.3.1.2:

".1 Contractor shall submit with the Application for Payment each month, a Sworn Statement stating that the Contractor has paid all Subcontractors of whatever tier who have performed Work or provided equipment and materials for the Project in the full amount to which the Subcontractors are entitled to date and waives any right that the Contractor, his subcontractor, and/or his suppliers have to file a Mechanic's Lien for the work, material and/or supplies provided to date."

9.5 Add the following Subparagraphs 9.3.1.3 through 9.3.1.6:

"9.3.1.3 Estimates for payment Documents will require breakdown of the total work completed to date of submission. From this total will be deducted a ten percent retainage. From the resultant amount will be deducted all previous payments. At such time that the Contractor determines that 50 percent of the work has been completed the Contractor shall notify the Owner, Architect and the Contractor's Surety in writing of this fact and upon each addressee's approval, retainage shall be reduced from 10% to 5% unless the Contractor is not making satisfactory progress, or unless there is specific cause for greater withholding. The retained five percent will be processed for payment on the issuance of the Certificate of Substantial Completion, unless amounts are withheld as otherwise provided in this agreement.

9.3.1.4 Should the Architect at any time during the progress of the work, consider the amount withheld on Monthly Estimates for Payment to be in excess of the amount necessary to complete the work, or necessary for the full and ample protection of the Owner, then the Contractor may reduce the percentage retained to an amount sufficient for the Owner's proper protection, as approved by the Architect. Should the Architect, at a later date, consider the amount withheld insufficient to protect the interest of the Owner, the Architect may increase the retained percentage

to an amount not to exceed ten percent, or five percent, dependent upon the stage or percentage of contract completion.

9.3.1.5 The Architect/Engineer shall make final inspection within 30 days of receipt of the Contractor's written request for final inspection. If the work is substantially completed, the Architect/Engineer shall issue a Certificate of Substantial Completion. As per Section 9.10, regarding Contractor's initial Application for Final Payment, the Architect/Engineer shall issue a Certificate for Payment, less one and one-half times the amount required to complete any then remaining, uncompleted, punch list items and the value for all incomplete close-out processes and document submission, which amount shall be certified by the Architect/Engineer and upon receipt by the Owner of any guarantee bonds which may be required, in accord with the Contract Documents, to insure proper workmanship for a designated period of time, the Owner shall make payment within 45 days thereafter. The certificate given by the Architect/Engineer shall list each uncompleted item and a reasonable cost of completion. Final payment of any amount withheld for the completion of the minor items shall be paid upon completion of the items with submission of the Final Application for Payment in accordance with Section 9.10. Any amounts withheld under this Paragraph are in addition to any amounts withheld under Paragraph 9.3.1.4.

9.3.1.6 The cost of preparation of shop drawings and related information shall not be included in submission for payment until substantial quantities of materials are on the project site."

9.6 Replace Subparagraph 9.3.2 with the following:

"9.3.2 Materials in reasonable quantities, which are delivered to the site, properly stored, and accepted for incorporation in the work but not yet so used, may be included in Monthly Estimates for Payment. The Contractor shall submit with the Monthly Estimate reflecting the unincorporated material the following:

- .1 The original and two (2) copies of itemized, paid invoices showing payment of such material by the Contractor and delivery slips certifying to the delivery of the quantities set forth on the estimate to the site of the work.
- .2 Payment for materials stored on the site shall be based on actual cost for same as shown by the receipted invoices and shall not exceed the cost of materials as indicated on the approved Detailed Cost Breakdown for the particular items involved.
- .3 The receipted invoices shall have each item identified and marked with the Contractor's corresponding itemized breakdown number.
- .4 Provide Insurance Certificates in the full amount of the materials against theft, loss from any other cause, damage, destruction and/or such other risks as may be involved, which would render the aforesaid materials unfit or unavailable for incorporation in the work.
- .5 Provide current photos of the labeled stored materials.
- .6 Provide a letter on company letterhead signed by a company officer stating that all material and equipment become the legal property of the Owner upon receipt of payment.
- .7 Statement from the Contractor's Surety Company acknowledging stored materials are being paid and there is no objection.
- .8 Request for payment for materials stored off site, in addition to the above requirements, shall include a statement identifying the location of said materials. The Owner and the Architect, or their representatives, shall have full access to the location of said materials.
- .9 The Contractor shall mark or identify such materials as being the property of the Owner and shall be solely responsible for their safe keeping and usability at the time it is to be incorporated in the work and shall at his own expense care for and protect the same.
- .10 The Contractor shall submit the "Contractor's Request for Stored Material Payment" form, included following these General Conditions, with each request for stored material payment. Failure to submit the form and verification attachments will result in denial of the request.

9.3.2.1 In addition to specific items listed in Subparagraph 9.3.2 above, payment may be requested by the Contractor for the following items which shall be identified and included as separate line items in the Schedule of Values."

9.7 Change Subparagraph 9.5.1

At the end of the first sentence insert ", and the Owner may disapprove a Certificate for Payment for the same reasons."

9.8 Delete Subparagraph 9.5.2

9.9 Add to Subparagraph 9.6.1 the following:

"1 To the extent allowed by law, Contractor waives any entitlement to interest, penalties and attorneys' fees under the Commonwealth Procurement Code."

9.10 Replace Subparagraph 9.6.2 with the following:

"9.6.2 In accordance with 62 Pa. C.S.A. Section 3933: In the absence of good and sufficient reasons, within 14 days of the receipt of payment by the Contractor, the Contractor shall pay all subcontractors with whom he has contracted their earned share of the payment the Contractor received. The Owner

9.11 Change Subparagraph 9.8.1 as follows:

In the second line, change "occupy or utilize" to "occupy and utilize."

9.12 Add the following Subparagraph 9.8.3.1:

"9.8.3.1 The Owner may deduct from the Contract Sum any additional fees paid by Owner to the Architect due to the necessity of re-inspection(s)."

9.13 Replace Subparagraph 9.8.4 as follows:

"9.8.4 When the Architect determines that the Work or designated portion thereof is substantially complete, the Architect will prepare and execute a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate along with a deadline date by which all punch work and close-out processes/submissions shall be completed.

.1 Warranties required by the Contract Documents shall commence on the date of Substantial Completion for the Entire Project.

9.14 Change Subparagraph 9.9.1 as follows:

Insert prior to the first sentence: "The Contractor shall complete any portion or portions of the work in such order as may be stated in the Contract Documents. All work shall be so arranged and Contractors shall so coordinate their work as to complete the work by date set forth in the Contract as applicable."

9.15 Replace all Subparagraphs in Paragraph 9.10 with the following:

9.10.1 The Contractor, when the work is considered complete and accepted by the Architect, shall submit to the Architect a written certification that:

- .1** Contract Documents have been reviewed.
- .2** Work has been inspected and completed in accordance with the Contract Documents.

- .3 Equipment and systems have been tested and operated in the presence of the Owner's representative.
- .4 Work is completed and ready for final review including the submission of all final record prevailing wage labor records, all close-out documents and the completed final cleaning for the site and buildings.
- .5 Request that the Architect make a review to verify the status of completion with reasonable promptness after receipt of such request.

9.10.2 Should the Architect consider that the work is incomplete or defective:

- .1 The Architect will notify the Contractor in writing listing the incomplete or defective work.
- .2 The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to the Architect that the work is complete.
- .3 The Architect will again review the work.

9.10.3 Should the Contractor fail to perform its Work in accordance with the Contract Documents, fail to timely achieve Final Completion or request multiple reviews by the Architect to determine Final Completion causing the Owner to incur expenses for additional compensation to the Architect, such expenses shall be deducted from the Contract Sum.

9.10.4 Following Substantial Completion, in the event the Contractor or its subcontractor fails to complete the list items of the work instructed by the Architect to be corrected or completed within 30 days after the date of Substantial Completion, the Owner may (1) exercise any available remedies to correct or complete deficient work or retain a third party to correct or complete such work at the cost of the defaulting contractor, or (2) retain and deduct amounts as set forth in Section 017000 "Project Closeout Procedures." The Owner may retain and deduct from any payments or retention otherwise due to the defaulting Contractor any fees and expenses for services required to be provided by the Architect more than 30 days after the specified Completion Date."

9.10.5 When the Architect finds that the work is acceptable under the Contract Documents, the Architect shall request the Contractor to make closeout Submittals:

- .1 Evidence of compliance with requirements of governing authorities.
- .2 Bound and indexed Operation and Maintenance Manuals, including all extended Warranties issued by Contractors and/or manufacturers.
- .3 Record Drawings incorporating As-Built Revisions to drawings and/or specifications, including change orders. Accuracy of As-Built shall be certified by the Contractor as specified in Section 017700.
- .4 Contractor's Affidavit of Payment of Debts and Claims, A.I.A. Document G706.
- .5 Contractor's Affidavit of Release of Liens, A.I.A. Document G706A.
- .6 Consent of Surety Company to Final Payment, A.I.A. Document G707, with effectively dated powers of attorney attached.
- .7 Application and Certification for Final Payment, A.I.A. Documents G702 and G703.
- .8 Evidence of the final certification and submission of the record prevailing wage labor sheets
- .9 Evidence, confirmed by the design professional, that all record punch list work has been completed.
- .10 Evidence, confirmed by the owner, that all work areas have been brought to an acceptable clean status and that all of the contractor's excess material, equipment and other debris has been completely removed from the project site.
- .11 Evidence, through the final submission of the final release of liens, that all financial obligations to all third-party vendors and subcontractors have been met and that all other open changed conditions, claims or other previously open schedule or cost claims are null and void

9.10.6 Final payment shall be based upon full completion of the Project. The final payment shall not be due and payable until the Contractor's satisfactory completion of the requirements listed under final review above. Final payment to the Contractor shall not relieve any Surety of its obligation to the Owner as set forth in the Surety Bonds.

9.10.7 Where one or more claims against the Contractor, which are in controversy appear unsatisfied, the Architect shall have the discretion to direct final payment to be made, or a partial payment to be made from the monies due, should it be determined that the withholding of the entire final payment would work a hardship on the Contractor or delay the final payments required under this paragraph. The Contractor shall itemize the claims which remain unsatisfied, giving the reason therefore, and the statements of the Surety Companies shall provide that the final payment, or partial payment, as the case may be, shall not relieve any Surety of any obligations to the Owner as set forth in the Surety Bonds. If only partial payment is permitted under this paragraph, the final payment shall not be made until the Contractor shall have furnished satisfactory evidence and a statement from the Surety that all claims against the Contractor have been paid and that payment to the Contractor of the Contract balance shall not relieve the Surety of any of its obligations to the Owner as provided in the Surety's Bond.

9.10.8 The acceptance by the Contractor of the final payment shall be and shall operate as a release to the Owner and every member and agent thereof from all claims and all liability to the Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of this work. No payment, however, shall operate to release the Contractor or the Contractor's Sureties from any obligations under this Contract or the Performance and Payment Bond."

10.1 Add Subparagraph 10.2.9 as follows:

"10.2.9 The Contractor shall:

1. Take every precaution to secure the Owner's property from theft or vandalism due to Contractor's operation.
2. Comply with orders of fire authorities, include the Owner's fire insurance company, and provide adequate fire protection equipment at site; cost of such compliance to be included in the cost of the Work."

10.2 Replace Subparagraph 10.3.2 as follows:

"10.3.2 Upon receipt of the Contractor's written notice, unless otherwise required by the contract documents, the Owner shall obtain the services of a licensed laboratory to verify a 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. When the material or substance has been rendered harmless, Work in the affected area shall resume, with Contract adjustments, if any, accomplished as provided in Article 7."

10.3 Delete Subparagraph 10.3.6

10.4 Add to Paragraph 10.4 the following Subparagraph:

"10.4.1 In an emergency situation, all NESHAP regulations published on November 20, 1990, will be followed. Violators of the NESHAP regulations will be subject to significant fines and enforcement action from EPA, as well as the applicable State or Local air agencies."

11.1 Delete Article 11 in its entirety and replace with the following Article and Subparagraphs:

"ARTICLE 11 INSURANCE AND BONDS

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor

may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage;
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

11.1.1.1 Liability Insurance shall include all major divisions of coverage and be on a comprehensive basis including:

1. Premises Operations (including X-C/U coverages).
2. Products and Completed Operations.
3. Personal Injury Liability with Employment Exclusion deleted.
4. Contractual, including specified provision for the Contractor's obligation under Paragraph 3.18.
5. Owned, non-owned, and hired motor vehicles.
6. Broad Form Property Damage, including Completed Operations.
7. Umbrella Excess Liability."

11.1.1.2 The General Liability coverages shall be provided by a Commercial General Liability Policy on an occurrence basis.

11.1.1.3 The minimum limits of liability shall be as outlined in Section 11.1.2 below.

11.1.1.4 Owned and Non-Owned Aircraft or aerial drone devices. If an aircraft, whether owned or non-owned by the Contractor or any Subcontractor, is used in connection with the Work by the Contractor or any Subcontractor of any tier, the Contractor or Subcontractor, as applicable, shall advise the Owner or its representatives, shall provide a written explanation of the planned use of the aircraft, and shall provide Aircraft Liability Insurance at its sole cost and expense, the conditions and limits to be established by the Owner. The Owner reserves the right to prohibit the use of any aircraft in connection with the Work under this Contract. The minimum limit will be Five Million Dollars (\$5,000,000). This insurance shall be primary to all other insurance.

11.1.1.5 For the duration of these Contracts, the Contractor shall, at its own expense, purchase and maintain in a company or companies licensed and authorized to do business in the Commonwealth of Pennsylvania, Umbrella Liability Insurance, with limits as outlined herein:

- .1 The umbrella liability insurance applies to all entities on site, including Contractors and Subcontractors.

11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

11.1.2.1 Contractor shall provide, pay for and maintain (and shall require Subcontractors of all tiers to provide, pay for and maintain) insurance of the type and limits set forth below. Such insurance shall be maintained in full force and effect from the commencement of the Work by Contractor until final acceptance of the entire Project or the completion of all post-acceptance warranty or related Work by Contractor, whichever is later, and shall be for both on-site and off-site Work.

- .1 Employer's Liability (Worker's Compensation) Insurance:
 - .a Statutory - Amounts and coverage as required by laws of the Commonwealth of Pennsylvania.
 - .b The insurance shall cover all operations of Contractor (or the applicable Subcontractor). Such insurance shall be endorsed to include "Other States Coverage".
 - .c Employer's Liability:
 - \$1,000,000 each accident.
 - \$1,000,000 disease policy limit.
 - \$1,000,000 disease each employee.
- .2 Commercial General Liability insurance covering all Operations/ Work of Contractor (or the applicable Subcontractor). Such insurance shall be written on an Occurrence form. Coverage shall not be provided under a "Claims-Made" or "Modified Occurrence" policy without the prior, expressed written consent of Owner. Such insurance: (i) Shall be no less comprehensive and no more restrictive than the coverage provided by the standard Insurance Services Office (ISO) form CG 00 01 (04/13); (ii) shall include by its terms or appropriate endorsements Bodily Injury, Property Damage, Personal Injury, Blanket Contractual, Independent Contractors, Products and Completed Operations coverages; (iii) shall include Products Liability coverage for any products manufactured, assembled, or otherwise worked upon away from the Project Site; and (iv) shall include coverage for "x" (explosion), "c" (collapse), and "u" (underground) exposures. Such insurance shall have the following minimum limits:
 - a. For the Contractor:
 - 1) \$1,000,000 Bodily Injury Liability inc. Personal Injuries, Each Occurrence
 - 2) \$1,000,000 Property Damage, Each Occurrence.
 - 3) \$2,000,000 General Aggregate
 - 4) \$2,000,000 Products/Completed Operations Aggregate
 - 5) \$1,000,000 Personal and Advertising Injury
 - b. For all Subcontractors:
 - 1) \$500,000 Bodily Injury Liability inc. Personal Injuries, Each Occurrence
 - 2) \$500,000 Property Damage, Each Occurrence.
 - 3) \$1,000,000 General Aggregate
 - 4) \$500,000 Products/Completed Operations Aggregate
 - 5) \$500,000 Personal and Advertising Injury
 - .c Products and completed operations insurance shall be maintained for a minimum period of three (3) years after Final Payment, and Contractor shall continue to provide evidence of such coverage to Owner on an annual basis during the aforementioned period.
 - .d Contractual Liability:
 - Bodily Injury - \$1,000,000 each occurrence.
 - Property Damage – Included each occurrence and aggregate.
- .3 Automobile Liability Insurance including coverage for owned, non-owned, and hired vehicles with limits not less than stated below:
 - .a Bodily Injury Liability - \$1,000,000 each occurrence.
 - .b Property Damage Liability - \$1,000,000 each occurrence / \$1,000,000 aggregate.

- .4 Umbrella Excess Liability providing additional limits for the Commercial General Liability, Automobile Liability, and Employer's Liability coverages:
 - .a Bodily Injury and Property Damage - \$2,000,000 in excess of required limits.
- .5 Professional Liability insurance if Contractor (or applicable Subcontractors) will perform or retain others to perform professional and/or delegated/deferred design services, as specified in the Project Documents, in connection with the Work, including engineering, architectural, medical, testing, environmental assessment or remediation, or design-build services, with a minimum limit of One Million Dollars (\$1,000,000) Per Wrongful Act, Error, or Omission.
- .6 Asbestos and/or Lead Abatement. If Contractor (or applicable Subcontractors) will perform or retain others to perform abatement services; Asbestos and/or Lead Abatement Liability Insurance with limits of Ten Million Dollars (\$10,000,000) Each Occurrence and Ten Million Dollars (\$10,000,000) Aggregate when Work includes asbestos and/or lead abatement activities.

11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

11.1.3.1 The Contractor shall provide the Owner at least 30 days' written notice (10 days for cancellation due to nonpayment of premium) before any required coverage is canceled, non-renewed, or materially reduced, and shall, where the carrier offers it, furnish a notice-of-cancellation endorsement naming the Owner. Failure to maintain required coverage is a material breach. In addition to ACORD Form 25S, AIA Document G715 shall also be completed, in full, and submitted.

11.1.3.2 The Contractor shall provide insurance coverage for portions of the work stored off the site after written approval of the Owner at the value established in the approval, and also for portions of the work in transit.

11.1.3.3 Certificates of Insurance shall be issued in duplicate.

11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations. If coverage is written on a "claims made" basis, Contractor warrants the purchase of an extended reporting period of not less than three (3) years. Such coverage shall be primary and non-contributory to any insurance or self-insurance maintained by the additional insureds."

11.1.5 The Contractor shall purchase insurance from a company having an A. M. Best & Co. rating of 'A' or better.

11.1.6 The Contractor shall provide an endorsement from his insurance carrier (in addition to Certificate required above) to the Owner within two weeks after execution of the Agreement stating that this subparagraph has been complied with. The endorsement shall obligate the insurance carrier to give the Owner thirty (30) days' notice of cancellations of the insurance coverage(s).

11.2 OWNER'S LIABILITY INSURANCE

11.2.1 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

11.3 PROPERTY INSURANCE

11.3.1 The Owner shall purchase and maintain property insurance written on a builder's risk "all-risk" or equivalent special-cause-of-loss form, in the amount of the initial Contract Sum plus the value of subsequent Modifications and the cost of materials supplied or installed by others, on a replacement-cost basis without optional deductibles. Such insurance shall be maintained until final payment, and shall name as insureds the Owner, the Contractor, Separate Contractors, and their respective Subcontractors and Sub-subcontractors.

11.3.2 Because the Work involves alterations to and/or construction within an existing structure, the Owner shall also purchase and maintain all-risk property insurance, on a replacement-cost basis, protecting the existing structure and the Owner's property therein against direct physical loss or damage from the causes of loss covered above.

11.3.3 Partial occupancy or use by the Owner shall not commence until the property insurers providing coverage under this Section have consented in writing. The Owner shall not require the Contractor to pay costs or premiums for any reduction or termination of coverage resulting from such occupancy or use.

11.3.4 The Owner and Contractor waive all rights against (1) each other and any of their Subcontractors, Sub-subcontractors, agents, and employees; (2) the Architect and the Architect's consultants; and (3) Separate Contractors and 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 under this Section 11.3 or by other property insurance applicable to the Project or the existing structure, except such rights as they have to the proceeds of such insurance. The Owner and Contractor shall require similar written waivers from the Architect, the Architect's consultants, Separate Contractors, Subcontractors, and Sub-subcontractors. This waiver shall be effective even where a party would otherwise have a duty of indemnification, did not pay the premium directly or indirectly, or lacked an insurable interest in the damaged property.

11.4 PERFORMANCE BOND AND PAYMENT BOND

11.4.1 The Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds shall be obtained from a company lawfully authorized to do business in the Commonwealth of Pennsylvania and have Best's ratings of 'A' or better; and the cost of the bonds shall be included in the Contract Sum. The amount of each bond shall be equal to 100 percent of the Contract Sum.

11.4.1.1 The Contractor shall deliver the required bonds to the Owner not later than three days following the date Agreement is entered into, or if the Work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to the commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished.

11.4.1.2 The Contractor shall require the attorney who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the Power of Attorney.

11.4.2 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."

12.1 Delete Subparagraph 12.2.2.1

12.2 Delete Subparagraph 12.2.2.3

12.3 Replace Subparagraph 12.2.5 with the following:

“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, the enforcement of Contractor’s obligations under the Contract or claims by the Owner arising from or relating to latent defects or Work that does not conform to 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.”

13.1 Replace Subparagraph 13.1 with the following:

“13.1 The Contract shall be governed by the laws of the Commonwealth of Pennsylvania and within the jurisdiction of either the Berks County Courts or Federal District Court for the United States Middle District of Pennsylvania.”

13.2 Delete Subparagraph 13.2.2

13.3 Add to Article 13 of General Conditions the following paragraphs 13.6 through 13.12:

“13.6 PENNSYLVANIA PREVAILING WAGE RATES

13.6.1 Attention is called to the fact that not less than the minimum salaries and wages set forth in the Pennsylvania Prevailing Wage Rates and identified in the Contract Documents must be paid on this project. This regulation and the general Pennsylvania prevailing minimum wage rates, (Act 442 of 1961, P.L. 987, amended), as determined by the Secretary of Labor and Industry, which shall be paid for each craft or classification of all workers needed to perform the contract during the anticipated term therefor in the locality in which public work is performed, are made part of this specification.

- a. State Prevailing Wage Rate schedules are included in the project’s construction documents.
- b. It is the Bidder’s responsibility to perform and to adhere to all related administrative functions, as required by the Commonwealth of Pennsylvania.
- c. Refer to Section 012160 for additional information and for the applicable prevailing wage rate determinations for the PENNSYLVANIA PREVAILING WAGE ACT

13.7 DISCRIMINATION PROHIBITED AND COMPLIANCE WITH ADA

13.7.1 According to 62 Pa. C.S.A. § 3701, the Contractor agrees that: at its own expense, shall conform to the nondiscrimination policies and plans required by the Contract Documents, the laws of the Commonwealth of Pennsylvania and all other laws applicable to the Project.

13.7.2 In the hiring of employees for the performance of work under the contract or any subcontract, no contractor, subcontractor, or any person acting on behalf of the contractor or subcontractor shall by reason of gender, race, creed or color discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

13.7.3 No contractor or subcontractor or any person on their behalf shall in any manner discriminate against or intimidate any employee hired for the performance of work under the contract on account of gender, race, creed or color.

13.7.4 The contract may be canceled or terminated by the owner or government agency, and all money due or to become due under the contract may be forfeited for a violation of the terms or conditions of that portion of the contract.

13.7.5 Unless exempted by law, Contractor shall include the requirements of this section in every subcontract or purchase order so that it will be binding upon each subcontractor or supplier of the Contractor.

13.7.6 In the event the Contractor believes it necessary to modify its sequence of Work, the work environment or means and methods to comply with the applicable requirements of the Americans with Disabilities Act (ADA), Contractor shall notify the Architect and Owner in writing of the proposed modification. The Architect and Owner shall have a reasonable period of time to review the request

before responding in writing to Contractor. All costs of the proposed modifications shall be borne by the Contractor, including impact costs to other Contractors or other parts of the Project, including any claims arising therefrom. The Contractor shall implement no modification until he receives written consent from the Architect.

13.7.7 If Contractor, its employees, subcontractors, suppliers or any other person or entity responsible to Contractor fails to comply with any applicable law or requirement of this Agreement or the Contract Documents, upon notice from the Architect or Owner, Contractor shall commence to cure such non-compliance within twenty-four (24) hours and shall achieve compliance within seventy-two (72) hours of receipt of written notice. Any failure of Contractor to do so after written notice to comply shall constitute a breach of contract and the Owner, in addition to its other rights in the event of a breach, shall have the right to terminate Contractor's right to perform the Work.

13.8 HUMAN RELATIONS ACT

13.8.1 The provisions of the Pennsylvania Human Relations Act, Act 222 of October 27, 1955 (P.L. 744) (43 P.S. Section 951, et. seq.) of the Commonwealth of Pennsylvania prohibit discrimination because of race, color, religious creed, ancestry, age, sex, national origin, handicap, or disability, by employers, employment agencies, labor organizations, contractors and others. The contractor shall agree to comply with the provisions of this Act as amended that is made part of this Agreement, by reference. Your attention is directed to the language of the Commonwealth's non-discrimination clause in 16 PA. Code 49.101.

13.9 PUBLIC WORKS EMPLOYMENT VERIFICATION ACT

13.9.1 Contractor shall comply with all applicable provisions of Pennsylvania's Public Works Employment Verification Act, 43 P.S. § 167.1, et seq. In accordance with the Act, the Contractor will use the E-Verify Program operated by the Department of Homeland Security to verify the employment eligibility of each new employee hired after January 1, 2013, within five (5) business days of the hire date. Prior to commencing work, the Contractor shall fully and accurately complete a Commonwealth of Pennsylvania Public Works Employment Verification Form and shall provide that form to the Owner. The Public Works Employment Verification Form can be obtained on the website of Pennsylvania's Department of General Services:

<https://www.dgs.pa.gov/Materials-Services-Procurement/Public-Works-Employment-Verification/Documents/UPDATED%20Public%20Works%20Employment%20Verification%20Form.pdf>

For all new employees hired during the course of the Project, the Subcontractor must continue to use the E-Verify Program to verify their employment eligibility. <https://www.e-verify.gov/>

1) Contractor's subcontractors, at any tier, are also required to comply with the provisions of the Public Works Employment Verification Act. If Subcontractor enters into any subcontracts relating to the Project, the subcontracts must contain information about the requirements of the Public Works Employment Verification Act, and must identify that the applicable form may be obtained at

<https://www.dgs.pa.gov/Materials-Services-Procurement/Public-Works-Employment-Verification/Documents/UPDATED%20Public%20Works%20Employment%20Verification%20Form.pdf>.

13.10 STANDARD OF QUALITY

13.10.1 The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes. Except for a limited selection of products which are specifically identified in the contract documents. It is not the intent to limit the bidder, the bid or the evaluation of the bid to any one material or product specified, but rather to describe the minimum standard. When proprietary names are used and are followed by the words "no alternatives or substitutions shall be accepted," only the specific product identified can be provided. This limitation is restricted to a limited selection of products for this project. When proprietary names are used as a standard of quality, they shall be followed by the words "or alternatives of the quality necessary to meet the specifications." A bid containing an alternative which does not meet the specifications may be declared non-responsive. A bid containing an alternative may be accepted but, if an award is made to that bidder, the bidder will be required to replace any alternatives which do not meet the specifications.

13.11 USE OF STEEL AND STEEL PRODUCTS MADE IN THE UNITED STATES

13.11.1 In accordance with Act 3 of the 1978 General Assembly of the Commonwealth of Pennsylvania, if any steel or steel products are to be used or supplied in the performance of the contract, only those produced in the United States as defined therein shall be used or supplied in the performance of the contract or any subcontracts thereunder.

13.11.1.1 In accordance with Act 161 of 1982, cast iron products are also included and shall be produced in the United States. Act 144 of 1984 further defines "steel products" to include machinery and equipment. The act also provides clarification and penalties.

13.12 COMPETENT WORKMEN

13.12.1 No workmen shall be regarded as competent first class, within the meaning of this Act, except those who are duly skilled in their respective branches of labor, and who shall be paid not less than such rates of wages as set forth in the Pennsylvania Prevailing Wage Rate Determination Schedule made part of the Project Documents.

14.1 In Subparagraph 14.1.1, delete subparagraphs 14.1.1.3 and 14.1.1.4.

14.2 Append to Subparagraph 14.1.3 the following:

“Contractor shall not be entitled to any overhead or profit for any work not performed or any other losses or damages.”

14.3 Change Subparagraph 14.2.1 as follows:

- In subparagraph 14.2.1.1 delete “repeatedly”.
- In subparagraph 14.2.1.3 delete “repeatedly”.
- In subparagraph 14.2.1.4 delete “substantial”.
- Add the following subparagraphs:
 - “.5 fails to abide by the Project Construction Schedule, and/or fails, within seven days after receipt of written notice to correct or recover the schedule, to provide required scheduling information; or
 - .6 institutes proceedings or consents to proceedings requesting relief under the Federal Bankruptcy Code or if a Petition under the Federal Bankruptcy Code is filed against the Contractor and such Petition is not dismissed within sixty (60) days from the date of said filing.”

14.4 Add the following Subparagraph 14.2.4.1 to Subparagraph 14.2.4:

“.1 The costs of finishing the Work include, without limitation, all reasonable attorney’s fees and costs, additional title costs, insurance, additional fees paid to the Architect additional interest because of any delay in completing the Work, and all other direct and indirect costs incurred by the Owner by reason of the termination of the Contractor as stated herein.”

14.5 Add the following Subparagraph 14.2.5:

“14.2.5 If the Owner terminates the contract for cause and it is subsequently determined that such termination was without sufficient cause or was improper for any reason whatsoever, such termination shall be deemed for all purposes to have been a termination for convenience and, in such event, Contractor shall be entitled to recover only those sums due pursuant to Section 14.4.3.”

14.6 Replace Subparagraph 14.4.3 as follows:

“In case of such termination for the Owner’s convenience, the Contractor shall be entitled to receive payment only for Work executed and accepted, for any costs associated with demobilization and termination costs of material and equipment orders already placed for items which are unique to the Project. Contractor is not entitled to any overhead or profit for any work not performed or any other losses or damages.”

15.1 Delete Subparagraph 15.1.2.

15.1 Replace Subparagraph 15.1.3 with the following:

“15.1.3 Notice of Claims. Claims by the Contractor must be initiated by written notice to the Owner and to the Architect. Claims by Contractor must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after Contractor first recognizes the condition giving rise to the Claim, whichever is later or within such shorter period prescribed by any other section of this Agreement or the Contract Documents; provided however, that the Contractor shall use its best efforts to furnish the Architect and the Owner, as expeditiously as possible, with notice of any Claim including, without limitation, those in connection with concealed or unknown conditions, once such Claim is recognized, and the Contractor shall cooperate with the Architect and the Owner in any effort to mitigate the alleged or potential damages, delay or other adverse consequences arising out of the condition which is the cause of such a Claim. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in a timely manner.”

15.2 Add the following Subparagraphs 15.1.3.1 through 15.1.3.7:

“15.1.3.1 Failure of the Contractor to timely initiate a claim, in writing, shall constitute waiver of such claim. A statement at a meeting, a change order request or correspondence that does not strictly comply with the notice of claim provisions shall not constitute sufficient or timely notice of a claim.

15.1.3.2 The written notice shall contain the following information and shall be verified under penalty of perjury by a person with authority to act on behalf of the Contractor that the facts and information contained in or relied upon in the notice is true and correct.

- .1** The date that the event giving rise to the claim commenced and the date upon which it was first recognized by the contractor.
- .2** The cause of the event giving rise to the claim.
- .3** The effect of the event giving rise to the claim on the construction progress including the identity of all elements of work that have been and will be impacted by the event and a specific explanation as to why and to what extent such work has been or will be impacted by the event giving rise to the claim.
- .4** If the event giving rise to the claim has impacted the schedule, a proposal for schedule recovery from the event that impacted the schedule that shall include a description of the means by which the Contractor intends to prevent further delay in the work.
- .5** A detailed itemization of each element of loss, damage or expense for which the Contractor seeks monies, along with data, documents or other information substantiating such Claim.

15.1.3.3 If the Contractor is claiming additional costs for delay, interference or inefficiency and the Contractor’s notice of claim for delay, interference or inefficiency is timely submitted to the Architect pursuant to section 15.1.3, the Contractor shall submit a weekly Status Report until recovery from the delay, interference or inefficiency has been achieved. The Status Report shall be in writing and accompanied by an Affidavit subject to the penalty of perjury. The Status Report shall:

- .1** Explain the efforts taken to recover from the delay, interference or inefficiency.
- .2** Identify the cause of any continuation of the delay, interference or inefficiency or any hindrance to the Contractor’s proposed recovery plan.
- .3** Include a breakdown of the costs resulting from the delay, interference or inefficiency for any and all costs for which it is making a claim, attaching cost reports, certified payroll and invoices that support the costs.
- .4** The final Status Report shall identify the date that recovery from the delay, interference or inefficiency was achieved.

15.1.3.4 As a part of the Contractor’s initial notification and status updates thereafter, the Contractor shall include in the information submitted with its claim, and any supplemental information provided,

a detailed description of the specific reason that caused the additional damages requested and shall also fully identify any other causes, including inefficiencies caused by, other contractors, its own forces, or those of its subcontractors. The Contractor shall provide scheduling information that shows the critical impact to the schedule at the time it first provides notice and the impact anticipated at that time for future work. As a part of its status update of information required to support its request, the Contractor will provide a regular update of the schedule analysis showing continued critical impact on a monthly basis, showing both the impact that occurred as of that update and the continued anticipated impact for future work from the date of the update. The Contractor acknowledges that the impact of the inefficiency of each change order shall be identified at the time of a change order request, and that the Contractor shall make no claim for any inefficiency based on a cumulative impact of the change orders.

15.1.3.5 Even though formulas or means of calculating damages other than the records described in this contract are expressly prohibited and are contrary to the terms of this Agreement, the Owner understands that courts may still permit the Contractor to present damages for inefficiencies. Contractor agrees to the following with regard to any claim for inefficiency:

.1 Claims for inefficiencies must be made within the time requirements of this Article 15.1.2 herein or other applicable provision of this contract. To the extent the full amount of inefficiency cannot be determined, the Contractor must provide proper notice of its first occurrence of inefficiency costs even if the full amount of the claim cannot be determined. The Contractor must provide monthly updates of the amounts of inefficiency it has incurred in the prior month, with full documentation and invoices for labor, supervision and other inefficiency costs.

.2 To the extent the Contractor uses a "measured mile" approach, or any similar formula to calculate the damages such as earned value or similar analysis, the Contractor will identify the unimpacted activity period at the time it first makes its claim. The Contractor acknowledges that the use of such methods for calculating inefficiency require the identification of a period unimpacted by inefficiency and that such unimpacted period must occur prior to the period of inefficiency for such a method to be valid.

.3 The Contractor shall not pursue any change order or claim relying on the Eichleay formula, Manshul formula or other similar formula in pursuing any overhead amounts, since these formulas do not calculate overhead amounts with any degree of reasonable certainty. The Contractor agrees that any amounts for overhead, including home office overhead, are included in the Contractor's mark-up for overhead and profit as described in this agreement.

15.1.3.6 Payment of a change order shall constitute accord and satisfaction of all claims in connection with the change or changes to the Contract addressed by the change order, and it is understood and agreed that a signed change order form shall be the complete and fully integrated agreement for all related costs and that there are no oral or written understandings, representations, or agreements, directly or indirectly, connected with the Change Order that are not affirmatively stated on the signed Change Order form. The Contractor's execution of a change order constitutes a representation that it will make no further claims for damages inconsistent with this paragraph.

15.1.3.7 Strict compliance with the provisions of 15.1.3 and all of its subparts is a condition precedent to the presentation of any claim for delay, interference or inefficiency."

15.4 Replace Subparagraph 15.1.6.1 with the following:

"**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. In the case of a continuing delay only one Claim is necessary. Refer to Article 8, Paragraph 8.3."

15.5 Append the following to Subparagraph 15.1.6.2:

“Contractor must also provide documentation regarding the weather that the Contractor anticipated and the information upon which the Contractor based his anticipation of weather conditions. Winter or other inclement weather is not condition for any project delay or claim. Contractor is to follow all measures to maintain the protection of the work, temperature controls, remove snow, ice and other accumulations to ensure that the work continues.”

15.7 Change Subparagraph 15.1.7.2 as follows:

Following “stationed there,” insert “for loss of bonding capacity,”

15.8 Append to Subparagraph 15.1.7 the following:

“It is understood and agreed that Contractor’s waiver of consequential damages against the Owner shall extend to the benefit of the Architect, its owners, directors and employees, and the Architect’s consultants.

.3 The Contractor represents that its agreement to pursue costs, damages or claims in strict accordance with Article 15 herein or any other provision of the Contract is material to the award of the contract to the Contractor and that the Owner and Architect are entitled to rely upon this representation. The Contractor further agrees that this paragraph shall survive termination or rescission of this agreement even in the event of a material breach of contract by the Owner.”

15.8 Replace Subparagraph 15.2.1 as follows:

“**15.2.1** Claims of the Contractor, 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 and 10.4 shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker. An initial decision shall be required as a condition precedent to any right of the Contractor to pursue any Claim in arbitration or litigation (as elected by the Owner) arising. 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.”

15.9 Replace Subparagraph 15.2.5 as follows:

“**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 therefore; and (3) shall be issued to the Contractor and the Owner. The initial decision shall be final and binding upon the Contractor, unless, within fifteen (15) days of that decision, the Contractor provides written notice to the Owner, with copies to the Architect, that the Contractor seeks to submit the Claim to arbitration or litigation as elected by the Owner as provided in Section 15.3. Failure of the Contractor to provide such written notice within this time limit shall constitute a waiver of such Claim. The decision of the Initial Decision Maker upon a Claim shall not be binding upon the Owner.”

15.10 Delete Subparagraphs 15.2.6 through 15.2.8 in their entirety.

16.1 Add to General Conditions the following Article 16:

"ARTICLE 16 MECHANICS' LIENS

16.1 Contractor shall promptly pay for all materials furnished, labor supplied or performed by others, rental for equipment employed, and services rendered by public utilities in or in connection with the prosecution of the work, whether or not the said material, labor, equipment, and services entered into and become component parts of the work or improvement contemplated. This provision is intended to ensure payment of every person, co-partnership, association or corporation who, as subcontractor or otherwise has furnished material, supplied or performed labor, rented equipment or supplied services in connection with the prosecution of the work as aforesaid, and shall preclude the filing by any such person, co-partnership, association or corporation, of any mechanic's lien claim against Owner for such material, labor, or rental of equipment.

16.2 The Contractor, for any and all subcontractors and parties acting through, or under them or any of the, covenants and agrees by and with the Owner that no mechanic's liens or claims shall be filed or maintained by the said Contractor or any subcontractors or other party acting through or under it, them or any of them against the aforesaid building and/or the lot of ground or curtilage appurtenant thereto, or against the interests of the Owner on account of any work done or materials furnished by them or any of them whether prior to the execution of this Contract, under the aforesaid contract or under any supplemental contract thereto for extra or additional work or otherwise for, toward, in or about the work on the lot of ground hereinabove described, or any work or material therefor, and the said Contractor for itself and its subcontractors and all persons acting for or under it, them or any of them hereby expressly waives and relinquishes the right to have, file, or maintain any mechanic's claim or liens against the said building and/or the lot of ground hereinabove described or curtilage appurtenant thereto; to the interest of the Owner, it being the intent of the parties hereto that Contractor shall only possess those rights and remedies against Owner which are created by the terms and provisions of this Agreement and are based upon the contractual relationship between Owner and Contractor as defined and limited by this Agreement and any changes or modifications thereto.

16.3 Contractor further agrees that if, notwithstanding the foregoing, any suit, lien or claim occasioned by the Contractor's performance of this Contract, whether directly or indirectly, is filed by the Contractor, its Subcontractor, sub-subcontractors, material, men, or suppliers in any court having jurisdiction of the premises and the same matures into a lien against the property, Contractor shall immediately cause such lien to be discharged as to such property by posting bond or by such other means as may be provided under the applicable statutes and rules of court or shall otherwise indemnify, defend and save Owner harmless on account of any such claims, liens, or suits."

END OF SECTION 007300



COMMONWEALTH OF PENNSYLVANIA

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM

Date _____

Business or Organization Name (Employer) _____

Address _____

City _____ State _____ Zip Code _____

Contractor {dzõ02yúwI-0ú2w ó0KŠ01 2yŠú

Contracting Public Body _____

Contract/Project No _____

Project Description _____

Project Location _____

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of the above date, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United States Department of Homeland Security. To the best of my/our knowledge, all employees hired post January 1, 2013 are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, _____, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.

Authorized Representative Signature

SECTION 007346 - PREVAILING WAGE RATES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. The provisions of the Pennsylvania Prevailing Wage Act approved August 15, 1961 (Act No. 442), as amended August 9, 1963 (Act No. 342), and the Regulations issued pursuant thereto are hereby incorporated in and made a part of the General Requirements of the Project. The Secretary of Department of Labor and Industry has predetermined the minimum wage rates, including contributions for employee benefits, which shall be paid to the workmen employed in the performance of the Contract.
- B. The following provisions shall also apply to this contract:
 - 1. Provisions to Apply: The contract provisions shall apply to all work performed on the Contract by the Contractor, and to all work performed on the contract by all Subcontractors.
 - 2. Subcontracts: The Contractor shall insert in each of his subcontracts all of the stipulations contained in these required provisions and such other stipulations as may be required.
 - 3. Worker Classifications: No workers may be employed on the Work except in accordance with the classifications set forth in the decision of the Secretary. In the event that additional or different classifications are necessary, the procedure set forth in Section 7 of these Regulations shall be followed.
 - 4. Workers to be Paid Unconditionally: All workers employed or working on the Work shall be paid unconditionally, regardless of whether any contractual relationship exists or the nature of any contractual relationship which may be alleged to exist between any Contractor, Subcontractor and worker, not less than once a week without deduction or rebate, on any account, either directly or indirectly except authorized deductions, the full amounts due at the time of payment, computed at the rates applicable to the time worked in the appropriate classification. Nothing in the Contract, the Act, or the Regulations shall prohibit the payment of more than the general prevailing minimum wage rates as determined by the Secretary to any worker on public work.
 - 5. Post Wage Determination: The Contractor and each Subcontractor shall post for the entire period of construction the wage determination decisions of the Secretary, including the effective date of any changes thereof, in a prominent and easily accessible place or places at the site of the work and at such place or places used by them to pay workers their wages. The posted notice of wage rates must contain the following information:
 - a. Name of Project.
 - b. Name of public body for which it is being constructed.
 - c. The crafts and classifications of workers listed in the Secretary's general prevailing minimum wage rate determination for the particular project.
 - d. The general prevailing minimum wage rates determined for each craft and classification and the effective date of any changes.

- e. A statement advising workers that if they have been paid less than the general prevailing minimum wage rate for their job classification or that the Contractor and/or Subcontractor are not complying with the Act or these Regulations in any manner whatsoever, they may file a protest in writing with the Secretary of Labor and Industry within three (3) months of the date of the occurrence, objecting to the payment to any Contractor to the extent of the amount or amounts due or to become due to them as wages for work performed on the public work project. Any worker paid less than the rate specified in the contract shall have a civil right of action for the difference between the wage paid and the wages stipulated in the contract, which right of action must be exercised within six (6) months from the occurrence of the event creating such right.
- 6. Records: The Contractor and all Subcontractors shall keep an accurate record showing the name, craft and/or classification, number of hours worked per day, and the actual hourly rate of wage paid (including employee benefits) to each worker employed by him in connection with the Work and such record must include any deductions from each worker. The record shall be preserved for two years from the date of payment and shall be open at all reasonable hours to the inspection of the public body awarding the contract and to the Secretary or his duly authorized representatives.
- 7. Apprentices: Apprentices shall be limited to such numbers as shall be in accordance with a bona fide apprenticeship program registered with and approved by the Pennsylvania Apprenticeship and Training Council and only apprentices whose training and employment are in full compliance with the provisions of the Apprenticeship and Training Act approved July 14, 1961 (Act No. 304) and the Rules and Regulations issued pursuant thereto shall be employed on the Work project. Any worker using the tools of a craft who does not qualify as an apprentice within the provisions of this subsection shall be paid the rate predetermined for journeymen in that particular craft and/or classification.
- 8. Deductions: Wages shall be paid without any deductions except authorized deductions. Employers not parties to a contract requiring contributions for employee benefits which the Secretary has determined to be included in the general prevailing minimum wage rate shall pay the monetary equivalent thereof directly to the workers.
- D. Violation: Payment of compensation to workers for work performed on the Work on a lump sum basis, or a piece work system, or a price certain for the completion of a certain amount of work, or the production of a certain result shall be deemed a violation of the Act and these Regulations, regardless of the average hourly earnings resulting therefrom.
- E. Filing Requirements: The Contractor and each Subcontractor shall file a statement each week and a final statement at the conclusion of the Work on the Contract with the contracting agency, under oath, and in form satisfactory to the Secretary, certifying that all workers have been paid wages in strict conformity with the provisions of the contract as prescribed by this Section 3 of these Regulations, or if any wages remain unpaid to set forth the amount of wages due and owing to each worker respectively.

1.2 WAGE RATES

- A. The Pennsylvania Prevailing Minimum Wage Rates Schedule, Serial #26-06214 dated 6/29/2026, 7 pages, is attached to Section 007346.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 007346

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project Name:	RACC Warehouse Renovations
General Description:	Interior renovations to the Theatre program workshop area.
Project Locality	Reading, Pennsylvania
Awarding Agency:	Reading Area Community College
Contract Award Date:	8/1/2026
Serial Number:	26-06214
Project Classification:	Building
Determination Date:	6/29/2026
Assigned Field Office:	Scranton
Field Office Phone Number:	(570)963-4577
Toll Free Phone Number:	(877)214-3962
Project County:	Berks County

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-06214 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	6/30/2025		\$41.50	\$29.86	\$71.36
Asbestos & Insulation Workers	6/29/2026		\$43.50	\$31.11	\$74.61
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2024		\$36.71	\$19.13	\$55.84
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2026		\$41.34	\$19.23	\$60.57
Boilermakers	1/1/2024		\$52.10	\$35.72	\$87.82
Boilermakers	1/1/2026		\$58.00	\$36.57	\$94.57
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/4/2025		\$41.68	\$19.17	\$60.85
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/3/2026		\$43.53	\$19.17	\$62.70
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2025		\$36.84	\$20.44	\$57.28
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2026		\$36.84	\$22.69	\$59.53
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2027		\$36.84	\$24.94	\$61.78
Cement Finishers & Plasterers	5/4/2025		\$32.23	\$22.27	\$54.50
Cement Finishers & Plasterers	5/3/2026		\$34.23	\$22.27	\$56.50
Cement Finishers & Plasterers	5/3/2027		\$33.49	\$25.01	\$58.50
Cement Masons	5/1/2024		\$34.85	\$20.90	\$55.75
Cement Masons	5/1/2025		\$35.85	\$20.90	\$56.75
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/Pile Driver Diver	5/1/2025		\$64.35	\$41.74	\$106.09
Dockbuilder/Pile Driver Diver	5/1/2026		\$66.54	\$41.74	\$108.28
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Drywall Finisher	5/1/2025		\$31.83	\$23.26	\$55.09
Drywall Finisher	5/1/2026		\$33.02	\$24.00	\$57.02
Electricians	9/2/2024		\$44.52	\$26.83	\$71.35
Electricians	9/1/2025		\$46.02	\$28.39	\$74.41
Elevator Constructor	1/1/2025		\$61.41	\$44.95	\$106.36
Elevator Constructor	1/1/2026		\$64.06	\$46.01	\$110.07
Floor Coverer	5/1/2025		\$37.78	\$19.80	\$57.58
Floor Coverer	5/1/2026		\$38.59	\$20.61	\$59.20
Glazier	5/1/2024		\$39.48	\$23.81	\$63.29
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2025		\$38.76	\$33.38	\$72.14
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2026		\$40.51	\$33.88	\$74.39
Laborers (Class 01 - See notes)	5/1/2025		\$29.27	\$17.84	\$47.11
Laborers (Class 01 - See notes)	5/1/2026		\$30.12	\$18.49	\$48.61
Laborers (Class 02 - See notes)	5/1/2026		\$32.12	\$18.49	\$50.61
Laborers (Class 02 - see notes)	5/1/2025		\$31.27	\$17.84	\$49.11
Laborers (Class 03 - See notes)	4/27/2025		\$31.82	\$18.09	\$49.91

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-06214 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers (Class 03 - See notes)	5/1/2026		\$32.82	\$18.74	\$51.56
Laborers (Class 04 - See notes)	4/27/2025		\$33.82	\$18.09	\$51.91
Laborers (Class 04 - See notes)	5/1/2026		\$34.32	\$18.74	\$53.06
Laborers (Class 05 - See notes)	5/1/2025		\$31.27	\$17.84	\$49.11
Laborers (Class 05 - See notes)	5/1/2026		\$32.12	\$18.49	\$50.61
Laborers (Class 06 - See notes)	5/1/2025		\$30.62	\$17.84	\$48.46
Laborers (Class 06 - See notes)	5/1/2026		\$31.47	\$18.49	\$49.96
Marble Mason	5/1/2025		\$37.71	\$18.73	\$56.44
Marble Mason	5/3/2026		\$37.72	\$20.67	\$58.39
Millwright	6/1/2025		\$43.00	\$22.95	\$65.95
Millwright	6/1/2026		\$44.97	\$22.95	\$67.92
Operators (Building, Class 01 - See Notes)	5/1/2025		\$44.89	\$30.92	\$75.81
Operators (Building, Class 01 - See Notes)	5/1/2026		\$46.05	\$31.76	\$77.81
Operators (Building, Class 01A - See Notes)	5/1/2025		\$47.14	\$31.58	\$78.72
Operators (Building, Class 01A - See Notes)	5/1/2026		\$48.30	\$32.42	\$80.72
Operators (Building, Class 02 - See Notes)	5/1/2025		\$44.61	\$30.83	\$75.44
Operators (Building, Class 02 - See Notes)	5/1/2026		\$45.77	\$31.67	\$77.44
Operators (Building, Class 02A - See Notes)	5/1/2025		\$46.86	\$31.50	\$78.36
Operators (Building, Class 02A - See Notes)	5/1/2026		\$48.02	\$32.34	\$80.36
Operators (Building, Class 03 - See Notes)	5/1/2025		\$41.88	\$30.03	\$71.91
Operators (Building, Class 03 - See Notes)	5/1/2026		\$43.04	\$30.87	\$73.91
Operators (Building, Class 04 - See Notes)	5/1/2025		\$40.74	\$29.70	\$70.44
Operators (Building, Class 04 - See Notes)	5/1/2026		\$41.90	\$30.54	\$72.44
Operators (Building, Class 05 - See Notes)	5/1/2025		\$40.30	\$29.56	\$69.86
Operators (Building, Class 05 - See Notes)	5/1/2026		\$41.45	\$30.41	\$71.86
Operators (Building, Class 06 - See Notes)	5/1/2025		\$39.42	\$29.30	\$68.72
Operators (Building, Class 06 - See Notes)	5/1/2026		\$40.58	\$30.14	\$70.72
Operators (Building, Class 07A- See Notes)	5/1/2025		\$54.56	\$35.21	\$89.77
Operators (Building, Class 07A- See Notes)	5/1/2026		\$56.03	\$36.14	\$92.17
Operators (Building, Class 07B- See Notes)	5/1/2025		\$54.22	\$35.10	\$89.32
Operators (Building, Class 07B- See Notes)	5/1/2026		\$55.69	\$36.03	\$91.72
Painters Class 1 (see notes)	5/1/2024		\$31.81	\$23.77	\$55.58
Painters Class 1 (see notes)	5/1/2025		\$32.71	\$24.17	\$56.88
Painters Class 1 (see notes)	5/1/2026		\$33.89	\$24.69	\$58.58
Painters - Line Stripping	12/1/2024		\$44.12	\$27.91	\$72.03
Painters - Line Stripping	12/1/2025		\$45.12	\$29.41	\$74.53
Painters Class 2 (see notes)	5/1/2023		\$30.09	\$23.19	\$53.28
Painters Class 2 (see notes)	5/1/2025		\$35.61	\$24.18	\$59.79
Painters Class 3 (see notes)	5/1/2025		\$41.71	\$24.18	\$65.89
Piledrivers	5/1/2021		\$43.73	\$37.99	\$81.72
Plasterers	5/1/2024		\$32.93	\$21.08	\$54.01
Plasterers	5/1/2025		\$34.68	\$21.23	\$55.91
plumber	5/1/2025		\$56.28	\$36.01	\$92.29
plumber	5/1/2026		\$58.43	\$36.61	\$95.04

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 26-06214 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Roofers (Composition)	5/1/2024		\$44.13	\$34.77	\$78.90
Roofers (Composition)	5/1/2025		\$46.03	\$34.77	\$80.80
Roofers (Composition)	5/1/2026		\$47.53	\$35.22	\$82.75
Roofers (Shingle)	5/1/2024		\$34.35	\$22.20	\$56.55
Roofers (Slate & Tile)	5/1/2024		\$37.35	\$22.20	\$59.55
Sheet Metal Workers	6/1/2024		\$43.09	\$43.14	\$86.23
Sheet Metal Workers	6/1/2025		\$45.02	\$44.71	\$89.73
Sheet Metal Workers	6/1/2026		\$46.62	\$46.36	\$92.98
Sign Makers and Hangars	7/15/2024		\$32.32	\$25.82	\$58.14
Sign Makers and Hangars	7/15/2025		\$33.48	\$26.41	\$59.89
Sprinklerfitters	4/1/2025		\$49.75	\$29.21	\$78.96
Sprinklerfitters	4/1/2026		\$52.82	\$30.56	\$83.38
Steamfitters	5/1/2024		\$59.65	\$43.09	\$102.74
Steamfitters	5/1/2025		\$61.47	\$44.89	\$106.36
Terrazzo Finisher	5/1/2025		\$36.32	\$21.68	\$58.00
Terrazzo Finisher	5/1/2026		\$37.12	\$22.76	\$59.88
Terrazzo Grinder	5/1/2024		\$36.42	\$20.76	\$57.18
Terrazzo Grinder	5/1/2025		\$37.10	\$21.68	\$58.78
Terrazzo Grinder	5/1/2026		\$37.93	\$22.76	\$60.69
Terrazzo Mechanics	5/1/2024		\$36.44	\$22.51	\$58.95
Terrazzo Mechanics	5/1/2025		\$37.17	\$23.43	\$60.60
Terrazzo Mechanics	5/1/2026		\$38.06	\$24.51	\$62.57
Tile & Marble Finisher	5/1/2025		\$35.31	\$16.99	\$52.30
Tile & Marble Finisher	5/1/2026		\$37.26	\$16.99	\$54.25
Tile Setter	5/1/2025		\$37.71	\$18.73	\$56.44
Tile Setter	5/3/2026		\$37.72	\$20.67	\$58.39
Truckdriver class 1(see notes)	5/1/2025		\$41.87	\$0.00	\$41.87
Truckdriver class 2 (see notes)	5/1/2025		\$41.94	\$0.00	\$41.94
Truckdriver class 3 (see notes)	5/1/2025		\$42.43	\$0.00	\$42.43
Window Film / Tint Installer	6/1/2024		\$26.37	\$14.83	\$41.20
Window Film / Tint Installer	6/1/2025		\$27.42	\$15.13	\$42.55
Window Film / Tint Installer	6/1/2026		\$28.35	\$15.60	\$43.95

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 26-06214 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$41.42	\$15.49	\$56.91
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$36.02	\$15.49	\$51.51
Carpenter - Rodman I (Survey & Layout)	5/1/2021		\$28.82	\$12.39	\$41.21
Carpenter	5/1/2025		\$36.87	\$20.49	\$57.36
Carpenter	5/1/2026		\$37.63	\$21.18	\$58.81
Carpenter Welder	5/1/2025		\$37.62	\$20.49	\$58.11
Carpenter Welder	5/1/2026		\$38.38	\$21.18	\$59.56
Carpenters - Piledriver/Welder	1/1/2025		\$37.62	\$20.49	\$58.11
Carpenters - Piledriver/Welder	1/1/2026		\$38.38	\$21.18	\$59.56
Cement Finishers	1/1/2017		\$27.70	\$20.20	\$47.90
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/Pile Driver Diver	5/1/2025		\$60.31	\$44.97	\$105.28
Dockbuilder/Pile Driver Diver	5/1/2026		\$61.88	\$45.47	\$107.35
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Electric Lineman	6/3/2024		\$52.80	\$30.61	\$83.41
Electric Lineman	6/2/2025		\$55.42	\$31.04	\$86.46
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2024		\$37.26	\$32.63	\$69.89
Laborers (Class 01 - See notes)	5/1/2025		\$26.61	\$19.99	\$46.60
Laborers (Class 01 - See notes)	5/1/2026		\$27.61	\$20.44	\$48.05
Laborers (Class 02 - See notes)	5/1/2025		\$33.23	\$19.99	\$53.22
Laborers (Class 02 - See notes)	5/1/2026		\$34.23	\$20.44	\$54.67
Laborers (Class 03 - See notes)	5/1/2025		\$30.22	\$19.99	\$50.21
Laborers (Class 03 - See notes)	5/1/2026		\$31.22	\$20.44	\$51.66
Laborers (Class 04 - See notes)	5/1/2025		\$30.57	\$19.99	\$50.56
Laborers (Class 04 - See notes)	5/1/2026		\$31.57	\$20.44	\$52.01
Laborers (Class 05 - See notes)	5/1/2025		\$31.24	\$19.99	\$51.23
Laborers (Class 05 - See notes)	5/1/2026		\$32.24	\$20.44	\$52.68
Laborers (Class 06 - See notes)	5/1/2025		\$30.66	\$19.99	\$50.65
Laborers (Class 06 - See notes)	5/1/2026		\$31.66	\$20.44	\$52.10
Laborers (Class 07 - See notes)	5/1/2025		\$30.95	\$19.99	\$50.94
Laborers (Class 07 - See notes)	5/1/2026		\$31.95	\$20.44	\$52.39
Laborers (Class 08 - See notes)	5/1/2025		\$31.43	\$19.99	\$51.42
Laborers (Class 08 - See notes)	5/1/2026		\$32.43	\$20.44	\$52.87
Millwright	6/1/2025		\$45.46	\$23.33	\$68.79
Millwright	6/1/2026		\$47.52	\$23.33	\$70.85
Operators (Heavy, Class 01 - See Notes)	5/1/2025		\$43.46	\$30.50	\$73.96
Operators (Heavy, Class 01 - See Notes)	5/1/2026		\$44.61	\$31.35	\$75.96
Operators (Heavy, Class 01A - See Notes)	5/1/2025		\$45.71	\$31.16	\$76.87
Operators (Heavy, Class 01A - See Notes)	5/1/2026		\$46.86	\$32.01	\$78.87
Operators (Heavy, Class 02 - See Notes)	5/1/2025		\$43.18	\$30.41	\$73.59
Operators (Heavy, Class 02 - See Notes)	5/1/2026		\$44.34	\$31.25	\$75.59
Operators (Heavy, Class 02A - See Notes)	5/1/2025		\$45.43	\$31.08	\$76.51

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-06214 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Heavy, Class 02A - See Notes)	5/1/2026		\$46.59	\$31.92	\$78.51
Operators (Heavy, Class 03 - See Notes)	5/1/2025		\$40.26	\$29.55	\$69.81
Operators (Heavy, Class 03 - See Notes)	5/1/2026		\$41.43	\$30.38	\$71.81
Operators (Heavy, Class 04 - See Notes)	5/1/2025		\$39.12	\$29.22	\$68.34
Operators (Heavy, Class 04 - See Notes)	5/1/2026		\$40.28	\$30.06	\$70.34
Operators (Heavy, Class 05 - See Notes)	5/1/2025		\$38.67	\$29.09	\$67.76
Operators (Heavy, Class 05 - See Notes)	5/1/2026		\$39.83	\$29.93	\$69.76
Operators (Heavy, Class 06 - See Notes)	5/1/2025		\$37.80	\$28.82	\$66.62
Operators (Heavy, Class 06 - See Notes)	5/1/2026		\$38.96	\$29.66	\$68.62
Operators (Heavy, Class 07A - See Notes)	5/1/2025		\$52.85	\$34.71	\$87.56
Operators (Heavy, Class 07A - See Notes)	5/1/2026		\$54.32	\$35.64	\$89.96
Operators (Heavy, Class 07B - See Notes)	5/1/2025		\$52.51	\$34.60	\$87.11
Operators (Heavy, Class 07B - See Notes)	5/1/2026		\$53.97	\$35.54	\$89.51
Operators (Highway, Class 01 - See Notes)	5/1/2025		\$42.56	\$30.24	\$72.80
Operators (Highway, Class 01 - See Notes)	5/1/2026		\$43.72	\$31.08	\$74.80
Operators (Highway, Class 01a - See Notes)	5/1/2025		\$44.81	\$30.92	\$75.73
Operators (Highway, Class 01a - See Notes)	5/1/2026		\$45.97	\$31.76	\$77.73
Operators (Highway, Class 02 - See Notes)	5/1/2025		\$41.39	\$29.89	\$71.28
Operators (Highway, Class 02 - See Notes)	5/1/2026		\$42.55	\$30.73	\$73.28
Operators (Highway, Class 03 - See Notes)	5/1/2025		\$40.70	\$29.68	\$70.38
Operators (Highway, Class 03 - See Notes)	5/1/2026		\$41.87	\$30.51	\$72.38
Operators (Highway, Class 04 - See Notes)	5/1/2025		\$40.26	\$29.54	\$69.80
Operators (Highway, Class 04 - See Notes)	5/1/2026		\$41.41	\$30.39	\$71.80
Operators (Highway, Class 05 - See Notes)	5/1/2025		\$39.73	\$29.41	\$69.14
Operators (Highway, Class 05 - See Notes)	5/1/2026		\$40.89	\$30.25	\$71.14
Operators (Highway, Class 06 - See Notes)	5/1/2025		\$42.80	\$30.30	\$73.10
Operators (Highway, Class 06 - See Notes)	5/1/2026		\$43.95	\$31.15	\$75.10
Operators (Highway, Class 06/A - See Notes)	5/1/2025		\$45.05	\$30.96	\$76.01
Operators (Highway, Class 06/A - See Notes)	5/1/2026		\$46.21	\$31.80	\$78.01
Operators (Highway, Class 07/A - See Notes)	5/1/2025		\$51.79	\$34.38	\$86.17
Operators (Highway, Class 07/A - See Notes)	5/1/2026		\$53.25	\$35.32	\$88.57
Operators (Highway, Class 07/B - See Notes)	5/1/2025		\$50.37	\$33.97	\$84.34
Operators (Highway, Class 07/B - See Notes)	5/1/2026		\$51.84	\$34.90	\$86.74
Painters - Line Stripping	12/1/2024		\$44.12	\$27.91	\$72.03
Painters - Line Stripping	12/1/2025		\$45.12	\$29.41	\$74.53
Painters Class 2 (see notes)	5/1/2025		\$35.61	\$24.18	\$59.79
Painters Class 2 (see notes)	5/1/2026		\$38.00	\$24.79	\$62.79
Painters Class 3 (see notes)	5/1/2024		\$40.81	\$23.78	\$64.59
Painters Class 3 (see notes)	5/1/2025		\$41.71	\$24.18	\$65.89
Painters Class 3 (see notes)	5/1/2026		\$44.10	\$24.79	\$68.89
Piledrivers	5/1/2025		\$36.87	\$20.49	\$57.36
Piledrivers	5/1/2026		\$37.63	\$21.18	\$58.81
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2025		\$54.39	\$44.73	\$99.12
Truckdriver class 1(see notes)	5/1/2025		\$41.87	\$0.00	\$41.87

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 26-06214 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Truckdriver class 2 (see notes)	5/1/2025		\$41.94	\$0.00	\$41.94
Truckdriver class 3 (see notes)	5/1/2025		\$42.43	\$0.00	\$42.43

SECTION 007400 – QUALIFIED CONTRACTOR CERTIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Each Prime Contractor and Major Subcontractor shall be a qualified, responsible contractor that has sufficient capabilities in all respects to successfully perform the Work for which they are engaged. Prime Contractors and major subcontractors bidding or otherwise participating in the Work shall also be required to have a satisfactory past performance record and a satisfactory record of law compliance, integrity, and business ethics.
- B. Related Requirements
 - 1. Section 011000 "Summary" for a general description of the scopes of work and responsibilities.
 - 2. Section 012000 "Multiple Contract Summary" for a descriptions of the scopes of work and responsibilities directly assignable to each Prime Contractor.

1.3 DEFINITIONS

- A. Bidder: A person that submits a bid in response to an invitation for bid.
- B. Contract: A type of written agreement, regardless of what it may be called, for the procurement or disposal of supplies, services or construction and executed by all parties.
- C. Contractor: The term "Prime Contractor" or "Contractor" as used in the Bidding and Contract Documents refer to the Contractor to whom an award is made to perform the Work and has entered into a direct contract agreement for construction activities with the Owner.
- D. Major Subcontractor: The term "Major Subcontractor" shall be any subcontract that exceeds 10% of the total prime contract's value.
- E. Default: Failure of a Contractor to perform their contractual obligations within the terms of the Contract.

- F. Qualified Contractor: A Contractor or Major Subcontractor that has submitted a responsive bid and that possesses the capability to fully perform the contract requirements in all respects and the integrity and reliability to assure a good faith performance, including the necessary experience, equipment, technical skills, and qualifications and organizational, financial and personnel resources
- G. Responsive Bid: A bid which conforms in all material respects to the requirements and criteria in the invitation to bid.

1.4 QUALIFIED PRIME CONTRACTOR CERTIFICATION

- A. Each Prime Contractor shall submit a Qualified Contractor Certification form, as specified herein. In addition, each Prime Contractor shall identify their Major Subcontractors who are likewise required to provide a Qualified Contractor Certification form.
 - 1. The Qualified Contractor Certification shall be completed on the form provided.
 - 2. In the Qualified Contractor Certification Form, the subject Prime Contractor shall confirm the following facts regarding past performance and work history and the Prime Contractors current qualifications and performance capabilities.
 - a. The Prime Contractor and its employees have valid, effective drivers' licenses, registrations, certificates, or other credentials required by Federal, State, County, or Local law, or as required by the specifications, including, but not limited to, licenses, registrations or certificates required to: (a) do business in the designated locale; and (b) perform the Work it is to be performed. These shall include, but not limited to, licenses, registrations, or certificates for any type of Work which the Prime Contractor proposes to self-perform.
 - b. The Prime Contractor has not been debarred or suspended by any Federal, State, or Local government agency or authority in the stated time period prior to the date of execution.
 - c. The Prime Contractor has: (a) not been found in default, (b) has not had a valid claim made against a performance bond, and (c) had a performance bond utilized, on ANY project in the stated time period prior to the date of execution. This shall include ongoing or unresolved mediations and litigations.
 - d. The Prime Contractor has not had any business, contracting or trade license, registration, or other certification revoked or suspended in the stated time period prior to the date of execution.
 - e. The Prime Contractor and its Principal/Owners (including any other names, Doing Business As (DBA), or other predecessor or related corporate entity) have not been convicted of any crime relating to its contracting business, in the stated time period prior to the date of execution.
 - f. Within the stated time prior to the date of execution, the Prime Contractor has not been found in violation of any law applicable to its contracting business, including but not limited to, licensing, tax laws, prompt payment laws, wage and hour laws, prevailing wage laws, environmental laws or others, where a result of such violation was a payment of a fine, back pay damages or any other type of penalty exceeding \$5,000 or more.

- g. The Prime Contractor will employ sufficient numbers of craft labor personnel required to successfully perform the Work it self-performs or shall use qualified Subcontractors to meet this requirement and shall assign workers to perform only work in their respective craft or trade for which they have sufficient skills and training or shall use qualified subcontractors to meet this requirement.
 - h. The Prime Contractor shall pay all craft employees performing the work, at a minimum, the applicable wage and fringe benefit rates, as established for the classification in which the worker is employed, in accordance with 43 PA. Cons. State. 165-1 *et. Seq.*
 - i. The Prime Contractor has all other technical qualifications and resources, including equipment, personnel, and financial resources, to successfully perform the Work and shall maintain such capabilities throughout the duration of the project, or will obtain same through the use of qualified, responsible, subcontractors.
 - j. The Prime Contractor shall assign a Project Manager and a Superintendent, each a direct, full-time employee of the Prime Contractor, for the duration of the Work. The resumes of the Project Manager and Superintendent shall be provided as part of the Contractor Qualification process. Neither the Project Manager nor the Superintendent shall be substituted without prior written authorization from the Owner and Project Architect.
 - k. The Prime Contractor shall self-perform, with its own forces, not less than twenty percent (20%) of the original cost of the Work, exclusive of the Contractor's fee, general conditions, contingency, and allowances. "Own forces" means labor performed by the Prime Contractor's direct employees and excludes work performed by subcontractors, sub-subcontractors, or affiliated entities.
 - l. The Prime Contractor shall notify the Owner within seven (7) calendar days of any material changes in its operation that relate to any matter attested to in this certification.
 - m. The Prime Contractor understands that the Qualified Contractor Certification Form shall be executed by a person who has sufficient knowledge to address all matters in the certification and shall include an attestation stating, under the penalty of perjury, that the information submitted is true, complete, and accurate.
- 3. Execution of the Qualified Contractor Certification Form shall not establish a presumption of contractor qualifications or responsibility, and the Owner may require additional information it deems necessary to evaluate the Prime Contractor's status as a qualified and responsible contractor, including information regarding the Prime Contractor's technical qualifications, financial capacity or other resources and performance capabilities. The Owner may require that such information be included in a separate Statement of Qualifications and Experience or as an attachment to the Qualified Contractor Certification Form.
 - 4. The Prime Contractor, if it receives a Notice of Intent to Award Contracts or determination of Apparent Low Bid, it will provide a list of major subcontractors and required subcontractor information before issuance of the Notice to Proceed.
 - 5. If the Prime Contractor, including its Principals/Owners, has ever operated under another name or is controlled by another company or business entity, or in the past ten (10) years, controlled or was controlled by another company or business

entity, whether a parent company, DBA, subsidiary or in any other business relation, it shall attach an appendix to its Qualified Contractor Certification Form that explains in detail the nature of such relationship. Additional information may be required from such an entity if the relationship in question could potentially impact successful execution of the Work.

6. If the Prime Contractor fails to provide a Qualified Contractor Certification Form, it may, at the discretion of the Owner, be disqualified from bidding. No action of any nature shall be taken against the Owner because of its refusal to accept a bid for this reason.

1.5 MAJOR SUBCONTRACTOR RESPONSIBILITY REQUIREMENTS

- A. Within fifteen (15) business days of receiving a Notice of Intent to Award or determination of Apparent Low Bid, the Prime Contractor shall submit to the Owner a list of Major Subcontractors, which provides the name and address of the Major Subcontractors it will use to perform the Work, the scope of the Work assigned to each, approximate percentage of total Prime Contract value for each.
- B. In conjunction with the list of Major Subcontractors, it shall also submit Qualified Contractor Certification Form and applicable supporting information for all listed Major Subcontractors. Qualified Contractor Certification Forms shall be executed by the respective major subcontractors on forms provided and shall contain the same information, representations, and supporting information required in the Contractor Responsibility Certification form.
- C. The Prime Contractor shall not be permitted to use a Major Subcontractor to perform the Work unless it has identified the Major Subcontractor on its Subcontractor List and provided a Qualified Contractor Certification Form, or substitution of the Major Subcontractor is approved by the Owner.
- D. The Prime Contractor shall determine whether any Major Subcontractor on its subcontractor list is organized as a sole proprietorship owned and operated by a single person. This shall apply to subcontractors at any tier. For any such entity, the Prime Contractor shall ensure that the sole proprietorship subcontractor is a legitimate business entity and not a misclassified employee by requiring the subcontractor to supplement its Qualified Contractor Certification Form with its Employee Identification and copies of any licenses, certificates, or registrations it is required to maintain in order to do work in the state in which it is located.
- E. A Subcontractor on a Prime Contractor's Major Subcontractor List shall not be substituted unless written authorization is obtained from the Owner and a Qualified Contractor Certification Form is provided for the substitute subcontractor.
- F. In the event that the Owner determines that a Major Subcontractor fails to meet the requirements of the specifications, or is otherwise determined to be unqualified, it may, after informing the Prime Contractor, exercise one of the following options:
 1. Permit the Prime Contractor to substitute a qualified, responsible subcontractor in accordance with the requirements of the specifications, upon submission of a completed Qualified Contractor Certification Form for the substitute and approval of the substitute by the Owner.

2. Require the Prime Contractor to self-perform the Work in question if the Prime Contractor has the required experience, licenses, and other qualifications to perform the work in question; or

- G. In the event that a Major Subcontractor is disqualified, any costs incurred by the Prime Contractor as a result of the disqualification of a Major Subcontractor shall be the responsibility of the Prime Contractor. The Prime Contractor shall not be permitted to make any type of claim against the Owner based on the Major Subcontractor's disqualification.

1.6 QUALIFIED CONTRACTOR REVIEW AND DETERMINATION

- A. Upon issue of the Notice of Intent to Award or determination of Apparent Low Bid to the lowest responsive bidder, the Owner shall undertake a Contractor Qualification review process to determine whether the Prime Contractor is a qualified, responsible contractor, in accordance with the specifications and other applicable laws and regulations. The time frame to conducting this review process shall be determined by the Owner.
- B. As part of the review process, the Owner shall ensure that the Qualified Contractor Certification Form and those for each Major Subcontractor and applicable supporting information comply with the requirements of the specifications.
- C. The Owner may conduct any additional inquiries to verify that prospective Prime Contractors and their major subcontractors have the technical qualifications and performance capabilities necessary to successfully perform the Work and that the Prime Contractor has a sufficient record of law compliance, integrity, and business ethics to justify award of a public contract. In conducting such inquiries, the Owner may seek relevant information from the Prime Contractor, its prior clients or customers, its subcontractors, or any other relevant source.
- D. After the Owner determines that all Qualification Certifications have been properly executed and has verified that all other relevant information submitted in response to the request pursuant to the review process indicate that the prospective Prime Contractor and its Major Subcontractors are qualified, responsible contractors, the Owner shall issue a written Qualified Contractor Determination for the prospective Prime Contractor. In the absence of such notice within fifteen (15) business days shall be considered acceptance of Contractor and Subcontractor Qualifications.
- E. In the event a Prime Contractor is determined to be unqualified, the Owner shall notify the firm and proceed to conduct a qualification review of the next lowest, responsive bidder or, if necessary, rebid the project. A Contractor Qualification Determination may be revoked at any time if the Owner obtains relevant information warranting such revocation.

1.7 FALSE AND MISLEADING CERTIFICATIONS

- A. If the Owner determines that a Qualified Contractor Certification Form, Subcontractor List, or Major Subcontractor's Qualified Contractor Certification Form contains false or misleading information that was provided knowingly or with reckless disregard for the

truth or omits material information knowingly or with reckless disregard of the truth, the Prime Contractor for which the certification was submitted shall be disqualified from the project and shall be prohibited from performing work for the Owner for a period of three (3) years. The Owner may withhold payment of any monies due to the Prime Contractor for damages and, if applicable, work deemed unsatisfactory by the Architect, and impose other applicable penalties and sanctions, including contract termination, as permitted by law or contract.

1.8 EXECUTION OF FINAL CONTRACT

- A. A contract subject to this specification shall not be executed until all requirements of this specification have been fulfilled and until Contractor Qualification Determination or Notice of Intent to Award has been issued by the Owner. Upon completion of all requirements, the Owner may execute a final contract based upon Notice of Intent to Award.
- B. Prior to the execution of a final contract, the Owner shall make available upon request from bona fide public or Owner-associated stakeholders, the Qualified Contractor Certification Forms, Major Subcontractor Lists, related supporting documentation, and the Contractor Qualification Determination. Confidential information regarding the Prime Contractor's financial statements, subcontract values or percentages, and any protected or patented means and methods will not be subject to such disclosure.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 007400

SECTION 007400A – QUALIFIED CONTRACTOR CERTIFICATION FORM

PROJECT NAME: FY-27-28-001 – Warehouse Renovations

PRIME CONTRACT or SUBCONTRACT: _____

(Complete a Separate Form for each Prime Contract you are Bidding)

Contractor Name: _____ Date: _____ 20____

Contractor Address: _____

Contact Name: _____ Email: _____

Contact Direct Phone: _____ Fax: _____

Each Bidding Prime Contractor and its major Subcontractors (any subcontract > 10% of Prime Contract) are required to respond to all questions below unless question refers explicitly to the Prime Contractor in which case the question is non-applicable to the Subcontractor. Refer to Specification “007400 – Qualified Contractor Certification” for additional guidance. For the purposes of this certification, the term “Contractor” shall be understood to include any Prime Contractor or Major Subcontractor business entity including alternate, subsidiaries and predecessor businesses entities, Principals, Owners, Shareholders and Corporate Officers, and shall apply to such individuals while in the employ of any business entity providing similar services for the stated time duration from the date of this certification.

- | | YES | NO |
|--|--------------------------|--------------------------|
| 1. Does the Contractor and its applicable employees all have valid, effective licenses, registrations, or certificates required by Federal, State, County, or Local law, or required by Specifications, including, but not limited to, licenses, registrations, or certificates required to: (a) do business in the designated locale; and, (b) perform the contract work it seeks to perform? These shall include, but not limited to, licenses, registrations, or certificates for any type of construction or maintenance trade work or specialty work which the firm proposes to self-perform. | ☐ | ☐ |
| 2. Does the Contractor meet the bonding requirements for the contract, as required by applicable law or contract specifications, and any insurance requirements, as required by applicable law or contract specifications, including general liability insurance, workers compensation insurance, and unemployment insurance? | ☐ | ☐ |
| 3. Has the Contractor been debarred by any Federal, State, or Local Government agency or authority in the past five (5) years? | ☐ | ☐ |
| 4. Has the Contractor defaulted on any project, including action taken on the Performance Bond, and ongoing litigation or mediations, in the past five (5) years? | ☐ | ☐ |
| 5. Has the Contractor had any type of business, contracting or trade license revoked or suspended by any government agency or authority in the past five (5) years? | ☐ | ☐ |
| 6. Has the Contractor been convicted of any crime relating to the contracting | ☐ | ☐ |

business in the past **ten (10)** years?

YES NO

- | | | |
|---|--------------------------|--------------------------|
| 7. Has the Prime Contractor within the past five (5) years been found in violation of any law applicable to its contracting business including, but not limited to, licenses laws, tax laws, prompt payment laws, wage and hour laws, prevailing wage laws, environmental laws, or others where the result of such violation was the payment of a fine, back pay damages, or any other type of penalty in the AGGREGATE amount of \$5,000 or more? | ☐ | ☐ |
| 8. The Contractor certifies it shall pay all craft employees that it employs on the project the current wage rates and fringe benefits as required under applicable Federal, State, or Local wage laws. | ☐ | ☐ |
| 9. The Contractor will employ craft employees in all classifications and individual trades required to successfully perform the work related to this project. | ☐ | ☐ |
| 10. The Contractor has all technical qualifications and resources to perform the referenced contract, or shall obtain the same through the use of qualified, responsible Contractors. | ☐ | ☐ |
| 11. The Contractor will maintain all qualifications, resources, and capabilities referenced in this Certification throughout the duration of the project. | ☐ | ☐ |
| 12. The Prime Contractor shall assign a Project Manager and a Superintendent, each a direct, full-time employee of the Prime Contractor for the duration of the work. | ☐ | ☐ |
| 13. The Prime Contractor shall self perform not less than twenty percent (20%) of the cost of the Work as described in section 007400. | ☐ | ☐ |
| 14. The Contractor shall notify the Owner within seven (7) calendar days of any Material changes to all matters attested to in this Certification. | ☐ | ☐ |
| 15. The Contractor understands that the <i>Contractor Qualification Certification</i> required by this section shall be executed by a person who has sufficient knowledge to address all matters in the Certification and shall include an attestation stating, under the penalty of perjury, that the information submitted is true, complete, and accurate. | ☐ | ☐ |
| 16. Resumes for the Prime Contractor's Project Manager and Site Superintendent to be assigned to the Project. are included with the bid submission. Include a detailed description of similar project experience for each. | ☐ | ☐ |

(ATTACH ADDITIONAL SHEETS, IF NECESSARY)

Contractor's Authorized Representative: _____
Typed/printed name

Signature: _____

Title: _____ Date: _____

NOTARY

State of: _____ County of: _____

Signed and sworn to before me this ____ day of _____

Notary Signature

My commission expires: _____

SECTION 007500 – CERTIFICATION OF EQUAL EMPLOYMENT STATEMENT

PROJECT NAME: **FY-26-27-001 - Warehouse Renovations**

It is the policy of RACC not to discriminate on the basis of race, color, national origin, gender, limited English proficiency or handicapping conditions in its programs. Proposer agrees not to discriminate against any employee or applicant for employment to be employed in the performance of this Contract, with respect to hire, tenure, terms, conditions and privileges of employment, or a matter directly or indirectly related to employment because of age (except where based on a bona fide occupational qualification), sex (except where based on a bona fide occupational qualification), race, color, religion, national origin, or ancestry. Proposer further agrees that every subcontract entered into for the performance of this Contract shall contain a provision requiring non-discrimination in employment herein specified, binding upon each subcontractor. Breach of this covenant may be regarded as a material breach of Contract.

Prime Contractor Authorized Representative: _____
Typed/printed name

Signature: _____

Title: _____ **Date:** _____

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work by Owner.
4. Work under separate contracts.
5. Owner related products.
6. Use of premises.
7. Coordination with occupants.
8. Work restrictions.
9. Work scope and coordination.
10. Work sequence.
11. Information required before starting work.
12. Specification and drawing conventions.

B. Related Requirements:

1. Section 011200 "Multiple Contract Summary" for project work scopes relating to each Prime Contract.
2. Section 013100 "Project Management and Coordination" for general coordination requirements.
3. Section 013200 "Construction Progress documentation" for preparation of schedules.
4. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
5. Section 016000 "Product Requirements" for storage of Owner Related Products.

1.2 PROJECT INFORMATION

A. Project Identification:

1. Project Title: Warehouse Renovations
2. Project Location: RACC Campus, Reading, Berks County, Pennsylvania.

B. Owner:

1. Reading Area Community College
2. 10 South Second Street, Reading, Pennsylvania
3. 610.323.0436

C. Architect:

1. MG Architects, Ltd.
2. Scott O. Graham, AIA, LEED AP BD+C, Principal.
3. 1268 Penn Avenue, Wyomissing, PA 19610.
4. 610.376.4927
5. ScottG@MG-Architects.com

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by Contract Documents and consists of the following:
- B. Type of Contract:
 - 1. Project will be constructed under coordinated, concurrent multiple contracts. See Section 011200 "Multiple Contract Summary" for a description of work included under each of the multiple contracts and for the responsibilities of Project Coordinator. Contracts for this Project include the following:
 - a. Contract No. 26-0014.0-1: General Construction Work (GC).
 - b. Contract No. 26-0014.0-2: Electrical Work (EC).

1.4 WORK BY OWNER UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under any separate contracts listed below.
 - 1. Movable Furniture and Furnishings
 - 2. Information Technology Equipment
 - 3. Audio/Visual Equipment
 - 4. Access Control, Security

1.5 USE OF PREMISES

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Limits on Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to areas shown on the Contract Drawings, Site Logistics Plan, and indicated through other instructions by the Owner.
 - 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, walkways, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Use designated entrance(s) only for deliveries and site access.
 - b. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - c. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - 3. No staging of deliveries, equipment, or materials or parking is allowed outside of the Limits of Construction – to include the adjacent roadways.

- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weather tight condition throughout construction period. Repair damage caused by construction operations.

1.6 COORDINATION WITH OCCUPANTS

- A. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such limited occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work. Prior to limited occupancy:
 - 1. When required by schedule, Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work, including a punch list for each such portion of the Work.
 - 2. Contractor will obtain a Certificate of Occupancy, or other form of authorization, from authorities having jurisdiction.
 - 3. Mechanical and electrical systems serving the area of limited occupancy shall be fully operational and required tests and inspections shall be successfully completed. Upon limited occupancy, Owner will accept, operate and maintain mechanical and electrical systems serving area of limited occupancy; any such mechanical and electrical systems work that is incomplete, or identified on a punch list, shall remain the responsibility of Contractor to operate and maintain until complete.
 - 4. Upon occupancy of the area of limited occupancy, Owner will assume responsibility for maintenance and custodial service for such portions of the Work.
 - 5. Contractor shall remain responsible for correcting all punch list items, protection of work, and daily and final cleanup, until all punch list items have been corrected to the satisfaction and acceptance of the Architect.

1.7 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. **On-Site Work Hours: Limit work in the existing building to normal business working hours of 6:00 a.m. to 6:00 p.m., Monday through Friday, unless otherwise indicated.**
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
 - 2. Obtain Owner's written permission before proceeding with utility interruptions.

- D. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Architect and Owner not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Smoking and Controlled Substances: Use of alcoholic and other controlled substances is prohibited on the entire RACC campus. Use of tobacco products (including chewing, vaping and smoking) is strictly limited to ONLY the following locations:
 - 1. Beneath Penn Street bridge.
 - 2. Sidewalks on 2nd Street and Front Street in proximity to the trashcans outfitted with ashtrays.
- F. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.
- G. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 - 1. Maintain list of approved screened personnel with Owner's representative.

1.8 WORK SCOPE AND COORDINATION

- A. Unless Contract Documents indicate otherwise, neither naming, identification nor organization of Drawings and Specifications are intended to establish which Contractor, trade or subcontractor is responsible for any specific element of Work. Each Prime Contractor shall review ALL drawings and relevant specifications to fully comprehend its scope of work.
 - 1. Quality assurance requirements, local custom and trade-union jurisdictional settlements notwithstanding, each Contractor has sole discretion in allocating and coordinating work elements among subcontracts, except as follows:
 - a. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, Contractor shall take reasonable measures to avoid or minimize interruption and delays.
 - b. Observe specified requirements for manufacturers, substitutions and source limitations.
 - 2. Perform Work specifically depicted and described by or reasonably inferable from Contract Documents as work necessary to produce intended results of Construction Contract.
- B. Unless otherwise indicated, the Work described shall be complete systems and assemblies, including products, components, accessories, and installation required by Contract Documents.
 - 1. Each Prime Contractor shall coordinate its work with that of all other Prime Contractors including field modifications and adjustments as warranted.

2. Each Prime Contractor shall maintain a marked-up field copy of the drawings and specifications containing all changes from original construction drawings applicable to its scope of work.
3. Coordinate Work with that of Owner, including Owner's other contractors, agents or consultants, including access and performance of personnel and equipment, staging and storing of tools and materials, sequencing of operations, and use and maintenance of temporary facilities including shoring and scaffolding.
4. Participate in and cooperate with quality assurance and quality control activities required on the project.
5. Observe requirements and procedures for site safety and security measures, daily and periodic cleaning, personnel behavior, worker and delivery access, daily materials delivery, and Owner's continued occupancy and use of sites adjacent to Project areas.
6. Modifications to the Work made necessary by Contractor's failure to properly coordinate the Work, shall be made by Contractor, at no additional cost to Owner.
7. Verify that Subcontractors involved with the Work have appropriate Certificates of Insurance on file with Owner.
8. Verify Subcontractor compliance with applicable conditions of the Prevailing Wage Act.

1.9 WORK SEQUENCE

- A. Project will commence after approvals from authorities having jurisdiction have been received, and the Notice to Proceed has been issued.
- B. The following critical dates represent minimum requirements for Owner's timely use of the facility.
 1. **Site available for site survey and measurement: After Notice to Proceed is issued and work is coordinated with Lead Prime Contractor.**
 2. **Assumed Notice to Proceed: No later than September 23, 2026**
 3. **Assumed Construction Start: October 6, 2026**
 4. **Assumed Substantial Completion: January 15, 2027**
 5. **Full and Final Completion: no more than 30 days past Substantial Completion date.**
- C. Fabrication and delivery of key equipment and materials to site to support required completion dates is essential. Contractor shall include in its bid any cost to expedite submittals and delivery of key materials and equipment by dates required to meet Construction Schedule. No additional costs will be considered for expediting materials or equipment to meet required schedule.
- D. Each Contractor shall include in the bid cost of preparing for and attending specified periodic coordination meetings, minimum weekly, starting immediately following Contract Award. Key subcontractors are also to include this cost in their bids for their participation in these coordination meetings. Purpose of these coordination meetings will be to assure that submittals, reviews, and materials and equipment are delivered by required dates, and to coordinate the Work.

1. Refer to Specification 013100 for the complete Prime Contractor responsibilities for meeting attendance and participation.

1.10 INFORMATION AND ACTIONS REQUIRED BEFORE STARTING WORK.

- A. Receipt and acceptance/approval of the following information is a condition precedent to and payment under this Contract.
 1. Receipt and acceptance/approval is not a condition precedent to payment for Bonds and Insurance, as further described at Section 012900.
- B. Submit the following as required by this Section, Document 005200 "Standard Form of Agreement Between Owner and Contractor," Document 007200 "General Conditions", Document 007201 "Supplementary Conditions of the Contract", Section 011000 "Summary of Work", and Section 011200 "Multiple Contract Summary".
 1. Executed Contract, and forms and certificates required by the Agreement.
 2. Insurance Certificates.
 3. Trade Permits.
 4. Other permits required by authorities having jurisdiction.
 5. Contractor licenses as required by authority having jurisdiction.
- C. Submit the following as required by Section 013100 "Project Management and Coordination."
 1. Subcontractors List.
 2. Key Personnel Names and contact information
- D. Submit the following as required by Section 013200 "Construction Progress Documentation."
 1. Startup Construction Schedule.
- E. Submit the following as required by Section 013300 "Submittal Procedures."
 1. Submittal Schedule.
- F. Submit the following as required by Section 012900 "Payment Procedures."
 1. Schedule of Values.
- G. Safety Procedures Manual: One copy of this plan will be held on site in Lead Prime Contractor's field office.
 1. Submit an OSHA compliant Safety Procedures Manual that identifies site-specific safety issues related to Contractor's work and detail how each will be addressed.
 2. Include Safety Data Sheets (SDS) for potentially hazardous substances that will be used in performing the work scope.
 - a. Hazardous Substance Survey Form: Submit an outline of SDS applicable to this project.

- b. Update SD inventory log weekly.

1.11 PROJECT COMMUNICATIONS

- A. All communication with Owner shall flow through the Architect. In the event of such communications, any directions or decisions made by Owner shall be considered to be unenforceable unless formalized in written correspondence from the Architect. All correspondence shall be addressed primarily to the Architect.

1.12 PERMITS AND FEES

- A. **Owner shall secure and pay for the overall Building Permit and associated Permit Review Fees for each Trade. Each Prime Contractor shall secure and pay for any other permits and governmental fees, licenses, and inspections necessary for the proper execution of and completion of its Contract. Submit copies of all permits and inspection reports to Architect, and post as required. Owner reserves the right to request applicable Prime Contractor to pay for any applicable Building Permit Fees and to reimburse the contractor for the fee without any markup to the cost in the next a Application for Payment.**

1.13 SPECIFICATION AND DRAWING CONVENTIONS

- A. Use of standardized formats and conventions is employed in Contract Documents for purposes of presenting information in a reasonably predictable and consistent manner. Some deviation from standard formats and conventions will occur, but such deviation will by no means release Contractor from performance of the Work depicted.
- B. Specifications Format: Except as noted otherwise, the Specifications are organized into Divisions and Sections using the 50-Division format of CSI/CSC's "MasterFormat" numbering system, 2004 Edition.
 - 1. Some Sections may deviate from CSI/CSC's SectionFormat standard for organizing specification text within a Section.
 - 2. Section Identification: Consult Table of Contents at beginning of Project Manual to determine numbers and names of Sections in Contract Documents.
 - 3. Documents in Division 00 that are not specifically excluded from set of Contract Documents, and Sections in Division 01 generally, govern the performance of the Work specified anywhere in Contract Documents.
 - 4. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all specifications Sections in Project Manual.
- C. Specification Content: Specifications use certain conventions for style of language and intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as context of Contract Documents indicates.
 2. Imperative mood and streamlined language are generally used in Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. Words "shall," "shall be," or "shall comply with," depending on context, are implied where a colon (:) is used within a sentence or phrase.
 3. Specification requirements are to be performed by Contractor, unless specifically stated otherwise.
- D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings, or where not scheduled, published as part of the U.S. National CAD Standard.
- E. Drawing / Specification Discrepancy:
1. In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation."
 2. In the case of a discrepancy between the Drawings and Specifications where quality or quantity is not clearly inferable, the Specifications shall govern.
 3. No additional compensation shall be granted to the Contractor in such circumstances.
- 1.14 SAFETY
- A. Contractor will comply with all OSHA requirements and understands that this project requires Hard Hats, Safety Glasses, High Viz Clothing (Non-reflective) at all times on site. Gloves are required when applicable. Primes are required to provide their work force with PPE.
 - B. Each Prime is encouraged to conduct weekly tool box talks.
 - C. Workers are to adhere and comply with the safety protocol. The Owner reserves the right to remove any worker refusing to do the screening, wear face masks, or fails to properly report a positive Covid case.

1.15 SITE LOGISTICS PLAN

- A. All contractors acknowledge that the project shall be constructed following the designated Site Logistics Plan and it is their responsibility to coordinate, schedule, and instruct their workers to place all work observing these conditions and those coordinated at the Weekly Planning meeting. All contractors are required to familiarize themselves with the Site Logistics Plan and coordinate their sequencing of the work.
- B. Final Site Logistics details shall be determined by the Lead Prime Contractor based on its understanding of the Work and input from other Prime Contractors.
- C. All contractors acknowledge that the site and interior safety, and logistics plan are subject to change based on the direction of the Owner or circumstances related to schedule, work progress, or other events beyond the control of the Owner.
- D. See Site Logistics Plan contained in the Drawings.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 011200 - MULTIPLE CONTRACT SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. A summary of each contract, including responsibilities for coordination and temporary facilities and controls.
2. Specific requirements for Work of each contract are also indicated in individual Specification Sections and on Drawings.

B. Related Requirements:

1. Section 011000 "Summary" for the Work covered by the Contract Documents, restrictions on use of Project site, coordination with occupants, and work restrictions.
2. Section 012500 "Substitution Procedures" for substitutions.
3. Section 013100 "Project Management and Coordination" for general coordination requirements.
4. Section 013200 "Construction Progress Documentation" for scheduling requirements.
5. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.2 ABBREVIATIONS

A. Abbreviations used in this Section relate to project Contractors and Contracts and are as follows:

1. GC: General Contractor or General Construction Contract.
2. EC: Electrical Contractor or Electrical Contract.

1.3 COORDINATION

A. Project Coordinator shall be responsible for coordination between Owner, Engineering Consultants and Owner's contractors as defined in Section 011000 "Summary of Work".

1. Architect shall act as Project Coordinator.
2. Drawing and Specifications Review: All Prime Contractors shall be responsible for reviewing all contract drawings and specifications for work assigned to their respective contracts. Architectural, Structural and Civil Design drawings and specifications may include scopes of work explicitly assigned to non-GC prime contractors. In such cases, applicable contractors are specified in notation on the drawings.

- B. Lead Prime Contractor (LPC) shall act as main contractor for project and be responsible for general coordination among various project contracts.
 - 1. General Contractor shall act as Lead Prime Contractor (unless otherwise noted.)
- C. Lead Prime Contractor: Be experienced in administration and supervision of building construction, including mechanical and electrical work. Coordination activities of Lead Prime Contractor include, but are not limited to, the following:
 - 1. Provide overall coordination of the Work, including work by separate Prime Contractors.
 - 2. Coordinate shared access to workspaces.
 - 3. Provide overall coordination of temporary facilities and controls.
 - 4. Coordinate, schedule, and approve interruptions of permanent and temporary utilities, including those necessary to make connections for temporary services.
 - 5. Coordinate construction and operations of the Work with that performed by each Contract.
 - 6. Coordinate Owner required quality-assurance and quality-control services specified in Section 014000 "Quality Requirements."
 - 7. Provide information necessary to adjust, move, or relocate existing utility structures affected by construction.
 - 8. Provide experienced field superintendent's name and resume for approval by Owner and Architect.
 - 9. Provide field surveys of in-progress construction and site work.
 - 10. Locate existing benchmarks, control points, and similar reference points, and establish permanent benchmarks on Project site.
 - 11. Coordinate product selections for compatibility.
 - 12. Coordinate sequence of activities to accommodate tests and inspections, and coordinate schedule of tests and inspections.
 - 13. Coordinate sequencing and scheduling of the Work, as required by Section 013200 "Construction Progress Documentation," including the following:
 - a. Initial Coordination Meeting: At the earliest possible date, arrange and conduct a meeting with separate Contractors for sequencing and coordinating the Work; negotiate reasonable adjustments to project schedules.
 - b. Prepare a Construction Schedule for entire Project. Base schedule on Startup Construction Schedule.
 - 1) Secure time commitments for performing critical construction activities from other Prime Contractors.
 - 2) Include any time required for existing conditions verification and systems coordination (by MEP Coordinator).
 - 3) Show activities of each Prime Contract.
 - 4) Prepare a simplified summary sheet indicating combined construction activities for all Contracts.
 - c. Distribute copies to Architect, Owner, and separate Contractors of completed Construction Schedule approved and signed by all Contractors.
 - d. Submit a final Construction Schedule signed by project Contractors prior to first payment application.

- e. If Lead Prime Contractor fails to provide CPM Construction Schedule as required, Owner will provide Construction Schedule and deduct associated costs from LPC's Contract sum.
 - f. Provide Construction Schedule updates as required.
- 14. Provide progress cleaning of common areas and coordinate progress cleaning of areas or pieces of equipment where more than one Contractor has worked.
- 15. Coordinate following actions that are to be taken by each Contractor as is required to complete their Work:
 - a. Cutting and patching.
 - b. Firestopping.
 - c. Protection of the Work.
 - d. Completion of interrelated punch list items.
- 16. Coordinate preparation of Project Record Documents if information from more than one Contractor is to be integrated with information from other Contractors to form one combined record.
- D. Mechanical/Electrical/Plumbing/Fire Protection (MEP-FP) systems shall be under direction of MEP Coordinator whom shall be responsible for coordination with existing MEP-FP systems and new Electric work.
 - 1. Electrical Contractor shall act as MEP Coordinator.
- E. MEP Coordinator: Coordination activities of MEP Coordinator include, but are not limited to, the following:
 - 1. Coordinate schedule and sequence of mechanical, electrical, and plumbing activities.
 - 2. Coordinate sharing access to workspaces by mechanical, electrical, and plumbing contractors.
 - 3. Coordinate integration of mechanical, electrical, and plumbing work into limited spaces.
 - 4. Coordinate protection of mechanical, electrical, and plumbing contractors' work.
 - 5. Coordinate cutting and patching for mechanical, electrical, and plumbing work.
 - 6. Coordinate preparation of mechanical, electrical, and plumbing coordination drawings.
 - 7. Coordinate tests and inspections for mechanical, electrical, and plumbing work.
 - 8. Coordinate mechanical, electrical, and plumbing temporary services and facilities.
 - 9. **Prepare coordination drawings for all areas where existing HVAC, Plumbing and existing and new major Electrical conduits, wire trays, etc. are located in near proximity to each other and to verify that there are no conflicts with proposed ceiling heights, lighting and fans.**
 - 10. MEP Coordinator shall be responsible for the costs to rework any previously constructed areas due to missing or incomplete coordination.

1.4 MULTIPLE PRIME WORK COORDINATION

1. **Any new construction work performed prior to completion of coordination drawings shall be conducted at the risk of the Prime Contractor that performed the work.**
2. **Coordination activities shall include field coordination and verification of fixtures, equipment, required space clearances and interfaces with adjacent Prime Contract construction.**
3. **Neither the Owner nor Architect shall bear financial responsibility for any rework requirements due to construction conflicts due to incomplete or missing MEP coordination.**

1.5 GENERAL REQUIREMENTS OF CONTRACTS

- A. Extent of Contract: Unless the Contract Documents contains a more specific description of the Work of each Contract, requirements indicated on Drawings and in Specification Sections determine which Contract includes a specific element of Project.
1. Local custom and trade-union jurisdictional settlements do not control the scope of the Work of each contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, affected Contractors shall negotiate a reasonable settlement to avoid or minimize interruption and delays.
 2. Perform Work specifically depicted and described by, or reasonably inferable from, the Contract Documents as work necessary to produce intended results of respective Construction Contract. Commonly recognized names and terminology on Drawings and in Specifications may reasonably be used to infer which contract includes a specific element of the Project.
 3. Requirements and Specifications of Project Manual applicable to all Contracts:
 - a. Contract Documents of Division 00 - Procurement and Contracting Requirements.
 - b. Sections of Division 01 - General Requirements.
- B. Unless otherwise indicated, the work described in this Section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the Contract Documents.
1. Each Contractor is responsible for verification of existing conditions.
 2. Each Contractor is responsible for compliance with Americans with Disability Act Accessibility Guidelines, ADAAG, as relating to its work scope.
 3. Trenches and Excavation: Provide by each contract for its own Work.
 4. Blocking and Backing Panels: Work for each Contract shall be by General Contractor.
 - a. Other Contractors that require blocking to support their work shall submit drawings showing location and extent of blocking to General Contractor seven (7) days prior to scheduled start of framing.
 5. Sleeves and Metal Fabrication Supports: Work for each Contract shall be Contractor requiring Sleeves and Metal Fabrication Supports, unless noted otherwise.
 - a. For Sleeves and Metal Fabrication Supports set in masonry and concrete work by General Contractor, Contractor requiring Sleeves and Metal

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- Fabrication Supports shall furnish Sleeves and Metal Fabrication Supports, and drawings showing location of each Sleeve and Metal Fabrication Support to General Contractor 7 days prior to the start of concrete formwork, or 7 days prior to the start of masonry work.
- b. For all other locations and conditions, Contractor requiring Sleeves and Metal Fabrication Supports shall provide Sleeves and Metal Fabrication Supports and shall coordinate this work so as not to delay other Contractors in completing their work.
6. Access Panels: General Contractor to provide and install only access panels indicated to be in his scope of work. Any additional panels required for MEP work by Code or for access/maintenance are to be provided by the respective Prime Contractor and installed by the General Contractor so as to maintain the integrity of the finished work.
- a. Other Contractors shall submit drawings showing panel locations, sizes, and framing requirements to General Contractor within 30 days of Notice to Proceed.
 - b. Refer to specifications for access panel types for each type of construction.
7. Equipment Pads: Provide by each Contract for its own Work.
8. Roof-Mounted Equipment Curbs: Furnish by each Contract for its own Work and give to General Contractor for installation on roof deck.
9. Field Painting: Work of each Contract shall be the work of General Contractor.
10. Cutting and Patching: Provide by each Contract for its own Work.
11. Firestopping: Provide by each Contract for its own Work.
12. Caulking: Provide by each Contract for its own Work. Coordinate between Contractors for proper and consistent installation.
- C. Firestopping: Each prime shall provide fire-stopping materials and installation for its own Work. Primes shall coordinate and agree upon a single fire-stopping systems vendor, or to fewest vendors possible, and submit as a delegated design submission to Architect for review by Authority Having Jurisdiction.
- D. Project Coordination:
- 1. Each Contractor shall participate in and cooperate with coordination activities of Lead Prime Contractor, MEP Coordinator and other Contractors. Perform Work in support of most recent updated and approved Construction Schedule, Submittals Schedule, and applicable Coordination/Shop Drawings to maintain required sequence and overall progress of project.
 - a. Provide information requested by Lead Prime Contractor in preparation of Construction Schedule, including time commitments for critical activities.
 - b. Prepare for and attend scheduled project update, coordination and pre-installation meetings, and other project meetings.
 - 2. Coordinate Work with that of other Contractors and work by Owner, including access and performance of personnel and equipment, staging and storing of tools and materials, sequencing of operations, and use and maintenance of temporary facilities and services.

- a. Modifications to the Work made necessary by a Contractor's failure to properly coordinate the Work, or costs incurred by a Contractor as a result of such failure, shall be the responsibility of that Contractor. No additional cost shall be incurred by Owner for such failure.
3. Participate in and cooperate with quality assurance, testing and inspection activities of Lead Contractor, Owner and other Contractors.
4. Participate in and cooperate with closeout activities and procedures of Lead Contractor and Architect.
5. Participate in and cooperate with requirements and procedures for site safety and security measures, daily and periodic cleaning, personnel behavior, worker and delivery access, daily materials delivery, and Owner's continued occupancy and use of sites adjacent to Project areas (if applicable).
6. Participate in and cooperate with all Special Inspections being done by Owner's Special Inspections Testing Agency.

E. Logistics:

1. Requirements for use of building and site for specific activities are indicated in Contract Documents and in Phasing and Logistics Plans, and are intended to allow for Owner's continued use of site and facilities during project time, and to allow the Work to proceed uninterrupted during project time.
2. It is responsibility of each Prime Bidder to review logistics requirements prior to bid to fully understand proposed sequencing, restrictions and durations. There will be no extensions of time on the project due to Contractor not fully understanding logistics requirements.
3. Deviations from specific logistics requirements may be approved, with prior written approval from Owner and Architect and properly coordinated with all Contracts, only if there is no adverse impact on Owner's intended continued use of facility and no additional cost to Owner, or to any Contractor.
4. Each Contractor shall be responsible to protect, maintain, extend, repair, restore, or otherwise keep functional all building systems in or serving occupied spaces that may be interrupted or disturbed by construction activities or by phasing relocations or restrictions.

F. Recovery Plan: There will be no extensions of time on the project; it is of the essence of the Contract that Substantial Completion be achieved as required by Contract. If it becomes apparent that a Contractor will not meet one of agreed-upon critical milestones, or the date for Substantial Completion, that Contractor shall immediately institute a Recovery Plan. Some or all of following shall be employed at no additional cost to Owner:

- a. Increase manpower.
- b. Increase man-hours per shift, shifts per workday, days per work week, or any combination thereof. Contractor shall bear additional cost for Architect or Owner for overtime or shift work.
- c. Increase construction equipment or expedite material deliveries.
- d. Revise scheduled sequencing of Contractor's tasks to put project back on schedule.

2. If Contractor fails to institute a recovery plan within 24 hrs from written notice, which will return project to original schedule, appropriate action may be taken involving contractual commitments and performance bonds.
 3. Costs for any recovery plan shall be anticipated by Contractor and included in its Base Bid. If Contractor fails to return project to original schedule, Contractor shall be responsible for developing a Recovery Schedule as described in Section 013200. Contractor shall be responsible for all costs incurred by other Contractors, and by Owner, resulting from the development and implementation of a Recovery Schedule.
- G. Substitutions: Each contractor shall cooperate with other Contractors involved to coordinate approved substitutions with remainder of the work.
1. Contractor initiating or requesting Substitution shall be responsible for coordinating substitution's installation requirements with other affected Contractors. If other Contractors incur costs (direct or indirect) as a result of the substitution, the Contractor initiating substitution shall be responsible for all costs incurred by other Contractors. Owner shall incur no additional costs as a result of substitution.
 2. Any costs incurred by Architect as a result of Substitution shall be paid for by Contractor initiating the substitution.
 3. Use by any Contractor of products, systems, or assemblies other than those identified as Basis-of-Design, whether or not approved as Substitution, shall not result in additional cost to Owner, Architect or other Contractors. Contractor employing such substitutions, whether or not approved, shall be subject to a reduction in Contract Sum to compensate for charges so incurred by Owner, Architect or other Contractors.
 4. Substitutions shall be made in accordance with the requirements of Section 012500 "Substitutions."
- H. Temporary Utilities and Temporary Facilities and Controls: In addition to specific responsibilities for temporary facilities and controls indicated in this Section and in Sections 015100 "Temporary Utilities" and 015200 "Temporary Facilities and Controls," each Contractor is responsible for the following:
1. Installation, operation, maintenance, and removal of each temporary facility necessary for its own normal construction activity, and costs and use charges associated with each facility.
 2. Plug-in electric power cords and extension cords, and any lighting required by Contractor that is not provided for in Section 015100 "Temporary Utilities" for its own field office, complete with necessary furniture, utilities, and telephone service.
 3. Its own storage and fabrication sheds.
 4. Temporary enclosures for its own construction activities.
 5. Hoisting facilities for its own construction activities.
 6. Staging, scaffolding, and shoring for its own construction activities.
 7. Waste disposal facilities, including collection and legal disposal of its own hazardous, dangerous, unsanitary, or other harmful waste materials, and as required by Sections 015200 "Temporary Facilities and Controls" and 017300 "Execution."
 8. Progress cleaning of work areas affected by its operations on a daily basis.
 9. Secure lockup of its own tools, materials, and equipment.

10. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.
- I. Temporary Heating, Cooling, and Ventilation: Requirements, restrictions and responsibilities as required by Section 015100 "Temporary Utilities".
- J. Site Utilities: Where site systems are defined as that part of building systems extending five feet beyond the building line, responsibility for providing site utilities and structures, including trenching and backfilling, shall be as follows, unless otherwise specified on the project drawings:
 1. General Construction Contract: Storm and sanitary sewers.
 2. Plumbing Contract: Natural gas, domestic water, fire protection water.
 3. Electrical Contract: Electric Power Service, cable, and communications.
- K. Municipal Permits, Registrations, Certifications, and Inspections:
 1. Owner shall pay for the Building Permit.
 - a. If deemed necessary for the expedient commencement of the Work and at the discretion of the Owner, the General Contractor shall pay for the Building Permit at time of pickup. The Owner shall directly reimburse the Contractor AT COST within two weeks of presentation of receipt.
 2. All Contractors: Obtain and pay for required local licenses, permits, and inspections.
 3. General Construction Contract: Obtain and pay for elevator permits and associated inspections.
- L. ACCESS CONTROL, ELECTRONIC DOOR HARDWARE AND SECURITY EQUIPMENT NARRATIVE:
 1. The following outlines Owner and Prime Contractor responsibilities for installation and coordination of Owner-provided Access Controls, Door Hardware and Security equipment where applicable.
 2. EC shall provide the following:
 - a. Back boxes and conduit to ceiling plenums from boxes and wiring location at door jams including extensions of any device wiring necessary to reach ceiling plenum. Conduit shall be used by Owner's Security Vendor (OSV) for wiring card access hardware.
 - b. Provide data and power to local security network hubs near wireless card access locations.
 - c. Backboxes, covers, conduit to ceiling plenums from boxes, data wiring and terminations to security device locations.
 3. OSV shall provide the following:
 - a. Card reader panels/sensors and covers.
 - b. Key cards/fobs.
 - c. Power supplies and wiring from plenum locations to supply locations.
 - d. Remote door release switches and wiring to door locations.

- e. Provide programming and integration.
 - f. Shall provide coordination with and review of GC-provided hardware to verify compatibility with systems.
 - 4. GC shall provide the following:
 - a. All necessary door and frame prep for GC-provided hardware.
 - b. Electronic door locksets w/ latchbolt monitoring (including any wireless lockset units).
 - c. Power transfers.
 - d. Provide wireless battery-operated, compatible locksets where retrofit of existing doors for wired hardware is infeasible or cost prohibitive.
 - 5. GC, OSV & EC shall coordinate for installation of all security hardware.
- M. AUDIO/VISUAL & IT ROUGH-IN AND EQUIPMENT NARRATIVE
- 1. The following outlines Owner and Prime Contractor responsibilities for installation and coordination of Owner-provided Audio/Visual equipment, wiring and devices.
 - 2. EC shall provide the following:
 - a. Back boxes and appropriately sized conduits to ceiling plenums from boxes and wiring locations
 - b. Provide Audio/Visual signal wiring and terminations as indicated.
 - c. Coordinate final termination points with Owner's IT vendor.
 - 3. Owner's IT vendor shall provide the following:
 - a. Audio/Visual Equipment including displays, microphone systems, media servers and distribution equipment.
 - b. Information Technology equipment.
 - c. Shall provide coordination with and review of EC-provided work prior to rough-in.

1.6 GENERAL CONSTRUCTION CONTRACT

- A. Work in the General Construction Contract includes, but is not limited to, the following:
- 1. Participate in the Architect's electronic document management program; support will be available for the duration of the project.
 - 2. All work depicted in the drawings and specifications typically ascribed to the General Trades unless specifically noted otherwise.
 - a. **In the absence of a specific assignment of work to the Owner, the Owner's Vendor(s), "By Others," or one of the other Prime Contractors, the work shall be understood to be within the General Construction Prime Contractor's scope.**
 - 3. Firestopping and sealant associated with this work. Penetrations by other trades are to be sealed by that trade.

- a. **General Construction Prime Contractor shall provide firestopping product/manufacturer standard to which all other Prime Contracts must conform.**
 4. Framed openings and pipe sleeves in walls and ceilings as located by other trades. Lintels and sleeves for these openings will be furnished by the respective trade requiring the opening and installed by General Construction Prime Contractor. Each respective contractor is responsible for coordinating and locating their openings for the General Construction Prime Contractor.
 5. Perform all excavation, dewatering, backfill, and compaction testing to install work under this contract.
 6. Install all access panels assigned to the General Trades Contract.
 7. Install finishes on all access panels in finished surfaces including plastic laminate, paint and ceramic tiling unless access panel is indicated to remain unfinished.
 8. The GC shall coordinate any roof activities with all applicable prime contractors.
 9. The GC is responsible for the labor and material to install the wall-mounted roof canopy, as described in the project drawings and Alternate GC-01.
 10. The GC shall be designated as the Lead Prime Contractor and shall have the responsibility of overall coordination of the work relative to weekly scheduling and the coordination of the lead General Contractor's work fully coordinated with all other Prime Contractors.
 11. **The GC shall provide and install supplemental steel framing as noted for the support of new ceiling fans, including modifications to existing framing as required.**
- B. Refer to following specification Sections applicable to this Contract:
1. All applicable Sections within Divisions 01 through 14.
 2. Division 31 Sections.
 3. Division 32 Sections.
- C. **Various Drawings are associated with the Work of this Contract. Each Contractor is required to view ENTIRE project Drawing Set to ascertain Work of this Contract. Work assigned on drawings or specifications outside of its specific trades shall still be considered the responsibility of the assigned Prime Contract.**

1.7 ELECTRICAL CONTRACT

- A. Work in the Electrical Contract includes, but is not limited to, the following:
1. Provide sealants and firestopping as required relating to this work.
 2. Perform all excavation, dewatering, backfill, and compaction testing to install work under this contract.
 3. The General Trades Contractor shall maintain standards for slab patching and backfill to ensure patching integrity. Where necessary to disturb the under-slab material, return same to condition acceptable to the General Contractor.
 4. Protect open ends of installed work by means suitable to prevent entrance of any deleterious material or elements of weather.
 5. Provide any equipment pads, concrete ductbanks, and concrete bases required for equipment or piping installed as part of this contract.
 6. Furnish and install all wood backboards and in-wall blocking required for the Electrical Contract work.

7. Complete electrical connections that are required for installation of the walk-in cooler and freezer.
 8. Motor starters for HVAC, Plumbing, and Fire Protection Equipment shall be provided by these respective contractors for their equipment. Disconnects for the equipment shall be provided by the Electrical Contractor, unless specified otherwise.
 9. Electrical Contractor shall provide temporary and permanent feeders and connections to electrical systems as necessary to make the new, renovated, and existing areas available for their intended use. These systems shall include power, lighting, fire alarm, public address, sound, data, telephone, security, and CCT systems, etc. Existing systems must remain operational.
 10. Provide and install any access panels noted on the Electric drawings, required by Code and for access to your Work and compatible with host substrate per requirements of Section 083113 "Access Doors and Frames." Coordinate with GC on installation to not impact the schedule and finishes installation by the GC where applicable.
 11. Provide all demolition of the existing electrical equipment.
 12. Provide lighting and electric service to entry canopy per Alternate EC-01.
 13. Provide, install, and remove any and all temporary site and building electrical and lighting requirements to meet OSHA standards and as indicated in the contract documents.
 14. Furnish and install all conduit runs, cable tray, and/or J-hooks for the use by the Owner's contractors and as shown on the contract documents.
 15. **Furnish and install two (2) new high volume, low speed (HVLS) ceiling fans secured to existing and supplemental roof structure provided by the GC.**
- B. Temporary facilities and controls in the Electrical Contract include, but are not limited to, the following:
1. Electric power service and distribution.
 2. Lighting, including site lighting.
 3. Electrical connections to existing systems and temporary facilities and controls furnished by the General Construction Contract, Plumbing Contract, HVAC Contract, Electrical Contract, and Roofing Construction Contract.
- C. Refer to following specification Sections applicable to this Contract:
1. All Division 01 Sections.
 2. Division 02 Sections.
 3. Division 03 Section.
 - a. 033000 - Cast-in-Place Concrete.
 4. Division 07 Sections.
 - a. 078413 - Penetration Firestopping.
 - b. 079200 - Joint Sealants.
 5. Division 08 Sections.
 - a. 083113 - Access Doors and Frames.

6. All Division 26 Sections.
7. All Division 27 Sections.
8. All Division 28 Sections.
9. Division 31 Sections.

- D. Various Drawings are associated with the Work of this Contract. Each Contractor is obligated to view entire project Drawing Set to ascertain Work of this Contract.

1.8 WORK BY OWNER

- A. Owner will award contracts scheduled to commence on various dates during this Construction. Work under these will include:
1. Items noted 'NIC' (Not in Contract): Will be furnished and installed by Owner in accordance with the project schedule.
 2. Owner will remove and retain possession of the following items prior to start of work:
 - a. All Owner items will be removed prior to the Pre-Bid Meeting.
 3. See 011000 "Summary of Work" for additional Owner-performed Work.

1.9 PRIME CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
1. Work by Others and Work by Owner.
 2. Use of project site is unlimited.
- B. Coordinate use of premises with the Architect and the Owner. Lead Prime Contractor will coordinate and approve location and quantity of storage trailers and lay down schedules.
- C. Each Prime Contractors shall assume full responsibility for the protection and safekeeping of products stored on the site under his contract. Prime Contractors shall not be permitted to store materials inside the building structure. As Work progresses, the Lead Prime Contractor will review storage of materials in the new addition.
- D. Each Prime Contractor shall immediately move stored products, under his control, interfering with operations of Owner or another separate Contractor. If Contractor fails to immediately move stored materials, interfering with operations of the Owner and other separate Contractors, the Owner will have the materials moved by another separate Contractor and charge the responsible Contractor the moving charger. Damages incurred are the responsibility of the Prime Contractor whose material was moved.
- E. Each Prime Contractor shall obtain and pay for additional storage or work areas needed for operations.
- F. Contractor Parking: Contractor parking shall be limited to those identified on the Site Logistics Plan or otherwise authorized by the Owner.
- G. Access to Site: Limited to that indicated on the Contract Drawings for construction. Keep driveways and entrances serving the premises clear and available to the Owner,

Architect, Emergency Personnel and Owner's employees at all times. Do not use these areas for parking or storage of materials without prior permission from the Owner. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

- H. Maintain emergency building exits during construction as required by local fire codes, and as necessary to provide for the safety of construction workers and building occupants. This shall be the responsibility of the General Construction Prime Contractor.
- I. Work Hours:
 - 1. Time Restrictions for Performing Exterior Work: Perform no exterior work interfering with pedestrian or vehicular traffic during hours of 7:00 AM to 4:00 PM. Coordinate exceptions with Owner. Comply with local governing authorities for time restrictions for performing exterior work.
 - 2. Established work hours will be between 6:00 AM and 6:00 PM. If a Contractor feels overtime hours are necessary to meet the contractual schedule commitment of the Contractor, Contractor shall work such overtime hours, additional shifts, weekends, and holidays. Costs resulting from working these times shall be borne by the said Contractor. Cost may include standby costs necessary to provide temporary power and lighting.
 - 3. Notice of Work outside of established work hours shall be provided at least 24 hours prior to commencement.
 - 4. Work shall comply with all local Noise Ordinances.
- J. Utility Outages and Shutdown:
 - 1. Plan Work to minimize shutdown time of services. Work that substantially affects the work of the Owner and other Contractors shall be referred to a shutdown. This includes, but is not limited to, electrical service transfers, sterilization of domestic water, water service transfers, start-up of some equipment, etc. Contractors are required to give required notices to the proper authorities related to the work in their charge. To the maximum extent practicable, shutdowns shall be scheduled for periods when least need for that utility is anticipated. Provide within the Contract Sum an amount sufficient to cover all required overtime in connection with utility shutdown, all in accordance with the designated phasing plans. This will include multiple utility shutdowns.
 - 2. Contractor is responsible to do due diligence to determine what systems are affected by the shutdown and identify these systems on the request form. Failure to receive proper approval will result in denial of the shutdown request.
 - 3. Contractors are required to strictly comply with governing laws, rules, regulations, and inspection requirements, both as to labor and materials, and pay fees in connection therewith, and shall bear loss from neglect.
- K. Jobsite Conduct: Each Contractor's management should review with their employees that it is imperative that their conduct be socially acceptable at all times. Vulgar or abusive language, sexually suggestive comments or gestures are strictly prohibited and will result in removal from the jobsite and criminal prosecution. Contact with students is prohibited. At Owner's, Architect's or Lead Prime Contractor's discretion, workers not obeying the Jobsite Rules of Conduct or Safety Rules can be removed from the project, without prior warning, and not permitted to return, regardless of the respective Contractor's disciplinary policies.

1.10 OWNER OCCUPANCY

- A. Owner will not occupy the building and site during entire period of construction until Occupancy approval has been granted.
- B. Each Prime Contractor shall, at all times, conduct their operations, ensuring least inconvenience to general public.
- C. Owner shall have the right to make use of any completed or partially completed portion of the work whether or not the time may have expired for completion by such use shall be deemed an acceptance of the work so taken or used, or any portion thereof. Prior to Owner taking possession, an inspection shall be made by the Architect, and Owner of the portions to be occupied to determine if same is in conformity with the contract and the Contractor will not be liable for any subsequent damage or operating charges due to occupancy of the completed portion, unless specified otherwise herein.
- D. Each Prime Contractor shall secure and supply the Owner with an endorsement from the insurance carrier and surety permitting occupancy of the building or use of the project during the remaining period of construction.
- E. Unless noted otherwise, each Prime Contractor shall secure and pay costs required for necessary permits, licenses, approvals, or certificates required for occupancy or completion of construction as issued or required by any agency having jurisdiction thereof.
- F. Owner will execute Certificate of Substantial Completion for the entire project:
 - 1. After Owner occupancy, Contractor shall allow
 - a. Access for Owner's personnel
 - b. Access for Students
 - 2. Upon occupancy, Owner will be responsible for:
 - a. Operation of Plumbing, Fire Protection, HVAC, and Electrical Systems

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Section includes administrative and procedural requirements for substitutions.

B. Related Requirements:

1. Document 007200 "General Conditions" for requirements related to substitutions.
2. ~~Section 012100 "Allowances" for products selected under an allowance.~~
3. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.2 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor, not by subcontractors or manufacturer's representatives.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor that are not a direct result of a product no longer being commercially available.

1.3 ACTION SUBMITTALS

A. Substitution Requests During Bidding: Submit a digital copy of each request for consideration at least ten (10) calendar days prior to bid date or as noted in the Instructions to Bidders. 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 CSI Form 13.1A or form acceptable to Architect.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified products or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions 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. Include annotated copy of applicable Specification Section.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.

- h. Material and other test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports or test reports evidencing compliance with building code in effect for Project, from model code organization acceptable to Authorities having Jurisdiction.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including manufacturer's anticipated lead time after order is placed and effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date as of receipt of quote request, a lack of availability or other delays in delivery was anticipated.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution: complies with requirements in the Contract Documents except as indicated in substitution request; is compatible with related materials; and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
 - n. Contractor's waiver of rights to additional payment or time for any direct or consequential damages resulting from acceptance of substitution.
 - 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 2 days of receipt of a request for substitution. Architect will include accepted substitutions as part of a bidding Addendum.
 - 4. Where applicable for assessment of proposed products physical or aesthetic qualities, submit two physical samples for Architect's assessment. Where Architect may make a selection from manufacturer's available colors, finishes, etc., submit two full sets of physical samples from which the Architect may select a substitution product.
 - 5. **Pre-Bid requests for substitution may be submitted via email to the Architect. Please identify such requests with the subject line: "RACC Warehouse - REQUEST FOR SUBSTITUTION - <product type>."**
- B. Substitution Requests After Bidding: When permitted by requirement of this Paragraph.
- 1. Substitution requests after bidding will only be considered when one of following conditions apply:
 - a. Specified product is no longer commercially available.
 - 2. Contractor's Action: Submit a digital copy of each request for consideration to Architect through Construction Manager. Identify product, fabrication, or installation method to be substituted. Include Specification Section number and title and Drawing numbers and titles. Include documentation identified in various subparagraphs in Paragraph A of this Article as are applicable.
 - 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven 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 seven days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.

- b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.
- c. Where applicable for assessment of proposed products physical or aesthetic qualities, submit two physical samples for Architect's assessment. Where Architect may make a selection from manufacturer's available colors, finishes, etc., submit two full sets of physical samples from which the Architect may select a substitution product.

1.4 QUALITY ASSURANCE

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

1.5 PROCEDURES

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

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 30 days prior to date required for submission of related submittals.
 - 1. Conditions: If following conditions are not satisfied, Architect will return requests as not approved, except to record noncompliance with these requirements. Architect will consider Contractor's request for substitution if requested substitution:
 - a. Is consistent with Contract Documents and will produce indicated results.
 - b. Offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - c. Is fully documented and properly submitted.
 - d. Will not adversely affect Contractor's construction schedule.
 - e. Will not delay Substantial Completion.
 - f. Has received necessary approvals of authorities having jurisdiction.
 - g. Is compatible with other portions of the Work.
 - h. Has been coordinated with other portions of the Work.
 - i. Provides specified warranty.
 - j. When involving more than one Contractor, has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other materials and products, and is acceptable to all Contractors involved
- B. Substitutions for Convenience by Contractor: Not allowed.

PART 3 - EXECUTION (Not Used)

END OF SECTION

CSI Form 13.1A

SUBSTITUTION REQUEST FOR CAUSE

Project: _____ Substitution Request Number: _____

To: _____ From: _____

Date: _____
A/E Project Number: _____
Re: _____ Contract For: _____

Specification Title: _____ Description: _____
Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
Manufacturer: _____ Address: _____ Phone: _____
Trade Name: _____ Model No.: _____
Installer: _____ Address: _____ Phone: _____
History: ☐ New product ☐ 1-4 years old ☐ 5-10 years old ☐ More than 10 years old

Differences between proposed substitution and specified product: _____

☐ Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: _____

Similar Installation:

Project: _____ Architect: _____
Address: _____ Owner: _____
_____ Date Installed: _____

Proposed substitution affects other parts of Work: ☐ No ☐ Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____).

Proposed substitution changes Contract Time: ☐ No ☐ Yes [Add] [Deduct] _____ days.

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

SUBSTITUTION REQUEST FOR CAUSE

(Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: ☐

A/E's REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- ☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- ☐ Substitution rejected - Use specified materials.
- ☐ Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ A/E
☐ Other:

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to Contract Sum or Contract Time, on AIA Document G710, "Architect's Supplemental Instructions" or its proprietary form.

1.3 CHANGE ORDER REQUESTS

- A. Owner-Initiated Change Order Requests (COR): Architect will issue a detailed description of proposed changes in the Work that may require adjustment to Contract Sum and/or Contract Time. If necessary, description will include supplemental or revised Drawings and Specifications.
 - 1. COR's are for informational purposes only and are not instructions either to stop work in progress or to execute proposed change.
 - 2. Within time specified in COR, or within 10 days when not otherwise specified, submit via email a Proposed Change Order (PCO) estimating cost adjustments to Contract Sum and/or Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include quantity (hours) and costs of labor and supervision directly attributable to the change.
 - d. Whether or not an adjustment to Contract Time is requested; include a revised Construction Schedule that indicates the effect of the change, including, but not limited to, additional activities, deleted activities, changes in activity durations, changes to activity relationships, the resulting changes in the start and finish dates for all activities, and the impact on the critical path.
 - e. Perform a Time Impact Analysis to demonstrate that the adjustment to Contract Time is the net due to Contractor, and takes into account any contribution Contractor, or other Contractors may have had.

- 1) Additional Contract Time will be approved only if either the critical path is extended and the date of Substantial Completion is delayed, or a new critical path replaces the previous critical path and the date of Substantial Completion is delayed.
 - 2) Use available float before requesting an extension of the Contract Time.
 3. Upon receipt of Contractor's PCO, PCO backup, and if applicable revised schedule, Architect will review PCO. Architect may request a meeting with Contractor to review PCO and revised schedule, and to negotiate scope of work and adjustment to Contract Sum and/or Contract Time for the work.
 4. Architect will then recommend to Owner whether or not PCO should be accepted by Owner.
 - a. If PCO is accepted, Owner will formally approve PCO and Architect will issue a Change Order (CO) for signature. If additional Contract Time is required, no-cost Extensions of Time will be issued to impacted Contractors.
 - b. If PCO is not accepted, COR will be withdrawn. Contractor will make no changes to its work.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to Contract, Contractor may initiate a request for an adjustment to Contract Sum and/or Contract Time by submitting a PCO via established communication protocols to the Architect.
 1. Include a statement outlining all conditions causing Contractor to experience an increase in cost, why such conditions constitute a change to the Work or a change to contract conditions and are not attributable to Contractor, and a description of the effort required by Contractor to overcome such conditions.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include quantity (hours) and costs of labor and supervision directly attributable to the change.
 5. If Contractor requests an adjustment to Contract Time, include a revised Construction Schedule that indicates the effect of the change, including, but not limited to, additional activities, deleted activities, changes in activity durations, changes to activity relationships, resulting changes in start and finish dates for all activities, and impact on critical path.
 6. Perform a Time Impact Analysis to demonstrate that adjustment to Contract Time is the net due to Contractor, and takes into account any contribution Contractor, or other Contractors, may have had.
 - a. Additional Contract Time will be approved only if either critical path is extended and date of Substantial Completion is delayed, or a new critical path replaces previous critical path and date of Substantial Completion is delayed.
 - b. Use available float before requesting an extension of Contract Time.
 7. Comply with requirements in Section 012500 "Substitution Procedures" if proposed change requires substitution of one product or system for product or system specified.
 8. Upon receipt of Contractor's PCO, PCO backup, and if applicable revised schedule, Architect will review PCO. Architect may request a meeting with Contractor to review PCO and revised schedule, and to negotiate the adjustment to Contract Sum and/or Contract Time.

-
9. Architect then will recommend to Owner whether or not PCO should be accepted by Owner.
 - a. If PCO is accepted, Owner will formally approve PCO and Architect will issue a Prime Contract Change Order (PCCO) for signature. If additional Contract Time is required, no-cost Extensions of Time will be issued to impacted Contractors.
 - b. If PCO is not accepted, PCO will be rejected and Contractor notified that it has been rejected.
 - C. Contractor-Initiated Extension of Time: If latent or changed conditions require modifications to Contract Time, Contractor may initiate a request for an adjustment to Contract Time by submitting a PCO via established communication protocols to the Architect.
 1. Include a statement outlining all conditions causing Contractor to experience an increase in time required to complete its Work, why such conditions constitute a change to the Work or a change to contract conditions and are not attributable to Contractor, and a description of effort required by Contractor to overcome such conditions.
 2. Include a revised Construction Schedule that indicates effect of the change, including, but not limited to, additional activities, deleted activities, changes in activity durations, changes to activity relationships, resulting changes in start and finish dates for all activities, and impact on critical path.
 - a. Perform a Time Impact Analysis to demonstrate that adjustment to Contract Time is net due to Contractor, and takes into account any contribution Contractor, or other Contractors may have had.
 3. Perform a Time Impact Analysis to demonstrate that adjustment to Contract Time is net due to Contractor, and takes into account any contribution Contractor, or other Contractors may have had.
 - a. Additional Contract Time will be approved only if either critical path is extended and date of Substantial Completion is delayed, or a new critical path replaces previous critical path and date of Substantial Completion is delayed.
 - b. Use available float before requesting an extension of Contract Time.
 4. Upon receipt of Contractor's PCO, PCO backup, and if applicable revised schedule, Architect will review PCO. Architect may request a meeting with Contractor to review PCO and revised schedule, and to negotiate adjustment to Contract Sum and/or Contract Time.
 5. Architect then will recommend to Owner whether or not PCO should be accepted by Owner.
 - a. If PCO is accepted, Owner will formally approve Architect will issue a Change Order (CO) for signature.
 - b. If PCO is not accepted, PCO will be rejected and Contractor notified that it has been rejected.
- 1.4 ADMINISTRATIVE CHANGE ORDERS
- A. Unit Price-Based Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of unit price-based allowances.

1.5 CHANGE ORDER PROCEDURES

- A. Upon Owner's and Architect's approval of a PCO, the Architect will issue a Change Order (CO) for signatures to Contractor and Owner, in that order via established communication protocols.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714 or its proprietary form. A Construction Change Directive instructs Contractor to immediately proceed with a change in the Work, for subsequent negotiation of adjustment to Contract Sum and/or Contract Time, and inclusion in a Contract Change Order.
 - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
 - 2. If an adjustment to Contract Time is requested, include a revised Construction Schedule that indicates the effect of change, including, but not limited to, additional activities, deleted activities, changes in activity durations, changes to activity relationships, resulting changes in start and finish dates for all activities, and impact on critical path.
 - a. Perform a Time Impact Analysis to demonstrate that adjustment to Contract Time is net due to Contractor, and takes into account any contribution Contractor, or other Contractors may have had.
 - 3. If an adjustment to Contract Time is requested, perform a Time Impact Analysis to demonstrate that adjustment to Contract Time is net due to Contractor, and takes into account any contribution Contractor, or other Contractors may have had.
 - a. Additional Contract Time will be approved only if either critical path is extended and date of Substantial Completion is delayed, or a new critical path replaces previous critical path and date of Substantial Completion is delayed.
 - b. Use available float before requesting an extension of Contract Time.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 007346 "Wage Rate Determination" for Prevailing Wage Rates to be reflected on all Certified Payroll reports.
 - 2. ~~Section 012100 "Allowances" for procedural requirements governing the handling and processing of allowances.~~
 - 3. ~~Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.~~
 - 4. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 5. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.2 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of schedule of values with preparation of Contractor's construction schedule
 - 1. Coordinate line items in schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to no later than 14 days after Contract Execution, and no later than 21 days before the date scheduled for submittal of initial Applications for Payment. Failure to submit Schedule of Values on time will result in the initial Application for Payment not being processed until the next payment period.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.

1. Identification: Include the Project name and Owner's Contract number on the schedule of values.
2. Arrange schedule of values consistent with format of, and include all information shown on, AIA Document G703.
3. Provide in Microsoft Excel format.
4. Arrange schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Item number.
 - b. Description of the Work; start Description with Specification Section Number.
 - c. Dollar value, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - d. For each Item number, identify whether it is for labor, material or purchased equipment; do not combine labor, material or purchased equipment in the same Item number.
 - e. Change Order that affect value will be listed as a separate Item number.
5. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
6. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
7. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
8. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
9. Where the Project consists of multiple buildings, areas, and or floors, provide separate line items for each instance of a common task by building, area, and floor (example: for wall painting in Areas A, B and C, on floors 1 and 2, provide 6 line items – Painting Area A 1st Fl; Painting Area A 2nd Fl; etc.). If no such breakout is provided, percentage completion related to the entire project shall be left to the discretion of the Architect or Owner.
10. Allowances: Provide a separate line item in the schedule of values for each Allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
11. Alternates: Provide a separate line item in the schedule of values for each Alternate(s) awarded as part of the Contract.
12. Bonds and Insurance: Provide a separate line item for Bonds and Insurance, not to exceed 3% of Contract Sum.
13. Closeout Documents: Provide a separate line item for Closeout Documents, in an amount totaling no less than 1% of Contract Sum.
14. Provide a separate line item for each of the following Temporary Utilities and Temporary Facilities and Controls.
 - a. Daily cleaning.
 - b. Dumpsters (delivering, removing and disposing of waste).
 - c. Temporary Sanitary Facilities.
 - d. Construction Fence

- e. Construction Manager's Field Office.
 - f. Temporary Water.
 - g. Temporary Heating, Ventilating, Cooling, and Dehumidification.
 - h. Temporary Electricity and Lighting.
15. Schedule Approval: Schedule of Values shall be approved by Architect prior to Contractor submitting its first Application for Payment.
16. Schedule Updating: Update and resubmit the schedule of values before the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Initial Application for Payment will not be approved until all conditions precedent identified in these Contract Documents have been satisfied.
- B. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
- 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- C. Payment Application Times: Submit digital 'Pencil Copy' of Application for Payment to the Architect via established communication means by the 20th of the month. The period covered by each Application for Payment is one month, ending on the last day of the month. Upon approval from the Architect, submit a copy of a notarized Application for Payment for certification by the Architect. Retain original copies for records purposes.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
- 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of fully-executed Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Certified Payrolls: Prior to payment on any Application, Contractor to submit copies of certified payrolls for all applicable project personnel, including subcontractors, indicating compliance with the Prevailing Wage Rates contained and any other applicable requirements of the contract.
- F. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
- 1. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - 2. Provide summary documentation for stored materials indicating the following:

- a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
3. For materials stored off-site, provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
- G. Transmittal: Submit four signed and notarized original copies of each Application for Payment to the Architect via established communication means. Include waivers of lien and similar attachments if required.
 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. Waivers of Lien: With each Application for Payment, submit Waiver of Lien from entities lawfully entitled to file a lien arising out of the Contract and related to the Work covered by the payment. Lien waivers will be required in addition to the Stipulation Against Liens between Contractor and Owner filed at the outset of the Contract.
 1. Submit partial waiver on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waiver.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 5. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.
- I. Initial Application for Payment: Administrative actions and submittals that shall precede or coincide with submittal of first Application for Payment, including approval by Architect, where appropriate, include the following:
 1. List of all subcontractors including approximate percentage of total contract value ascribed to each.
 2. Qualified Contractor Certification forms for each major subcontractor.
 3. Schedule of values.
 4. Combined Contractor's construction schedule (preliminary if not final) incorporating Work of multiple contracts, with indication of acceptance of schedule by each Contractor.
 5. Submittal schedule (preliminary if not final).
 6. List of Contractor's staff assignments.
 7. List of Contractor's principal consultants.
 8. Copies of building permits.
 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 10. Certificates of insurance and insurance policies.
 11. Performance and payment bonds.
 12. Other submittals specifically identified in these Contract Documents as having to be approved prior to Initial Payment or Approval of Initial Payment Application.

- J. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
 3. If retainage is reduced prior to Final Payment, submit AIA Document G707A, "Consent of Surety to Partial Release of Retainage."
 4. Administrative actions and submittals that shall precede or coincide with this application include:
 - a. Occupancy permits and similar approvals
 - b. Warranties and maintenance agreements
 - c. Maintenance instructions
 - d. Test, adjust, and balance records
 - e. Startup performance reports
 - f. Changeover information related to Owner's occupancy, use, operation, and maintenance
 - g. Application for reduction of retainage and Consent of Surety
 - h. Advice of shifting insurance coverages
 - i. Final cleaning
 - j. List of incomplete Work; recognized as exceptions to the Scope of Work
 - k. Record documents
- K. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final liquidated damages and penalties settlement statement.
 10. Removal of temporary facilities and services
 11. Removal of surplus materials, rubbish, and similar elements.
 12. Evidence of required maintenance materials and attic stocks.
 13. Completion and correction of punch list items
 14. Change of door locks to Owner's access.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. Start-up and project organization.
 - 2. General coordination procedures.
 - 3. Coordination of project space.
 - 4. Submittals.
 - 5. Coordination.
 - 6. Requests for interpretation (RFIs).
 - 7. Project meetings.
 - 8. Safety.
- B. Each Contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific Contractor. Certain areas of overall coordination responsibility are assigned to the Lead Contractor.
- C. Related Requirements:
 - 1. Section 011200 "Multiple Contract Summary" for a description of the division of work among separate contracts and responsibility for coordination activities not in this Section.
 - 2. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 3. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 4. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.2 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking interpretations or clarifications of Contract Documents.
- B. Frivolous RFIs: When Contractor forwards multiple RFIs that include inappropriate questions, means and methods, substitution requests, repeating questions, and submitting RFIs where information is clearly indicated on Contract Documents.

1.3 START-UP, PROJECT ORGANIZATION

- A. Architect authority includes establishing on-site lines of authority and communications:
 - 1. Construction Manager will have authority in matters concerning the coordination of all aspects of the project.
 - 2. Schedule and conduct a pre-construction meeting and project meetings as specified.
 - 3. Enforce Contract Documents requirements and immediately report deficiencies in writing to Owner.

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4. Approve procedures for project communications:
 - a. Submittals.
 - b. Reports and records.
 - c. Recommendations.
 - d. Coordination drawings.
 - e. Schedules.
 - f. Resolution of conflicts.
 5. Conduct inspections at Substantial Completion of each Contract, to assure that:
 - 1) Specified cleaning has been accomplished.
 - 2) Temporary facilities have been removed from site.
 - 3) Conduct an inspection to confirm or supplement Contractor's list of work to be completed or corrected.
 - 4) Prepare punch list(s).
 - 5) Verify correction and completion of work as established in Certificate of Substantial Completion.
 6. Assemble documentation for handling of claims and disputes.
 7. Final Completion:
 - 1) When each Contractor determines that work is finally complete, conduct a final inspection to verify completion of work.
 8. Administration of Contract close-out:
 - 1) Receive and review Contractor's final submittals.
- B. Lead Prime Contractor authority includes:
1. Control site use:
 - a. Allocate space within the building for each Prime Contractor's use for field offices, sheds, work and storage areas.
 - b. Establish locations for access, traffic, and parking allocations and regulations.
 - c. Monitor use of site during construction.
 2. Observe the Work at all construction phases and for all Contracts to ensure proper coordination between Prime Contracts.
 3. Maintain reports and records at job site, available to Architect and Owner:
 - a. Daily log of progress of work of each Contractor.
- C. Each Contractor shall:
1. Coordinate its own Work, schedules, and progress of Work with other Contractors and subcontractors.
 - a. Ensure proper fitting of Work, both new or existing materials and substrates.
 - b. Manage operations of various trades, subcontractors, and laborers employed to perform the Work of its Contract.
 - c. Provide to each subcontractor the dimensions that may be required for fitting of its work to surrounding work.

- d. Fitting the work to receive or to be received by other Contractors.
- 2. Monitor and document use of Temporary Utilities:
 - a. Verify that adequate services are provided and maintained.
- 3. Coordinate use of Owner's facilities.
- 4. Perform applicable Close-out Duties assigned to it per the drawings and specifications.
 - a. Mechanical and electrical equipment start-up:
 - 1) Coordinate checkout of utilities, operational systems, and equipment.
 - 2) Assist in coordinating initial start-up and testing.
 - 3) Record dates of start of operation of systems and equipment.
 - 4) Submit to Owner, written notice of beginning of warranty period of equipment put into services.

1.4 GENERAL COORDINATION PROCEDURES

- A. Each Prime Contractor shall carefully study and compare Contract Documents before proceeding with fabrication and installation of Work. Promptly advise Architect of any apparent error, inconsistency, omission or discrepancy discovered.
 - 1. Coordinate scheduling, submittals, and Work results described in various Specification sections to avoid conflicts and ensure efficient and orderly sequence of installation of interdependent construction elements.
 - a. Coordinate Work of various Specification sections having interdependent responsibilities for installation, connection, and operation.
 - b. Verify that characteristics of operating equipment are compatible with building utilities and services.
 - c. Prepare coordination documents in a timely manner and distribute as required.
 - 2. Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 - a. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - b. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - c. Coordinate Work of various Specification sections having interdependent responsibilities for installation, connection, and operation.
 - d. Verify that characteristics of operating equipment are compatible with building utilities and services.
 - e. Make adequate provisions to accommodate items scheduled for later installation.
 - f. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of components, including mechanical and electrical.
- B. The General Contractor is designated as the Lead Prime Contractor for the Project. Each contractor shall coordinate its construction operations with those of other contractors and

entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its own operations with operations included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own completion.
 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 3. Coordinate Work of various Specification sections having interdependent responsibilities for installation, connection, and operation.
 4. Verify that characteristics of operating equipment are compatible with building utilities and services.
 5. Make adequate provisions to accommodate items scheduled for later installation.
 6. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of components, including mechanical and electrical.
- C. Claims resulting from improper coordination are limited to additional time. Refer to General Conditions.
- D. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
- E. Prepare similar memoranda for Owner and Architect, and separate Contractors if coordination of their Work is required.
- F. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation, maintenance, and removal of temporary facilities and controls.
 4. Delivery and processing of submittals, including coordination drawings.
 5. Project and coordination meetings.
 6. Pre-installation conferences.
 7. Updating, coordination and submittal of record documents.
 8. Startup and adjustment of systems.
 9. Project closeout activities.
- G. Administrative Personnel: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work. Include special personnel required for coordination of operations with other Contractors.
- H. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

- I. Closeout: Coordinate completion and clean up of Work in preparation for Substantial Completion and for portions of Work designated for partial occupancy.
 - 1. Minimize disruption of Owner's activities after occupancy of premises by coordinating access to site by various trades for correction of defective Work and Work not in accordance with Contract Documents.
- J. Multiple Contract Coordination: Comply with previous Paragraphs in the Article, where each Contractor shall coordinate and document its construction operations with those of other Contractors and other project entities.
 - 1. Coordinate installation of different components with other Contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.

1.5 COORDINATION OF PROJECT SPACE

- A. General: Coordinate use of Project space and sequence of installation of fire suppression, plumbing, mechanical, and electrical Work. Follow schematic routings shown for pipes, ducts, and conduits as closely as practicable, with due allowance for available physical space. Make material runs parallel with building lines.
- B. Utilize space efficiency to maximize accessibility for other installations, maintenance, and repairs.
- C. Coordinate installation to prevent conflicts and cooperate in making, without extra charge, reasonable modifications in layout as needed.
- D. Provide unimpeded access, with maximum head room, to control points, valves, strainers, control devices, and specialty items of every nature related to such systems and equipment. Provide adequate clearances as necessary for operation and maintenance.
- E. Conceal pipes, ducts, conduit, and wiring within construction, except as otherwise indicated. Coordinate locations of fixtures, devices and outlets with finish elements.
- F. Layouts of fire suppression plumbing, mechanical, and electrical systems, equipment, fixtures, piping, ductwork, conduit, specialty items, and accessories indicated on utility Drawings are diagrammatic. Variations in alignment, elevation, and details required to avoid interferences and satisfy architectural and structural limitations are not necessarily indicated.
 - 1. Prior to installation of material and equipment, review and coordinate Work of all Drawings to establish minimum space conditions.
 - 2. Prepare Coordination Drawings where required to coordinate Work.
 - 3. Sequence the Work between Contractors to allow for efficient installation.
 - 4. Conduct ad hoc pre-installation conferences where required to coordinate Work.
 - 5. Where available space is inadequate or where reasonable modifications are not possible, request information from Architect before proceeding.
 - 6. Clearly document all deviations or changes from design documents for reference by the Architect at the completion of the work.

G. General order of priority for project space:

1. Drain lines.
2. Ductwork.
3. Fire Suppression Piping.
4. Other mechanical piping.
5. Other plumbing piping.
6. Electrical conduit.

1.6 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Within 15 days of receipt of the executed Contract, submit a written summary identifying all individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Number and title of related Specification Sections covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site.
1. Identify Project Manager, Superintendent, Scheduling Consultant, and other Project staff. For each Key Personnel list: work addresses; list telephone numbers, including home, office, and cellular telephone numbers; list e-mail addresses.
 2. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of Key Personnel.
 3. Post copies of list of Key Personnel in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.
 4. Provide supervisory personnel consistent with project size and complexity, who shall be fully capable of controlling their workers and subcontractors, coordinating work through Construction Manager, working in harmony with other trades, and completing work in accordance with Construction Schedule.

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. Allot time in construction scheduling for liaison with Architect; establish procedures for handling queries and clarifications. Use only established communication means for requesting information.
- B. Immediately on discovery of need for additional information or interpretation of Contract Documents, and if not possible to request interpretation at a Project meeting, prepare and submit an RFI to the Architect.
- C. Contractor shall remain responsible for a complete Request for Interpretation with knowledge that in the event that RFI is NOT complete, they are still responsible for detailed, accurate, and complete information prior to Architect's review and response.
1. RFIs shall originate with Contractor or Owner and be submitted to the Architect.
 2. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.

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3. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- D. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name and number.
 2. Date.
 3. Name of Contractor.
 4. Name of Architect.
 5. RFI number, numbered sequentially.
 6. RFI subject.
 7. Specification Section number and title and related paragraph references, as appropriate.
 8. Drawing number and detail references, as appropriate.
 9. Field dimensions and conditions, as appropriate.
 10. Contractor's suggested resolution. If Contractor's suggested resolution impacts Contract Time or Contract Sum, Contractor shall state impact in RFI.
 11. Cost impact: (yes/no; dollar amount).
 12. Schedule impact: (yes/no; number of days).
 13. Contractor's signature.
 14. Attachments: Include drawings, sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- E. Architect's Action: Architect will review each RFI, determine action required, and respond via Procore.
1. Allow an average of ten calendar days for Architect's response for each RFI, as some RFIs will take longer to answer than others. RFIs received by Architect or Construction Manager after 1:00 p.m. will be considered as received the following working day.
 2. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in Contract Documents.
 - e. Requests for adjustments in Contract Time or Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 3. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 4. Architect's action on RFIs that may result in a change to Contract Time or Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Contractor believes RFI response warrants change in Contract Time or Contract Sum, notify Architect in writing within 10 calendar days of receipt of RFI response.

- F. On receipt of Architect's and Construction Manager's action, update RFI log and immediately distribute RFI response to affected parties. Review response and notify Architect within 10 calendar days if Contractor disagrees with response.
 - 1. Lack of such notification shall be understood to mean that Contractor agrees with response.
 - 2. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
- G. Architect's Action: Architect will review each RFI, determine action required, and respond via Procore:
 - 1. A notification of processing fees using Architect's and Construction Manager's standard billing rates.
 - 2. Returning RFI unanswered with the notation: Not Reviewed.

1.8 CONFERENCES AND MEETINGS

- A. General: Various project conferences and meetings, as will held at Project site and shall be conducted as indicated in following paragraphs.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 - 2. Agenda: Prepare meeting agenda. Distribute agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute meeting minutes to everyone concerned, including Owner, Construction Manager, and Architect, within five calendar days of the meeting.
- B. KICK-OFF MEETING: Architect will schedule and conduct a Kick-Off Meeting (preconstruction conference) before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
 - 1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its project manager and superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Review responsibilities and key personnel assignments.
 - b. Tentative construction schedule, including phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Lines of communications.
 - e. Review Startup Construction Schedule and Construction Schedule requirements.
 - f. Work by Owner, Work Under Separate Contracts, and Owner Related Products.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for RFIs.
 - i. Procedures for testing and inspecting.
 - j. Procedures for processing Applications for Payment.
 - k. Distribution of the Contract Documents.
 - l. Submittal procedures.
 - m. Commissioning requirements
 - n. Closeout procedures and preparation of record documents.
 - o. Use of the premises and existing building.

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- p. Work restrictions and working o.
 - q. Owner's occupancy requirements.
 - r. Site logistics.
 - s. Temporary utilities.
 - t. Responsibility for temporary facilities and controls.
 - u. Procedures for moisture and mold control.
 - v. Procedures for disruptions and shutdowns.
 - w. Parking availability.
 - x. Equipment deliveries and priorities.
 - y. First aid, safety, and security.
 - z. Progress cleaning.
 - aa. Additional items, including contract, administrative and housekeeping procedures, responsibilities and priorities as determined by Construction Manager.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. PREINSTALLATION CONFERENCES: Each Prime Contractor shall conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction, and as required by Specifications.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, and Contractors affected by subject construction activity, shall attend the meeting. Advise Architect and Owner's Agent(s) of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Construction Schedule and work time requirements.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Temporary utilities and environmental requirements.
 - s. Space and access limitations.
 - t. Regulations of authorities having jurisdiction.
 - u. Testing and inspecting requirements.
 - v. Installation procedures.
 - w. Coordination with other work.
 - x. Required performance results.
 - y. Protection of adjacent work.
 - z. Protection of construction and personnel.

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes to each party present and to other parties requiring information.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. OAC MEETINGS: Architect will conduct progress meetings at bi-weekly intervals, unless otherwise indicated. Project meetings are in addition to specific conferences and meetings held for other purposes.
1. Meeting dates may be coordinated with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner and Architect, each Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. Meeting participants shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project. Agenda includes the following:
 - a. Safety.
 - b. Administrative.
 - c. RFIs
 - d. Submittals.
 - e. Schedule.
 - f. Project Changes.
 - g. General.
 4. Minutes: Architect will record and distribute the meeting minutes to each party present and to parties requiring information.
- E. WEEKLY PLANNING MEETINGS: Lead Prime Contractor shall conduct weekly planning meetings which all prime contractors are to attend and participate in. Weekly planning meetings are in addition to specific meetings held for other purposes, such as project meetings and preinstallation conferences.
1. Attendees: Each Contractor's field superintendents, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. Meeting participants shall be familiar with Project and authorized to conclude matters relating to the Work. Attendance by Owner and/or Architect is at their discretion.
 - a. The Owner reserves the right to deduct from future pay applications or the final retention, for the continued absence or non-compliance of any contractor not to participate in the weekly planning meetings following a scale of:
 - 1) 1st meeting absence = \$0
 - 2) 2nd meeting absence = \$500
 - 3) 3rd meeting absence = \$750
 - 4) 4th meeting absence = \$1000
 - 5) 5th and subsequent meeting absence = \$1,250/each
 2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

- a. Contractor's Construction Schedule:
 - 1) Review progress since last coordination meeting.
 - 2) Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule.
 - 3) Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so.
 - 4) Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within Contract Time.
 - b. Schedule Updating: Revise Contractor's Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised Contractor's Construction Schedule concurrently with report of each meeting.
 - c. Update the planning board in the Lead Prime Contractor's field office.
 - d. Review present and future needs of each Contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access and site utilization.
 - 7) Temporary facilities and controls.
 - 8) Work hours.
 - 9) Hazards and risks.
 - 10) Progress cleaning.
 - 11) Quality and work standards.
 - 12) Change Orders.
 3. Minutes: Lead Prime Contractor will record and distribute the meeting minutes to everyone in attendance, the Architect and to others affected by decisions or actions resulting from each meeting.
- F. Warranty Meeting: Prior to the expiration of the one (1) year project warranty, Architect will conduct and each Prime Contractor shall attend a meeting with the Owner to review the facility operations and performance.
- G. Construction Administration Platform:
1. Architect shall provide access to a web-based Construction Administration platform at no cost to each Prime Contractor.
 2. Each Prime Contractor shall designate a lead Project Coordinator to be the point person for all documents transmitted via the platform.
 - a. Secondary representatives may be included at Prime Contractor's request.
 3. Orientation and training guides and support shall be provided to each Prime Contractor. These guides shall outline general use of the platform as well as specific requirements of the Architect.
 4. Each Prime Contractor shall utilize the platform for the submission of all project-related documents unless infeasible or exempted by the Architect.
- PART 2 - PRODUCTS (Not Used)
PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Administrative and procedural requirements for schedules and reports required for proper performance of the Work.
 - 2. Construction Schedule Management.
 - a. Base line bid schedule
 - b. Construction phase – Project schedule development
 - c. Construction phase – Project schedule sign-off
 - d. Construction phase - Responsibilities for updating
 - e. Construction phase – Recovery schedules
- B. Related Sections:
 - 1. Section 007200 – General Conditions
 - 2. Section 011100 - Summary of Work.
 - 3. Section 012000 - Payment Procedures.
 - 4. Section 013100 - Project Management and Coordination.
 - 5. Section 013300 - Submittal Procedures.
 - 6. Section 014000 - Quality Requirements.

PART 2 - PRODUCTS

2.0 BASE LINE BID SCHEDULE

- A. The Lead Prime Contractor shall be responsible for development of the CPM (Critical Path Method) Schedule as specified in this section and each Prime Contractor shall abide, participate and sign off on the final construction schedule after participating in the development and refinement from the base line bid schedule.
- B. It is acknowledged that the schedule service provided by the Construction Manager is that of a facilitator and the Construction Manager bears no responsibility for any and all schedule performance, errors, omissions or the lack of cooperation and management of any prime contractor's schedule information provided or the work performed.
- C. All Prime Contractors acknowledge that the Completion Dates set forth in the contract documents represent only the major items of Work and may or may not include interface dates with the construction activities of the other Prime Contractors or others. Each Prime Contractor shall determine the time requirements for all such interfaces and shall be responsible for planning, scheduling and coordinating the Work in order to complete in accordance with those requirements and the governing milestone dates.

2.1 CONSTRUCTION PHASE - PROJECT SCHEDULE DEVELOPMENT

- A. It shall be the responsibility of each Prime Contractor to cooperate fully with the Lead Prime Contractor to create and update the CPM Schedule. CPM Schedule, including updates, will reflect the input of each Prime Contractor as to sequences, durations, construction logic, and means and methods of construction. Each Prime Contractor shall provide persons of sufficient skill and information of sufficient details and scope of work understanding to enable Construction Manager to prepare and update Project Construction Schedule.

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- B. All contractors acknowledge that the Lead Prime Contractor at their discretion may use a third party scheduling consultant to assist with the development, updating and the management of the contract schedule. All Prime Contractors acknowledge and agree to the following:
1. They will provide competent onsite managers who are authorized and have the project knowledge to attend schedule review meetings and work directly with the scheduling consultant to create, edit, update and maintain their specific scope of work schedule information.
 2. Schedule updates shall be performed on a weekly, by weekly and/or monthly basis. Each Prime Contractor shall receive, fill out and return, in the specified time frame, the schedule update sheets as issued by the Lead Prime Contractor on the dates established by the Construction Manager
 3. Each Prime Contractor shall follow up each submission of their schedule updates with their attendance at the following scheduled project meeting at which they will participate in all discussions, coordination, issue resolutions and working sessions with the CM and all other prime contractors.
- C. Project Construction Schedule Development: Within (21) days of award of Contracts to Primes, the Lead Prime Contractor will issue request for Project Schedule information. All Contractors must provide their major items of Work as outlined below within (10) days of receipt of the Lead Prime Contractor's schedule. The Lead Prime Contractor shall issue a working Project Schedule within (14) days of receipt of major Work items from other Contractors.
- D. Each Prime Contractor is responsible for determining the sequence and logic of activities, the time estimates of the detailed construction activities and the means, methods, techniques and procedures to be employed with regard to their portion of the Work. The Lead Prime shall represent their best judgment, with the Prime Contractor's input of how to sequence the Work in compliance with the requirements of the Contract Documents.
- E. Each Prime Contractor shall consult with their major subcontractors and vendors relating to the preparation of their initial and final construction schedules. Each Prime Contractor shall be solely responsible for ensuring that all subcontractors comply with the requirements of the Contractor's Construction Schedule for their portions of the Work.
- F. Each Prime Contractor shall provide the activity data as required by the Lead Prime Contractor relating to activities, durations and sequences as part of the Prime Contractor's initial Contractor's Construction Schedule. This data shall reflect the Prime Contractor's actual construction plan for the Project, and shall fully comply with all requirements of the Contract Documents for the established milestone dates in the bid.
- G. Each Contractor shall submit their data in a form or format as specified by the Lead Prime Contractor within (10) days of receipt of its schedule input request.
- H. The Completion Dates set forth in the Contract Documents represent only the major items of Work and may or may not include interface dates with the construction activities of the other Prime Contractors or others. Completion Dates are Contract requirements and are the essence to the Contract Documents for the coordination of the Work by the Prime Contractor. Completion Dates represent the latest allowable completion time for those portions of the Work to which each Completion Date relates. The Completion Dates are not intended to be a complete listing of all Work under the Contract Documents or of all interfaces with work performed by other Prime Contractors or others. The Prime Contractor shall determine the time requirements for all such interfaces and shall be responsible for planning, scheduling and coordinating the Work in order to complete their work in accordance with those

requirements. The reporting of "Total Float" on any schedule updates does not specify ownership by the Prime Contractors. Positive Float for any Phase of the project shall always fall to the bottom line to benefit the Owner's occupancy.

- I. Unless otherwise specifically provided in the Contract Documents, and in particular the General Requirements, the Prime Contractor acknowledges that the Owner and Architect have contemplated in their planning and in any preliminary schedule that may have been prepared and made available to the Bidders, and in their budgeting for professional services, that the Work shall be performed on a 5-day work week basis, utilizing a single 8-hour shift per day. The Owner and Construction Manager shall have the sole discretion of approving or rejecting a variance in the work week, number of shifts, or shift length. Unless otherwise agreed to by the Owner or Architect, the Prime Contractor shall bear the cost of, and pay the Owner, for additional staff and supervisory personnel and inspectors of any authority having jurisdiction of the Work, necessary to support any variance in the contemplated work week, number of shifts or shift length, caused by the prime contractor's inability to complete the work during the original allotted time.
- J. The Lead Prime Contractor and the Prime Contractors shall work together to prepare the Project Initial Schedule, incorporating all site, utility, building and off-site activities of work, and the activities of the Owner, Architect and Multiple Prime Contractors on the Project, for all phases of the Work including, but not limited to:
 - 1. Activity sequences and durations following the Work Breakdown Structure (WBS) specifics to each Prime Contractors specific tasks for every phase of the project;
 - 2. Processing of Submittals for Shop Drawings, Product Data and Samples. A time allowance should be included in construction activities to allow for submittal, procurement, fabrication and delivery process;
 - 3. Delivery and procurement of products, materials and equipment, including those that must be ordered well in advance of construction;
 - 4. Building close-ins and start of temporary heating (as applicable) per each phase and designated building area.
 - 5. Milestone dates for final cleaning for each phase
 - 6. Milestone date for owner to commence the installation of their furnishings, fixtures and equipment; for each phase.
 - 7. Punch List creation and contractor completion
 - 8. Submission of close-out documentation
 - 9. Milestone dates for all, and individual, tests and inspections for each trade
 - 10. Substantial Completion
 - 11. Final Completion.
- K. For each activity, provide duration in working days. Each major item of work shall be fully broken down by the Prime Contractors on individual line items by site, phase, floor area and other exact portion of the work areas. Single references grouping major areas of work will not be accepted.
- L. The final Project schedule shall include the Owner's occupancy requirements showing portions of the Project having occupancy priority, sequencing and phasing as established in the contract documents and the site logistics plan.
- M. In the event of disputes or disagreements among Prime Contractors regarding the Project schedule, the status or any coordination item for the Work, the Lead Prime Contractor shall have final authority to resolve such issues within the constraints of the project milestone dates established by the Contract Documents. In the event that any Prime Contractor fails to abide by the resolution as determined by the Lead Prime Contractor, the Lead Prime Contractor shall promptly report the situation to the Owner and the Architect for further action

available under the contract documents, which may include but not be limited to the non-processing and funding of payment applications for a prime contractors noncompliance and participation in any part of the schedule management process.

1. It is acknowledged that the Lead Prime Contractor, at their discretion, may coordinate intermediate and break-out schedules for items such as the abatement, demolition, the addition, utility phase transitions and other schedule sequences requiring separate attention.
2. Within 15 days of receipt of the preliminary expanded initial construction schedule, all Prime Contractors shall return their schedule information, then attend a working session on site with the Lead Prime Contractor during which the full Construction Phase Schedule will be reviewed and developed. Attendance is required by all prime contractors at the schedule coordination meetings, whose representatives have the full authority to provide schedule input and decisions for the Contractors.
3. The Contractor's failure to complete their schedule responsibilities within this time frame shall enable the Owner to pursue a delay claim and other damages should the Contractor's non-participation in the schedule development and updating process lead to any delay or added project costs.

2.2 CONSTRUCTION PHASE - PROJECT SCHEDULE SIGN OFF

- A. The Architect shall dictate the time for the completion and acceptance of the final schedule, but in no case shall it exceed 60 days from the issuance of the first working schedule and request for contractor information.
- B. All Prime Contractors are required to witness their approval by returned signature on a schedule acceptance letter form, issued by the Lead Prime Contractor, and returned to the Lead Prime Contractor within five (5) days of receipt. Failure to participate and cooperate in the initial and final working meetings for the schedule and the sign-off for the final schedule will result in that party being designated as being in non-compliance with the contract and trigger any and all actions available to the Owner under the contract documents including, but not limited to the requests for the replacement of the Prime Contractor managers, withholding of monthly payments until such time full compliance with the scheduling process is provided and determined to be sufficient by the Lead Prime Contractor. The accepted schedule will be considered a contract document and shall be the one source of schedule coordination and progress reporting for the records and all contract related functions including all penalties.
- C. Upon written approval of the schedule by each Contractor, it shall, with respect to time, become of the essence of the Contract in regard to Contractor's performance of the Work and any Contractor who does not comply with the schedule may be held in violation of Article 8, Paragraph 8.2, Progress and Completion. The Project Schedule may be changed or revised only with the written consent of all Contractors and the Owner. If the General Construction Contractor or other separate Contractors do not comply with all the above requirements and time lines, the Owner reserves the right to deduct \$500.00 from the Contract amount for each day that Contractor does not comply and Owner may also proceed with enforcing other requirements of the Contract as outlined in Specification Section 007216.01. The aforesaid deduction shall be in the nature of liquidated damages and not as a penalty as actual damages resulting from Contractor's failure to comply with the above requirements and time lines are impossible to determine.

2.3 CONSTRUCTION PHASE – RESPONSIBILITIES FOR UPDATING

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- A. The Lead Prime Contractor shall perform all schedule updates utilizing update forms that they distribute and collect from the Prime Contractors.
 - B. During the construction phase, the Lead Prime Contractor shall review and monitor the work. All Prime Contractors will coordinate their weekly planning meetings, including their two and six week look-ahead schedules and all site disturbance planning with the current schedule updates.
 - C. On a monthly basis, after receipt the Prime Contractors schedule update sheets, The Lead Prime Contractor shall provide monthly updates of the Project schedule as required to show current conditions. If an update indicates that the previously approved Project Schedule may not be met, the Lead Prime Contractor shall recommend corrective action in writing, if any, to the Owner, Architect and Contractor(s).
 - D. The progress schedule update sheets shall be submitted by the Lead Prime Contractor every Two Weeks, or at a frequency of their discretion, for updating the construction progress schedule. This shall be further reviewed and discussed at the bi-weekly Owner, Architect and Contractor's coordination meetings.
 - E. Weekly Planning Process – As part of the Weekly Planning Process, the updated schedule shall be used by the Lead Prime Contractor and all Prime Contractor foremen to update and plan each week's work. Each foreman is responsible to fully participate in all processes as follows:
 - 1. Complete and update, on each Monday morning, the weekly planning boards that will identify each day's major items of work and the percentage goal to have completed each Friday.
 - 2. Openly discuss coordination of your work with all other Prime Contractors present during the Monday meetings at the weekly planning board.
 - 3. Perform Friday updates to the weekly planning board – list the actual percent complete for individual work activities compared to the set goals. Plan for the following Monday meeting discussions.
 - 4. Coordinate planning with the Construction Manager and the other Prime Contractors to create, update and maintain a Two and Six Week Look Ahead list of your major work activities. These lists will be entered by each foreman on the visual display boards in the Colocation field office.
 - 5. Identify and list at the weekly Monday AM meetings all major deliveries for your work. All deliveries shall be fully coordinated by the Prime Contractor foremen observing all rules and guidelines of the site safety and logistics plan and the Owner's daily site schedule for bus arrival and departures, parent drop offs and other school activities.
 - 6. Attend and participate in the weekly Owner Disturbance Meeting as scheduled by the Construction Manager. Be fully prepared to discuss you work for the week and the potential for it to create out of the ordinary disturbance to classroom activities and other school functions.
 - F. Changes to the project that result in a requested extension of Time change order by a Prime Contractor shall be reviewed during the change order review process. Primes will be required to submit activities and durations for changes and the Lead Prime Contractor will incorporate into the project schedule for analysis. Only those changes that affect the critical path would result in an extension of time.
 - G. Free float or any other measurement of schedule progress shall not be used on this project.
 - H. Negative Float is an indication that an activity is not progressing at the assigned rate and can impact the successor activity and the completion of the Substantial Completion of a phase and/or the entire project.

- I. All Prime Contractors acknowledge that when any of their activities reach a minus fourteen (-14 days) of Total Float, they will be responsible to prepare, enact and manage a Recovery Schedule.

2.4 CONSTRUCTION PHASE – RECOVERY SCHEDULES

- A. Should the updated Prime Contractor's Construction Schedule , at any time during the Prime Contractor's performance of the Work, show in the sole opinion of the Owner and/or Architect that the Contractor is fourteen (14) or more days behind schedule on any Completion Date, or should the Prime Contractor be required to undertake actions as provided for in these specifications, with or without the direction of the Lead Prime Contractor, the Prime Contractor shall prepare and submit a Recovery Plan and schedule explaining how they intend to manage, schedule, adjust and coordinate their Work in order to regain compliance with the overall critical path of the main construction schedule.
- B. All Recovery Schedule submissions shall be accomplished by the Prime Contractor during the immediate subsequent pay application period.
- C. The Prime Contractor's submitted plan to recover lost schedule time shall include, but not be limited to: using additional manpower; using a second shift crew; working weekends; adding subcontractors; working extended and overtime hours; resequencing of the work.
- D. The Prime Contractor's recovery schedule shall be presented to the Owner, Construction Manager and the other Prime Contractors within ten (10) days of the request for the Recovery Schedule submission. This recovery Plan shall be submitted and presented by the Prime Contractor, in person at an onsite meeting.
- E. Upon receipt and review, the Owner, at their sole discretion, and in consultation with the Architect, shall accept, reject or request modifications to the submitted Recovery Schedule and plan.
- F. In no case, shall the Prime Contractor submit a Recovery Schedule that exceeds a thirty (30) day duration to recover the lost time, unless agreed to in writing by the Owner and the Architect.
- G. It is acknowledged that the submission of a Recovery Schedule is intended to permit the work progress to return to that prescribed in the main governing construction schedule at the earliest possible time.
- H. Should the Recovery Schedule and plan receive the acceptance of the Owner and or Architect, the Prime Contractor shall be solely responsible to manage and coordinate the recovery activities with all of their forces, the work of their subcontractors and vendors and that of the other Prime Contractors.
- I. The Prime Contractor's foreman submitting the Recovery Schedule shall report on the progress of the recovery activities at each Monday weekly planning meeting.
- J. All costs associated with the formation of any Recovery Schedule and plan shall be the sole responsibility of the Prime Contractor causing the delay.
- K. The acceptance of any Recovery Plan by the Owner and/ or Architect in no way changes any Contract requirements for the Prime Contractor to comply with any and all schedule requirements of the contract documents.

- L. Failure of any Prime Contractor to fully comply with the submission, execution and management of the Recovery Schedule process, as determined by the Architect, may result in the reduction or withholding of that periods pay application and funding, until the contract terms for Recovery are met.
- M. The Prime Contractor shall also report Recovery progress at the Bi-Weekly progress meetings. If the Architect and or Owner determines that the Prime Contractors has not started, is not in compliance with their proposed schedule and recovery methods within 30 days of issuance of the plan, the Architect shall formally notify the Prime Contractor that they are now in a project delay situation and any and all remedies available to the Owner in other areas of the contract agreement shall be pursued to limit or eliminate the continuing delay.
- N. If the Owner, or Architect, determines that the Prime Contractor has successfully complied with the provisions of the Recovery Schedule and plan, the Architect will direct the Prime Contractor to return to the use and management of the base main construction schedule.
- O. Nothing herein the Recovery Schedule plan alters the rights of the Owner or the Architect to resolve coordination and scheduling issues in dispute between and among the Contractor and the other Prime Contractors.
- P. Any delay claims submitted without a detailed schedule showing the exact impact to The Substantial Completion Date for any actions caused by the Owner, shall be considered to be unsubstantiated and without merit including those claims submitted that do not meet the requirements of the contract documents.

2.5 CONSTRUCTION PHASE – GENERAL SCHEDULE REQUIREMENTS

- A. The primary objectives of the requirements of this Section are:
 - 1. To insure adequate planning and execution of the Work by the Prime Contractor by having a schedule of construction activities for all of the Prime Contractors and their subcontractors.
 - 2. To assist the all contractors in evaluating progress of the Work.
 - 3. To provide for optimum coordination by Prime Contractors of their trades and subcontractors, and of their Work with the work or services provided by other Prime Contractors and the Owner's Contractors and Vendors.
 - 4. To permit the timely prediction or detection of events or occurrences which may affect the timely prosecution of the Work.
 - 5. To provide a mechanism or tool for use by Owner, Architect and the Lead Prime Contractor to monitor any actions of Prime Contractors which may be required to comply with the requirements of the Contract Documents relating to the completion of the various portions of the Work by the Completion Dates specified in the Contract Documents.
- B. Schedule Management and Meetings
 - 1. All Prime Contractors acknowledge that other meetings for safety, pre-installations, Owner disturbance planning as well as others, can occur at unspecified intervals.
 - 2. All Prime Contractors shall attend personally or be represented at all meetings stated above. Subcontractors and other vendors will be required to attend as conditions and agenda topics warrant. All Prime Contractor representatives shall

have the ability and responsibility to fully represent their company at these meetings and have the project knowledge and authorization to collaborate and make commitments and decisions on behalf of their companies. In dealing with the Prime Contractor's representatives, the Owner, Architect and their consultants and agents shall do so with the full assurance that such representative's actions will be accepted the same as though the Prime Contractor who signed, and is bound by the contract, were itself present and personally made such agreements and commitments. All Prime Contractors, their subcontractors and vendors are required to be on time for the commencement of each meeting and remain for the full duration of the meeting until it is adjourned by the meeting leader or receives permission to depart from same. It is each Prime Contractor's responsibility to review all meeting minutes and other articles for each meeting and schedule and coordinate their work, and that of their subcontractors and will be responsible for the outcome of their needed actions from the meeting whether in attendance or not.

- C. The Prime Contractor acknowledges and agrees that their Construction Schedule must be flexible in order to accommodate and allow for their coordination with the construction activities of the other Prime Contractors.
- D. The review by the Owner or Architect of the Prime Contractor's Construction Schedule submissions or any other schedule or plan of construction of the Prime Contractor, does not constitute an agreement by the Owner or Construction Manager of any start or finish date in the schedule or specific durations or sequences for activities of the Prime Contractor; further, nothing herein shall be construed as modifying or changing, or excusing the performance of the Prime Contractor of required portions of the Work by the Completion Dates as set forth in the Contract Documents.
- E. Should the Prime Contractor intend or plan to complete the Work, or any portion thereof, earlier than any applicable Completion Date or the Contract Time, the Prime Contractor shall give timely and reasonable notice of this fact to the Construction Manager. The Construction Manager shall have the discretion to agree to or reject such early completion plan by the Prime Contractor, subject to the rights of the Prime Contractor as stated in these specifications. The Architect and Owner shall have no duty or obligation to agree to, or to cooperate with the Prime Contractor regarding any early completion plan or proposal by the Prime Contractor and shall not be liable for any damages of the Contractor because of the rejection by the Architect and/or Owner of said plan.
- F. Each Prime Contractor acknowledges the geographical location of the project and has considered the average prevailing weather conditions in their formation of their schedule activity durations and logic. Weather conditions are not an acceptable condition for a delay claim, unless otherwise expressed separately in the Contract Documents.
- G. Updating of Project Construction Schedule may result in changes in the dates on which activities are expected to be completed. Process of updating Project Construction Schedule does not constitute approval of requests for extensions of time and does not replace the process of seeking extensions in accord with Article 8 of the General Conditions, which provision will be strictly enforced.
- H. The review by the Architect or Owner of the Prime Contractor's Construction Schedule information or any other schedule or plan of construction of the Prime Contractor, does not constitute an agreement by the Owner of any start or finish date in the schedule or specific durations or sequences for activities of the Contractor; further, nothing herein shall be construed as modifying or changing, or excusing the performance of the Prime Contractor of required portions of the Work by the Completion Dates as set forth in the Contract

Documents.

- I. It is understood that the Work shall be performed on a 5-day work week basis, utilizing a single 8-hour shift per day. However, all Prime Contractors acknowledge that certain aspects of their work such as, but not limited to, abatement, demolition, utility service interruptions and connections are to be performed on second shift, off hours and/or weekends and has included sufficient labor and material costs in their bids to cover these work periods regardless if they are called out on the milestone bid, initial or final construction schedules.
- J. The Owner and Architect shall have the sole discretion of approving or rejecting a variance in the work week, number of shifts, or shift length. Unless otherwise agreed to by the Owner or Architect, the Prime Contractor shall bear all of the cost of, and pay the Owner, for additional staff and supervisory personnel and inspectors of any authority having jurisdiction of the Work, necessary to support any variance in the contemplated work week, number of shifts or shift length.
- K. Should any Prime Contractor desire to or be otherwise required to make modifications or changes in their method of operation, their sequence of Work or the durations of the activities in their portion of the main construction schedule, they shall submit a request to the Owner, and the Architect, together with written rationale for the revisions and a description of the logic for rescheduling the Work and how they will maintain the phased and final milestone Completion Dates. The Owner, and the Architect, will review, reject or request further information on the proposed schedule adjustments. The Prime Contractor requesting the revised schedule sequences and methods shall be responsible for all incurred costs, and time delays, for the scheduling revisions and the overall coordination instructing the Work of the other Prime Contractors. In no case shall the any Prime Contractor use this specification section to request a change to the contract completion dates.

PART 2 - PRODUCTS (Not Used.)

PART 3 - EXECUTION (Not Used.)

END OF SECTION

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for submittals.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Contractor.
5. Name of firm or entity that prepared submittal.
6. Names of subcontractor, manufacturer, and supplier.
7. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
8. Category and type of submittal.
9. Submittal purpose and description.
10. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
11. Drawing number and detail references, as appropriate.
12. Indication of full or partial submittal.
13. Location(s) where product is to be installed, as appropriate.
14. Other necessary identification.
15. Remarks.
16. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include

relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

- D. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.
- E. Submittals for Utilizing Web-Based Project Management Software: Prepare submittals as PDF files.
 - 1. Submittals shall be uploaded to Architect's Web-Based Project Management platform. Prior to the start of Preconstruction activities, Architect will provide instructions and orientation materials to the Contractor(s).

1.4 SUBMITTAL PROCEDURES

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to MG Architects Construction Administration platform. Enter required data in web-based software site to fully identify submittal.
 - 2. If Contractor is utilizing its own Construction Administration platform, Contractor shall agree to coordinate connector configurations with MG Architects staff for proper information flow between the two platforms.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.5 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 - 2. Paper Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm).

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- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
 - a. Project name and submittal number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 - f. Specification paragraph number and generic name of each item.
 3. Paper Transmittal: Include paper transmittal including complete submittal information indicated.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed

by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.

2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

1.6 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria:** Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.

- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file and paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

- 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

1.7 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 - 1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.8 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return.
 - 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.
- B. Informational Submittals: Architect will review each submittal and will not return it or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will discard submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 013516 - ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes special procedures for alteration work.
- B. Related Requirements:
 - 1. Section 017300 "Execution" for cutting and patching requirements.

1.2 DEFINITIONS

- A. Alteration Work: This term includes remodeling, renovation, repair, and maintenance work performed within existing spaces or on existing surfaces as part of the Project.
- B. Consolidate: To strengthen loose or deteriorated materials in place.
- C. Design Reference Sample: A sample that represents the Architect's prebid selection of work to be matched; it may be existing work or work specially produced for the Project.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by Architect.
- F. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
- G. Repair: To correct damage and defects, retaining existing materials, features, and finishes. This includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- H. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- I. Replicate: To reproduce in exact detail, materials, and finish unless otherwise indicated.
- J. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.
- K. Retain: To keep existing items that are not to be removed or dismantled.
- L. Strip: To remove existing finish down to base material unless otherwise indicated.

1.3 COORDINATION

- A. Alteration Work Subschedule: A construction schedule coordinating the sequencing and scheduling of alteration work for entire Project, including each activity to be performed, and based on Contractor's Construction Schedule. Secure time commitments for performing critical construction activities from separate entities responsible for alteration work.
 - 1. Schedule construction operations in sequence required to obtain best Work results.
 - 2. Coordinate sequence of alteration work activities to accommodate the following:
 - a. Other known work in progress.
 - b. Tests and inspections.
 - 3. Detail sequence of alteration work, with start and end dates.
 - 4. Utility Services: Indicate how long utility services will be interrupted. Coordinate shutoff, capping, and continuation of utility services.
 - 5. Equipment Data: List gross loaded weight, axle-load distribution, and wheel-base dimension data for mobile and heavy equipment proposed for use in existing structure. Do not use such equipment without certification from Contractor's professional engineer that the structure can support the imposed loadings without damage.
- B. Pedestrian and Vehicular Circulation: Coordinate alteration work with circulation patterns within Project building(s) and site. Some work is near circulation patterns and adjacent to occupied school facilities. Circulation patterns on the Campus and project site cannot be closed off entirely and in places can be only temporarily redirected around small areas of work. Access to other areas on Campus and adjacent buildings may not be obstructed. Plan and execute the Work accordingly.

1.4 PROJECT MEETINGS FOR ALTERATION WORK

- A. Preliminary Conference for Alteration Work: Before starting alteration work, conduct conference at Project site.
 - 1. Attendees: In addition to representatives of Owner, Architect, and Contractors, testing service representative, and other specialists involved shall be represented at the meeting.
 - 2. Agenda: Discuss items of significance that could affect progress of alteration work, including review of the following:
 - 3. Reporting: Record conference results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from conference.

1.5 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered or uncovered during the Work, regardless of whether they were previously documented, remain Owner's property.
 - 1. Carefully dismantle and salvage each item or object in a manner to prevent damage and protect it from damage, then promptly deliver it to Owner where directed at Project site.

1.6 INFORMATIONAL SUBMITTALS

A. Alteration Work Subschedule:

1. Submit alteration work subschedule within 10 days of date established for commencement of alteration work.

B. Preconstruction Documentation: Show preexisting conditions of adjoining construction and site improvements that are to remain, including finish surfaces, that might be misconstrued as damage caused by Contractor's alteration work operations.

1.7 QUALITY ASSURANCE

A. Specialist Qualifications: An experienced firm regularly engaged in specialty work similar in nature, materials, design, and extent to alteration work as specified in each Section and that has completed a minimum of five recent projects with a record of successful in-service performance that demonstrates the firm's qualifications to perform this work.

1. **Field Supervisor Qualifications:** Full-time supervisors experienced in specialty work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on-site when specialty work begins and during its progress. Supervisors shall not be changed during Project except for causes beyond the control of the specialist firm.

B. Title X Requirement: Each firm conducting activities that disturb painted surfaces shall be a "Lead-Safe Certified Firm" according to 40 CFR 745, Subpart E, and use only workers that are trained in lead-safe work practices.

C. Safety and Health Standard: Comply with ANSI/ASSE A10.6.

1.8 STORAGE AND HANDLING OF SALVAGED MATERIALS

A. Salvaged Materials:

1. Clean loose dirt and debris from salvaged items unless more extensive cleaning is indicated.
2. Store items in a secure area until delivery to Owner.
3. Transport items to Owner's storage area on-site designated by Owner.
4. Protect items from damage during transport and storage.

B. Salvaged Materials for Reinstallation:

1. Repair and clean items for reuse as indicated.
2. Pack or crate items after cleaning and repairing; cushion against damage during handling. Label 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 unless otherwise indicated. Provide connections, supports, and miscellaneous materials to make items functional for use indicated.

C. Existing Materials to Remain: Protect construction indicated to remain against damage and soiling from construction work. Where permitted by Architect, items may be dismantled and taken to a

suitable, protected storage location during construction work and reinstalled in their original locations after alteration and other construction work in the vicinity is complete.

D. Storage Space:

1. Owner will arrange for limited on-site location(s) for free storage of salvaged material. This storage space does not include security for stored material.
2. Arrange for off-site locations for storage and protection of salvaged material that cannot be stored and protected on-site.

1.9 FIELD CONDITIONS

- A. Survey of Existing Conditions: Record existing conditions that affect the Work by use of preconstruction photographs.
- B. Discrepancies: Notify Architect of discrepancies between existing conditions and Drawings before proceeding with removal and dismantling work.
- C. Size Limitations in Existing Spaces: Materials, products, and equipment used for performing the Work and for transporting debris, materials, and products shall be of sizes that clear surfaces within existing spaces, areas, rooms, and openings, including temporary protection, by 18 inches or more.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from alteration work.
 1. Use only proven protection methods, appropriate to each area and surface being protected.
 2. Provide temporary barricades, barriers, and directional signage to exclude the public from areas where alteration work is being performed.
 3. Erect temporary barriers to form and maintain fire-egress routes.
 4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during alteration work.
 5. Contain dust and debris generated by alteration work, and prevent it from reaching the public or adjacent surfaces.
 6. Provide shoring, bracing, and supports as necessary. Do not overload structural elements.
 7. Protect floors and other surfaces along hauling routes from damage, wear, and staining.
 8. Provide supplemental sound-control treatment to isolate demolition work from other areas of the building.
- B. Temporary Protection of Materials to Remain:
 1. Protect existing materials with temporary protections and construction. Do not remove existing materials unless otherwise indicated.

2. Do not attach temporary protection to existing surfaces except as indicated as part of the alteration work program.
- C. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
- D. Utility and Communications Services:
 1. Notify Owner, Architect, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by alteration work before commencing operations.
 2. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for alteration work.
 3. Maintain existing services unless otherwise indicated; keep in service, and protect against damage during operations. Provide temporary services during interruptions to existing utilities.
- E. Existing Drains: Prior to the start of work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin work in an area until the drainage system is functioning properly.
 1. Prevent solids such as adhesive or mortar residue or other debris from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from alteration work.
 2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

3.2 PROTECTION FROM FIRE

- A. General: Follow a fire-prevention plan prepared by Prime Contractor responsible for the work being performed and the following:
 1. Comply with NFPA 241 requirements unless otherwise indicated. Perform duties titled "Owner's Responsibility for Fire Protection."
 2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.
 - a. If combustible material cannot be removed, provide fire blankets to cover such materials.
- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are anticipated:
 1. Obtain Owner's approval for operations involving use of open-flame or welding or other high-heat equipment. Notify Owner before each occurrence, indicating location of such work.
 2. As far as practicable, restrict heat-generating equipment to shop areas or outside the building.

3. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
4. Use fireproof baffles to prevent flames, sparks, hot gases, or other high-temperature material from reaching surrounding combustible material.
5. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
6. Fire Watch: Before working with heat-generating equipment or combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire-watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows:
 - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
 - b. Prohibit fire-watch personnel from other work that would be a distraction from fire-watch duties.
 - c. Cease work with heat-generating equipment whenever fire-watch personnel are not present.
 - d. Have fire-watch personnel perform final fire-safety inspection each day beginning no sooner than 30 minutes after conclusion of work in each area to detect hidden or smoldering fires and to ensure that proper fire prevention is maintained.
 - e. Maintain fire-watch personnel at each area of Project site until 60 minutes after conclusion of daily work.

- C. Fire-Control Devices: Provide and maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire-watch personnel are trained in fire-extinguisher and blanket use.

3.3 PROTECTION DURING APPLICATION OF CHEMICALS

- A. Protect motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm or spillage resulting from applications of chemicals and adhesives.
- B. Cover adjacent surfaces with protective materials that are proven to resist chemicals selected for Project unless chemicals being used will not damage adjacent surfaces as indicated in alteration work program. Use covering materials and masking agents that are waterproof and UV resistant and that will not stain or leave residue on surfaces to which they are applied. Apply protective materials according to manufacturer's written instructions. Do not apply liquid masking agents or adhesives to painted or porous surfaces. When no longer needed, promptly remove protective materials.
- C. Do not apply chemicals during winds of sufficient force to spread them to unprotected surfaces.
- D. Neutralize alkaline and acid wastes and legally dispose of off Owner's property.
- E. Collect and dispose of runoff from chemical operations by legal means and in a manner that prevents soil contamination, soil erosion, undermining of paving and foundations, damage to landscaping, or water penetration into building interior.

3.4 GENERAL ALTERATION WORK

- A. Have specialty work performed only by qualified specialists.

- B. Ensure that supervisory personnel are present when work begins and during its progress.
- C. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs or video recordings.
- D. Perform surveys of Project site as the Work progresses to detect hazards resulting from alterations.
- E. Notify Architect of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.
 - 1. Do not proceed with the work in question until directed by Architect.

END OF SECTION 013516

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection 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 other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.2 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. 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, assembly, and similar operations.
 - 1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).
- D. Mockups: Physical assemblies of portions of the Work constructed to establish the standard by which the Work will be judged. Mockups are not Samples.
 - 1. Mockups are used for one or more of the following:
 - a. Verify selections made under Sample submittals.
 - b. Demonstrate aesthetic effects.
 - c. Demonstrate the qualities of products and workmanship.
 - d. Demonstrate successful installation of interfaces between components and systems.
 - e. Perform preconstruction testing to determine system performance.
 - 2. Product Mockups: Mockups that may include multiple products, materials, or systems specified in a single Section.

3. In-Place Mockups: Mockups constructed on-site in their actual final location as part of permanent construction.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.
- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- G. Source Quality-Control Tests and Inspections: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" has the same meaning as the term "testing agency."
- I. 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.
- J. 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. Contractor's quality-control services do not include contract administration activities performed by Architect.

1.3 DELEGATED DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated Design Services Statement: Submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.4 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the Architect regarding the conflict and obtain clarification prior to proceeding with the Work. Refer conflicting requirements that are different, but apparently equal, to Architect for clarification before proceeding.

- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified is 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 Architect for a decision before proceeding.

1.5 INFORMATIONAL SUBMITTALS

- A. Testing Agency Qualifications: 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. Permits, Licenses, and Certificates: For Owner's record, 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.

1.6 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, telephone number, and email address 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. Record of temperature and weather conditions at time of sample taking and testing and inspection.
 - 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 reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
 - 1. Statement on condition of substrates and their acceptability for installation of product.
 - 2. Statement that products at Project site comply with requirements.
 - 3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 5. Other required items indicated in individual Specification Sections.

- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
 - 1. Statement that equipment complies with requirements.
 - 2. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 3. Other required items indicated in individual Specification Sections.

1.7 QUALITY ASSURANCE

- A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. 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. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. 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.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, 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.
- 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 in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities be performed by entities who are recognized experts in those operations. Specialists will satisfy qualification requirements indicated and engage in the activities indicated.
 - 1. Requirements of authorities having jurisdiction supersede requirements for specialists.
- G. Testing and Inspecting Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installations of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

- J. 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. When testing is complete, remove test specimens and test assemblies, and 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 Architect, 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.
- K. 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:
1. Build mockups of size indicated.
 2. Build mockups in location indicated or, if not indicated, as directed by Architect.
 3. Notify Architect seven days in advance of dates and times when mockups will be constructed.
 4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
 5. Demonstrate the proposed range of aesthetic effects and workmanship.
 6. Obtain Architect's approval of mockups before starting corresponding work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 7. Promptly correct unsatisfactory conditions noted by Architect's preliminary review, to the satisfaction of the Architect, before completion of final mockup.
 8. Approval of mockups by the Architect does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 9. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 10. Demolish and remove mockups when directed unless otherwise indicated.

1.8 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 types of testing and inspection 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.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
1. Engage a qualified testing agency to perform quality-control services.
 - a. Contractor will 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 inspection 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 inspection 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. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected Work complies with or deviates from requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform duties of Contractor.
- E. 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 as specified in Section 013300 "Submittal Procedures."
- F. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and

conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

- G. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives 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 inspection. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 6. Security and protection for samples and for testing and inspection equipment at Project site.
- H. 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 inspection.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: 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 revisions as they occur. Provide access to test and inspection log for Architect's and authorities' having jurisdiction reference during normal working hours.
 - 1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible

as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."

- 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 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.
 1. DIN - Deutsches Institut für Normung e.V.; www.din.de.
 2. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
 3. ICC - International Code Council; www.iccsafe.org.
 4. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.
- C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.
 1. COE - Army Corps of Engineers; www.usace.army.mil.
 2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
 3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
 4. DOD - Department of Defense; www.quicksearch.dla.mil.
 5. DOE - Department of Energy; www.energy.gov.
 6. EPA - Environmental Protection Agency; www.epa.gov.
 7. FAA - Federal Aviation Administration; www.faa.gov.
 8. FG - Federal Government Publications; www.gpo.gov/fdsys.
 9. GSA - General Services Administration; www.gsa.gov.
 10. HUD - Department of Housing and Urban Development; www.hud.gov.
 11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.
 12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
 13. SD - Department of State; www.state.gov.
 14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
 15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
 16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
 17. USDOJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
 18. USP - U.S. Pharmacopeial Convention; www.usp.org.
 19. USPS - United States Postal Service; www.usps.com.
- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.gpo.gov/fdsys.
 2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
 3. DSCC - Defense Supply Center Columbus; (See FS).
 4. FED-STD - Federal Standard; (See FS).
 5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.
 - a. Available from Defense Standardization Program; www.dsp.dla.mil.
 - b. Available from General Services Administration; www.gsa.gov.
 - c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org/ccb.
 6. MILSPEC - Military Specification and Standards; (See DOD).
 7. USAB - United States Access Board; www.access-board.gov.
 8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).
- E. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
1. CBHF; State of California; Department of Consumer Affairs; Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation; www.bearhfti.ca.gov.
 2. CCR; California Code of Regulations; Office of Administrative Law; California Title 24 Energy Code; www.calregs.com.
 3. CDHS; California Department of Health Services; (See CDPH).
 4. CDPH; California Department of Public Health; Indoor Air Quality Program; www.cal-iaq.org.
 5. CPUC; California Public Utilities Commission; www.cpuc.ca.gov.
 6. SCAQMD; South Coast Air Quality Management District; www.aqmd.gov.
 7. TFS; Texas A&M Forest Service; Sustainable Forestry and Economic Development; www.txforestservice.tamu.edu.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.
 - 2. Reference 011200 "Multiple Contract Summary"

1.2 USE CHARGES

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

- A. Field Offices:
 - 1. Prefabricated or mobile units with serviceable finishes, temperature controls, electric and data access and foundations adequate for normal loading.
 - 2. Owner-provided space within the work area or nearby facility with serviceable finishes, temperature controls, electric and data access.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Store combustible materials apart from building.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

3.3 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - a. General Construction Contractor shall provide and maintain temporary toilet and wash facilities to accommodate all trades.
- C. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
 - a. If dehumidification is needed to meet manufacturer's requirements for installation or application of materials and finishes, temporary dehumidification shall be provided by the trade responsible for the material or finish installation or application.
- D. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- E. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Installation of temporary lighting is the responsibility of the Electrical Prime Contractor.
- F. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel.

3.4 SUPPORT FACILITIES INSTALLATION

- A. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- B. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- C. Storage and Staging: Use designated areas of Project site for storage and staging needs.
- D. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Temporary Signs: Provide signs as indicated and/or as required to inform public and individuals seeking entrance to Project.

- a. Provide temporary, directional signs for construction personnel and visitors.
2. Maintain and touch up signs so they are legible at all times.
- E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."
- F. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- A. Temporary Elevator Use: Where applicable, use of building elevators shall be permitted with prior permission granted by Owner for movement of personnel and building materials. Project Coordinator shall be responsible for ensuring proper protection of elevator finishes during construction, and that posted elevator capacity is not exceeded.
 1. The Project Coordinator shall be responsible for damage to, or service call fees for, the building Elevators incurred during Construction. The Owner reserves the right to revoke elevator usage for the project if evidence of abuse is observed.
- B. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
 1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
 1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

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1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- F. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.
1. Extent of Fence: As indicated on Drawings.
 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- G. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- H. Temporary Partitions: Provide dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
- I. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
- 3.6 OPERATION, TERMINATION, AND REMOVAL
- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if 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 Contractor. Owner reserves right to take possession of Project identification signs.

2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 015100 - TEMPORARY UTILITIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: General administrative and procedural requirements governing temporary utilities including, but not limited to, the following:

1. Definitions.
2. Temporary Utilities:
 - a. Water.
 - b. Heating, Ventilating, Cooling, and Dehumidification.
 - c. Electricity.
 - d. Lighting.
 - e. Communication Services.
 - f. Fire Protection.

- B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 011200 "Multiple Contract Summary" for general identification of Work in each Contract.
3. Section 078413 "Penetration Firestopping" for patching penetrations in fire-rated construction.

1.2 DEFINITIONS

- A. Building Enclosure or Major Unit Enclosure: When status of construction includes the following:

1. Roof: Permanent roof is installed and in a waterproof condition.
2. Exterior Walls: Walls are erected and watertight.
3. Exterior Openings: Windows and doors are enclosed with either permanent materials and weathertight, or temporary weathertight closures.
4. Mechanical Substrates: Substrate for permanent heating units are completed and ready for installation of mechanical equipment.

- B. Major Unit: A wing or section of building, as indicated in the Construction Drawings.

- C. Major Unit Barrier: Temporary construction providing a weathertight closure between a Major Unit Enclosure and building area(s) that are not enclosed.

- D. Mechanical Room: Be enclosed with floor at time HVAC Contractor can install new heating system in a manner to permit its use for supplying heat during construction period.

1.3 TEMPORARY WATER SERVICE

- A. Plumbing Contractor shall provide, operate, and maintain temporary water service required for construction operations. Take necessary measures to conserve water usage by all workmen at site.
 - 1. Owner shall pay for water consumption costs.
 - 2. Plumbing Contractor shall pay all other costs associated with providing, maintaining and removing temporary water service.
- B. If there is no Plumbing Prime Contractor for the Work, a temporary water supply shall be provided by the General Trades Contractor as required for the execution of its work.
- C. Install and maintain temporary water for duration of construction period. Provide water service from existing building supply with minimum 1-1/2 inch water line. Provide other required temporary water equipment located as necessary for adequate usage by workmen at site, including but not limited to: frost free concrete washout pit, wheel wash station, and masonry mortar mixing station, as coordinated with Contractors.
- D. Tie into existing building supply or bring temporary water supply to a point approximately 10 feet from existing building as coordinated by Architect.
- E. Supply temporary water within 14 calendar days after written request from any Contractor, or directed by Architect.
- F. Install backflow preventers to prevent water line contamination, and methods to prevent freezing of water service including the point of termination.
- G. Install valve on temporary water service to allow for isolation from primary service.
- H. Plumbing Contractor shall provide a male NPT threaded fitting and threaded cap at the point of termination.
- I. Other Contractors shall be responsible to install, valve, maintain, and protect temporary water lines from the Plumbing Contractor's point of termination. Each Contractor is responsible for providing and securing required valves, fittings, reducers and hoses to perform their own Work.
- J. Keep temporary water supply in service until it is no longer required by the Work.

1.4 TEMPORARY HEATING, VENTILATING, COOLING, AND DEHUMIDIFICATION

- A. HVAC Contractor to provide, operate, and maintain temporary heating, ventilating, cooling and dehumidification throughout the Construction.
- B. Maintain temperature range between 55 – 90 degrees F. in work areas as work is in progress or completed and requires environmental conditioning for proper curing and protection regardless of exterior temperatures. Coordinate required conditions with installing contractors.
- C. Owner shall pay for utility-provided energy costs (electricity or natural gas consumption cost) for temporary heating. Contractor providing temporary heat shall pay for all other energy costs.

1. If electric resistance type heaters are used for temporary heating, then appropriate Contractor shall be responsible for providing and paying for a separate metered service and related electrical items, including wiring, of proper size to operate the heaters.
- D. When building envelope is open to outside, General Contractor shall provide temporary enclosures as required to maintain separation between conditioned and unconditioned areas of the building to protect the finished Work or facilitate additional temporary heating measures until the Building Enclosure is re-established.
- E. If the Work of any Contractor requires environmental conditions outside temperature ranges identified, then the Contractor requiring such environmental conditions shall provide additional temporary heating, ventilating, cooling and dehumidification as necessary to fulfill required environmental conditions in their specific work areas.
- F. Each appropriate Contractor shall remove any and all soot, smudges, stains, and other deposits and deleterious films, resulting from temporary heating equipment employed by appropriate Contractor, from substrates and finished Work before transition between various Periods of Construction.
- G. Type of equipment and related fuel for temporary heating shall be determined by the HVAC Contractor providing temporary heating, ventilating, cooling or humidity control. Use equipment conforming to requirements by authorities having jurisdiction over the Work; conform to AGA and UL requirements as applicable.
- H. Electrical Contractor shall provide and pay for necessary temporary or permanent electrical items associated with temporary heating, cooling, and ventilating. Relocate as required to complete the Work.
- I. Ventilate enclosed areas to cure materials, to disperse humidity, and to prevent accumulations of dust, fumes, vapors, or gases.
- J. Locate equipment to provide uniform distribution of temporary heating, ventilating, cooling and dehumidification. Vent equipment exhaust to the exterior.
- K. Furnish and maintain on a 24 hour basis as necessary.
- L. Maintain specified conditions for construction operations to protect materials and finishes from damage due to temperature or humidity.
- M. Dehumidification: Contractor responsible for providing temporary heating, ventilating, cooling and dehumidification during Period of Construction shall operate equipment to maintain required minimum and maximum temperatures. The resulting dehumidification will be considered as having satisfied Contractor's responsibility for dehumidification.
 1. Any Contractor whose work includes specific humidity or dehumidification requirements, either to perform its work or to protect its work after the work has been performed, shall be responsible for providing separate and additional dehumidification.
 2. Such Contractor also shall provide temporary enclosures or partitions as may be necessary to achieve dehumidification.
 3. Such Contractor shall maintain dehumidification until permanent HVAC equipment is complete and able to provide the required dehumidification.
- N. Use of Permanent Facilities and Equipment: Permanent Facilities and Equipment may be used for temporary heating, ventilating, cooling and dehumidification.

1. Prior to operation of permanent facilities for temporary purposes, verify that installation is approved for operation, and that filters are in place. Provide and pay for operation, maintenance, and routine repair including replacement of filters and worn or consumed parts.
2. Prior to Substantial Completion, for any Permanent Facilities and Equipment used for temporary purposes, replace all filters and belts regardless of condition. Do not use attic stock as a source for replacement filters and belts. Perform all services in accordance with manufacturers' manuals and service orders to place Facilities in like new condition.
3. Owner shall receive extended warranties and guarantees from Contractor as required by these Contract Documents for all Permanent Facilities and Equipment used for temporary purposes. No limitations or conditions shall be applied to such warranties and guarantees as a result of their use for temporary purposes.

- O. Take necessary measures to conserve utility usage by workers at site.
- P. Tie into existing building utilities as required to provide work of this Article. If additional temporary supply utilities are required to provide work of this Article, provide those additional supply utilities as part of base bid requirement.

1.5 TEMPORARY ELECTRICAL SERVICE

- A. Electrical Contractor shall provide, operate, and maintain temporary electrical service required for construction operations. Take necessary measures to conserve electrical usage by all workmen at site.
1. Owner shall pay for electrical consumption costs.
 2. Electrical Contractor shall pay all other costs associated with providing, maintaining and removing temporary electrical service.
- B. Provide capacity required for building construction and testing.
- C. Provide temporary electrical service within 14 calendar days after written request from any Contractor. Locate near building as determined by Lead Prime Contractor.
- D. Provide aerial service, poles, metering, disconnects, grounding, panelboards, feeder circuits and other electrical equipment as required to provide temporary electrical service.
- E. Provide temporary electrical service branch wiring, separate from lighting, with ground wire and grounding type 120 volt, 20 ampere, ground fault interrupted (GFI/GFCI) duplex convenience outlets located as follows:
1. Corridors: maximum spacing 50 feet.
 2. Other Spaces: Provide additional duplex convenience outlets as necessary so that all areas of building can be reached with a 50-foot extension cord.
 3. Wire maximum of 6 outlets per 20 ampere circuit.
- F. Install temporary wiring in accordance with National Electrical Code, 29 CFR 1926 (OSHA), local electric company, Contractor's insurance company, and local regulations.
1. Refer to other Articles in this Section for providing and maintaining additional electrical requirements associated with other temporary utilities.

- G. Maintain temporary electrical service until such time permanent service becomes available; make transition to permanent service.
- H. Each Contractor shall provide the following to perform their Work:
 - 1. Electrical service for welding, independent of temporary electrical service provided under this Article.
 - 2. GFI/GFCI protected extension cords.
 - 3. Bear costs for additional temporary electrical service which cannot be provided by the temporary electrical service described in this Article.
 - 4. Repair and refinish of work that is damaged by removal of temporary electrical service.

1.6 TEMPORARY LIGHTING SERVICE

- A. Electrical Contractor shall provide, operate, and maintain temporary lighting service required for construction operations. Take necessary measures to conserve electrical usage by all workmen at site.
 - 1. Owner shall pay for electrical consumption costs.
 - 2. Electrical Contractor shall pay all other costs associated with providing, maintaining and removing temporary lighting service.
- B. Lighting will be provided by Contractor simultaneous with temporary power as referenced in previous Article of this Section.
- C. Provide temporary lighting systems within 14 calendar days after written request from any Contractor.
- D. Provide minimum temporary lighting service, including branch wiring and 100 watt lamps and sockets, to provide minimum illumination as required by 29 CFR 1926 (OSHA). In addition, provide temporary lighting service as follows:
 - 1. Corridors: Lights at maximum spacing 30 feet.
 - 2. Spaces Less than 300 sq.ft.: One lamp per space or room.
 - 3. Other Spaces: One lamp for each 300 sq.ft., and one for each remaining fraction.
- E. Maintain temporary lighting service in perfect working order throughout construction period. Replace burned out and missing lamps with new materials.
- F. Permanent lighting may be used during construction when approved by Owner or Architect. Maintain lighting and make routine repairs.
 - 1. All light fixtures used for temporary lighting shall have their lamps and ballasts replaced with new lamps and ballasts immediately prior to Substantial Completion. Attic stock shall not be used for lamp and ballast replacement.
- G. Provide temporary exterior site lighting to illuminate areas around field offices, sheds, staging areas, building entrances, and vehicular drive.
- H. Install temporary wiring in accordance with National Electrical Code, local electrical company, insurance company, and local regulations.

- I. Where existing lighting used for temporary lighting, and then is removed during the progress of construction, provide and maintain required temporary lighting.
- J. Each Contractor shall provide the following to perform their work:
 - 1. Bear costs for additional temporary lighting service which cannot be provided by the temporary lighting service described in this Article.
 - 2. Repair and refinish of work that is damaged by removal of temporary lighting service.
 - 3. Provide and maintain temporary electrical and telephone services to offices and sheds.

1.7 FIRE PROTECTION

- A. General Contractor shall provide portable fire extinguishers as required by 29 CFR 1926 (OSHA), or at a rate of one extinguisher per Major Unit and per floor, whichever is greater, during entire construction period. Provide additional extinguishers as they be required by other specification Sections.
 - 1. Contractor either performing welding, or any work for which 29 CFR 1926 (OSHA) requires a fire extinguisher present in the immediate area of the work, shall provide such fire extinguishers.
- B. Fire Extinguisher: Minimum 20 lb. rating using ABC multipurpose powder with pressure gage.
- C. Make locations of fire extinguisher known to each Contractor and subcontractor who shall inform each worker.
- D. For all fire extinguishers, perform and document inspections of fire extinguishers in accordance with 29 CFR 1926, and requirements of authorities having jurisdiction.
- E. All fire extinguishers shall be "charged" (pressure indicator in the green area of dial) at all times. Any fire extinguisher found not to be "charged" shall be immediately replaced with a "charged" fire extinguisher.

1.8 EXISTING BUILDING SYSTEMS

- A. Contractors in submitting a bid has certified that he has familiarized himself with all existing building conditions and systems encountered. Contractors shall protect and maintain all existing building systems, functions, and utilities during the construction period or until new work replaces aforementioned. Within 30 days from the Notice to Proceed, the electrical, HVAC, plumbing, and fire protection contractors shall complete a full survey of the existing mechanical services and shall confirm, or give notice to the contrary, that all existing panels, equipment, piping services, and conduits are sufficient for the designed use for both temporary and permanent services and are adequate from coordination with the proposed phasing plans.
- B. Existing Systems, Functions, and Utilities: The following is a partial list, which is not all inclusive of the existing Systems, Function, and Utilities: All contractors acknowledge that these existing systems are to be maintained and kept fully operational on a daily basis. Any revisions or taking any system out of operation must be fully coordinated by the Prime Contractor, or its subcontractors, following the established phasing plans and requirements for the interruption of the service as approved in advance by the Owner. All utility disruption requests must be presented at the Weekly Planning Meeting and minimum 24 hours prior to the planned time of disruption. Each contractor that plans to interrupt or adjust any system during construction is

responsible to develop and present the temporary alteration plan, which includes advanced work to maintain the required service, to the Owner for approval prior to proceeding. No schedule delay claims will be valid for any contractor that does not fully plan out the interruption and maintenance of any service that presents an incomplete plan leaving the Owner without sufficient time to consider its merits.

1. Existing electrical service including all associated systems and functions
2. Existing water service, domestic and hot water systems
3. Existing sanitary and storm water services
4. Existing HVAC systems, boilers, chillers, and equipment
5. Existing BAS and/or ATC systems
6. Existing lighting systems
7. Existing data, communication, and security systems
8. Existing structural systems
9. Existing fire alarm systems
10. Existing fire sprinkler systems

1.9 MISCELLANEOUS PROVISIONS

- A. Items in this Article apply to other Articles in this Section as they are applicable.
- B. Any Contractor failing to carry out their responsibility in supplying of uninterrupted temporary utilities or services as set forth in this Section, shall be held responsible for such failure. Owner will have right to take such action as deemed proper for the protection and conduct of the work. Costs involved will be deducted from the amount due the Contractor at fault.
- C. Remove temporary utilities when temporary utilities are no longer required by same Contractor responsible for their installation. Restore ground or building disturbed or damaged to proper condition by same Contractor.
- D. Materials used for temporary utilities will be serviceable, new or used, and adequate for required purpose.
- E. Relocate construction aids as required by progress of construction, by storage or work requirements, and to accommodate legitimate requirements of Owner, Architect, and other Contractors employed at the site.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for selection of products for use in Project.
2. Product delivery, storage, and handling.
3. Inspection and maintenance of stored products.
4. Manufacturers' standard warranties on products.
5. Special warranties.
6. Comparable products.
7. Products taken from stock.

B. Related Requirements:

1. Section 011000 "Summary of Work" for Owner related products.
2. Section 012100 "Allowances" for products selected under an allowance.
3. Section 012300 "Alternates" for products selected under an alternate.
4. Section 012500 "Substitution Procedures" for requests for substitutions.
5. Section 017700 "Closeout Procedures" related to submission of executed warranties.
6. Divisions 02 through 49 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.2 DEFINITIONS

A. Products: Items obtained 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. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process 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. Basis-of-Design Product Specification: A specification in which 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 significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named product or product from another named manufacturer that does meet the requirements of the specifications. Submit a comparable product request, if applicable.
- D. "Proposed" Substitutions: Changes in products, materials, equipment and or methods of construction from those required by the Contract Documents, and proposed by Bidder or Contractor. Comply with the requirements as indicated in the Instructions to Bidders.
- E. Proprietary Specifications: Where Specifications name a single product and manufacturer or where the product is accompanied by the words "no substitutions" or where the Specifications otherwise offer no alternative choices, provide the named product that complies with requirements.

1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Include data to demonstrate compliance with the requirements specified in "Comparable Products" Article.
 - 2. 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 of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.
- C. Pre-Bid Substitution Requests: Refer to the Instructions to Bidders for requirements pertaining to pre-bid substitutions.
- D. Post-Bid Substitution Requests: Submit request for consideration identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawings number(s) and title(s).
 - 1. Provision only applies to products that are no longer available or cannot be provided in time to meet the schedule requirements.
 - 2. Substitution Request Form: Use CSI Form 13.1A. Sample included with Specification Section 006300.
 - 3. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. 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.
 - b. Statement indicating why specified material or product cannot be provided.

- c. List of similar installations for completed projects with project names and addresses and names and addresses of Architects or Owners.
- d. 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. Separate prime contractors shall verify and co-sign the list of changes or modifications or indicate that their Work is not affected.
- e. Cost information, including proposal of change, if any, in the Contract Sum. Include signed statements from separate prime contractors whether or not there are changes to the Contract Sum.
- f. 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 a lack of availability or delays in delivery. Separate prime contractors shall verify and co-sign the changes or modifications to the schedule or indicate that their schedule is not affected.
- g. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
- h. Samples, where applicable or requested.
- i. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- j. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
- 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.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product 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.
- B. Use and incorporate into the Work materials and equipment that:
 - 1. Comply with size, make, type, and quality specified, or as specifically approved in writing by Architect.
 - 2. Conform to applicable specifications and standards.
 - 3. Are designed, fabricated, and assembled in accord with best engineering and shop practices.
 - 4. Are suitable for service conditions.
 - 5. Have interchangeable components of same manufacturer, for similar components.
- C. Do not reuse salvaged materials and equipment removed from existing building, unless directed to in the project drawings or specifications.

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 and vandalism. Comply with manufacturer's written instructions.
- B. Contractor shall be responsible for all costs associated with product delivery, storage, and handling, except as provided for elsewhere in this Section.
- C. 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 determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- D. Storage and Staging:
 - 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. Protect UV and sunlight-sensitive materials from exposure to sunlight, except to extent necessary for period of installation and concealment.
 - 5. Store cementitious type products and materials on elevated platforms.
 - 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.
 - 8. Do not allow excessive loads on building structure.
- E. Be responsible for properly located, secure, and weather resistant storage as required by materials. Place materials so as not to obstruct passage on site, within building structures, or in any way which causes impediment or obstruction to other Contractors.

1.6 INSPECTION AND MAINTENANCE OF STORED PRODUCTS

- A. Provide a periodic system of inspection of stored products on scheduled basis to assure that:
 - 1. Environmental conditions are maintained on a continuing basis.
 - 2. For exterior use products only, surfaces of product exposed to elements are not adversely affected and weathering of products, coatings, and finishes is acceptable and subject to requirements of Contract Documents and Construction Manager.
 - 3. State of storage facilities is adequate to provide required conditions.
- B. Comply with manufacturer's instructions regarding schedule and service interval for products and equipment requiring services during long term storage.
- C. Owner and/or Architect reserve the right to perform inspections of stored products.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of Contract Documents.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for 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 indicated form properly executed.
 - 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with Contract Documents, are undamaged and, unless otherwise indicated, 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. Where products are accompanied by the term "as selected," Architect will make selection.
 - 4. Where products are accompanied by the term "match sample," Architect will determine whether or not the submitted item matches the sample.
 - 5. Descriptive, performance, and reference standard requirements in Specifications establish salient characteristics of products.
 - 6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
 - 1. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide product by named manufacturer or source that complies with requirements. Comparable products will not be considered.
 - 2. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

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- b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
 - 3. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
 - 4. Basis-of-Design: Where Specifications name a basis-of-design product, or refer to a basis-of-design product indicated on Drawings, and include a list of manufacturers, provide specified or indicated product or a comparable product by one of other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the basis-of-design product. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of other named manufacturers.
 - C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 - 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
 - D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's colors, patterns, textures", or similar phrase, select a product that complies with requirements; phrase will indicate either "manufacturer's standard range" or "manufacturer's full range." Architect will select color, gloss, pattern, density, or texture from manufacturer's appropriate range for product line as follows:
 - 1. Standard Range: Selections will be made from manufacturer's product line that does not include premium items.
 - 2. Full Range: Selections will be made from manufacturer's product line that includes standard, premium, or custom items.
- 2.2 PRODUCT SUBSTITUTION
- A. Timing:
 - 1. Proposed Pre-Bid Substitutions: Comply with the requirements as indicated in the Instructions to Bidders.
 - 2. Post-Bid Product Substitutions: Will not be allowed except when, through no fault of the Contractor, a specified product is no longer available. Product substitutions shall be considered "Comparable Products" for the purpose of submitting similar alternative products or materials for Architect's review.

- B. Post-Bid Product Substitution Conditions: Architect will consider Contractor's request for product substitution when post-bid product substitutions are permitted or become necessary and the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests with no action, except to record noncompliance with these requirements.
1. Requested substitution offers Owner substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owners, and similar considerations.
 2. Requested substitution does not require extensive revisions to the Contract Documents.
 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 4. Substitution request is fully documented and properly submitted.
 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
 7. Requested substitution is compatible with other portions of the Work.
 8. Requested substitution has been coordinated with other portions of the Work.
 9. Requested substitution provides specified warranty.
 10. 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.
 - a. Any claims from other contractors resulting from an approved substitution will be deducted by Change Order from contractor who proposed substitution.

2.3 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
1. Evidence that proposed product does not require revisions to Contract Documents, that it is consistent with Contract Documents that it will produce indicated results, and that it is compatible with all other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in Specifications. Significant qualities include attributes such as: performance; weight; size; durability; power/utility service requirements; maintenance and service requirements; visual effect and qualities; 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.
 6. Be responsible for costs for any changes to other Contractors' Work required by, or because of the use of a Comparable Product.
 7. Compatibility with Owner's existing facility system or maintenance standards.
- B. Cost: No increase in Contract Amount will be authorized due to Contractor's request for approval of a comparable product. A decrease in Contract Amount may be required as condition of approval for a comparable product.

2.4 PRODUCTS TAKEN FROM STOCK

- A. It is expected that, with the exception of commodity materials, all products incorporated into this project shall be new, and purchased after the Contract Award specifically for use on this project.
 - 1. Commodity Materials: Items that are generally purchased in bulk, such as copper pipe and electrical conduit. Such items shall be free from deterioration, contamination, mold, mildew, or other defects. Where exposed in finished spaces, they shall have a "like new" appearance, and be free of visual defects.
- B. For any product Contractor intends to take from stock in lieu of purchasing new after Contract Award, Contractor shall clearly indicate that the product is being taken from stock. Products so submitted shall be subject to inspection by the Owner and Architect prior to submittal review.
 - 1. Product may be rejected if it is found, in any manner as determined by the Architect, to not be "like new."
 - 2. Contractor shall provide as part of its submittal receipts indicating when, and from whom, product was purchased. Also include shipping ticket or bill of lading, indicating when product was shipped by manufacturer and received by Contractor.
 - 3. For all products, whether warranty requirements are for a one year term, for manufacturer's standard term which is in excess of one year, or special warranty requirements apply, provide letter from manufacturer listing each product and each product's serial number, and stating that Contract warranty requirements will be honored by manufacturer without qualification.
- C. Products that are accepted by Architect shall be stored in a location that provides appropriate temperature and humidity control; protection against rodents, vermin, insects, and other pests; and against any other means of damage or deterioration.
- D. Products delivered to project site that are found not to be in "like new" condition will be rejected and replaced by Contractor at no additional cost to Owner.
- E. Products taken from stock that do not meet product specifications shall not be accepted as Substitutions.
- F. Products taken from stock that do not meet product specifications shall not be accepted as Comparable Products.

PART 3 - EXECUTION

3.1 PRODUCTS COMMON TO MULTIPLE CONTRACTORS

- A. Products common to more than one Contractor shall be furnished from the same manufacturer, of like models and colors, and otherwise shall provide Owner with uniformity throughout the Work.
- B. Specification Section 083113 "Access Doors and Frames" – All Contractors furnishing Access Doors and Frames shall furnish such from a common manufacturer and model/style/series. Each Contractor shall submit product data for Access Doors and Frames only after reaching agreement with other Contractors that require Access Doors and Frames. Submittals will be reviewed by Architect and Construction Manager only after submittals have been received from all Contractors that require Access Doors and Frames.

1. Access Doors that are required to be key locked shall be furnished with lock cylinders and cores that match the building's other key operated locks. Owner will provide key combination instructions. Unless otherwise directed, Access Doors provided by all Contractors shall be keyed alike.
- C. Specification Section 078413 "Penetration and Joint Firestopping" – All Contractors furnishing penetration and joint firestopping products and systems shall furnish them from a common manufacturer.
1. Lead Prime Contractor shall furnish a unified product submittal including system diagrams, products and ratings as published by the manufacturer.

END OF SECTION

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner related products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.
 - 9. Correction of the Work.
- B. Related Requirements:
 - 1. Section 011000 "Summary of Work" for limits on use of Project site and coordination of Owner related products.
 - 2. Section 013300 "Submittal Procedures" for submitting specified items.
 - 3. Section 017700 "Closeout Procedures" for recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
 - 4. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.
 - 5. Section 078413 "Penetration Firestopping" for patching penetrations in fire-rated construction.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction, whether existing construction or new work via this project, necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work of in-place construction, whether existing construction or new work via this project, required to restore construction to either original conditions for existing construction, or Contract requirements for new construction, after installation of other work.
- C. Professional Land Surveyor: Surveyor licensed by the State in which the Project is located.

1.3 INFORMATIONAL SUBMITTALS

- A. Certificates: Submit certificate signed by registered land surveyor certifying that location and elevation of improvements comply with requirements.
- B. Cutting and Patching Plan: Submit plan describing procedures at least 10 working days prior to the time cutting and patching will be performed. Include the following information when

structural systems and utilities, including fire protection piping, plumbing, HVAC, electrical, and security systems, are affected:

1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
 3. Products: List products to be used for patching and firms or entities that will perform patching work.
 4. Dates: Indicate when cutting and patching will be performed.
 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
 - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure, at no additional cost to Owner.
- C. Hazardous Materials Disposal: Dispose of hazardous materials in accordance with all governing laws, regulations, and authorities having jurisdiction. Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.4 QUALITY ASSURANCE

- A. Professional 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.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or results in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire separation assemblies.
 - c. Air or smoke barriers.
 - d. Fire-suppression systems.
 - e. Mechanical systems piping and ducts.
 - f. Control systems.
 - g. Communication systems.
 - h. Fire-detection and -alarm systems.

- i. Conveying systems.
 - j. Electrical wiring systems.
 - k. Operating systems of special construction.
- 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
 - a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Exterior curtain-wall construction.
 - d. Sprayed fire-resistive material.
 - e. Equipment supports.
 - f. Piping, ductwork, vessels, and equipment.
 - g. Noise- and vibration-control elements and systems.
- 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- D. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.5 GENERAL

- A. Build sleeves and anchors into the Work for the proper engagement of the Work.
 - 1. The General Contractor shall build sleeves and anchors into their work for the proper engagement of the work of the other Prime Contractors, provided the sleeves and anchors, along with the installation instructions, are furnished at the proper time. Those that fail to comply with the provision shall do all necessary cutting and patching at their own expense. Coordinate requirements in accordance with Division 1 Section "Project Coordination", and at the required Cutting and Patching Conference.
- B. Coordinate and provide chases, openings, and recesses in new Work to avoid cutting and patching to the greatest extent possible.
 - 1. The General Contractor shall provide chases, openings, and recesses in the new work, as required, provided that the other Prime Contractors furnish the necessary information at the proper time. Those that fail to comply with this provision shall do all necessary cutting and patching at their own expense. Coordinate requirements in accordance with Division 1 Section "Project Coordination", and at the required Cutting and Patching Conference.
- C. Perform all cutting necessary to install Work. Cutting of structural members will not be permitted except by written permission of the Architect.
 - 1. Each Prime Contractor shall do all required cutting and patching of existing construction necessary to install their work. The Prime Contractor, whose work necessitates the need

for the cutting and patching, through existing construction, i.e. a duct penetration through existing roof deck shall be the responsible Contractor to perform the cutting and patching, regardless if work of another Prime Contractor is shown in the required opening.

- D. Repair at own expense, all surfaces cut into or damaged as a result of Work.
 - 1. Each Prime Contractor shall repair at their own expense, all existing surfaces cut into, or damaged as a result of their work, where such cutting or damage is beyond the rooms or spaces being altered under the General Contractor's work.
 - 2. All cutting by another Prime Contractor within the rooms or spaces being finished, altered, or renovated by the General Contractor, shall be patched and repaired by the General Contractor at their own expense, except as noted in the following:
 - a. All cutting or existing construction that is unnecessary, excessive, or carelessly done, and cutting of new or existing constructions that is made necessary by ill-timed work or lack of coordination, shall be repaired by the responsible Prime Contractor at their own expense, using skilled mechanics of the proper trades, and to the satisfaction of the Architect.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.
 - 2. When indicated in Contract Documents or with Architect's approval, patch with matching salvaged materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: Existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, the General Contractor shall provide a professional underground utility scan and mark-out of all areas with the site where excavation shall occur. Scan shall verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Verify location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
 - 3. Before construction, call "Pennsylvania One Call" at 1-800-242-1776.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with installer or applicator present, for

compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where such examination identifies conditions detrimental to performance of the Work, or a written report is required by other Sections, include in the report the following:
1. Description of the Work.
 2. List of detrimental conditions, including substrates.
 3. List of unacceptable installation tolerances.
 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.
- E. If Contractor proceeds with its work on a substrate, whether new or existing, either without performing such examination or without reporting conditions detrimental to performance of the Work, Contractor accepts all responsibility for the performance, durability and acceptance of its Work.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility with a copy to Owner through Architect 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 need for clarification of Contract Documents caused by differing field conditions outside Contractor's control, submit a request for interpretation to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to property survey and existing benchmarks. If discrepancies are discovered, promptly notify Architect.

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- B. General: Lead Contractor shall engage a Professional 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 limits on use of Project site.
 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 4. Inform installers of lines and levels to which they must comply.
 5. Check location, level and plumb, of every major element as the Work progresses.
 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
 7. 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 rim 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 log available for reference by Architect and Owner.
- F. Lead Contractor shall perform field engineering, submittal and recording activities indicated.
- G. 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 Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report need to relocate permanent benchmarks or control points to Architect before proceeding.
 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on original survey control points.
- H. 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 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.

3.4 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 96 inches in occupied spaces and 90 inches in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. When directed by Architect, require manufacturer or supplier of a product or service connected to have qualified personnel to provide on-site observations and recommendations at no additional cost to Owner.
 - 1. Representative shall submit written report to Architect listing observations and recommendations.
 - 2. Validate quality of workmanship and materials when required by manufacturer's warranty.
 - 3. Comply with manufacturer's installation instructions and recommendations, to extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
 - 4. Provide attachment and connection devices and methods necessary for securing Work as required by manufacturer, even if they are not illustrated in Contract Documents.
- D. Install products at time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- E. 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.
- F. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- G. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- H. 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.
- I. Attachment: Provide blocking, attachment plates, anchors, and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect or as required by applicable building codes.
 - 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.

- J. 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.
- K. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.5 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
 - 2. Contractor making a cut is responsible for making required patch.
- B. Temporary Support: Provide temporary support of work to be cut.
- C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary."
- E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas on Owner's or adjacent properties.
- F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting, and to prevent leakage from pipe or conduit.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance. Where patched finishes cannot blend seamlessly into existing finishes, provide neat and even lines between existing finishes and new finishes.
 4. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch (i.e. – edge to edge of patched surface). Provide additional coats until patch blends with adjacent surfaces.
 5. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 6. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
 7. Each contractor is responsible for cutting and patching associated with performance of their Contract work, including all related costs. Provide supports, protection from elements, protection of surroundings, and immediate clean up.
 8. If necessary to remove either existing or newly applied spray-on fireproofing to install subsequent work, Contractor performing subsequent work shall perform patching to comply with original fire-rated assembly rating.
- H. Unless noted otherwise in the Drawings or Multiple Contract Summary, Cutting and Patching shall be the responsibility of the Prime Contractor whose work requires it. Do not damage or endanger any portion of work installed by other Contractors or property of Owner.
1. Do not alter Owner's property without written approval from the Owner or Architect. Requests to alter the Owner's property shall be submitted via the Architect.
 2. Do not alter other Contractor's work without field review and approval of the other Contractor's Site Superintendent or Project Manager.
 3. Exceptions: To protect the integrity of the work being cut and patched, the following finished surfaces shall be cut and patched by the General Trades Contractor.
 - a. Tiled surfaces
 - b. Plastic Laminate surfaces
 - c. Countertops
- I. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding. Protect existing construction during cutting and patching to prevent damage. Until provisions have been made to bypass them, take precautions necessary to avoid cutting existing pipe, conduit, or ductwork serving building, but scheduled to be removed or relocated.
- J. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.6 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
 - 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 - 2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

3.7 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. 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 waste materials more than seven days during normal weather or three 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.
 - a. Use containers intended for holding waste materials of type to be stored.
 - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently according to Section 015200 "Temporary Facilities and Controls".
- B. Each Prime Contractor shall be responsible for its own cleanup and their portion of debris for daily general cleanup.
- C. General Contractor to provide one laborer for daily general cleanup throughout project including but not limited removal of debris from designated trash containers and sweeping of areas.
- D. Lead Prime Contractors shall schedule regular site clean ups for which all prime contractors will be required to provide at least one individual to participate in.
- E. Site: Maintain Project site free of waste materials and debris.
- F. 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.

- G. 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.
- H. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- I. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- J. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015200 "Temporary Facilities and Controls."
- K. 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.
- L. Clean and provide maintenance on completed construction as frequently as necessary through remainder of construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- M. Limiting Exposures: Supervise construction operations to assure that no part of 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. Coordinate startup and adjusting of equipment and operating components with requirements by related systems and in Section 019113 "General Commissioning Requirements." Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- 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 Section 014000 "Quality Requirements."

END OF SECTION

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. Division 01 Section "Modification and Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
 - 2.
 - 3. Section 017300 "Execution" for progress cleaning of Project site.
 - 4. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 5. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 6. Section 017900 "Demonstration and Training" for requirements for instructing Owner's personnel.
 - 7. Individual Construction Specification Sections for specific closeout and special cleaning requirements for products of those Sections.

1.2 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction, including but not limited to following:
 - 1. Certificate of Occupancy/General Building Inspection.
 - 2. Certificates of Rough-In and Final Inspections:
 - a. Plumbing.
 - b. Mechanical.
 - c. Electrical.
 - d. Fire Protection.
 - e. Fire Marshall.

- f. Department of Labor and Industry.
 - g. Others as applicable to the Work and jurisdiction.
- 3. Certificate of Insurance: For continuing coverage.
- 4. Payment Certifications:
 - a. Contractor's Affidavit of Payment and Debts and Claims (AIA Form G706): To requirements of General and Supplementary Conditions.
 - b. Consent of Surety Company to Final Payment (AIA Form G707).
 - c. Final Contractors or Subcontractors Weekly Payroll Certifications for Public Works Projects (Pennsylvania Department of Labor and Industry, L&I Form 128, Rev-588).

B. Final Adjustment of Account:

- 1. Submit a final statement of accounting to Architect reflecting adjustments to Contract Sum:
 - a. Original Contract Sum.
 - b. Contract Modifications resulting from:
 - 1) Previous Charge Orders.
 - 2) Unit Prices.
 - 3) Deductions for uncorrected work.
 - 4) Deductions for liquidated damages.
 - 5) Deductions for re-inspection payments.
 - c. Total Contract Sum, as adjusted.
 - d. Previous Payments.
 - e. Sum remaining due.

C. Field Report: For pest control inspection.

1.4 MAINTENANCE MATERIAL, SPARE PARTS AND SPECIAL TOOLS SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.
 - 1. List maintenance materials by Section number and maintenance material name, including but not limited to: spare parts; replacement parts; attic stock/extra materials; special tools; and other items, as specified in other Sections.
 - 2. Identify quantities of each item to be submitted.
 - 3. Submit Schedule no less than 30 days prior to requesting inspection for determining date of Substantial Completion.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating value, and value plus 50 percent, of each item on list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit Closeout Submittals specified in this Section and in other Division 01 Sections, including project record documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Construction Manager. Label with manufacturer's name and model number where applicable.
 5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
 6. Advise Owner of changeover in heat and other utilities.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete interior and exterior final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Contractor's Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for Substantial Completion inspection. Inspect the Work and include with written request a written list of items not complete to Architect through Construction Manager. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements.
- E. Architect's Inspection: Architect will prepare Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before Certificate will be issued.
1. Authorized, responsible representatives of Contractor requesting inspection shall accompany the Architect during the entirety of inspection. These representatives shall

consist of Contractor's On-Site Superintendent and Project Manager. Either or both have full authority to make decisions on behalf of Contractor.

2. Owner will be invited, but not required to attend the inspections.
3. Re-inspection: If Architect determines, after Architect's Inspection, that the Work is not Substantially Complete, a re-inspection by Architect will be required before Architect can establish that the Work is Substantially Complete. Request re-inspection when all Work identified in previous inspections, necessary for Substantial Completion, as incomplete has been completed or corrected.
4. Results of completed inspection will form basis of requirements for final completion.
5. Architect will only perform one re-inspection to establish Substantial Completion. If more than one re-inspection is required to establish Substantial Completion, Contractor shall reimburse all labor cost and expenses for Architect personnel involved in each additional re-inspection to Architect by Prime Contractor Change Order. Labor costs shall include wages, taxes, benefits, and other burden paid by Architect, plus travel expenses.

1.6 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
 1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
 5. Submit all close out documentation – hard copies and digital copy per specification requirements.
- B. Contractor's Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements.
- C. Architect's Inspection: Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 1. Reinspection: If Architect determines, after Architect's Inspection, that the Work is not Complete, a re-inspection by Architect will be required before Architect can establish that the Work is Complete. Request reinspection when all Work identified in previous inspections as incomplete has been completed or corrected.
 2. The Architect and Construction Manager will only perform one re-inspection to establish Completion. If more than one re-inspection is required to establish Completion, Contractor shall reimburse all labor cost and expenses for Architect personnel involved in each additional re-inspection to Architect and Construction Manager by Prime Contractor Change Order. Labor costs shall include wages, taxes, benefits, and other burden paid by Architect or Construction Manager, plus travel expenses.

1.7 CONTRACTOR'S LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 4. Submit list of incomplete items in the following format:
 - a. Submit list electronically via Architect's document management platform.
- B. All prime contractors shall complete all punch-out work within 30 calendar days of the publication of their final respective punch lists, unless there is a verified lack of material or equipment to complete the corrective work. Shortage of labor is not an exception. Should the contractor fail to complete the punch out work within the designated time, the Owner will reduce the final retention payment by \$750 for each calendar day that the Contractor exceeds that day as verified by the Architect.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on Table of Contents of Project Manual.
1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify product or installation. Provide a typed description of product or installation, including product name and name, address, and telephone number of Installer.
 3. Identify each binder on front and spine with typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals as submitted under provisions of Section 017823 "Operation and Maintenance Data".

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage surface being cleaned or adjacent finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: General Contractor shall perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project according to appropriate Contract work scope:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m. Wipe exposed duct work and pipe, whether in occupied spaces or not, to remove dust, dirt, mortar droppings, and other debris.

- n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure and use.
 - o. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - p. Clean ducts, blowers, and coils if units were operated during construction or that display contamination with particulate matter on inspection.
 - q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
 - r. Leave Project clean and ready for occupancy.
 - s. Clean, buff, wax or otherwise finish flooring as required in other Sections.
- C. Comply with safety standards for cleaning: do not burn waste materials; do not bury debris or excess materials on Owner's property, and do not discharge volatile, harmful, or dangerous materials into drainage systems.
- D. Pest Control: Comply with pest control requirements in Section 015200 "Temporary Facilities and Controls." Prepare written report.
- E. Construction Waste Disposal: Remove waste materials from Project site and dispose of lawfully. Comply with requirements in Section 015200 "Temporary Facilities and Controls"

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
- 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - 4. Replace bulbs that are burned-out at time of or prior to Substantial Completion. In addition, replace all bulbs used for temporary lighting, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.
- B. Related Requirements:
 - 1. Section 011200 "Multiple Contract Summary" for coordinating operation and maintenance manuals covering the Work of multiple contracts.
 - 2. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 3. 017700 "Closeout Procedures" for timing of submittals for operation and maintenance manuals.

1.2 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.3 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.

- C. Initial Manual Submittal: Submit electronic draft copy of each manual no more than 30 days after substantial completion. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each electronic manual in final form prior to requesting inspection for Substantial Completion and at least 30 days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit hard copies of each corrected manual within 15 days of receipt of Architect's comments.
 - a. One (1) hard copy of O&M manuals to be provided to Owner.
 - b. One (1) digital copy of O&M manuals on USB flash drive to be provided to Owner.
 - c. Final PDF copy of O&M manuals to be provided to Architect.
 - 2. All prime contractors shall fully complete all tasks relative to their submission responsibilities under the close-out documentation to include but not be limited to submission of all warranties, as-built drawings, final test and certified balance reports, factory start-ups of equipment, owner on site operational and care instructions on all major equipment and systems, operation and maintenance manuals. Should the contractor fail to complete any of their close-out responsibilities within 60 days of the Substantial Completion date, the owner will reduce their final retention payment by \$750 for each day that the contractor exceeds that day - as verified by the Architect.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name and contact information for Contractor.
 - 6. Name and contact information for Construction Manager.
 - 7. Name and contact information for Architect.
 - 8. Name and contact information for Commissioning Authority.
 - 9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 - 10. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer, or other original electronic files, where available. Minimize scanning of paper documents. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 - 1. Type of emergency.
 - 2. Emergency instructions.
 - 3. Emergency procedures.

- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component to be followed in event of each following emergency. Purpose is to minimize damage to system, subsystem or piece of equipment by preparing it for emergency.
1. Fire.
 2. Flood.
 3. Gas leak.
 4. Water leak.
 5. Power failure.
 6. Water outage.
 7. System, subsystem, or equipment failure.
 8. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
1. Instructions on stopping.
 2. Shutdown instructions for each type of emergency.
 3. Operating instructions for conditions outside normal operating limits.
 4. Required sequences for electric or electronic systems.
 5. Special operating instructions and procedures.
 6. Inspections to be performed prior to restarting or operating, including inspections necessary to maintain warranties.
 7. Monitoring to be performed during restarting and initial operations.

2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor has delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.
 7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
 11. Contact information for Contractor's manufacturer-approved local/regional warranty service and repair company.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.

4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

C. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

D. Systems and Equipment Controls: Describe operation sequence and diagram controls as installed.

E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUALS

A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

C. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products and their components.

D. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
 - 1. Contact information for Contractor's manufacturer-approved local/regional warranty service and repair company.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.

- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Where required as part of submittal packages include copies maintenance agreements with name and telephone number of service agent. This shall include sample maintenance agreement submittals.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow, including contact information, and required notifications for warranty claims.
- I. Diagnostics and service tools: Where required in the specifications, provide license-free copies of all necessary diagnostic software and service tools.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate relationship of component parts of equipment and systems and to illustrate control sequence and flow

diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1. Do not use original project record documents as part of operation and maintenance manuals.
- G. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION

SECTION 017830 – MAINTENANCE MATERIALS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for submission of maintenance materials (aka “attic stock”).
- B. The contents within this specification section shall apply ONLY to those materials referenced herein. Additional maintenance materials may be specified in other sections.
 - 1. Where maintenance material quantities differ between this section and the material or product specifications section, this section shall govern.
- C. Related Requirements:
 - 1. Section 012900 "Payment Procedures."
 - 2. Section 013300 "Submittal Procedures" for manifests of extra materials transmitted to Owner.
 - 3. Section 017700 "Closeout Procedures."
 - 4. Applicable specification section for each material scheduled.

1.2 MAINTENANCE MATERIALS SCHEDULE

- A. Initial Manual Submittal: Submit electronic draft copy of each manual no more than 30 days after substantial completion. Architect will comment on whether general scope and content of manual are acceptable.
- B. Final Manual Submittal: Submit each electronic manual in final form prior to requesting inspection for Substantial Completion and at least 30 days before commencing demonstration and training. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit hard copies of each corrected manual within 15 days of receipt of Architect's comments.
 - a. One (1) hard copy of O&M manuals to be provided to Owner.
 - b. One (1) digital copy of O&M manuals on USB flash drive to be provided to Owner.
 - c. Final PDF copy of O&M manuals to be provided to Architect.
 - 2. All prime contractors shall fully complete all tasks relative to their submission responsibilities under the close-out documentation to include but not be limited to submission of all warranties, as-built drawings, final test and certified balance reports, factory start-ups of equipment, owner on site operational and care instructions on all major equipment and systems, operation and maintenance manuals. Should the contractor fail to complete any of their close-out responsibilities within 60 days of the Substantial Completion date, the owner will reduce their final retention payment by \$750 for each day that the contractor exceeds that day - as verified by the Architect.

PART 2 - MAINTENANCE MATERIALS SCHEDULE

2.1 DOOR HARDWARE

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Furnish complete set of special tools required for maintenance and adjustment of hardware including changing of cylinders.
 2. Turn over unused materials to Owner for maintenance purposes.
 3. Door Hardware:
 - a. Hinges: 3 pairs.
 - b. Bored locks: 1 of each function.
 - c. Mortise locks: 2 of each lock function.
 - d. Interconnected locks: 1
 - e. Electric strikes: 2 (if applicable)
 - f. Electromechanical locks: 1 lockset.
 - g. Exit devices and auxiliary items: 1 for each type provided.
 - h. Lock cylinders: 4
 - i. Operating trim: 1 of each type provided.
 - j. Surface closers: 1
 - k. Wall- and floor-mounted stops: 1 for each provided.
 - l. Overhead stops and holders: 1
 - m. Door gasketing: 1 full replacement.
 - n. Metal protective trim units: 1 each size provided.
 - o. Lockset Escutcheons: 2 of each type.
 - p. Levers: 2 pair
 - q. Silencers: 50.
 4. Electrical Parts:
 - a. Power Transfers: 1 for each type provided

2.2 RESILIENT BASE AND ACCESSORIES

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Rubber Wall Base: One (1) full coil (approximately 100 - 120 feet) for each color used in the project.

2.3 PAINT and STAIN

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents, manufacturer's name, production information, color name and color formulation.
1. Field Paint: Five (5) 1 gal. (3.8 L) containers of each color.
Accent Paint: One (1) 1 gal. (3.8 L) containers of each color.

PART 3 - NOT USED

END OF SECTION

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
- B. Related Requirements:
 - 1. Section 011200 "Multiple Contract Summary" for coordinating project record documents covering the Work of multiple contracts.
 - 2. Section 017300 "Execution" for final property survey.
 - 3. Section 017700 "Closeout Procedures" for general closeout procedures.
 - 4. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 5. Section 017900 "Demonstration and Training" for manufacturer's instruction for the care, maintenance, and repair of products, materials, and finishes.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Each Prime Contractor to submit one-set of marked-up record prints and one annotated PDF electronic set.
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints and one of file prints.
 - 2) Submit record digital data files and one set of plots.
 - 3) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal
 - 1) Submit pdf electronic files of scanned record prints and one set of prints.
 - 2) Print each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit annotated PDF electronic files of Project Specifications, including addenda and contract modifications.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.

1. Preparation: Mark record prints to show actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders, including RFI's and supplemental instructions.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 3. Mark Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
1. Format: PDF electronic file. Scan marked-up hardcopies to PDF or annotated PDF files are acceptable.
 2. Incorporate changes and additional information previously marked on record prints. Refer instances of uncertainty to Architect through Construction Manager for resolution.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither original Contract Drawings nor Shop Drawings are suitable to show actual installation. A Change Order will be issued to create newly prepared record drawings.

1. New Drawings may be required when a Change Order is issued or as a result of accepting a Contract modification.
 2. Consult Architect for proper scale and scope of detailing and notations required to record actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Project Record Drawings: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Paper Record Drawings: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets. Identification as follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect and Construction Manager.
 - e. Name of Contractor.
 2. Digital Record Drawings: Annotated PDF electronic file with comment function enabled. Organize digital data information into separate digital files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.

2.2 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file and paper copy.
1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.3 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Following are examples of miscellaneous record submittals; revise to relate project specific work scopes.
1. Foundation depths.
 2. Special measurements.
 3. Tests and inspections.

4. Surveys.
 5. Mix records.
 6. Inspections by authorities having jurisdiction.
- C. Format: Submit miscellaneous record submittals as PDF electronic file and paper copy.
1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in field office apart from Contract Documents used for construction. Do not use the project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.

1.2 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
- B. Qualification Data: for Facilitator & Instructor.

1.3 QUALITY ASSURANCE

- A. Instructor Qualifications: Factory-authorized service representative, complying with requirements in Section 014000 "Quality Requirements," experienced in operation and maintenance procedures and training.
- B. Pre-Instruction Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Agenda will include a discuss of the following:
 - 1. Review items of Work that require demonstration and training.
 - 2. Review instructional procedures, including videography requirements.
 - 3. Inspect and discuss locations and other facilities required for instruction.
 - 4. Identify who will be instructed, and their availability.
 - 5. Establish instruction schedule.
 - 6. Review and verify availability of instructional materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 - 7. Review required content of instruction.
 - 8. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.4 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.

- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project record documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
 - 4. Operations: Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.

- e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
- a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
- a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
- a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
- a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 017823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Owner will furnish names and positions of participants.
 - 2. Construction Manager will coordinate between Owner and Contractor for number of participants, instruction times, and locations.
- B. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner through Construction Manager with at least seven days' advance notice.
 - 2. One training session to be provided for each type of system, subsystem or equipment used on Project.
- C. Training Location and Reference Material: Conduct training on-site in completed and fully operational facility using actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- D. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Demolition and removal of selected site elements.
3. Salvage of existing items to be reused or recycled.

B. Related Requirements:

1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
2. Section 011200 "Multiple Contract Summary" for Prime Contract delineation of work and coordination requirements.
3. Section 017300 "Execution" for cutting and patching procedures.
4. Section 013516 "Alteration Project Procedures" for general protection and work procedures for alteration projects.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and store.
- C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. 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.
1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.4 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.

1.5 INFORMATIONAL SUBMITTALS

- A. **Qualification Data: For refrigerant recovery technician.**
- B. 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. When applicable, ensure Owner's on-site operations are uninterrupted.
 - 2. 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 if applicable.
- C. Predemolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by salvage and demolition operations. Comply with Section 013233 "Photographic Documentation." Submit before Work begins.
- D. **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 according to EPA regulations. Include name and address of technician and date refrigerant was recovered.**
- E. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition if applicable. See section 1.9 "Warranty."

1.6 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.

1.7 QUALITY ASSURANCE

- A. **Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.**

1.8 FIELD CONDITIONS

- A. 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 the following items:
 - a. Owner shall remove items stored in the work area prior to demolition.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. 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.

1.9 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. No known warranties in effect.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

- C. Perform an engineering survey of 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 building demolition operations.
 - 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- D. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or video.
 - 1. If applicable, inventory and record the condition of items to be removed and salvaged.

3.2 PREPARATION

- A. **Refrigerant: Before starting demolition, remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction.**

3.3 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off 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. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. **Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.**
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

3.4 PROTECTION

- A. Temporary Protection: 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 Section 015000 "Temporary Facilities and Controls."
- B. Temporary Shoring: Design, 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.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.5 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. 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 fire watch during and for at least 3 hours after flame-cutting operations.
 6. Maintain adequate ventilation when using cutting torches.
 7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 10. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."
- B. 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.

C. 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 designated by Owner.
5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
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.

- E. 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 cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.6 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. **Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. 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, and then remove concrete between saw cuts.**
- C. **Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.**
- D. **Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.**
- E. **Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings."**

3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction. and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."
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 Section 017419 "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

3.8 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.

3.9 SELECTIVE DEMOLITION SCHEDULE

- A. Remove and Salvage:
1. See selective demolition plans for specific salvage items.
- B. Remove and Reinstall:
1. Subject to maintaining site and building security, Prime Contractors may temporarily remove existing construction elements for the purpose of new construction. Such elements shall be stored safely and reinstalled to same location from which they were removed in good condition and proper working order.
 - a. Contractors shall document with photos and/or video the in-situ condition of such items prior to removal.

END OF SECTION 024119

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes:
 - 1. Interior standard steel doors and frames.
 - 2. Exterior standard steel doors and frames.
 - 3. Borrowed lites.
- B. Related Requirements:
 - 1. Section 087100 "Door Hardware" for door hardware for hollow-metal doors.

1.3 DEFINITIONS

- A. Minimum Thickness: Minimum thickness of base metal without coatings in accordance with NAAMM-HMMA 803 or ANSI/SDI A250.8.

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, electrified door hardware, and access control and security systems.

1.5 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.6 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. Details of each different wall opening condition.
6. Details of electrical raceway and preparation for electrified hardware, access control systems, and security systems.
7. Details of anchorages, joints, field splices, and connections.
8. Details of accessories.
9. Details of moldings, removable stops, and glazing.

1.7 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: For each type of fire-rated hollow-metal door and frame assembly and fire-rated borrowed-lite assembly for tests performed by a qualified testing agency indicating compliance with performance requirements.

1.8 CLOSEOUT SUBMITTALS

- A. Record Documents: For fire-rated doors, list of door numbers and applicable room name and number to which door accesses.

1.9 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 two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow-metal doors and frames vertically under cover at Project site with head up. Place on minimum 4-inch- (102-mm-) high wood blocking. Provide minimum 1/4-inch (6-mm) 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. Curries, AADG, Inc.; ASSA ABLOY Group.
 2. Pioneer Industries; AADG, Inc.; ASSA ABLOY.
 3. Steelcraft; Allegion plc.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings indicated on Drawings, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
 - 1. Smoke- and Draft-Control Door Assemblies: Listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing in accordance with UL 1784 and installed in compliance with NFPA 105.
- B. Fire-Rated, Borrowed-Lite Assemblies: Assemblies complying with NFPA 80 and listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing in accordance with NFPA 257 or UL 9.
- C. Thermally Rated Door Assemblies: Provide door assemblies with U-factor of not more than 0.40 deg Btu/F x h x sq. ft. (2.27 W/K x sq. m) when tested in accordance with ASTM C1363 or ASTM E1423.

2.3 INTERIOR STANDARD STEEL DOORS AND FRAMES

- A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Heavy-Duty Doors and Frames: ANSI/SDI A250.8, Level 2; ANSI/SDI A250.4, Level B.
 - 1. Doors:
 - a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness: 1-3/4 inches (44.5 mm).
 - c. Face: Uncoated steel sheet, minimum thickness of 0.042 inch (1.0 mm).
 - d. Edge Construction: Model 1, Full Flush.
 - e. Edge Bevel: Bevel lock and hinge edges 1/8 inch in 2 inches (3.2 mm in 51 mm).
 - f. Core: Manufacturer's standard.
 - g. Fire-Rated Core: Manufacturer's standard vertical steel stiffener core for fire-rated doors.
 - 2. Frames:
 - a. Materials: Uncoated steel sheet, minimum thickness of 0.053 inch (1.3 mm).
 - b. Sidelite and Transom Frames: Fabricated from same thickness material as adjacent door frame.
 - c. Construction:
 - 1) Knocked down – where installed in steel stud framed partitions.
 - 2) Full profile welded – where installed in masonry wall construction.
 - 3. Exposed Finish: Prime.

2.4 **EXTERIOR** STANDARD STEEL DOORS AND FRAMES

- A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Extra-Heavy-Duty Doors and Frames: ANSI/SDI A250.8, Level 3; ANSI/SDI A250.4, Level A..
 - 1. Doors:
 - a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness:
 - 1) 2 inches (44.5 mm), minimum at new frames.
 - 2) Match existing door thickness at existing frames.
 - c. Face: Metallic-coated steel sheet, minimum thickness of 0.053 inch (1.3 mm), with minimum A40 (ZF120) coating.
 - d. Edge Construction: Model 2, Seamless.
 - e. Edge Bevel: Bevel lock and hinge edges 1/8 inch in 2 inches (3.2 mm in 51 mm).
 - f. Top Edge Closures: Close top edges of doors with flush closures of same material as face sheets. Seal joints against water penetration.
 - g. Bottom Edges: Close bottom edges of doors where required for attachment of weather stripping with end closures or channels of same material as face sheets. Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape.
 - h. Core: Polystyrene or Polyurethane.
 - 1) Provide door assembly meeting U-Factor requirements for thermally rated assemblies.
 - i. Fire-Rated Core: Manufacturer's standard vertical steel stiffener with insulation core for fire-rated doors.
 - j. Exterior Door Insulation: Manufacturer's standard insulation core.
 - 1) U-Value: U-0.21 minimum.
 - 2. Frames:
 - a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch (1.3 mm), with minimum A40 (ZF120) coating.
 - b. Construction: Full profile welded.
 - 3. Exposed Finish: Prime.

2.5 BORROWED LITES

- A. Fabricate of uncoated steel sheet, minimum thickness of 0.053 inch (1.3 mm).
- B. Construction: Face welded.
- C. Fabricate in one piece except where handling and shipping limitations require multiple sections. Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of metal of same or greater thickness as metal as frames.

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 (610 mm) of frame height above 7 feet (2.1 m).
 - 3. Post-installed Expansion Anchor: Minimum 3/8-inch- (9.5-mm-) 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 (51-mm) height adjustment. Terminate bottom of frames at top of underlayment.
- D. Material: ASTM A879/A879M, Commercial Steel (CS), 04Z (12G) 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 in accordance with 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 in accordance with 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 FABRICATION

- A. Door 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 (19 mm) beyond edge of door on which astragal is mounted or as required to comply with published listing of qualified testing agency.
- B. 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, or by rigid mechanical anchors.
 - 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.
- C. Hardware Preparation: Factory prepare hollow-metal doors and frames to receive templated mortised hardware, and electrical wiring; include cutouts, reinforcement, mortising, drilling, and tapping in accordance with 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. Comply with BHMA A156.115 for preparing hollow-metal doors and frames for hardware.
- D. 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 (230 mm) o.c. and not more than 2 inches (51 mm) o.c. from each corner.

2.9 STEEL FINISHES

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
 - 1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI/SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

2.10 LOUVERS

- A. Provide louvers for interior doors, where indicated, which comply with SDI 111, with blades or baffles formed of 0.020-inch- (0.5-mm-) thick, cold-rolled steel sheet set into 0.032-inch- (0.8-mm-) thick steel frame.
 - 1. Sightproof Louver: Stationary louvers constructed with inverted-V or inverted-Y blades.
- 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. 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 in accordance with NFPA 80.
 - 3. Floor Anchors: Secure with post-installed expansion anchors.

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- a. Floor anchors may be set with power-actuated fasteners instead of post-installed 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 post-installed 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 (1.6 mm), measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus 1/16 inch (1.6 mm), measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch (1.6 mm), measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch (1.6 mm), 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 in accordance with NFPA 80.
 - 3. Smoke-Control Doors: Install doors in accordance with NFPA 105.
 - D. Glazing: Comply with installation requirements in Section 088000 "Glazing" and with hollow-metal manufacturer's written instructions.

3.3 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.

END OF SECTION 081113

SECTION 087111 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Hinges.
2. Center-hung and offset pivots.
3. Continuous, gear-type hinges.
4. Bored locks.
5. Mortise locks.
6. Interconnected locks.
7. Bored auxiliary locks.
8. Mortise auxiliary locks.
9. Electric strikes.
10. Electromechanical locks.
11. Manual flush bolts
12. Exit devices and auxiliary items.
13. Lock cylinders.
14. Key control cabinet.
15. Operating trim.
16. Surface closers.
17. Concealed closers.
18. Closer holder release devices.
19. Wall- and floor-mounted stops.
20. Electromagnetic door holders.
21. Overhead stops and holders.
22. Door gasketing.
23. Thresholds.
24. Sliding door hardware.
25. Metal protective trim units.

B. Related Requirements:

1. Section 081113 "Hollow Metal Doors and Frames".

1.2 COORDINATION

A. Floor-Recessed Door Hardware: Coordinate layout and installation with floor construction.

1. Anchor inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.
- E. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field-verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at location to be determined.
 - 1. Conference participants must include Installer's Architectural Hardware Consultant and Owner's security consultant.
- B. Keying Conference: Conduct conference at location to be determined.
 - 1. Conference participants must include Installer's Architectural Hardware Consultant.
 - 2. Incorporate conference decisions into keying schedule after reviewing door hardware keying system, including, but not limited to, the following:
 - a. Flow of traffic and degree of security required.
 - b. Preliminary key system schematic diagram.
 - c. Requirements for key control system.
 - d. Requirements for access control.
 - e. Address for delivery of keys.

1.4 ACTION SUBMITTALS

- A. Product Data:
 - 1. For each product type provided.
 - 2. Auxiliary door hardware.
 - 3. Auxiliary electrified door hardware.
 - 4. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Product Data Submittals: For each product.
- C. Shop Drawings: For electrified door hardware.
 - 1. Include diagrams for power, signal, and control wiring.
 - 2. Include details of interface of electrified door hardware and building safety and security systems.
- D. Samples: For each exposed product in each finish specified, in manufacturer's standard size.
 - 1. Tag Samples with full product description to coordinate Samples with door hardware schedule.
 - a. Full-size Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may,

after final check of operation, be incorporated into the Work, within limitations of keying requirements.

- E. Door Hardware Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant. Coordinate door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Submittal Sequence: Submit door hardware schedule after or concurrent with submissions of product data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
 - 2. Format: Use same scheduling sequence and format and use same door numbers as in door hardware schedule in the Contract Documents.
 - 3. Content: Include the following information:
 - a. Identification number, location, hand, fire rating, size, and material of each door and frame.
 - b. Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
 - c. Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
 - d. Description of electrified door hardware sequences of operation and interfaces with other building control systems.
 - e. Fastenings and other installation information.
 - f. Explanation of abbreviations, symbols, and designations contained in door hardware schedule.
 - g. Mounting locations for door hardware.
 - h. List of related door devices specified in other Sections for each door and frame.
- F. Keying Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations that are coordinated with the Contract Documents.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and Architectural Hardware Consultant.
- B. Product Certificates: For each type of electrified door hardware.
 - 1. Certify that door hardware for use on each type and size of labeled fire-rated doors complies with listed fire-rated door assemblies.
- C. Product Test Reports: For compliance with accessibility requirements, for tests performed by manufacturer and witnessed by a qualified testing agency, for door hardware on doors located in accessible routes.
- D. Field quality-control reports.
- E. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of door hardware to include in maintenance manuals.
- B. Schedules: Final door hardware and keying schedule.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish complete set of special tools required for maintenance and adjustment of hardware including changing of cylinders.
 - 2. Turn over unused materials to Owner for maintenance purposes.
 - 3. Door Hardware:
 - a. Hinges: 3 pairs.
 - b. Bored locks: 2 of each function.
 - c. Mortise locks: 3 of each lock function.
 - d. Interconnected locks: 1
 - e. Electric strikes: 2 (if applicable)
 - f. Electromechanical locks: 2 locksets.
 - g. Exit devices and auxiliary items: 1 for each type provided.
 - h. Lock cylinders: 6
 - i. Operating trim: 2 of each type provided.
 - j. Surface closers: 2
 - k. Wall- and floor-mounted stops: 3 for each provided.
 - l. Overhead stops and holders: 2
 - m. Door gasketing: 2 full replacements.
 - n. Metal protective trim units: 2 each size provided.
 - o. Lockset Escutcheons: 4 of each type.
 - p. Levers: 3 pair
 - q. Silencers: 50.
 - 4. Electrical Parts:
 - a. Power Transfers: 2 for each type provided

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and of an Architectural Hardware Consultant who is available during the course of the Work to consult Contractor, Architect, and Owner about door hardware and keying.
 - 1. Warehousing Facilities: In Project's vicinity.
 - 2. Scheduling Responsibility: Preparation of door hardware and keying schedule.
 - 3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.

- B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and who is currently certified by DHI as a Door and Hardware Specification Consultant (DHSC) or an Architectural Opening Consultant (AOC).

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lockup for door hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.
- C. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.10 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures, including excessive deflection, cracking, or breakage.
 - b. Faulty operation of doors and door hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
 - 2. Warranty Period: Three years from date of Substantial Completion unless otherwise indicated below:
 - a. Electromagnetic and Delayed-Egress Locks: Five years from date of Substantial Completion.
 - b. Exit Devices:
 - 1) Mechanical: Three years from date of Substantial Completion.
 - 2) Electrical: Two years from date of Substantial Completion.
 - c. Manual Closers: 25 years from date of Substantial Completion.
 - d. Concealed Closers: 25 years from date of Substantial Completion.
 - e. Continuous Hinges: Lifetime.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain each type of door hardware from single manufacturer.
 - 1. Provide electrified door hardware from same manufacturer as mechanical door hardware unless otherwise indicated. Manufacturers that perform electrical modifications and that

are listed by a testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Rated Door Assemblies: Where fire-rated doors are indicated, provide door hardware complying with NFPA 80 that is listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure in accordance with NFPA 252 or UL 10C.
- B. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that complies with requirements of assemblies tested in accordance with UL 1784 and installed in compliance with NFPA 105.
 - 1. Air-Leakage Rate: Maximum air leakage of 0.3 cfm per sq. ft. (3 cu. m per minute/sq. m) at the tested pressure differential of 0.3 inch wg (75 Pa) of water.
- C. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- E. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.
 - 1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf (22.2 N).
 - 2. Comply with the following maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
 - b. Sliding or Folding Doors: 5 lbf (22.2 N) applied parallel to door at latch.
 - c. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
 - 3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
 - 4. Adjust door closer sweep periods so that, from an open position of 90 degrees, the door will take at least 5 seconds to move to a position of 12 degrees from the latch.
 - 5. Adjust spring hinges so that, from an open position of 70 degrees, the door will take at least 1.5 seconds to move to the closed position.

2.3 MANUFACTURERS

- A. Manufacturers: Unless noted otherwise below, and subject to compliance with requirements, provide products by one of the following or its subsidiary brands:
 - 1. Allegion plc.
 - 2. ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
 - 3. STANLEY; dormakaba USA, Inc.

2.4 HINGES

- A. Hinges: ANSI/BHMA A156.1. Provide template-produced hinges for hinges installed on hollow-metal doors and hollow-metal frames.
- B. Antifriction-Bearing Hinges and Electrified Antifriction-Bearing Hinges:
 - 1. Mounting: Full mortise (butts).
 - 2. Bearing Material: Ball bearing.
 - 3. Grade 1 (heavy weight).
 - 4. Base and Pin Metal:
 - a. Exterior Hinges: Stainless steel with stainless steel pin.
 - b. Interior Hinges: Steel with steel pin.
 - c. Hinges for Fire-Rated Assemblies: Steel with steel pin.
 - 5. Pins: Nonremovable.
 - a. Outswinging Exterior Doors: Nonremovable.
 - b. Outswinging Corridor Doors with Locks: Nonremovable.
 - 6. Tips: Flat button.
 - 7. Corners: Square.
 - 8. Electric Feature: Concealed electric through wires with monitor.

2.5 MECHANICAL LOCKS AND LATCHES

- A. Lock Functions: As indicated in door hardware schedule.
- B. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire doors, and as follows:
 - 1. Bored Locks: Minimum 1/2-inch (13-mm) latchbolt throw.
 - 2. Mortise Locks: Minimum 3/4-inch (19-mm) latchbolt throw.
 - 3. Deadbolts: Minimum 1-inch (25-mm) bolt throw.
- C. Lock Backset: 2-3/4 inches (70 mm) unless otherwise indicated.

- D. Lock Trim:
 - 1. Levers: Cast.
 - 2. Description: To be selected from manufacturer's available options in specified finish.
 - a. Construction: Solid.
 - 3. Escutcheons (Roses): Cast.
 - 4. Dummy Trim: Match lever lock trim and escutcheons.
- E. Strikes: Provide manufacturer's standard strike for each lock bolt or latchbolt complying with requirements indicated for applicable lock or latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.
 - 1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 - 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 - 3. Aluminum-Frame Strike Box: Manufacturer's special strike box fabricated for aluminum framing.
 - 4. Rabbet Front and Strike: Provide on locksets for rabbeted meeting stiles.
- F. Bored Locks: ANSI/BHMA A156.2, Grade 1, Series 4000.
- G. Mortise Locks: ANSI/BHMA A156.13, Operational Grade 1; stamped steel case with steel or brass parts; Series 1000.
- H. Interconnected Locks: ANSI/BHMA A156.12, Grade 1, Series 5000.

2.6 AUXILIARY LOCKS

- A. Bored Auxiliary Locks: ANSI/BHMA A156.36, Grade 1; with strike that suits frame.
 - 1. Backset: 2-3/4 inches (70 mm).
 - 2. Material: Bronze.
 - 3. Deadlocks: Deadbolt operated by key either side.
- B. Mortise Auxiliary Locks: ANSI/BHMA A156.36, Grade 1; with strike that suits frame.
 - 1. Backset: 2-3/4 inches (70 mm).
 - 2. Material: Bronze.
 - 3. Deadlatches: Latchbolt and auxiliary deadlatch operated by key either side.

2.7 ELECTRIC STRIKES

- A. Electric Strikes: ANSI/BHMA A156.31, Grade 1; with faceplate to suit lock and frame.
 - 1. Material: Steel.
 - 2. Mounting: As required for locking hardware.
 - 3. Fire-Rated Door Assemblies: Use fail-secure electric strikes with fire-rated devices.

4. Monitoring: Mechanical latchbolt or Mechanical strike as required.

2.8 ELECTROMAGNETIC LOCKS

- A. Electromagnetic Locks: ANSI/BHMA A156.23; electrically powered; with electromagnet attached to frame and armature plate attached to door; full-exterior or full-interior type, as required by application indicated.
 1. Direct-Hold Type: Lock mounted on bottom of header; strike flush mounted on door push side.
 2. Strength Ranking: 1000 lbf (4448 N).
 3. Residual Magnetism: Not more than 4 lbf (18 N) to separate door from magnet.
 4. Features:
 - a. Magnetic bond sensor.
 - b. Adjustable time delay with automatic relock.
 - c. Integral door position switch.

2.9 ELECTROMECHANICAL LOCKS

- A. Electromechanical Locks: ANSI/BHMA A156.25, Grade 1; motor or solenoid driven; with strike that suits frame.
 1. Type: As indicated in Hardware Schedule.
 2. Options:
 - a. RX (request to exit)
 - b. To accept Small Format Interchangeable Core (SFIC).

2.10 SELF-CONTAINED ELECTRONIC LOCKS

- A. Self-Contained Electronic Locks: ANSI/BHMA A156.25; with internal, battery-powered, self-contained electronic locks; consisting of complete lockset, motor-driven lock mechanism, and actuating device; enclosed in zinc-dichromate-plated, wrought-steel case, and strike that suits frame. Provide key override, low-battery detection and warning, LED status indicators, and ability to program at the lock.
 1. Type: As indicated in Hardware Schedule.
 2. Actuating Device: Smart-card reader.
 - a. Card: Manufacturer's standard.
 - b. Accessory: Card encoder and software.
 3. Lock Trim: Match trim specified for mechanical locks.
 4. Function: As noted in Hardware Schedule.
 5. Options:
 - a. RX (request to exit)
 - b. To accept Small Format Interchangeable Core (SFIC).

2.11 MANUAL FLUSH BOLTS

- A. Manual Flush Bolts: ANSI/BHMA A156.16; minimum 3/4-inch (19-mm) throw; designed for mortising into door edge.
- B. Manual-Extension Flush Bolts: Grade 1, fabricated from extruded brass or aluminum, with 12-inch (305-mm) rod actuated by flat lever.
 - 1. Strike: Matching, Dustproof.
 - 2. Fire Rated: Listed and labeled for use in fire-rated assemblies.
- C. Top-Bolt Extension Rod Length: As required to locate operating mechanism at not more than 72 inches (1829 mm) above the finished floor at all times.
- D. Dustproof Strikes: Grade 1, polished wrought brass, with 3/4-inch- (19-mm-) diameter, spring-tension plunger.

2.12 EXIT DEVICES AND AUXILIARY ITEMS

- A. Exit Devices and Auxiliary Items: ANSI/BHMA A156.3.
- B. Panic Exit Devices: Listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for panic protection, based on testing in accordance with UL 305.
- C. Fire Exit Devices: Devices complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing in accordance with UL 305 and NFPA 252.
- D. Exit Devices: Includes: Rim-mounted, Mortised, Surface and Concealed Vertical Rod and Combination Exit Devices.
 - 1. Grade 1.
 - 2. Type: As noted in door schedule and compatible with specified door elevation.
 - 3. Actuating Bar: Push pad.
 - 4. Material: Stainless steel or Aluminum.
 - 5. Electrified Features:
 - a. Push pad monitor switch.
 - b. Electric locking and unlocking.
 - c. Fail-secure electric latch retraction (dogging) that engages latch when fire-alarm system is activated.
- E. Exit Device Outside Trim: As noted in Hardware Schedule; material and finish to match locksets unless otherwise indicated.
 - 1. Match design for lock trim unless otherwise indicated.

2.13 LOCK CYLINDERS

- A. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver.
- B. Manufacturers: Subject to compliance with requirements, provide one of the following products:

1. BEST Access Cormax; STANLEY; dormakaba USA, Inc.
 2. Keymark; Yale; ASSA ABLOY Group, Inc.; ASSA ABLOY.
 3. Schlage Everest; Allegion plc.
- C. Standard Lock Cylinders: ANSI/BHMA A156.5, Grade 1 permanent cores; face finished to match lockset.
1. Core Type: Interchangeable.
 2. Number of Pins: Seven.
 3. Lock Type: As compatible with each hardware set in Door and Hardware Schedule.
- D. Construction Master Keys: Provide cylinders with feature that permits voiding of construction keys without cylinder removal. Provide 10 construction master keys.
- E. Construction Cores: Provide construction cores that are replaceable by permanent cores. Provide 10 construction master keys.

2.14 KEYING

- A. Keying System: Factory registered, complying with guidelines in ANSI/BHMA A156.28, appendix. Provide one extra key blank for each lock. Incorporate decisions made in keying conference.
1. Grand Master Key System: Change keys, a master key, and a grand master key operate cylinders.
 - a. Provide three cylinder change keys and five each of master and grand master keys.
 2. Keyed Alike: Key all cylinders to same change key.
- B. Manufacturers: Subject to compliance with requirements, provide one of the following products:
1. BEST Access Cormax; STANLEY; dormakaba USA, Inc.
 2. Keymark; Yale; ASSA ABLOY Group, Inc.; ASSA ABLOY.
 3. Schlage Everest; Allegion plc.
- C. Keys: Nickel silver.
1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:
 - a. Notation: "DO NOT DUPLICATE."

2.15 KEY CONTROL SYSTEM

- A. Key Control Cabinet: ANSI/BHMA A156.28; metal cabinet with baked-enamel finish, containing key-holding hooks, labels, two sets of key tags with self-locking key holders, key-gathering envelopes, and temporary and permanent markers; with key capacity of 150 percent of the number of locks.

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1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. American Key Boxes and Cabinets.
 - b. Lund Equipment Co., Inc.
 - c. MMF Industries.
 2. Wall-Mounted Cabinet: Grade 1 cabinet with hinged-panel door equipped with key-holding panels and pin-tumbler cylinder door lock.
- B. Key Lock Boxes: Provided by Owner, installed by General Trades contractor.
- C. Key Control System Software: By Owner if applicable.
- 2.16 OPERATING TRIM
- A. Operating Trim: ANSI/BHMA A156.6; stainless steel unless otherwise indicated.
- B. Flat Push Plates: With square corners and beveled edges; secured with exposed screws.
1. Thickness: 0.050 inch (1.3 mm).
 2. Size: 4 inches wide by 16 inches high (102 mm wide by 406 mm high).
- C. Push-Pull Plates: With square corners, beveled edges, and raised integral lip; secured with exposed screws.
1. Thickness: 1/8 inch (3.2 mm).
 2. Size: 3-1/2 inches wide by 15-3/4 inches high (89 mm wide by 400 mm high).
- D. Straight Door Pulls:
1. Type: 3/4-inch (19-mm) constant-diameter pull.
 2. Mounting: Surface applied with concealed fasteners.
 3. Minimum Clearance: 1-1/2 inches (38 mm) from face of door.
 4. Overall Length: 9 inches (229 mm).
- E. Offset Door Pulls: 1-inch (25-mm) constant-diameter pull.
1. Mounting: Manufacturer's standard.
 2. Overall Pull Length: 9 inches (229 mm).
- F. Flush Door Pulls: Mortised 1/2 inch (13 mm) deep; secured with screws.
1. Shape: Rectangular with rectangular recess.
 2. Size: 3-1/2 inches wide by 4-3/4 inches high (89 mm wide by 121 mm high).
- G. Offset Push-Pull Door Pulls: Pull fixed to 0.050-inch- (1.3-mm-) thick plate, 4 inches wide by 16 inches high (102 mm wide by 406 mm high) with square corners and beveled edges.
1. Pull Diameter: 1-inch (25-mm) constant diameter.
 2. Pull Offset: 2 inches (51 mm).

3. Minimum Pull Clearance: 2-1/4 inches (57 mm) from face of door.
4. Overall Pull Length: 9 inches (229 mm).

H. Single Push Bar: Horizontal-bar type.

1. Mounting: Surface applied with concealed fasteners.
2. Shape and Size: 1-inch (25-mm) constant-diameter round bar.
3. Minimum Clearance: 1-1/2 inches (38 mm) from face of door.

2.17 SURFACE CLOSERS

- A. Surface Closers: ANSI/BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written instructions for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
- B. Surface Closer with Cover: Grade 1; modern type with mechanism enclosed in cover.
1. Mounting: Parallel arm.
 2. Type: Hold-open.
 3. Cover Material: Aluminum.

2.18 CONCEALED CLOSERS

- A. Concealed Closers: ANSI/BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves. Comply with manufacturer's written instructions for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
- B. Concealed-in-Door Closer: Grade 1; mortised into top rail of minimum 1-3/4-inch- (44-mm-) thick doors and track mortised into head frame; with double-lever arm indicated.
1. Type: Manufacturer's standard.
- C. Concealed Overhead Closer: Grade 1; mortised into head frame; with cast-metal body and exposed cover plate.
1. Type: Manufacturer's standard.
- D. Concealed Floor Closer: Grade 1; with cement case and cast-iron closer body case and top pivot.
1. Closer Type: Manufacturer's standard.

2.19 CLOSER HOLDER RELEASE DEVICES

- A. Closer Holder Release Devices: ANSI/BHMA A156.15, Grade 1; closer connected with separate or integral releasing and fire- or smoke-detecting devices. Door must become self-closing on

interruption of signal to release device. Automatic release is activated by smoke detection system or loss of power.

1. Type: Single-point hold-open.
2. Mounting: Surface mounted on face of door.
3. Features:
 - a. Adjustable backcheck.
 - b. Adjustable spring power.
 - c. Adjustable hold-open manual release force.

2.20 MECHANICAL STOPS AND HOLDERS

- A. Wall- and Floor-Mounted Stops: ANSI/BHMA A156.16; polished cast-brass, -bronze, or -aluminum base metal.
- B. Rigid-Type Floor Stop: Grade 1; with rubber bumper; cylindrical modern style.
 1. Installation: Manufacturer's standard.
 2. Provide with extruded-aluminum riser for carpet installations.
- C. Wall Bumpers: Grade 1; with rubber bumper; 2-1/2-inch (64-mm) diameter, minimum 3/4-inch (19-mm) projection from wall; with backplate for concealed fastener installation.
 1. Bumper Configuration: Concave.

2.21 ELECTROMAGNETIC STOPS AND HOLDERS

- A. Electromagnetic Door Holders: ANSI/BHMA A156.15, Grade 1; wall-mounted electromagnetic single unit with strike plate attached to swinging door; coordinated with fire detectors and interfaced with fire-alarm system for labeled fire-rated door assemblies.

2.22 OVERHEAD STOPS AND HOLDERS

- A. Overhead Stops and Holders: ANSI/BHMA A156.8.
 1. Grade 1.

2.23 DOOR GASKETING

- A. Door Gasketing: ANSI/BHMA A156.22; with resilient or flexible seal strips that are easily replaceable and readily available from stocks maintained by manufacturer.
- B. Maximum Air Leakage: When tested in accordance with ASTM E283/E283M with tested pressure differential of 0.3 inch wg (75 Pa), as follows:
 1. Smoke-Rated Gasketing: 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) of door opening.
 2. Gasketing on Single Doors: 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) of door opening.
 3. Gasketing on Double Doors: 0.50 cfm per ft. (0.000774 cu. m/s per m) of door opening.

- C. Adhesive-Backed Perimeter Gasketing: Neoprene bulb gasket material applied to frame rabbet with self-adhesive.
- D. Door Sweeps: Nylon brush gasket material held in place by flat housing or flange; surface mounted to face of door with screws.
 - 1. Housing or Flange Material: Aluminum.
- E. Automatic Door Bottoms: Nylon brush gasket material held in place by housing that automatically drops to form seal when door is closed; mounted to bottom edge of door with screws.
 - 1. Housing Material: Aluminum.
 - 2. Mounting: Manufacturer's standard.
 - 3. Type: Low-closing-force type for doors required to meet accessibility requirements.

2.24 THRESHOLDS

- A. Thresholds: ANSI/BHMA A156.21; fabricated to full width of opening indicated.
- B. Saddle Thresholds:
 - 1. Type: Fluted top, barrier free.
 - 2. Base Metal: Stainless steel.
- C. Half-Saddle Thresholds: Fluted-top metal member; and base metal of stainless steel.
- D. Latching/Rabbeted Panic Thresholds:
 - 1. Type: Fluted, barrier free top.
 - 2. Base Metal: Stainless steel.
- E. Plate Thresholds: Solid metal plate.
 - 1. Top Surface: Fluted with slip-resistant abrasive.
 - 2. Base Metal: Stainless steel.
- F. Ramped Thresholds: Modular, interlocking, sloped, fluted-top metal assemblies with closed return ends; 1:12 slope.
 - 1. Top Surface: Fluted with slip-resistant abrasive.
 - 2. Base Metal: Stainless steel.

2.25 METAL PROTECTIVE TRIM UNITS

- A. Metal Protective Trim Units: ANSI/BHMA A156.6; fabricated from 0.050-inch- (1.3-mm-) thick stainless steel; with manufacturer's standard machine or self-tapping screw fasteners.
- B. Kick Plates: 48 inches (203 mm) high by door width less 2 inches unless noted otherwise in hardware schedule

2.26 AUXILIARY DOOR HARDWARE

- A. Auxiliary Door Hardware: ANSI/BHMA A156.16.
- B. Coat Hooks: Grade 1; two curved hooks with rounded ends; 3-inch (75-mm) projection from wall; for surface-screw application.
 - 1. Material: Cast brass; finish to match typical.
- C. Fire-Rated Door Viewers: Solid brass with optical glass lenses; listed and labeled for use in fire-rated assemblies; adjustable to door thickness, and permitting one-way observation with minimum 150-degree viewing angle.
- D. Silencers for Metal Door Frames: Grade 1; neoprene or rubber; minimum diameter 1/2 inch (13 mm); fabricated for drilled-in application to frame.
 - 1. Do not paint silencers.

2.27 AUXILIARY ELECTRIFIED DOOR HARDWARE

- A. Auxiliary Electrified Door Hardware: ANSI/BHMA A156.35.
- B. Door Position Switches: Magnetically operated reed switch designed for concealed mounting.
- C. Door and Frame Transfer Devices: Steel housing for mortise in hinge stile of door, with flexible tube for wiring bundle; accommodating doors that swing open to 120 degrees.

2.28 FABRICATION

- A. Manufacturer's Nameplate: Do not provide products that have manufacturer's name or trade name displayed in a visible location except in conjunction with required fire-rating labels and as otherwise approved by Architect.
 - 1. Manufacturer's identification is permitted on rim of lock cylinders only.
- B. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and ANSI/BHMA A156.18.
- C. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended; however, aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware unless otherwise indicated.
 - 1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
 - 2. Fire-Rated Applications:

- a. Wood or Machine Screws: For the following:
 - 1) Hinges mortised to doors or frames; use threaded-to-the-head wood screws for wood doors and frames.
 - 2) Strike plates to frames.
 - 3) Closers to doors and frames.
- b. Steel Through Bolts: For the following unless door blocking is provided:
 - 1) Surface hinges to doors.
 - 2) Closers to doors and frames.
 - 3) Surface-mounted exit devices.
- 3. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
- 4. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.29 FINISHES

- A. Provide finishes complying with ANSI/BHMA A156.
 - 1. As limited only by available finish options for each product, finishes shall match to greatest extent feasible the following:
 - a. General Door Hardware: ANSI/BHMA 630/US32D: Brushed Satin Stainless Steel.
 - 2. For hardware not available with finish options meeting above criteria, Architect shall select finishes from manufacturers full range of standard options.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance of the Work.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Steel Doors and Frames: For surface-applied door hardware, drill and tap doors and frames in accordance with ANSI/SDI A250.6.
- B. Wood Doors: Comply with door and hardware manufacturers' written instructions.

3.3 ELECTRONIC HARDWARE SCOPE OF WORK ASSIGNMENTS:

- A. Unless noted otherwise below, all door hardware and related work shall be the scope of the General Trades Contractor.
 - 1. Door preparation and hardware: General Trades Contractor.
 - 2. Power Transfers and routing to plenum space: General Trades Contractor
 - 3. Back boxes for access control hardware and conduit to plenum: Electric Contractor.
 - 4. Power to power supplies: Electric Contractor.
 - 5. Power Supplies: By Owner's security vendor.
 - 6. Non-lockset-mounted card readers: By Owner's security vendor.
 - 7. Remote door release: By Owner's security vendor.
 - 8. Wiring from ceiling plenum to power supplies: By Owner's security vendor.
 - 9. Programming and Integration: By Owner's security vendor.

3.4 INSTALLATION

- A. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Wood Doors: DHI's "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates involved.
 - 1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 - 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- C. Hinges: Install types and in quantities indicated in door hardware schedule, but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches (760 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.
- D. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule, but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches (760 mm) of door height greater than 90 inches (2286 mm).

- E. Lock Cylinders: Install construction cores to secure building and areas during construction period.
 - 1. Replace construction cores with permanent cores as directed by Owner.
- F. Key Control System:
 - 1. Key Control Cabinet: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
 - 2. Key Lock Boxes: Install where indicated or approved by Architect to provide controlled access for fire and medical emergency personnel.
 - 3. Key Control System Software: Set up multiple-index system based on final keying schedule.
- G. Boxed Power Supplies: Shall be provided by Owner'
- H. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Section 079200 "Joint Sealants."
- I. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.
- J. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
 - 1. Do not notch perimeter gasketing to install other surface-applied hardware.
- K. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- L. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.5 FIELD QUALITY CONTROL

- A. Independent Architectural Hardware Consultant: Engage a qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
 - 1. Independent Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.6 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
 - 2. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 70 degrees and so that closing time complies with accessibility requirements of authorities having jurisdiction.

3. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.

3.7 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.
- B. AUTOMATIC OPERATION HARDWARE Maintenance Service: Beginning at Substantial Completion, maintenance service is to include 12 months' full maintenance by skilled employees of door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door and door hardware operation. Parts and supplies are to be manufacturer's authorized replacement parts and supplies.

3.9 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain door hardware.

3.10 DOOR HARDWARE SCHEDULE

- A. See A-500 Drawings for Hardware Schedules.

END OF SECTION 087111

SECTION 099124 - INTERIOR PAINTING (MPI STANDARDS)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following interior substrates:
 - 1. Concrete.
 - 2. Clay masonry.
 - 3. Concrete masonry units (CMUs).
 - 4. Steel and iron.
 - 5. Aluminum (not anodized or otherwise coated).
 - 6. Wood.
 - 7. Fiberglass.
 - 8. Plastic.
 - 9. Gypsum board.
 - 10. Plaster.
- B. Related Requirements:
 - 1. Section 055000 "Metal Fabrications" for shop priming metal fabrications.
 - 2. Section 099300 "Staining and Transparent Finishing" for surface preparation and the application of wood stains and transparent finishes on interior wood substrates.

1.3 DEFINITIONS

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D523.
- B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D523.
- E. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D523.
- F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D523.
- G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Label each coat of each Sample.
 - 2. Label each Sample for location and application area.
- D. Product List: Use same designations indicated on Drawings and in the Interior Painting Schedule to cross-reference paint systems specified in this Section. Include color designations.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 1 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

1.6 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. 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. (9 sq. m).
 - b. Other Items: Architect will designate items or areas required.
 - 2. 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.
 - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.8 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures of less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Benjamin Moore & Co.
 2. PPG Paints; PPG Industries, Inc.
 3. Sherwin-Williams Company (The).

2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products List."
- B. Material Compatibility:
 1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. Colors: As selected by Architect

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Concrete: 12 percent.
 2. Masonry (Clay and CMUs): 12 percent.

3. Wood: 15 percent.
4. Gypsum Board: 12 percent.
5. Plaster: 12 percent.

- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Plaster Substrates: Verify that plaster is fully cured.
- E. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer.
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- I. Aluminum Substrates: Remove loose surface oxidation.

J. Wood Substrates:

1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
2. Sand surfaces that will be exposed to view, and dust off.
3. Prime edges, ends, faces, undersides, and backsides of wood.
4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 INSTALLATION

A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."

1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.

B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

E. Painting Fire-Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:

1. Paint the following work where exposed in equipment rooms:
 - a. Equipment, including panelboards and switch gear.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.
 - h. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
2. Paint the following work where exposed in occupied spaces:
 - a. Equipment, including panelboards.

- b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - h. Other items as directed by Architect.
3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry-Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry-film thickness.
- 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry-film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry-film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Nontraffic Surfaces:
- 1. Latex over Latex Aggregate System, MPI INT 3.1B:
 - a. Prime Coat: Textured coating, latex, flat, MPI #42.
 - b. Intermediate Coat: Latex, interior, matching topcoat.
 - c. Topcoat: Latex, interior (MPI Gloss Level 3), MPI #52.
- B. Concrete Substrates, Traffic Surfaces:

1. Latex Floor Enamel System, MPI INT 3.2A:
 - a. Prime Coat: Floor paint, latex, matching topcoat.
 - b. Intermediate Coat: Floor paint, latex, matching topcoat.
 - c. Topcoat: Floor paint, latex, low gloss (maximum MPI Gloss Level 3), MPI #60.
- C. Clay Masonry Substrates:
 1. Institutional Low-Odor/VOC Latex System, MPI INT 4.1M:
 - a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
 - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
 - c. Topcoat: As selected by Architect
 - 1) Topcoat: Latex, interior, institutional low odor/VOC, flat (MPI Gloss Level 1), MPI #143.
 - 2) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 2), MPI #144.
 - 3) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.
 - 4) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 4), MPI #146.
 - 5) Topcoat: Latex, interior, institutional low odor/VOC, semigloss (MPI Gloss Level 5), MPI #147.
- D. CMU Substrates:
 1. Institutional Low-Odor/VOC Latex System, MPI INT 4.2E:
 - a. Block Filler: Block filler, latex, interior/exterior, MPI #4.
 - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
 - c. Topcoat: As selected by Architect.
 - 1) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.
 - 2) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 4), MPI #146.
 - 3) Topcoat: Latex, interior, institutional low odor/VOC, semigloss (MPI Gloss Level 5), MPI #147.
- E. Steel Substrates:
 1. Water-Based Dry-Fall System, MPI INT 5.1C: **EXPOSED CEILING DECKS AND FRAMING.**
 - a. Prime Coat: Primer, alkyd, quick dry, for metal, MPI #76.
 - b. Prime Coat: Shop primer specified in Section where substrate is specified.
 - c. Topcoat: Dry fall, latex, flat, MPI #118.
 2. Alkyd System, MPI INT 5.1E: **CONTACT SURFACES AND MISCELLANEOUS EXPOSED STEEL.**
 - a. Prime Coat: Primer, alkyd, quick dry, for metal, MPI #76.
 - b. Prime Coat: Shop primer specified in Section where substrate is specified.

- c. Intermediate Coat: Alkyd, interior, matching topcoat.
 - d. Topcoat: Alkyd, interior, semigloss (MPI Gloss Level 5), MPI #47.
- F. Galvanized-Metal Substrates:
 - 1. Water-Based Light-Industrial Coating System, MPI INT 5.3B:
 - a. Prime Coat: Primer, galvanized, water based, MPI #134.
 - b. Intermediate Coat: Light-industrial coating, interior, water based, matching topcoat.
 - c. Topcoat: Light-industrial coating, interior, water based, semigloss (MPI Gloss Level 5), MPI #153.
- G. Aluminum (Not Anodized or Otherwise Coated) Substrates:
 - 1. High-Performance Architectural Latex System, MPI INT 5.4F:
 - a. Prime Coat: Primer, quick dry, for aluminum, MPI #95.
 - b. Intermediate Coat: Latex, interior, high performance architectural, matching topcoat.
 - c. Topcoat: As selected by Architect.
 - 1) Latex, interior, high performance architectural (MPI Gloss Level 2), MPI #138.
 - 2) Topcoat: Latex, interior, high performance architectural (MPI Gloss Level 3), MPI #139.
 - 3) Topcoat: Latex, interior, high performance architectural, semigloss (MPI Gloss Level 5), MPI #141.
- H. Wood Substrates: **WOOD PANELING**
 - 1. Alkyd System, MPI INT 6.4B:
 - a. Prime Coat: Primer sealer, alkyd, interior, MPI #45.
 - b. Intermediate Coat: Alkyd, interior, matching topcoat.
 - c. Topcoat: Alkyd, interior, semigloss (MPI Gloss Level 5), MPI #47.
- I. Wood Substrates: **TRAFFIC SURFACES, INCLUDING PAINTED FLOORS, LANDINGS AND STAIRS.**
 - 1. Alkyd Floor Enamel System, MPI INT 6.5A:
 - a. Prime Coat: Floor enamel, alkyd, matching topcoat.
 - b. Intermediate Coat: Floor enamel, alkyd, matching topcoat.
 - c. Topcoat: Floor enamel, alkyd, gloss (MPI Gloss Level 6), MPI #27.
- J. Fiberglass Substrates:
 - 1. Institutional Low-Odor/VOC Latex System, MPI INT 6.7J:

- a. Prime Coat: Primer, bonding, solvent based, MPI #69.
- b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
- c. Topcoat: As selected by Architect.
 - 1) Topcoat: Latex, interior, institutional low odor/VOC, flat (MPI Gloss Level 1), MPI #143.
 - 2) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 2), MPI #144.
 - 3) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.
 - 4) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 4), MPI #146.
 - 5) Topcoat: Latex, interior, institutional low odor/VOC, semigloss (MPI Gloss Level 5), MPI #147.
 - 6) Topcoat: Latex, interior, institutional low odor/VOC, gloss (MPI Gloss Level 6), MPI #148.

K. Plastic Substrates:

1. Institutional Low-Odor/VOC Latex System, MPI INT 6.8F:

- a. Prime Coat: Primer, bonding, solvent based, MPI #69.
- b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
- c. Topcoat: As selected by Architect.
 - 1) Topcoat: Latex, interior, institutional low odor/VOC, flat (MPI Gloss Level 1), MPI #143.
 - 2) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 2), MPI #144.
 - 3) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.
 - 4) Topcoat: Latex, interior, institutional low odor/VOC (MPI Gloss Level 4), MPI #146.
 - 5) Topcoat: Latex, interior, institutional low odor/VOC, semigloss (MPI Gloss Level 5), MPI #147.
 - 6) Topcoat: Latex, interior, institutional low odor/VOC, gloss (MPI Gloss Level 6), MPI #148.

L. Gypsum Board and Plaster Substrates:

1. Institutional Low-Odor/VOC Latex System, MPI INT 9.2M:

- a. Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #149.
- b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
- c. Topcoat - **CEILINGS**: Latex, interior, institutional low odor/VOC, flat (MPI Gloss Level 1), MPI #143.
- d. Topcoat – **NON-CORRIDOR WALLS**: Latex, interior, institutional low odor/VOC (MPI Gloss Level 3), MPI #145.

2. High-Performance Architectural Latex System, MPI INT 9.2B: **CORRIDOR WALLS**

- a. Prime Coat: Primer sealer, latex, interior, MPI #50.
- b. Intermediate Coat: Latex, interior, high performance architectural, matching topcoat.
- c. Topcoat: Latex, interior, high performance architectural (MPI Gloss Level 3), MPI #139.